

Draft Decision on Proposed Revisions to the Access Arrangement for the South West Interconnected Network

Submitted by Western Power

16 July 2009

Reprinted 13 August 2009

Incorporates corrigenda of notice dated 13 August 2009

Economic Regulation Authority



WESTERN AUSTRALIA

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DRAFT DECISION

1. On 1 October 2008, the Electricity Networks Corporation (**Western Power**) submitted to the Economic Regulation Authority (**Authority**) proposed revisions to its access arrangement for the South West Interconnected Network (**SWIN**) (**proposed access arrangement revisions**).¹ The revised access arrangement was submitted in accordance with the requirements of section 4.48 of the *Electricity Networks Access Code 2004* (**Access Code**) and the revisions submission date specified in the current access arrangement.²
2. The proposed access arrangement revisions and revised access arrangement information are available on the Authority's web site.³
3. Western Power prepared and submitted the proposed access arrangement revisions taking into account several proposed amendments to the Access Code that were under consideration by the Western Australian Government. Western Power makes reference to this in its covering letter to the access arrangement documents. The proposed amendments to the Access Code were gazetted on 22 October 2008.⁴ The Authority has assessed the proposed access arrangement revisions against the requirements of the Access Code as amended.
4. Under section 4.28 of the Access Code, the Authority is required to determine whether the proposed access arrangement revisions meet the Code objective and the requirements set out in Chapter 5 of the Access Code and in Chapter 9, if applicable.
5. The objective of the Access Code is set out in section 2.1 of the Access Code:
 - 2.1 The objective of this Code (**Code objective**) is to promote the economically efficient:
 - (a) investment in; and
 - (b) operation of and use of,
 networks and services of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks.
6. Chapter 5 of the Access Code sets out the required content of an access arrangement.
7. Chapter 9 of the Access Code sets out requirements for the regulatory test for major augmentation proposals of electricity networks. Western Power has made no major augmentation proposals under Chapter 9 as part of its proposed access

¹ Western Power, 1 October 2008, Proposed Revisions to the Access Arrangement for the South West Network owned by Western Power (hereafter cited as "proposed access arrangement revisions"); Western Power, 1 October 2008, Revised Access Arrangement Information for the Network of the South West Interconnected System (hereafter cited as "revised access arrangement information").

² The revisions submission date is specified under the current access arrangement as 1 October 2008 (Western Power, 2 April 2007, Amended Proposed Access Arrangement for the South West Interconnected Network owned by Western Power, Submitted by Western Power on 2 April 2007, clause 1.5.).

³ Economic Regulation Authority web site: http://www.era.wa.gov.au/3/718/48/western_powers_.pm

⁴ Western Australian Government Gazette, 22 October 2008, No. 180.

arrangement revisions and so Chapter 9 is not applicable to the Authority's determination.

8. The Authority invited submissions from interested parties on the proposed access arrangement revisions by publishing a notice on 8 October 2008 and publishing an issues paper on 5 November 2008. The closing date for submissions was 17 December 2008.
9. Submissions were received from the following parties.
 - Alinta Sales Pty Ltd (17 December 2008)
 - Aviva Corporation Ltd (16 December 2008)
 - Chamber of Commerce and Industry Western Australia (**CCIWA**) (17 December 2008)
 - Department of Treasury and Finance (17 December 2008)
 - Griffin Energy Development Pty Ltd (**Griffin Energy**) (17 December 2008)
 - Landfill Gas and Power Pty Ltd (12 December 2008)
 - Mr Noel Schubert (16 December 2008)
 - Pacific Hydro Pty Ltd (2 December 2008)
 - Perth Energy (17 December 2008)
 - Synergy (six submissions on 24 October 2008, 16 December 2008, 17 December 2008 (3), 22 December 2008)
 - Verve Energy (2 December 2008)
 - Western Australia Major Energy Users (**WAMEU**), (a collaboration of large energy consumers operating in the Western Australian electricity market, 16 December 2008).
10. A submission was also made by Western Power (17 December 2008).
11. Under section 4.12 of the Access Code, the Authority must consider any submissions made on the proposed access arrangement revisions and must make a draft decision either:
 - 1) to approve the proposed access arrangement revisions; or
 - 2) to not approve the proposed access arrangement revisions, in which case the Authority must in its reasons provide details of the amendments before the Authority will approve it.
12. The Draft Decision of the Authority is to not approve the proposed access arrangement revisions. The reasons for this Draft Decision are set out in this document.
13. The amendments that are required to be made to the proposed access arrangement revisions before the Authority will approve it are listed below. For the purposes of clarity, the required amendments are also indicated in the reasons for this Draft Decision at the point at which each relevant element of the proposed access arrangement revisions is considered.

14. The Authority invites submissions on this Draft Decision. The closing date for submissions is 13 August 2009. Any submission made by Western Power may include revised proposed access arrangement revisions.⁵
15. Under section 4.17 of the Access Code, the Authority will consider any submissions received on the Draft Decision and make a final decision to either approve or to not approve the proposed access arrangement revisions (or revised proposed access arrangement revisions if submitted by Western Power).

Summary of Required Amendments

Required Amendment 1

The proposed access arrangement revisions should be amended such that one or more reference services provide for single connection points to function both as entry points and exit points. This revision will cater for the requirements for network services that arise where small-scale renewable energy systems connect to the network and where electricity consumers participate in the Renewable Energy Buyback Scheme.

Required Amendment 2

The proposed access arrangement revisions should be amended so that the requirement under clause 3.3, for a user to ensure compliance with eligibility criteria for a reference service, is subject to operation of the Applications and Queuing Policy regarding a change in the reference service applying to a connection point.

Required Amendment 3

The proposed access arrangement revisions should be amended so that the revised electricity transfer access contract includes a clause 3.6(d) requiring that “subject to the Customer Transfer Code, Western Power must not delete a connection point other than in accordance with a notice given by a user in accordance with clause 3.6”.

Required Amendment 4

The proposed access arrangement revisions should be amended so that the electricity transfer contract includes a new clause 3.6(e) requiring that, if Western Power wilfully or deliberately deletes a connection point in breach of clause 3.6(d), Western Power is liable to pay the user any indirect damage suffered by the user as a result of Western Power's action.

Required Amendment 5

The proposed access arrangement revisions should be amended such that clause 3.7 of the electricity transfer access contract is clear on whether schedule 3 and, where relevant, the metering database, is to be updated only by Western Power, or by either Western Power or the user.

Required Amendment 6

The proposed access arrangement revisions should be amended such that clause 3.7 of the electricity transfer access contract requires Western Power to provide the user

⁵ Access Code, section 4.16.

with such access to schedule 3 and the metering database as is reasonably required for the user to obtain information or to change relevant information.

Required Amendment 7

The proposed access arrangement revisions should be amended so that the electricity transfer access contract indicates which records of connection point data will have precedence, to the extent of any inconsistency between schedule 3 of the electricity transfer access contract, the metering database and any connection point data contained in the price list.

Required Amendment 8

The proposed access arrangement revisions should be amended to delete clause 3.8 of the electricity transfer access contract or to amend clause 3.8 to make any reduction in a user's contracted capacity subject to agreement with the user.

Required Amendment 9

The proposed access arrangement revisions should be amended such that clause 6.1(a) of the electricity transfer access contract be made to provide for the user to nominate a controller as soon as reasonably practical after the commencement of the service.

Required Amendment 10

The proposed access arrangement revisions should be amended such that clause 6.1(e) of the electricity transfer access contract requires only that the user uses reasonable endeavours to procure that a controller enter into a connection contract with Western Power.

Required Amendment 11

The proposed access arrangement revisions should be amended such that clause 6.2(a) of the electricity transfer access contract is made subject to a provision that the user is not required to commence, maintain or continue legal proceedings to procure compliance of a controller with obligations under the access contract unless Western Power provides an indemnity for all of the user's costs of and relating to such proceedings.

Required Amendment 12

The proposed access arrangement revisions should be amended such that clause 7.1 of the electricity transfer access contract includes a provision dealing with the determination of amounts payable by the user where there is a change in the charges payable under a reference tariff during a billing period. The provision must represent a reasonable balance between the interests of the user and Western Power.

Required Amendment 13

The proposed access arrangement revisions should be amended such that clause 10 of the electricity transfer access contract clearly applies only in respect of a contribution payable by the user.

Required Amendment 14

The proposed access arrangement revisions should be amended such that clause 12.1 of the electricity transfer access contract is consistent with clause 6.2 and limits the

obligation of the user to ensure that any other person or person's equipment complies with the Technical Rules only to the extent:

- that is reasonably practical for the user; and
- that Western Power provides an indemnity for all of the user's costs of and relating to proceedings against any other person for the purposes of ensuring compliance.

Required Amendment 15

The proposed access arrangement revisions should be amended such that clause 12.2 of the electricity transfer access contract provides that an act or omission of the user that causes Western Power to incur extra costs for compliance with the Technical Rules only causes the user to be liable for those costs where:

- the act or omission of the user is in breach of the access contract; and
- Western Power has not already recovered the costs from another party.

Required Amendment 16

The proposed access arrangement revisions should be amended such that the calculation of liability under clause 19.5 of the electricity transfer access contract is limited to a cap on liabilities with the effect that the maximum liability of both the user and the indemnifier collectively to Western Power is limited to an amount of \$80 million in the aggregate, except that the liabilities described in clause 20 are not counted for the purpose of both the user's and the indemnifier's collective maximum liability.

Required Amendment 17

The proposed access arrangement revisions should be amended to delete clause 19.5(c) of the electricity transfer access contract.

Required Amendment 18

The proposed access arrangement revisions should be amended so that part 1(a)(i)A of schedule 5 of the electricity transfer access contract provides for the insurance requirement to be limited in the aggregate to \$50 million in each 12 months.

Required Amendment 19

The proposed access arrangement revisions should be amended so that the requirements for workers compensation, motor vehicle and third-party property insurance under part 1(a)(ii) and part 1(a)(iii) of the electricity transfer access contract apply only where these insurances are reasonably requested by Western Power.

Required Amendment 20

The proposed access arrangement revisions should be amended so that clause 29.3(b) of the electricity transfer access contract requires that Western Power act reasonably in determining a location for a meeting for resolution of a dispute.

Required Amendment 21

The proposed access arrangement revisions should be amended so that clause 33.1 of the electricity transfer access contract extends the requirement for confidentiality of information to encompass information exchanged in negotiations preceding the contract and information about, or relating to, a proposed controller.

Required Amendment 22

The proposed access arrangement revisions should be amended to include service standard benchmarks for:

- loss of supply event frequency, specified as a number of loss of supply events in a one year period with benchmarks specified for events of low and high duration measured as system minutes interrupted; and
- average outage duration, measured in minutes.

Required Amendment 23

The proposed access arrangement revisions should be amended such that definitions of SAIDI and SAIFI do not make provision for the exclusion of single customer interruptions.

Required Amendment 24

The proposed access arrangement revisions should be amended to include service standard benchmarks for SAIDI and SAIFI for customers served by the 15 per cent of worst performing feeders.

Required Amendment 25

The proposed access arrangement revisions should be amended to reflect a forecast of non-capital costs as follows (real \$ million at 30 June 2009):

	2009/10	2010/11	2011/12
Transmission:	69.58	81.14	89.03
Distribution:	263.74	301.38	330.75
Total:	333.32	382.52	419.77

Required Amendment 26

The proposed access arrangement revisions should be amended to reflect actual new facilities investment in the first access arrangement period reduced to:

- exclude investment to the value of \$63.5 million (nominal) for the transmission network in 2008/09 that comprises an overstatement of costs for 2008/09;
- exclude investment to the value of \$65 million (nominal in 2007/08 dollar values) for the distribution network that comprises an amount of costs that is not appropriately considered as new facilities investment; and
- exclude a further amount of 15 per cent of the new facilities investment (other than that comprising gifted assets) to reflect likely inefficiencies in the undertaking of investment.

Required Amendment 27

The proposed access arrangement revisions should be amended to add the value of any revenues from disposal of assets in the first access arrangement period to the value of redundant assets applied in calculation of the capital base at the commencement of the second access arrangement period.

Required Amendment 28

The proposed access arrangement revisions should be amended to incorporate a forecast of new facilities investment that:

- reflects a revised program of capital works that takes into account revised forecasts of demand for network services;
- reflects a zero rate of escalation in unit costs over the second access arrangement period; and
- excludes any “estimating risk margin”.

Required Amendment 29

The target revenue should be revised to reflect a real pre-tax WACC value of 7.06 per cent, subject to revision of the risk free rate and debt margin at a date to be advised and prior to the Authority’s final decision.

Required Amendment 30

The target revenue should be revised to reflect an allowance for a cost of working capital calculated as a return on the opening value of a stock of working capital in each year of the second access arrangement period.

Required Amendment 31

The proposed access arrangement revisions should be amended to determine the target revenue for reference services taking into account a forecast revenue from non-reference services at least equal to the forecast of non-capital costs attributed to provision of these services.

Required Amendment 32

The proposed access arrangement revisions should be amended to provide for deferral of revenue from the second to the third and subsequent access arrangement periods in an amount that fully offsets the effect of the change in the treatment of capital contributions in the determination of target revenue.

Required Amendment 33

The proposed access arrangement revisions should be amended such that clauses 3.11, 5.35 and 5.46 provide for maximum proportional changes in reference tariffs from 2009/10 to 2010/11 and from 2010/11 to 2011/12 of:

- +/- (percentage change in the CPI + 13 percentage points) for the transmission network; and
- +/- (percentage change in the CPI + 7 percentage points) for the distribution network.

Required Amendment 34

The proposed access arrangement revisions should be amended to specify a gain sharing mechanism as follows.

- (a) Subject to paragraph (b) of this required amendment, an above-benchmark surplus is to be calculated for each of the years 2009/10 to 2011/12 as:

$$ABS_{2009/10} = EIB_{2009/10} - A_{2009/10}$$

$$ABS_{2010/11} = (EIB_{2010/11} - A_{2010/11}) - (EIB_{2009/10} - A_{2009/10})$$

$$ABS_{2011/12} = (EIB_{2011/12} - A_{2011/12}) - (EIB_{2010/11} - A_{2010/11}),$$

where

ABS_t is the above-benchmark surplus in year t ;

EIB_t is the efficiency and innovation benchmark for year t , being the forecast of non-capital cost for year t applied in the determination of target revenue for year t , adjusted for inflation as appropriate and adjusted to include any relevant adjustments for unforeseen events and changes to the Technical Rules as allowed for under sections 6.6 and 6.9 of the Access Code;

A_t is the actual non-capital costs incurred by Western Power in year t , adjusted for inflation as appropriate, adjusted to include any relevant adjustments for unforeseen events and changes to the Technical Rules as allowed for under sections 6.6 and 6.9 of the Access Code and to exclude any amount of non-capital costs incurred by Western Power in implementing a non-network alternative to a capital project the costs of which are included in target revenue for the access arrangement period.

- (b) In any year in which Western Power fails to meet service standard benchmarks for that year, the above-benchmark surplus for that year is zero.
- (c) Subject to paragraph (d) of this required amendment, the following amounts may be added to target revenue for one or more access arrangement periods covering the years 2012/13 to 2016/17:

$$GSMA_{2012/13} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2013/14} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2014/15} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2015/16} = ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2016/17} = ABS_{2011/12}$$

Where $GSMA_t$ is the gain sharing mechanism adjustment to target revenue for year t .

- (d) In any year where the amount of an adjustment to target revenue determined under clause (d) is a negative value, the amount of the adjustment to target revenue in that year is zero.

Required Amendment 35

The proposed access arrangement revisions should be amended to alter the specification of the service standard adjustment mechanism at clauses 5.24A and 5.24B to:

- (a) remove the dead-bands and limits around target values of service standards; and
- (b) calculate an amount of a difference between target and actual service standards as:

$$SSD_{2009/2010} = (SSB_{2009/10} - SSA_{2009/10})$$

$$SSD_{2010/2011} = (SSB_{2010/11} - SSA_{2010/11}) - (SSB_{2009/10} - SSA_{2009/10})$$

$$SSD_{2011/2012} = (SSB_{2011/12} - SSA_{2011/12}) - (SSB_{2010/11} - SSA_{2010/11})$$

Where:

SSD_t is the service standard difference in year t

SSB_t is the service standard benchmark in year t

SSA_t is the actual service standard in year t .

- (c) increase the value of incentive rates by a factor of 2.5 for distribution services and 2.5 for transmission services.

Required Amendment 36

The proposed access arrangement revisions should be amended to provide for the recovery of deferred revenue as a constant amount in each year subsequent to the second access arrangement period and over a total period of recovery equal to the average economic life of network assets.

Required Amendment 37

The proposed access arrangement revisions should be amended to delete the proposed D-factor scheme at clauses 5.54 to 5.57.

Required Amendment 38

The proposed access arrangement revisions should be amended to resolve inconsistencies between clause 10 of the applications and queuing policy and clauses 3.4 and 3.5 of the electricity transfer access contract in relation to changes to covered services, including increases or decreases in contracted capacity at a connection point.

Required Amendment 39

The proposed access arrangement revisions should be amended such that clause 11.2 of the applications and queuing policy is amended to indicate that nothing in clause 11.2 provides Western Power with a derogation of obligations to energise connection points within the timeframes specified under clause 8.2 of the Code of Conduct for the Supply of Electricity to Small Use Customers or regulations 7 and 8 the *Electricity Industry (Obligation to Connect) Regulations 2005*.

Required Amendment 40

The proposed access arrangement revisions should be amended such that the proposed change to clause 24.17(a) of the applications and queuing policy is deleted and the obligation is maintained for Western Power to provide queue information in the initial response to an application.

Required Amendment 41

The proposed access arrangement revisions should be amended such that the contributions policy includes an obligation on Western Power to provide an applicant or user with details of the calculation of any contribution to be required from the applicant or user including:

- where the contribution is in respect of new facilities investment, details of assessment of the new facilities investment against the requirements of the new facilities investment test and details of the calculation of the amount that does not meet the new facilities investment test;
- where the contribution is made in respect of non-capital costs related to alternative options, details of assessment of the non-capital costs against the alternative options

test and details of the calculation of the amount that does not satisfy the alternative options test;

- details of assumptions and calculations applied in the apportionment of any forecast cost of works between the user or applicant and other users or applicants or Western Power under clause 5.4 of the contributions policy; and
- details of the calculation of a headworks contribution under clause 6 of the contributions policy.

Required Amendment 42

The proposed access arrangement revisions should be amended to include definitions of “rural zone” and “mixed zone” as these terms are used in the proposed contributions policy to define a class of user who must make a payment under the headworks scheme.

Required Amendment 43

The proposed access arrangement revisions should be amended such that clause 6 of the contributions policy sets out:

- the method or calculation and assumptions applied in determining the amount of costs to be recovered by headworks contributions;
- the method or calculation and assumptions applied in determining the allocation of costs across a forecast of connections to the network and determining the magnitude of headworks contributions;
- the procedures or methods applied by Western Power to ensure that headworks contributions will, in the long term, recover no more than Western Power’s costs of the headworks; and
- a mechanism, which may involve a system of accounting records, to ensure that any amount of the costs of headworks recovered by headworks contributions are not also recovered, or sought to be recovered, through other contributions or through tariffs for services.

Required Amendment 44

The proposed access arrangement revisions should be amended to delete the proposed clause 2(c)(iii) of the contributions policy that seeks to allow Western Power to require a contribution in respect of non-capital costs required in response to a connection application, where the non-capital costs associated with such works are costs which would not be incurred by a service provider efficiently minimising costs.

Required Amendment 45

The proposed access arrangement revisions should be amended such that the contributions policy only allows for contributions in respect of non-capital costs incurred in the implementation of an alternative option where:

- the alternative option is being implemented in response to a connection application; and
- the costs are costs that would be incurred by a service provider efficiently minimising costs; and
- Western Power is able to clearly demonstrate that the costs were not included, and could not reasonably have been included, in forecasts of non-capital costs taken into account in setting the price control; and

- the conditions of section 6.41(b) of the Access Code are not satisfied.

Required Amendment 46

The proposed access arrangement revisions should be amended to delete the expanded requirements for security proposed under clause 4.3 of the contributions policy.

CONTENT OF AN ACCESS ARRANGEMENT

16. The required content of an access arrangement is specified in Chapter 5 of the Access Code. Section 5.1 specifies that an access arrangement must:
- specify one or more reference services;
 - include a standard access contract for each reference service;
 - include service standard benchmarks for each reference service;
 - include a price control;
 - include pricing methods;
 - include a current price list and a description of the pricing years for the access arrangement;
 - include an applications and queuing policy;
 - include a contributions policy;
 - include a transfer and relocation policy;
 - if required, include efficiency and innovation benchmarks;
 - include provisions dealing with supplementary matters; and
 - include provisions dealing with:
 - the submission of proposed revisions to the access arrangement, including specification of a revisions submission date and target revisions commencement date; and
 - trigger events that require the service provider to submit proposed revisions to the access arrangement.
17. The reasons for the Authority's Draft Decision address elements of the revised proposed access arrangement in the following order.
- The "introduction" and "definitions" sections of the access arrangement, which are additional to the elements of an access arrangement required under section 5.1 of the Access Code.
 - Reference services.
 - Standard access contracts for reference services.
 - Service standard benchmarks.
 - Reference tariffs and the price control, including the determination of total costs and target revenue for the provision of covered services and reference services, the actual reference tariffs determined for the first year of the access arrangement period and the price control that governs changes to reference tariffs over the period, and the mechanisms that affect the determination of target revenue in the next access arrangement period.
 - Efficiency and innovation benchmarks applying to the provision of covered services.
 - Various supplementary matters to the provision of covered services that are required to be addressed in the access arrangement.

- The applications and queuing policy.
- The contributions policy.
- The transfer and relocation policy.

INTRODUCTION TO THE ACCESS ARRANGEMENT AND DEFINITIONS

Access Code Requirements

18. Information presented in an access arrangement that is of a general or introductory nature does not fall within the scope of the elements of an access arrangement required under Chapter 5 of the Access Code.
19. The introduction to the current access arrangement includes dates for revision of the access arrangement, for which specific requirements exist under the Access Code. Under sections 5.29 and 5.31 of the Access Code, an access arrangement must specify:
 - a revisions submission date that is at least six months before the target revisions commencement date; and
 - a target revisions commencement date that must be five years after the start of the access arrangement period, unless a different date is proposed by the service provider and the different date is consistent with the Code objective.

Current Access Arrangement

20. Section 1 of the current access arrangement comprises an introduction that includes the proposed purpose, start date, revisions submission and commencement dates, and a list of the elements of the access arrangement. A section in this introduction describes the access arrangement's relationship to the Technical Rules and access arrangement information.
21. Section 2 of the current access arrangement relates to interpretation of certain terms used throughout the access arrangement.
22. The current access arrangement specifies a revisions submission date of 1 October 2008 and a target revisions commencement date of 1 July 2009.

Proposed Revisions

23. Proposed revisions to the introduction section of the access arrangement include:
 - an introduction to the proposed revisions in the context of revisions to the current access arrangement;
 - a specified date of commencement of the proposed revisions of 1 July 2009 or a later date as specified by the Authority in accordance with section 4.26 of the Access Code;

- a proposed revisions submission date of 1 October 2011 and a target revisions commencement date of 1 July 2012, indicating an access arrangement period of three years from 1 July 2009; and
- a statement that the Authority must, under section 12.56 of the Access Code cause a review of the Technical Rules approximately six months before the target revisions commencement date for the proposed access arrangement revisions of 1 July 2009.

Submissions

24. No submissions made to the Authority address matters in either sections 1 or 2 of the proposed access arrangement revisions, including the proposed revisions submissions date or target revisions commencement date.

Considerations of the Authority

25. For matters of a general introductory nature, the Authority has assessed the content of the introduction and definitions sections of the proposed revisions against considerations of consistency with, and ease of understanding of, the substantive elements of the current and revised access arrangements.
26. The Authority observes that the changes proposed for sections 1 and 2 of the access arrangement are either necessary updates to reflect revisions to the access arrangement for the second access arrangement period, such as stated time periods, or are of an editorial rather than substantive nature.
27. The Authority is satisfied that the general matters addressed in the introduction and definitions of the revised proposed access arrangement are consistent with the Access Code and the Code objective.
28. The Authority has assessed the proposed revisions submission date and revisions commencement date against the specific requirements of section 5.31 of the Access Code.
29. The proposed target revisions commencement date of 1 July 2012 implies an access arrangement period of three years duration from 1 July 2009. Under section 5.31(b) of the Access Code, the Authority can only approve the target revisions commencement date if it is satisfied that this date, and an access arrangement period of three years rather than five years, is consistent with the Code objective.
30. Western Power has not provided reasons for proposing an access arrangement period of three years rather than five years duration.
31. The Authority recognises that there are advantages of a longer (five year) access arrangement period:
- the desirable incentives that a longer period creates for Western Power to out-perform its cost forecasts and achieve efficiencies that will ultimately be passed onto network users and electricity customers; and
 - the lower costs of regulation.

32. For a shorter access arrangement period to be consistent with the Code objective, the Authority considers that there must be benefits from the shorter period that offset the loss of benefits from a longer period.
33. A particular feature of the proposed access arrangement revisions is the forecast increase in new facilities investment and non-capital costs over actual costs incurred in the first access arrangement period. There is also an unusual level of uncertainty in the level of economic activity and demand for network services for the second access arrangement period, and hence uncertainty as to whether the forecast increases in costs will be realised. In these circumstances, the Authority considers that a shorter access arrangement period – during which the forecasts of costs are reflected in prices for network services – is more likely than a longer access arrangement period to promote efficient operation and use of the SWIN and network services. Accordingly, the Authority is satisfied that the proposed target revisions commencement date of 1 July 2012 is consistent with the Code objective.
34. Finally, the Authority has given consideration to the statement in the proposed access arrangement revisions that the Authority must, under section 12.56 of the Access Code cause a review of the Technical Rules approximately six months before the target revisions commencement date for the proposed access arrangement revisions of 1 July 2009. The Authority considers that this statement is declaratory of section 12.56 of the Access Code. The Technical Rules are being addressed by the Authority as part of a separate assessment process.⁶

REFERENCE SERVICES

Access Code Requirements

35. A reference service is a service described in the access arrangement and for which a reference tariff is specified in the access arrangement.
36. Section 5.1(a) of the Access Code requires that an access arrangement specify one or more reference services.
37. The requirements for reference services are set out in section 5.2 of the Access Code:
 - 5.2 An access arrangement must:
 - (a) specify at least one reference service; and
 - (b) specify a reference service for each covered service that is likely to be sought by either or both of:
 - (i) a significant number of users and applicants; or
 - (ii) a substantial proportion of the market for services in the covered network;
 - and
 - (c) to the extent reasonably practicable, specify reference services in such a manner that a user or applicant is able to acquire by way of one or more

⁶ Economic Regulation Authority web site: http://www.era.wa.gov.au/2/156/48/technical_rules.pm

reference services only those elements of a covered service that the user or applicant wishes to acquire; and

- (d) for the covered network that is covered under section 3.1 – specify one or more reference services such that there is both:
 - (i) a reference service which enables a user or applicant to acquire an entry service at a connection point without a need to acquire a corresponding exit service at another connection point; and
 - (ii) a reference service which enables a user or applicant to acquire an exit service at a connection point without a need to acquire a corresponding entry service at another connection point.

38. The Access Code includes definitions of a number of terms that are relevant to understanding the reference services in the access arrangement.

“Covered service” means a service provided by means of a covered network, including:

- (a) a connection service; or
- (b) an entry service or exit service; or
- (c) a network use of system service; or
- (d) a common service; or
- (e) a service ancillary to a service listed in paragraphs (a) to (d) above,

but does not include an excluded service.

“Entry service” means a covered service provided by a service provider at an entry point under which the user may transfer electricity into the network at the entry point.

“Exit service” means a covered service provided by a service provider at an exit point under which the user may transfer electricity out of the network at the exit point.

“Excluded service” means a service provided by means of a covered network, including:

- (a) a connection service; or
- (b) an entry service or exit service; or
- (c) a network use of system service; or
- (d) a common service; or
- (e) a service ancillary to a service listed in paragraphs (a) to (d) above,

which meets the following criteria:

- (f) the supply of the service is subject to effective competition, and
- (g) the cost of the service is able to be excluded from consideration for price control purposes without departing from the Code objective.

“Reference service” means a covered service designated as a reference service in an access arrangement under section 5.1(a) for which there is a reference tariff, a standard access contract and service standard benchmarks.

“Non-reference service” means a covered service that is not a reference service.

“Reference tariff” means the tariff specified in a price list for a reference service.

39. The designation of any service as an excluded service is subject to determination by the Authority under section 6.33 of the Access Code. Other than as determined by the Authority under this section, all services provided by means of the covered network are covered services.

Current Access Arrangement

40. The current access arrangement at clauses 3.4 to 3.6 includes the following reference services:
 - Anytime Energy (Residential) Exit Service, A1
 - Anytime Energy (Business) Exit Service, A2
 - Time of Use Energy (Small) Exit Service, A3
 - Time of Use Energy (Large) Exit Service, A4
 - High Voltage Metered Demand Exit Service, A5
 - Low Voltage Metered Demand Exit Service, A6
 - High Voltage Contract Maximum Demand Exit Service, A7
 - Low Voltage Contract Maximum Demand Exit Service, A8
 - Streetlighting Exit Service, A9
 - Un-Metered Supplies Exit Service, A10
 - Transmission Exit Service, A11
 - Distribution Entry Service, B1
 - Transmission Entry Service, B2
41. Details of each reference service are provided in Appendix 7 of the current access arrangement, including:
 - a description of the reference service;
 - user eligibility criteria;
 - the applicable reference tariff;
 - the applicable standard access contract; and
 - the applicable service standard benchmarks.
42. The current access arrangement at clause 3.12 also includes a description of a range of non-reference services that are in the nature of ancillary services.
43. The current access arrangement does not specify any services as excluded services.

Proposed Revisions

44. Western Power has not proposed any revisions to its list of reference services, but has made two material changes to the specification of reference services.
45. First, the eligibility criteria have been changed for the “Time of Use Energy (Small) Exit Service (A3)” and the name of the service has been changed to “Time of Use Energy (Residential) Exit Service (A3)”. The eligibility criteria have been changed from indicating that the service is available at an exit point with 12-month electricity consumption of less than 50,000 kWh to an exit point that is located at a residential premises or a premises occupied by a voluntary/charitable organisation.

46. Secondly, the eligibility criteria have been changed for the “Time of Use Energy (Large) Exit Service (A4)” and the name of the service has been changed to “Time of Use Energy (Business) Exit Service (A4)”. The eligibility criteria have been changed from indicating that the service is available at an exit point with 12-month electricity consumption of at least 50,000 kWh to an exit point that is located at a commercial (business) premises.
47. Western Power indicates that the purpose of these changes is to allow for different on-peak and off-peak charging periods for residential and commercial users of the network (to better align with existing metering capabilities), to create alignment with the energy only reference services and to simplify the administration of the two reference services.⁷
48. Western Power proposed that the specified list of non-reference services be revised to remove certain works, fees and charges from the list of non-reference services, including:
- relocation of transmission assets at the request of a user;
 - relocation of distribution assets at the request of a user;
 - works for jointly owned assets;
 - sale of network schematics;
 - access billing services fees;
 - transition access fees; and
 - capital works application fees.
49. Western Power proposes adding to the list of non-reference services quotations for the:
- relocation of transmission assets at the request of a user; and
 - relocation of distribution assets at the request of a user.

Submissions

50. Submissions to the Authority have addressed the information provided by Western Power in support of existing reference services, proposed revisions to these services and the inclusion of additional reference services. The submissions on each of these matters are summarised as follows.

Information in Support of Reference Services

51. Synergy submits that the proposed access arrangement revisions do not demonstrate how Western Power determined that the proposed reference services meet the requirements of section 5.2(b) of the Access Code – that a reference service be provided for each covered service that is likely to be sought by a significant number of users and applicants, and/or a substantial proportion of the

⁷ Western Power submission of 17 December 2008.

market for services in the covered network.⁸ Synergy submits that it is important that the access arrangement contain a mechanism for Western Power, within an access arrangement period, to consult with users of the network on the scope and requirements of reference services. This mechanism should include a requirement for Western Power to advertise and request submissions from network consumers.

Proposed Revisions to Reference Services

52. Synergy submits that it supports the change to the time of use energy exit services (Reference Services A3 and A4), namely that the services are based on the types of premises (residential and commercial) rather than on levels of energy consumption.⁹ Synergy opposes, however, the residential time of use service (Reference Service A3) being made available to voluntary/charitable organisations. Synergy refers to an Office of Energy report that recommended abolishing special retail electricity tariffs for charitable organisations.¹⁰

Additional Reference Services

53. Verve Energy and Synergy requested that additional services be made available as reference services.
54. Verve Energy requested that a connection service be included in the access arrangement as a reference service.¹¹

In its submissions on the Proposed Access Arrangement ("PAA") in 2005, Verve Energy argued for the incorporation of a Connection Access Contract ("CAC") as a Reference Service. In the Final Decision, the CAC was deleted completely as a service and is not available under the current Access Arrangement. The argument for the need for a CAC is re-presented for consideration at this Access Arrangement reset.

"The Electricity Networks Access Code ("[Access Code]") expressly anticipates that covered services may include connection services that do not involve the transfer of electricity, with 'connection service' defined as "the right to connect facilities and equipment at a connection point." A note under this definition states: "{Note: A connection service is the right to physically connect to the network, and will regulate technical compliance etc. It is not the same thing as an entry service or exit service, which are the right to transfer electricity.}"

Additionally the Model Standard Access Contract in Appendix 3 to the [Access Code] ("MSAC") allows for two types of contract:

- a. the "capacity contract" in Parts A, B and D, which is a contract for an entry/exit service; and
- b. the "technical compliance contract" in Parts A, C and D which is a contract for a connection service.

In considering why a 'connection service' may be desirable and commonly used, an example is where one entity (e.g. the generation operator, or the end user) has technical control of the plant and another (e.g. a retailer) has the commercial

⁸ Synergy submission of 17 December 2008 on Reference Services.

⁹ Synergy submission of 17 December 2008 on Reference Services.

¹⁰ Office of Energy, April 2008, Report to the Minister for Energy, Electricity Retail Market Review Draft Recommendations Report: Review of Electricity Tariff Arrangements pp. 4, 23, 24.

¹¹ Verve Energy submission of 2 December 2008.

responsibility for the transfer of electrons. The retailer may want nothing to do with the technical operation of any entry points or exit points. In addition the generator may want to maintain control over the technical aspects of the connection. This would become particularly relevant where a generator is selling electricity to multiple retailers (say a specific retailer for a specific generating location) and wants to ensure consistent technical compliance at each connection point.

Thus, it may be appropriate for the retailer to be bound only by some types of contractual provisions (eg contracted capacity (CMD, DSOC etc, payment/tariff, liability, customer transfer, curtailment), with the controller of the plant being bound by the technical provisions (eg directions from system operator, technical rules, complying with good electricity industry practice, liability etc).

The MSAC contemplated that a User might have a Capacity Contract which did not contain the technical compliance provisions but Western Power structured its PAA differently - there is a contract which contains both the capacity provisions and the technical compliance provisions, or a contract which contains just the technical compliance provisions. Verve Energy submits that the ERA might wish to consider whether there should be a capacity-only contract available for the situation where a User does not have any hands on technical role but has one or more Designated Controllers instead.

The PAA did not specify the Connection Service as a Reference Service. However, it did include standard terms and conditions for the Connection Service. It is likely that Verve Energy will, or might want, a connection contract. We believe therefore that ERA should ensure that a connection service is available:

- a. preferably as a reference service;
- b. but failing that as a non-reference service on specified terms and conditions.

Verve Energy understands that this is permissible under the [Access Code].

55. Synergy submits that the access arrangement should include one or more reference services to meet the requirements for network services at connection points at which there is both an import and export of energy.¹²
56. Synergy submits that such a service is required where “small scale renewable energy systems” are connected to the network (i.e. primarily small scale solar-energy systems) and where electricity consumers participate in the Renewable Energy Buyback Scheme. Synergy indicates that it has over 1,800 customers with a small-scale renewable energy system installed and this number is expected to increase significantly with a proposed introduction of a “feed-in” tariff for these systems, under the energy buyback scheme.
57. The particular concern of Synergy is that the existing reference services, and the electricity transfer access contract that applies to those services, do not provide a reference service that meets the requirements for a small-scale renewable energy scheme. Synergy submits that the connection points for these schemes may not be easily classifiable as either entry or exit points and that the function of the connection point as an entry or exit point changes over time. Furthermore, the standard access contract for reference services (clause 3.1(b) of the electricity transfer access contract) prevents transfer of electricity out of the network at other than an exit point and transfer of electricity into the network at other than an entry point.

¹² Synergy submission of 17 December 2008 on Reference Services.

58. Synergy submits that the revised proposed access arrangement should be amended to:
- contain an appropriate reference service that enables a user or applicant to acquire an exit (or entry) service at a connection point without a need to acquire a corresponding entry (or exit) service at another connection point;
 - contain a reference service that provides a basis and gives users the flexibility and choice to implement mechanisms for monitoring and settling the energy that is exported and imported to and from the network; and
 - contain a reference service that is sufficiently detailed and complete to form the basis of a commercially workable access contract and enable a user or applicant to determine the value represented by the reference service, including a definition of metering eligibility criteria, in particular addressing:
 - how an applicant applies for a bidirectional connection point and the associated capacity for transferring electricity into and out of the network,
 - the rules for determining, assigning and tracking these connection points on the network,
 - the rules for determining the charges associated with transferring electricity into and out of the network,
 - the duration or period that a bidirectional connection point can operate for,
 - how bidirectional connection points are managed under the electricity transfer access contract, including how the maximum extent of any liability will be determined, and
 - how a bidirectional connection point will be transferred between electricity transfer access contracts in accordance with the Customer Transfer Code.

Considerations of the Authority

59. Set out below are the Authority's considerations of the following matters relating either to proposed revisions to the access arrangement or matters raised in submissions.
- The information provided in support of the specification of reference services.
 - Changes to the eligibility criteria for the "time-of-use energy exit services".
 - Inclusion in the access arrangement of a connection service as a reference service.
 - Inclusion in the access arrangement of a reference service for bidirectional connection points for the transfer of electricity both into and out of the network.
 - Changes to the list of non-reference services.

Information in Support of Reference Services

60. Western Power has not provided information in support of the specification of reference services and compliance with the requirements of section 5.2 of the Access Code. However, the Authority considers that this supporting information is not required, given that the access arrangement has been in operation for over two years and users (and prospective users) of the network have the opportunity during the access arrangement review process to provide information as to whether the reference services specified in the access arrangement meet their requirements.

Eligibility Criteria for the “Time-of-use Energy Exit Services”

61. Revisions to reference services specified in the current access arrangement comprise changes to eligibility criteria associated with the change in name of Time of Use Energy (Small) Exit Service (A3) to the Time of Use Energy (Residential) Exit Service (A3), and the Time of Use Energy (Large) Exit Service (A4) to the Time of Use Energy (Business) Exit Service (A4).
62. The Authority observes that the changes to eligibility criteria are supported by Synergy and that there have been no submissions that object to the changes in eligibility criteria for these services.
63. In a request from the Authority for further information on the reasons for the changes to eligibility criteria, Western Power has indicated that the changes were made in response to an approach to Western Power by Synergy to align the network services with retail electricity services.¹³ Western Power indicates that the programming of interval meters differs for residential and commercial services with:
- residential “Smartpower” meters programmed for an on-peak period of 8am to 9pm Monday to Friday and an off-peak period being all other times; and
 - commercial interval meters being programmed for an on-peak period of 7am to 10pm Monday to Friday and an off-peak period being all other times.
64. Under the current access arrangement, both the Time of Use Energy (Small) Exit Service (A3) and Time of Use Energy (Large) Exit Service (A4) have an on-peak time defined as 8am to 10pm Monday to Friday. The reason for the change in the eligibility criteria for the reference services is to resolve the inconsistency between the on-peak and off-peak periods programmed into the meters and the on-peak and off-peak periods for the network services. The changes to eligibility criteria for the reference services are proposed after consideration of other options, such as changes to the definitions of on-peak and off-peak, and reprogramming of existing meters. These options are considered either too expensive to implement or would cause conflicts with Synergy’s contractual obligations to electricity customers.
65. Western Power has further indicated that, at January 2009, the change in eligibility criteria would result in 460 of 16,427 residential electricity customers moving from the A4 tariff to the A3 tariff, and 373 of 12,198 business electricity customers moving from the A3 tariff to the A4 tariff. Effects on the costs of electricity to these customers would depend of the patterns of electricity use of the customers and the terms of contracts with the electricity retailers.

¹³ Email from Western Power of 21 January 2009.

66. The Authority is of the view that the economic benefit of time-of-use tariffs is to enable network tariffs to reflect costs incurred in constructing the network to accommodate peak electricity demands. The availability of time-of-use tariffs provides price signals and incentives for electricity consumers to shift electricity consumption from periods of peak demand to periods of non-peak demand, which in turn engenders efficient use of, and investment in, the network infrastructure.
67. The Authority is further of the view that, for the economic benefits of time-of-use tariffs to be achieved, the reference services that provide time-of-use tariffs should broadly correspond to customer classes with similar patterns of electricity use (and hence use of the network), allowing the tariffs to be set to reflect the costs of providing network services to those customer classes. The Authority considers that this best occurs with the eligibility criteria for the time-of-use tariffs reflecting the characteristics (patterns of electricity use) of electricity customers, rather than the simple level of energy use.
68. On this basis, the Authority considers that if the eligibility criteria distinguishes between residential and business customers, time-of-use tariffs are more likely to promote efficiency in the use of network services and network assets than utilising a level of electricity use. Taking this into account, together with Western Power's stated reasons for the changes to eligibility criteria, the lack of any objections of interested parties to the change and the small number of electricity customers potentially affected, the Authority is satisfied that the changes to eligibility criteria to distinguish between residential and business premises are consistent with the requirements of section 5.2 of the Access Code.
69. Relating to the changes to eligibility criteria, Synergy has submitted that the Time of Use Energy (Residential) Exit Service (A3) should not be available to voluntary/charitable organisations, reflecting a draft recommendation to the government that concessionary retail tariffs for electricity for such organisations be abolished.
70. In response to a request for information from the Authority, Western Power has indicated that:

Western Power included voluntary/charitable organisations within the eligibility criteria of the A3 reference service to ensure alignment with the A1 reference service eligibility criteria. Western Power notes that in Synergy's submission to the [Authority] ... that Synergy requests the removal of voluntary/charitable organisations from the eligibility criteria of the A3 reference service due to the Office of Energy's recommendation. Western Power would like to see this issue treated consistently across the A1 and A3 reference tariff (either included in both or removed from both). The inclusion of voluntary/charitable organisations within the eligibility criteria is to provide support to the Synergy C1/C2 and D1/D2 [regulated retail electricity] tariffs, if these tariffs are ceasing then it is appropriate that the eligibility criteria for the A1 and A3 reference service remove the reference to voluntary/charitable organisations. Western Power notes that this recommendation is yet to be finalised by the Office of Energy.
71. The Authority observes that, at the current time, eligibility criteria for time-of-use services that group voluntary/charitable organisations with business customers, rather than residential customers, would be inconsistent with regulated retail electricity tariffs that group voluntary/charitable organisations with residential

electricity customers. While a recommendation has been made to government for this grouping to change,¹⁴ no decision has been made to this effect. In the absence of such a change, additional costs may arise for Western Power and/or electricity retailers due to inconsistencies in eligibility criteria for regulated retail electricity tariffs and network tariffs.

72. In accordance with the Authority's considerations of eligibility criteria for the time-of-use reference services, the Authority considers that the proposed eligibility criteria should remain consistent with the regulated retail tariffs, with the Time of Use Energy (Residential) Exit Service continuing to include voluntary/charitable organisations until such time as the corresponding eligibility criteria for the regulated retail tariffs are changed to group voluntary/charitable organisations with businesses customers.

Additional Reference Services – Connection Service

73. Verve Energy has submitted that the access arrangement should include a connection service, preferably as a reference service or otherwise as a non-reference service on specified terms and conditions.¹⁵
74. Western Power had, in its originally proposed access arrangement in 2005, specified a connection service as a non-reference service and included in the proposed access arrangement a standard access contract (the "connection access contract") for the connection service. The connection access contract comprised terms and conditions for a contract between Western Power and an electricity customer (who is usually the controller of a connection point). The connection access contract was intended to apply in the circumstances referred to by Verve Energy's current submission; that is, where the user of network services and the controller of the connection point are different persons. The connection access contract proposed by Western Power consisted of all the terms and conditions of the electricity transfer access contract except for those directly dealing with electricity transfer. Western Power stated the following reasons for including the connection access contract in the access arrangement as a standard access contract:
- The access contract should deal with the reference services defined in the access arrangement, being exit and entry services.
 - The party receiving connection services (a non-reference service) may not be the contracted recipient of exit or entry services.
 - The original contracting party to the construction of connection assets for which a contribution was required may not be a party to a contract for reference services.¹⁶
75. The inclusion in the access arrangement of a connection service and an associated standard contract was addressed by the Authority in its consideration and approval of the proposed access arrangement in 2007. In its Final Decision, the Authority

¹⁴ Office of Energy, January 2009, Electricity Retail Market Review: Final Recommendations Report, Review of Electricity Tariff Arrangements, Report to the Minister for Energy, pp. 29 – 31.

¹⁵ Verve Energy submission of 2 December 2008.

¹⁶ Economic Regulation Authority, 2 March 2007, Final Decision on the Proposed Access Arrangement for the South West Interconnected Network, paragraphs 857 – 860.

observed that the reference tariffs indicated in Western Power's proposed price list included charges in respect of connection assets for three reference services: the Distribution Entry Service (B1), the Transmission Entry Service (B2) and the Transmission Exit Service (A11). The Authority concluded that the inclusion of connection charges in the reference tariffs for these services indicated that connection services are part of these reference services. The Authority further reasoned that, as it is not physically possible to utilise any of these reference services without the connection assets and services, it is appropriate for the relevant entry and exit services to be bundled with connection services in this manner. Taking these matters into account, the Authority considered that it was not necessary for connection services to be defined as separate reference services.¹⁷

76. The Access Code does not require a service provider to include in an access arrangement a designation or description of non-reference services or a standard access contract for non-reference services. Under section 4.29(c), the Authority cannot require a service provider to include these matters in an access arrangement.
77. The relevant matter for the Authority to consider in response to the submission from Verve Energy is therefore whether the access arrangement should include a connection service as a reference service together with, necessarily, a reference tariff, a standard access contract and service standard benchmarks.¹⁸
78. A connection service is defined in section 1.3 of the Access Code as "a right to connect facilities and equipment at a connection point". A note to this definition indicates that "a connection service is the right to physically connect to the network and will regulate technical compliance etc. It is not the same thing as an entry or exit service, which embody rights to transfer electricity."
79. The Authority understands from this definition that the provision by Western Power of a connection service would involve executing a contract for the connection service; specifying relevant technical requirements for the connection service; provision, maintenance and operation of relevant connection assets; and monitoring of compliance with contractual and technical requirements. It is further understood that a connection service would typically be sought or provided separately from an entry or exit service for generators and for consumers of large amounts of electricity whose operations have the potential to disrupt the network. Where a price is charged for a connection service separately from a price charged for the electricity transfer service, that price would typically be specific to the party receiving the service, reflecting the cost of user-specific assets utilised for provision of the connection service.
80. Under clause 6.1(e) of the standard access contract for reference services (the "electricity transfer access contract") under both the current access arrangement and proposed access arrangement revisions, Western Power may require the user to procure that a controller of a connection point enter into a connection contract with Western Power in respect of a connection point. Under the definition of a connection contract in the electricity transfer access contract, the connection contract may encompass the terms of the electricity transfer access contract, other

¹⁷ Economic Regulation Authority, 2 March 2007, Final Decision on the Proposed Access Arrangement for the South West Interconnected Network, paragraph 91.

¹⁸ Definition of a reference service under section 1.3 of the Access Code.

than the terms (clauses 3 to 9) that deal with the transfer of electricity, or comprise of an agreement with materially equivalent terms and conditions.

81. The Authority observes that in the National Electricity Market (and under the National Electricity Rules) connection services are treated as negotiated services, meaning that the price and terms for the connection services are subject to determination by negotiation (in accordance with negotiation principles), with resolution of disputes by arbitration.
82. Contrary to the proposal from Verve Energy, the Authority considers that it is not practical to include a connection service as a reference service under the access arrangement. As the cost of providing the connection service, and hence the relevant price for the service, would typically be specific to the party receiving the service, the Authority does not consider that it would be practical to establish a reference tariff for a connection service. The only manner in which a reference tariff could be ascribed to a connection service would be to determine a separate reference tariff for each party to whom the service is provided, which would be inconsistent with the concept of a reference service. In the absence of a reference tariff for an individual connection service, it is not possible to include a connection service in the access arrangement as a reference service, or to require that the access arrangement include a standard access contract for a connection service.

Additional Reference Services – Bidirectional Connection Points

83. Synergy has submitted that the access arrangement should include a reference service that is both an entry and exit service at a single connection point. Synergy submits that such a reference service is necessary where small-scale renewable energy systems are connected to the network and where electricity consumers participate in the Renewable Energy Buyback Scheme. Synergy indicates that it has over 1,800 customers with a small-scale renewable energy systems installed and this number is expected to increase significantly with a proposed introduction of a “feed-in” tariff for these systems under the energy buyback scheme.
84. In response to an enquiry by the Authority, the Office of Energy has indicated that the number of electricity customers connecting small-scale renewable energy systems is expected to increase substantially with the introduction of a feed-in tariff.¹⁹
85. The Authority accepts Synergy’s submission that the range of reference services, under the proposed access arrangement revisions, does not provide a service for a connection point that may variously function as an entry or exit point. Under the current and proposed specification of reference services and the standard access contract applying to those services:
 - only a single service may be provided at any one connection point (implied by schedule 3 of the electricity transfer access contract); and
 - electricity can only be transferred out of the network at a connection point with an exit service, and transferred into the network at a connection point with an entry service (clause 3.1(b) of the electricity transfer access contract).

¹⁹ Email advice from the Office of Energy of 2 February 2009.

86. Under clause 5.2(b)(i) of the Access Code, Western Power is required to specify a reference service for each covered service that is likely to be sought by a significant number of users and applicants.
87. The Authority considers that the number of connection points for which a bidirectional service is required by Synergy (and potentially other users) means that the service is likely to be sought by a significant number of users. Accordingly, the Authority considers that the proposed access arrangement revisions should make provision for a reference service for a bidirectional connection point.

Required Amendment 1

The proposed access arrangement revisions should be amended such that one or more reference services provide for single connection points to function both as entry points and exit points. This revision will cater for the requirements for network services that arise where small-scale renewable energy systems connect to the network and where electricity consumers participate in the Renewable Energy Buyback Scheme.

Non-Reference Services

88. Western Power has proposed changes to the non-reference services listed in clause 3.12 of the proposed access arrangement revisions. The proposed changes are to remove certain works, fees and charges from the list of non-reference services and to add to the list of non-reference services:
 - quotation for relocation of transmission assets at the request of a user; and
 - quotation for relocation of distribution assets at the request of a user.
89. The Access Code does not include a requirement for an access arrangement to include a list of non-reference services, with these included in the access arrangement at Western Power's discretion. This list of non-reference services does not limit the range of non-reference services that Western Power may provide, nor that a prospective user may request.
90. Under section 4.29(b) of the Access Code, the Authority may use its discretion to approve a proposed access arrangement containing items not required to be included in the access arrangement. In view of the absence of constraints on either Western Power or a user arising from the inclusion of non-reference services in the access arrangement, and the absence of submissions on the list of non-reference services, the Authority has no objection to the list (or the proposed revisions to this list) forming part of the access arrangement.

STANDARD ACCESS CONTRACTS

Access Code Requirements

91. A standard access contract sets out the terms and conditions under which a user may obtain access to a reference service at the reference tariff. Section 5.1(b) of the Access Code requires that an access arrangement include a standard access contract for each reference service.
92. The requirements for standard access contracts are set out in sections 5.3 to 5.5 of the Access Code:
- 5.3 A standard access contract must be:
- (a) reasonable; and
 - (b) sufficiently detailed and complete to:
 - (i) form the basis for a commercially workable access contract; and
 - (ii) enable a user or applicant to determine the value represented by the reference service at the reference tariff.
- 5.4 A standard access contract may:
- (a) be based in whole or in part upon the model standard access contract, in which case, to the extent that it is based on the model standard access contract, any matter which in the model standard access contract is left to be completed in the Access Arrangement, must be completed in a manner consistent with:
 - (i) any instructions in relation to the matter contained in the model standard access contract; and
 - (ii) section 5.3; and
 - (iii) the Code objective;and
 - (b) be formulated without any reference to the model standard access contract and is not required to reproduce, in whole or in part, the model standard access contract.

{Note: The intention of this section 5.4(b) is to ensure that the service provider is free to formulate its own standard access contract which complies with section 5.3 but is not based on the model standard access contract.}
- 5.5 The Authority:
- (a) must determine that a standard access contract is consistent with section 5.3 and the Code objective to the extent that it reproduces without material omission or variation the model standard access contract; and
 - (b) otherwise must have regard to the model standard access contract in determining whether the standard access contract is consistent with section 5.3 and the Code objective.

Current Access Arrangement

93. The current access arrangement includes a standard access contract (the “electricity transfer access contract”) that applies to all of the reference services offered under the access arrangement.

Proposed Revisions

94. In the proposed access arrangement revisions, Western Power has maintained the single electricity transfer access contract for all reference services (**proposed electricity transfer access contract**).²⁰ The proposed electricity transfer access contract includes revisions made for the purposes of clarifying existing provisions and in part substantive changes to, or additions to, the contract.
95. The principal revisions proposed for the electricity transfer access contract include:
- provision for Western Power to provide a user with a “modified service” on a temporary basis (clause 3.1(d) of the proposed electricity transfer access contract);
 - a requirement that a user comply with “eligibility criteria” in order to obtain a reference service (clause 3.3);
 - provisions for updating of information and records for connection points (clauses 3.6(c) to 3.6(e) and 7.1(f));
 - provision for Western Power to unilaterally reduce a user’s contracted capacity at a connection point, where that contracted capacity is not being used by the user, Western Power is of the opinion that the contracted capacity is unlikely to be used, and the unused contracted capacity is the subject of an application from another person (clause 3.8);
 - provision for Western Power and a user to implement invoicing arrangements different to the standard invoicing arrangements set out in the electricity transfer access contract (clause 8.1(d));
 - an indication that provisions of the contract relating to charges for services are subject to sections 65 and 66 of the *Energy Operators (Powers) Act 1979* (WA), which deal with metering data, improperly functioning meters and meter tests (clause 8.5);
 - inclusion of sunset clauses on claims for adjusting payments in respect of payment errors (clauses 8.6(d) and 8.6(e)) and inclusion of procedural provisions dealing with goods and services tax implications of payment adjustments (clause 8.7(e));
 - clarification that requirements of the user and Western Power to comply with the Technical Rules are subject to any exemptions given to Western Power or the user under Chapter 1 of the Technical Rules (clause 11.1);
 - inclusion of processes for recording technical characteristics of equipment where exemptions to the Technical Rules are granted (clause 13);
 - inclusion of additional provisions dealing with dispute resolution (clause 29.3);
 - addition of “information about or relating to a controller” to a list of information required to be kept confidential by Western Power and a user (clause 33.1(f)); and

²⁰ Proposed access arrangement revisions, Appendix 4.

- a change in the definition of a bare transfer (schedule 1) to indicate that a bare transfer involves no novation of the rights or obligations of the original user under the access contract with Western Power.
96. Details of these proposed revisions are provided below under “Considerations of the Authority”.

Submissions

97. Submissions on the terms of the proposed electricity transfer access contract are addressed below under “Considerations of the Authority” and in the sections relating to the proposed revisions of the electricity transfer access contract.

Considerations of the Authority

98. In considering the proposed access arrangement revisions, the Authority has given attention to the revisions proposed by Western Power, and in light of practical experience, whether the terms and conditions retained from the existing electricity transfer access contract are consistent with the requirements of the Access Code.

Requirements for Exit and Entry Services (clause 3.1(b))

99. Clause 3.1(b) of the proposed electricity transfer access contract requires the user to have an exit service at a connection point (in order to transfer electricity out of the network at that connection point), and an entry service at a connection (in order to transfer electricity into the network at that connection point). This clause is unchanged from the current access arrangement.
100. Synergy submits that clause 3.1(b) prevents reference services accommodating embedded generation in the distribution network, which entails bidirectional transfer of electricity at a single connection point.²¹ Synergy further submits that the electricity transfer access contract should at least contemplate the existence of a connection point at which electricity is exported into and out of the network, as is currently happening within the SWIS, for example, with small scale renewable energy systems that operate under the Government’s Renewable Energy Buyback Scheme.
101. Synergy raised similar matters in its proposals for additional reference services, which the Authority has addressed in this Draft Decision (see paragraphs 55 to 58 and 83 to 87, above). Taking into account the available information, the Authority is requiring that the revised proposed access arrangement be amended to provide reference services to accommodate connection points with bidirectional transfer of electricity (Required Amendment 1). This required amendment could be satisfied by either the introduction of new reference services or by changes to the terms and conditions for existing reference services.

²¹ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Maximum Rate of Electricity Transfer (clause 3.1(c))

102. Clause 3.1(c) of the proposed electricity transfer access contract requires the user to endeavour, as a reasonable and prudent person, to ensure that the rate at which electricity is transferred into or out of the network (by or on behalf of the user) does not exceed the contracted capacity for the service. This clause is unchanged from the current access arrangement.
103. Synergy submits that this requirement on the user is unreasonable in circumstances where the user is not the controller of a connection point and, hence, has neither the necessary information nor the capability to meet the requirement of clause 3.1(c).²² Synergy submits that the clause contemplates that a user who is a retailer should take some action to control the rate of electricity consumption by its customers. Synergy considers this outcome to be unreasonable for reasons that:
- it is not clear precisely what action a retail user must take in order to comply with clause 3.1(c);
 - it is not reasonable and is contrary to the Code objective for a regulated contract such as the electricity transfer access contract to require one contracting party (i.e. the user) to take action, at its cost, for the benefit of the other contracting party (i.e. Western Power) against third parties (i.e. the user's customers);
 - a retail user does not have the ability to monitor in a timely manner whether its customer is in breach of the contractual requirement, let alone whether such breach is causing damage;
 - as any damage caused by a customer exceeding contracted capacity is most likely to be suffered by Western Power and not by the retail user, it will be legally difficult for a user to enforce such a contractual requirement, for example, by way of an injunction or damages;
 - clause 3.1(c) is uncertain in its operation as to precisely what the electricity transfer rate is that a user must not exceed;
 - clause 3.1(c) is unnecessary as, under the *Energy Operators (Powers) Act 1979* and under clause 6.1(e) of the electricity transfer access contract, Western Power has the ability to control the actions of a retail user's customer in minute detail and to impose sanctions for non compliance; and
 - clause 3.1(c) restricts a retail user's ability to enter into contracts with its customers which entitle the customer to increase its contracted maximum demand.
104. Synergy submits that if it is intended that clause 3.1(c) requires only that a user include a clause in its customer contract to the effect that the customer must not exceed contracted capacity, then clause 3.1(c) should be amended to make this clear. Further, clause 3.1(c) should also provide that the user does not have to enforce this requirement of the customer contract.
105. The Authority notes the concerns raised by Synergy. However, clause 3.1(c) of the proposed electricity transfer access contract is materially the same as clause A3.14 of the model standard access contract under the Access Code. Accordingly, under

²² Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

clause 5.5(a) of the Access Code, the Authority must determine that clause 3.1(c) is consistent with section 5.3 of the Access Code.

Modified Service (clause 3.1(d))

106. Under a new clause 3.1(d) of the proposed electricity transfer access contract, Western Power may provide the user with a “modified service” pending completion of events or works that are to be completed before the provision of the contracted service.
107. In submissions made to the Authority, Griffin Energy and Alinta Sales support the provision of a modified service and the flexibility that this provides for a user and Western Power to enter into an access agreement.
108. Alinta Sales, however, expresses concern that the provision for a modified service would reduce the incentive for Western Power to provide the full contracted service and provide too much discretion for Western Power regarding the timing for completion of relevant events or works necessary for provision of the contracted service.
109. The Authority observes that there is nothing in clause 3.1(d) that alters any obligation arising under either the Access Code or access arrangement for Western Power to undertake necessary works or meet conditions for the provision of a contracted service. Further, the provision for a modified service implies, that for all practical intents and purposes, a user and Western Power have to agree on provision of a service other than a reference service or to agree on provision of a service on terms and conditions other than in a standard access contract.
110. Taking into account the support expressed in submissions for the modified service, the Authority considers that the new clause 3.1(d) is consistent with section 5.3 of the Access Code.

User may Select Services (clause 3.2)

111. Clause 3.2 of the proposed electricity transfer access contract allows the user to give notice to Western Power seeking to change the service in respect of a connection point. Both the user, in giving notice, and Western Power, in processing the request, must comply with the applications and queuing policy. This clause is unchanged from the current access arrangement.
112. Synergy submits that the timing requirements under the applications and queuing policy are inconsistent with relevant requirements under the Customer Transfer Code:²³

Clause 3.2 of the [electricity transfer access contract] refers to Western Power processing a notice by a User to change a Service in respect of a Connection Point in accordance with the Applications and Queuing Policy (“[applications and queuing policy]”). However the timing in clauses 13.1(a) and 13.1(b) of the [applications and queuing policy] within which Western Power must process the notice appear to be inconsistent with the requirement to nominate a transfer date set out in clause 4.7 of the Customer Transfer Code. Synergy submits that clause 3.2(b) should be amended

²³ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

to require Western Power to process a notice from User (i.e. a customer transfer request) in accordance with the requirements of the Customer Transfer Code.

113. Clauses 13.1(a) and 13.1(b) of the applications and queuing policy make provision for Western Power to undertake an assessment of whether an exit point is contestable – in circumstances where an applicant makes an electricity transfer application or connection application to establish a new exit point, or an incoming retailer makes a transfer request with regard to an exit point – and the time period for Western Power to make this assessment (five business days). Neither of these clauses (or the associated timing requirements) are relevant to a change in reference service at a connection point.
114. Clause 4.7 of the Customer Transfer Code establishes requirements for a customer transfer date pursuant to a customer transfer request. The transfer date must be between either 3 – 50 business days (metropolitan area) or 5 – 50 business days (non-metropolitan area) after the customer transfer request. This clause, and the associated time requirement, is not relevant to a change in reference service at a connection point.
115. The Authority therefore considers that neither of the timing requirements in clause 13.1 of the applications and queuing policy or clause 4.7 of the Customer Transfer Code are relevant to the provisions of clause 3.2 of the proposed electricity transfer access contract.

Eligibility Criteria (clause 3.3)

116. Western Power has proposed a new clause (clause 3.3) for the proposed electricity transfer access contract under which the user must comply with the eligibility criteria applicable to the reference service provided at a connection point.
117. The eligibility criteria for reference services relate to the nature of the premises (commercial or residential); historical or forecast maximum demand; the type of meter installed at the connection point; requirements for streetlights and un-metered supplies; and compliance with the Technical Rules WA Electrical Requirements and AS 3000.
118. Synergy submits that it understands the intent of clause 3.3 is for a user to ensure that, when its customer's circumstances change such that the customer no longer meets the eligibility criteria, then the user must, in accordance with the applications and queuing policy, change the reference service applicable to the customer.²⁴ Synergy submits that, if this is the case, then it is only possible for the user to meet this requirement if a change in the reference service applying to a customer is reasonably facilitated through the applications and queuing policy. Synergy submits that clause 3.3 of the proposed electricity transfer access contract should be revised to reflect this policy:

The User, insofar as it is reasonably able to do so and subject to the Applications and Queuing Policy*, and subject to Western Power* meeting its legal and regulatory obligations in relation to providing Reference Services*, [must] in relation to each Reference Service Point*, comply with the Eligibility Criteria* applicable to the Reference Service* provided, or to be provided, at the Reference Service Point*.

²⁴ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

119. The Authority considers that it is reasonable and consistent with section 5.3(a) of the Access Code for the user to be bound to comply with the relevant criteria for the reference service, as these eligibility requirements define the relevant reference service according to the situation and requirements of the connection point and electricity consumer.
120. The Authority considers that the revisions to clause 3.3 suggested by Synergy provide an unnecessary level of protection to the user and are subject to potential abuse by the user. These revisions would provide an ability for the user to not comply with the eligibility criteria, even if Western Power fulfilled its contractual obligations (in the provision of the contracted reference service), or in the event that Western Power has not met unrelated obligations.
121. The Authority accepts, however, that the requirement to comply with eligibility criteria should be subject to Western Power meeting its obligations to, as necessary, change the reference service applicable to a connection point and electricity customer. Accordingly, the Authority considers that clause 3.3 should be subject to operation of the applications and queuing policy, which allows for the change of a reference service.

Required Amendment 2

The proposed access arrangement revisions should be amended so that the requirement under clause 3.3, for a user to ensure compliance with eligibility criteria for a reference service, is subject to operation of the Applications and Queuing Policy regarding a change in the reference service applying to a connection point.

Addition of a Connection Point (clause 3.4)

122. Western Power has included a new provision under clause 3.4 of the proposed electricity transfer access contract to establish a process for addition of a connection point to the contract.
123. Clause 3.4 of the proposed electricity transfer access contract corresponds to clause 3.3 of the current electricity transfer access contract. This clause makes provision for an increase of contracted capacity at a connection point and indicates that a request for an increase in contracted capacity is made by the user, and processed by Western Power, under the applications and queuing policy, the Customer Transfer Code or the electricity transfer access contract. The change to this clause applies the same process and requirements to the addition of a connection point.
124. None of the submissions made to the Authority address this proposed change.
125. The addition of a connection point to an electricity transfer access contract may occur in a range of circumstances, including where a new connection point is being established on the network and where a connection point is being transferred from the access contract of one retailer to another retailer – either with or without any change in the customer or energy transfer at that connection point. Depending upon the circumstances of the addition of a connection point, different

administrative processes may be applied to the application and approval of the new connection point, including the possibility that the addition may be subject to a queued connection application. Given this, the Authority considers that the addition of a connection point to an access contract is reasonably subject to relevant provisions of the applications and queuing policy, Customer Transfer Code or other relevant provisions of the contract, as applicable. As such, the Authority is satisfied that the proposed change to clause 3.4 is consistent with section 5.3 of the Access Code.

126. The range of processes that may be applied in the addition of a connection point to an access contract is also addressed in the Authority's assessment of the applications and queuing policy (paragraph 1090 and following).

Deletion of a Connection Point (clause 3.6)

127. Clause 3.6 of the proposed electricity transfer access contract provides for the user to request deletion of a connection point from the contract. Clause 3.6 also sets out the circumstances in which Western Power is obliged to comply with the request. This clause is unchanged from the current access arrangement.²⁵
128. Synergy submits that clause 3.6 of the proposed electricity transfer access contract should make it clear that Western Power cannot delete a connection point from an access contract, except in response to a request from the user:²⁶

Synergy submits that clause 3.6 of the [electricity transfer access contract] does not make it sufficiently clear that Western Power must not delete a Connection Point other than in accordance with a request by a User under clause 3.6(b). Further, that the sanctions for Western Power deleting a Connection Point from the [electricity transfer access contract] in breach of clause 3.6 are not sufficient.

Synergy is aware that Western Power has, on occasion, deleted Connection Points from an access contract other than at the request of a User in accordance with clause 3.6(b). The impact of this upon a User can be significant, including the lost opportunity cost to profit from the sale of electricity to the User's customers. Under the definition of Direct Damage in Schedule 9 of the [electricity transfer access contract], a User could not seek such lost opportunity costs from Western Power if it deleted a Connection Point in breach of the [electricity transfer access contract].

Synergy submits that in order for clause 3.6 to be reasonable within section 5.3(c) of the [Access Code], the following should be added to clause 3.6:

"(d) Subject to the Customer Transfer Code, Western Power must not delete a Connection Point other than in accordance with a notice given by a User in accordance with this clause 3.6.

(e) If Western Power deletes a Connection Point in breach of clause 3.6(d), Western Power is liable to pay the User any Indirect Damage suffered by the User as a result of Western Power's breach."

129. The corresponding clause 3.5 of the current electricity transfer access contract is silent on whether Western Power may delete a connection point, thereby implying that Western Power has no power to do so other than in accordance with the provisions of this clause. The Authority considers that explicit protection for users is warranted and reasonably necessary for the electricity transfer access contract to

²⁵ Clause 3.6 corresponds to clause 3.5 of the current electricity transfer access contract.

²⁶ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

be consistent with section 5.3 of the Access Code. For these reasons, the Authority accepts the amendment proposed by Synergy, as a new clause 3.6(d) of the revised electricity transfer access contract.

Required Amendment 3

The proposed access arrangement revisions should be amended so that the revised electricity transfer access contract includes a clause 3.6(d) requiring that “subject to the Customer Transfer Code, Western Power must not delete a connection point other than in accordance with a notice given by a user in accordance with clause 3.6”.

130. The Authority does not accept that the liability of Western Power for damages as proposed by Synergy (for clause 3.6(e)) is reasonable. The electricity transfer access contract explicitly limits damages recoverable by a person for direct damage other than where a party commits fraud. This is a deliberate scheme and such limitation of liability is quite common for access contracts relating to large infrastructure with multiple users where indirect losses could be substantial (e.g. if a breach causes power disruption for a period of time, the consequential or indirect damage could include potentially large financial losses, such as lost profits and damage to goodwill for each affected business). Synergy’s proposal would make two exceptions to this limitation – fraud (an existing exception) and a deletion of a connection point. Under Synergy’s proposal, Western Power would be liable for indirect damages arising from the deletion of a connection point other than in accordance with clause 3.6 of the proposed electricity transfer access contract, whether this be negligent or deliberate.
131. The Authority considers that making Western Power liable for indirect losses arising from the deletion of a connection point, where such deletion occurs as a result of negligence, is inconsistent with the other provisions of the electricity transfer access contract. The Authority does, however, consider that such liability is reasonable where the deletion of a connection point other than allowed for under clause 3.6 is wilful or deliberate.

Required Amendment 4

The proposed access arrangement revisions should be amended so that the electricity transfer contract includes a new clause 3.6(e) requiring that, if Western Power wilfully or deliberately deletes a connection point in breach of clause 3.6(d), Western Power is liable to pay the user any indirect damage suffered by the user as a result of Western Power’s action.

Connection Point Data (clause 3.7)

132. Schedule 3 of the proposed electricity transfer access contract comprises a database of connection points for which services are provided to the user.

Clause 3.7 of the proposed electricity transfer access contract provides for this database to be maintained and updated.

133. Under clause 3.7(b) of the proposed electricity transfer access contract, if the user is a “metering code participant” (within the meaning of the Metering Code), Western Power has responsibility for updating the “metering database” in schedule 3 in accordance with relevant provisions of the Metering Code. Western Power also has an obligation to provide the user with secure access to this information.
134. Western Power has proposed that the following new clauses be added to clause 3.7 of the electricity transfer access contract.
 - (c) Western Power* will record and update the [contract maximum demand]* and [declared sent out capacity]* information in Part 1 of Schedule 3 within a database maintained by Western Power* and provide the User* with reasonable access to the information upon request by the User*.
 - (d) Subject to clause 3.7(e), where Western Power causes a Permanent Reconfiguration* of the Network* which results in the information contained in Schedule 3 having to be updated:
 - (i) Western Power* is not required to update the information contained in Schedule 3 before the next 1 July following the Permanent Reconfiguration* of the Network*; and
 - (ii) Western Power* must update the information contained in Schedule 3 before the next 21 July following the Permanent Reconfiguration* of the Network*.
 - (e) Where a Permanent Reconfiguration* of the Network* occurs as a result of, or arising from, a notice or application by the User* under clause 3.4, 3.5 or 3.6 which results in the information contained in Schedule 3 having to be updated:
 - (i) clause 3.7(d) does not apply; and
 - (ii) each Party* must update the information contained in Schedule 3 as soon as reasonably practicable after the Permanent Reconfiguration* of the Network*.
135. Synergy submits that there are deficiencies in the proposed electricity transfer access contract for management of, and changes to, schedule 3.
136. First, Synergy submits that there is a lack of clarity with how Synergy will obtain access to Western Power’s systems for the connection point data in schedule 3.²⁷ In particular Synergy submits that:²⁸

... to comply with section 5.3 of the [Access Code], clause 3.7 of the [electricity transfer access contract] should be specific as to the manner, method and timing by which Western Power provides a User with such access, particularly given the dearth of any other regulatory requirements on Western Power in this respect. Therefore Synergy suggests that clause 3.7 be amended as marked up as follows:

- “(b) If the User* is a Metering Code Participant* then the User* and Western Power* agree that Western Power* will, in accordance with the provisions of the Metering Code*, record and update in the Metering Database* the information in part 1 of schedule 3, and will do all things reasonably necessary to provide the User* with secure access to this information

...

²⁷ Synergy submission of 24 October 2008 and verbal communication of 31 October 2008.

²⁸ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

- (f) Western Power*, acting in accordance with Good Electricity Industry Practice*, will provide the User* with such access as is reasonably acceptable to the User*, acting as a Reasonable and Prudent Person*, to the Metering Database* to enable the User* to update the information contained in the Metering Database* in accordance with the Metering Code* and clause 3.7(a), including access via "BuildPack", as that term is defined in the Communication Rules made under the Metering Code*."

137. Secondly, Synergy claims that there are ambiguities and inconsistencies in the provisions for updating schedule 3 and the metering database, including the following matters.^{29,30}

- It is not clear how a user can comply with clause 3.7(e)(ii) and update schedule 3, as clause 3.7(b) appears to contemplate that only Western Power can actually update schedule 3.
- Clauses 3.7(b), (c), (d), (e) and clause 7.1(f)³¹ will create difficulties for users, particularly Synergy, in determining and reconciling the charges levied by Western Power. Synergy submits that these clauses do not adequately deal with the interaction between the metering database and schedule 3 or with what happens when there are discrepancies between the two, which could arise due to differing requirements to update schedule 3 and the metering database.
- If Western Power can unilaterally update information in schedule 3, there should be an obligation in the electricity transfer access contract for Western Power to provide advance notice to an affected user of any information to be updated by Western Power. Synergy submits that it is not reasonable to expect, or for the electricity transfer access contract to effectively require, retail users to attempt to identify changes to standing data after the event or have to reconcile charges with changes to schedule 3.

138. On more specific matters relating to the updating of schedule 3 and the metering database, Synergy submits that:³²

The Information contained in Schedule 3 must always be correct and aligned to the Metering Database. If there is a discrepancy between the Metering Database and Schedule 3 (or any other registry) then, in the absence of manifest error, the Metering Database must be deemed to be correct in accordance with section 4.4(2) of the Metering Code and both the User and Western Power should be entitled to rely upon the information in the Metering Database in performing their respective obligations under the [electricity transfer access contract].

Where a Permanent Reconfiguration of the Network occurs as a result of a notice or application by the User, then the Metering Database must be updated in accordance with the requirements of the Metering Code, and this must be reflected in the [electricity transfer access contract], including in an immediate updating of Schedule 3.

²⁹ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

³⁰ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

³¹ Clause 7.1(f) of the proposed electricity transfer access contract provides that, in calculating tariffs and charges for a service, Western Power must rely on the information in schedule 3 and updated information in schedule 3 cannot be applied retrospectively in calculating tariffs and charges.

³² Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

The note in Schedule 3 should be changed to reflect that Western Power will store the details in the Metering Database as described in accordance with clause 3.7 (as amended to address the issues identified in this submission).

There should be a clear mechanism in the [electricity transfer access contract] detailing how Western Power will update Schedule 3 from the Metering Database and how Western Power will advise affected Users of such updates. The requirement in clause 3.7(e) for each party to independently update their own Schedule 3 appears to be unworkable and will lead to manifest errors as between a User and Western Power and also the Metering Database.

The Charges should be calculated using the Reference Service attributes listed in Schedule 3 (e.g. CMD and DSOC) while the Network determinates (e.g. substation zone, substations distance, TNI and pricing zone) should be those detailed in the Price List, as approved by the Authority annually. Synergy understands that this is perhaps what Western Power intended by clause 3.7. However Synergy is not convinced that clause 3.7 actually achieves this result.

139. The Authority accepts Synergy's submission that clause 3.7(e)(ii) is ambiguous as to whether the user may directly update schedule 3 and the metering database. The Authority requires that this ambiguity be resolved before the approval of the proposed access arrangement revisions and considers that this resolution may be achieved either by requiring that schedule 3 and the metering database be updated only by Western Power, or by making it more explicit that schedule 3 and the metering data base can be updated directly by the user.
140. Depending upon which of these alternatives is adopted by Western Power, requirements for access by the user to information in schedule 3 and in the metering database will differ. In any case, the Authority is satisfied that it is necessary for clause 3.7 of the electricity transfer access contract to be consistent with section 5.3 of the Access Code and that the requirement for Western Power to provide access to schedule 3 and the metering database should be strengthened to ensure that access is provided in a form that reasonably meets the requirements of the user.
141. The Authority does not, however, consider that it is necessary or desirable for the access contract terms and conditions to refer to specific mechanisms of communication under the Communication Rules, which are currently subject to independent review.

Required Amendment 5

The proposed access arrangement revisions should be amended such that clause 3.7 of the electricity transfer access contract is clear on whether schedule 3 and, where relevant, the metering database, is to be updated only by Western Power, or by either Western Power or the user.

Required Amendment 6

The proposed access arrangement revisions should be amended such that clause 3.7 of the electricity transfer access contract requires Western Power to provide the user with such access to schedule 3 and the metering database as is reasonably required for the user to obtain information or to change relevant information.

142. The Authority also accepts Synergy's submission that ambiguity exists in the data that will be used for the determination of tariffs and charges where there are inconsistencies between schedule 3, the metering database and the price list. The Authority requires that this ambiguity should be resolved before the proposed access arrangement revisions will be approved.

Required Amendment 7

The proposed access arrangement revisions should be amended so that the electricity transfer access contract indicates which records of connection point data will have precedence, to the extent of any inconsistency between schedule 3 of the electricity transfer access contract, the metering database and any connection point data contained in the price list.

143. Synergy also submitted that there is poor asset-data integrity for streetlight and unmetered reference services, which in turn prevents Synergy from reconciling network charges under the electricity transfer access contract.³³
144. The Authority considers that clause 3.7 of the proposed electricity transfer access contract, together with relevant provisions of the Metering Code, establish a clear obligation for Western Power to maintain data that form the basis for determination of tariffs and charges for connection points. Given this obligation, the Authority considers that issues of data-integrity are a matter to be resolved between the contracting parties under an access contract, or under a service level agreement under the Metering Code.

Contracted Capacity Not Utilised (clause 3.8)

145. Western Power has proposed a new clause 3.8 for the electricity transfer access contract that provides for Western Power to reduce a users contracted capacity in circumstances where part or all of the contracted capacity is not being used by the user, and the user has not demonstrated that the unused capacity will be utilised.

3.8 Contracted Capacity* not utilised

³³ Synergy submission of 24 October 2008 and verbal communication of 31 October 2008.

- (a) Subject to clause 3.8(c), where, in relation to Contracted Capacity* at a Connection Point*:
 - (i) the Contracted Capacity is not being used by the User*;
 - (ii) it is unlikely, in the opinion of Western Power* as a Reasonable and Prudent Person* that the unused Contracted Capacity* will be used by the User* to satisfy the User*'s actual or forecast requirements; and
 - (iii) the unused Contracted Capacity* is the subject of an Application* from a person who is not the User*,

Western Power may give 30 days notice to the User* stating its intention to reduce the User*'s Contracted Capacity* and the amount and timing of the reduction.
- (b) If the User* fails within the period specified in the notice to:
 - (i) use the Contracted Capacity*; or
 - (ii) demonstrate to the satisfaction of Western Power* as a Reasonable and Prudent Person* that the unused Contracted Capacity* will be used to satisfy the User*'s actual or forecast requirements,

Western Power may reduce the User*'s Contracted Capacity* in accordance with the notice.
- (c) Western Power* is not entitled to reduce Contracted Capacity* at a Connection Point* where the unused Contracted Capacity is attributable to Force Majeure*.

146. Western Power indicates the intent of the new clause 3.8 is as follows.³⁴

... the purpose of the provision is to not allow user's to 'sit' indefinitely on unused capacity to the detriment of other potential users of that capacity.

It is feasible that contracted capacity which remains un-utilised can, in the limit, lead to new investment in the network through the addition of network capacity which is physically not required, but is necessary to meet Western Power's contractual obligations. Western Power's objective in proposing the provision is to avoid this type of new investment in the network occurring. Western Power has "in principle" support from some stakeholders including Landfill Gas and Power (submission to ERA dated 12 December 2008) and Pacific Hydro (submission to ERA dated 2 December 2008).

Western Power's intention is to establish a process in response to the principle that withholding un-used capacity from the market, for whatever reason, can lead to investment in additional capacity that is unwarranted from an overall network perspective.

Western Power welcomes suggestions as to how the outcome can be otherwise achieved.

147. Western Power has indicated that Pacific Hydro and Landfill Gas and Power support the electricity transfer access contract, including provision for unused contracted capacity to be made available to other users. However, both parties oppose Western Power having the power to unilaterally make such a determination. Griffin Energy and Perth Energy also support a provision allowing unused capacity

³⁴ Access Arrangement Information, Appendix 12: section 3.4; Western Power submission of 17 December 2008.

to be re-allocated, but similarly oppose such re-allocation being undertaken by a unilateral decision of Western Power.³⁵

148. The relevant parts of the submissions from these parties are detailed below.³⁶

149. Pacific Hydro:

“Clause 3.8(a) of the Electricity Transfer Access Contract raises the dilemma faced by Network Service Providers (NSPs) where contracted capacity has been underutilised by the user. How can this capacity be redirected to other users in a fair and reasonable way? The generator, as the effective “owner” of this capacity, has built the connection assets to the size necessary to fit the contracted capacity. Generation development, particularly wind generation, requires the coordination of connection arrangements, licensing, planning and environmental approvals, turbine selection, noise abatement, construction and financial resources. During the development stage a number of these matters are progressed within the various timeframes and uncertainties as issues arise. With best practice and best intentions, the coordination of the multiple issues can result in connection arrangements being underutilised. Pacific Hydro has experienced these issues with a number of wind developments. Where there are no commercial opportunities to utilise the underutilised capacity, we agree that this capacity should be released back to the transmission NSP. However as the owner of the connection capacity, Pacific Hydro considers any reduction to this capacity must be on the basis of agreement between the parties, including a clearly defined dispute mechanism and the engagement of an independent expert for arbitration if required.

150. Landfill Gas and Power:

... we are very concerned about any prospect of Western Power being given un-reviewable discretion. While we understand the concept behind Western Power seeking power to unilaterally revoke capacity reservations, and under carefully controlled provisions would support it as being in the public interest, we note that LGP itself has capacity reservations that it does not fully utilise, but which we funded and continue to pay for month by month in the expectation of using them in the future. Indeed, we find ourselves obliged to pay now to hold open capacity that is not IMO-certified until October 2010. On this basis, LGP supports Western Power being given a process for revoking a capacity reservation provided that process outlines suitable grounds for such an action (including the applicant unreasonably obstructing a more viable project) and provides a right of appeal to an independent party.

151. Griffin Energy:

Another significant inclusion in the proposed revisions to the Access Arrangement is the granting of the unilateral right to Western Power to reduce a user's contracted capacity at a connection point. A similar provision, supported by Griffin, was proposed for the current Access Arrangement but removed at the request of the Authority. Griffin contends that such a provision is absolutely consistent with the Code objectives and associated legislation. The Electricity Transmission Regulations 1996 states:

36. Effect of access to capacity

³⁵ Griffin Energy Development Pty Ltd submission of 17 December 2008; Perth Energy submission of 17 December 2008.

³⁶ Pacific Hydro Pty Ltd submission of 2 December 2008; Landfill Gas and Power Pty Ltd submission of 12 December 2008.

By executing or complying with its obligations under an access agreement or making any capital contribution under an access agreement, a user does not acquire any right, title or interest in or to the electricity transmission network.

This implies that while a user holds an agreement which allows its facility to send its output, at a connection point, into Western Power's transmission network, that user holds no rights over any other user, applicant or otherwise, over the transmission network itself. When the user is no longer able to send its output (at a connection point) into the network; and if there are other applicants seeking to utilise the network, then the contracted capacity of the user should be reduced and that capacity should be made available to another user. The alternative would be to allow the user to maintain its unused capacity and for Western Power to invest in additional capacity for the new applicant. In order to meet its obligations under the Code objectives, Western Power should favour the reduction of unused contracted capacity over the investment in new capacity – as the latter is clearly not promoting the economically efficient investment in and use of the network; nor is it promoting competition in markets upstream and downstream of the networks.

Griffin again supports the concept of reducing unused contracted network capacity. However, we also recognise the issues some users might raise with the vesting of this authority in Western Power itself. Griffin proposes that the right to reduce unused contracted network capacity be vested in the Authority, where Western Power, on application to the Authority, is required to meet a 'burden of evidence' test to activate this provision; and the relevant user is given the right to make submissions into the determination process.

152. Perth Energy:

Perth Energy agrees that a mechanism should be included to release or cancel capacity that is not being used by a customer. This would reduce over-investment in the transmission system and minimise the ability for capacity holders to exercise market power. However, Perth Energy does not support the provision for Western Power to act unilaterally with respect to capacity under the [electricity transfer access contract]. If the proposed change in capacity cannot be agreed by the parties then it should be resolved under a binding dispute resolution process.

153. Other parties that made submissions to the Authority oppose the new clause 3.8.³⁷ In particular, Synergy objects to the proposed clause 3.8 on a number of grounds.

154. First, Synergy submits that the proposed clause 3.8 comprises terms and conditions that go beyond the terms and conditions necessary to govern the provision of a reference service and, therefore, beyond the terms and conditions contemplated for a standard access contract under the Access Code:³⁸

Synergy submits that this clause should be deleted as being contrary to sections 5.1(b) and 5.3 of the [Access Code] and the Code objective.

Under section 5.1(b) of the [Access Code] an access arrangement must include a standard access contract for each reference service. Synergy submits that it is implicit in this section that the standard access contract contain only those terms and conditions that relate to and are reasonably necessary to govern the reference service. However, clause 3.8 of the [electricity transfer access contract] does not relate to or govern a reference service. Rather, the clause specifically contemplates

³⁷ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract; Verve Energy submission of 2 December 2008; Western Australia Major Energy Users submission of 16 December 2008; Chamber of Commerce and Industry Western Australia submission of 17 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008.

³⁸ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

overriding entitlements to a reference service for matters unrelated to that service. The effect of the clause is to give Western Power the ability to unilaterally amend existing contractual entitlements for the apparent purpose of enabling Western Power to determine the best use of the Network.

Synergy submits that the Authority should not permit Western Power to expand the scope of the regulated standard access contract beyond that which was reasonably contemplated by the [Access Code]. Synergy submits that clause 3.8 deals with matters beyond those that are reasonably contemplated by the [Access Code]. Synergy submits the [Access Code] did not contemplate that the regulated standard access contract would include matters that were contrary to the reference service, being the service in respect of which the regulated contract is to provide terms and conditions.

Further, Synergy submits that clause 3.8 goes beyond what is reasonably required in order to provide terms and conditions upon which Western Power will provide reference services. Rather, the clause goes towards Western Power's management of the network, which Synergy submits is not appropriate in a regulated standard access contract.

155. Secondly, Synergy submits that Western Power does not have a statutory power to exercise the provisions of the proposed clause 3.8:³⁹

Synergy also questions whether there is any statutory basis for Western Power to be given the ability to form a view as to whether a User's actual or forecast Contracted Capacity requirements are reasonable. To give Western Power such an ability would be, in effect, to permit Western Power to control the manner in which business is expanded and conducted in the SWIN. Synergy submits that the head of power under which the [Access Code] was made, namely section Part 8 of the Electricity Industry Act 2004, does not extend to granting the power to give this ability to Western Power under the regulated standard access contract.

156. Thirdly, Synergy submits that the proposed clause 3.8 is not reasonable within the meaning of section 5.3(a) of the Access Code as the clause provides Western Power with the ability to remove capacity from one of Synergy's customers even though the customer may have paid for the right, or provided contributions, for this capacity to be available.^{40,41}

157. Verve Energy indicates that it does not support the new clause 3.8 for reasons that:

- the provision is contrary to the imperative for generators to hold firm connection point contracted capacity under the bilateral-contract structure of the wholesale electricity market;
- proponents of new generation capacity may have difficulty obtaining project finance if there are not secure rights to contracted capacity;
- it is entirely reasonable that a network user may wish to retain unused contracted capacity in support of potential future development opportunities;
- a network user, in addition to ongoing annual network access charges, would invariably have also made a significant capital contribution to secure access; and

³⁹ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

⁴⁰ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

⁴¹ Synergy submission of 24 October 2008 and verbal communication of 31 October 2008.

- it should not be the role of the network service provider to concern itself with policing anti-competitive behaviour.

158. Verve Energy submits that reliance should be placed instead on the ability under the access arrangement to transfer capacity between users:

Notwithstanding Verve Energy's strong objection to unilateral removal of contracted capacity, it is mindful of facilitating and supporting economically efficient operation and use of the network. To that end, Verve Energy would be supportive of a proposal that suitably enables users to temporarily 'release' contracted capacity, to another user with immediate need, on the guarantee that the released contracted capacity can be recovered on, say, two years notice. Clearly, the new user would then be required to make any capital contribution necessary to facilitate the associated network augmentation. The effect of this arrangement would be to ensure economically efficient investment by appropriately delaying the required network augmentation, while not diminishing the user's future development options.

The 'bare transfer' arrangement contemplated in the Code, and established in the network operator's current Electricity Transfer Access Contract ..., is the ideal mechanism for facilitating that economically efficient investment.

159. The WAMEU submit that they oppose the provision for Western Power to reduce contracted capacity and propose that contracted capacity should only be able to be reduced by agreement with the user, possibly with some consideration paid by Western Power.⁴²

160. The CCIWA opposes the provisions of the new clause 3.8, submitting that Western Power is not appropriately equipped to assess whether a market participant will be likely to use unutilised capacity.

161. Alinta Sales submits that there may be sound commercial reasons for network users to hold unutilised capacity as a real option for future projects that would require the capacity. There is a cost (in network charges) to the real option that exists in holding unutilised capacity and it is the network users, not Western Power, that are best placed to determine whether the cost of creating or maintaining the real option is commercially prudent.

162. Alinta Sales further submits that:

- market mechanisms, including trading of contractual entitlements to capacity, are to be preferred as a means of achieving efficient use of network capacity; and
- to the extent that the proposed clause 3.8 is intended to reduce anti-competitive behaviour, there are better mechanisms in competition law to achieve this.

163. Regarding the opinion of Synergy that Western Power does not have the statutory power or ability under the Access Code to establish the provisions of the proposed clause 3.8, the Authority does not accept that the matters addressed by clause 3.8 are necessarily outside the range of matters that may reasonably be addressed in the access arrangement terms and conditions. The right of a network service provider to reduce the contracted capacity of a user concerns the relationship

⁴² Western Australia Major Energy Users submission of 16 December 2008, pp. 87, 88.

between the user and the network operator with respect to access to contracted capacity and also sets out limits on the service.

164. In its substance, the proposed clause 3.8 is essentially the same as a clause that was proposed by Western Power in the original proposed access arrangement for the first access arrangement period. In its Final Decision on that proposed access arrangement, the Authority determined that the potential inability of a user to enter into a contract for an amount of capacity and to hold that contracted capacity for the term of the contract is unreasonable and inconsistent with the Access Code and the Code objective. This determination arose from considerations of the Authority that:
- contrary to a submission from Western Power, the clause would constitute a unilateral right of Western Power to reduce a user's contracted capacity and this right would only be less than unilateral if, for example, the reduction in capacity could occur only with the agreement of the user;
 - under the regulatory scheme established by the Access Code, where access contracts are based on rights to capacity at entry points and exit points, it would be unreasonable for a user to not be able to enter into a contract for capacity and, subject to continuing to pay the relevant tariffs for that capacity, to continue to hold the contracted capacity regardless of whether that capacity is used or not;
 - the ability of a user to hold contracted capacity at entry points or exit points that are unused is consistent with efficient investment in the network as the user will generally make any such decision to hold unused capacity taking into account the cost of that capacity and the value of the option to utilise the capacity at some time in the future;
 - under the regulatory scheme applying under the Access Code and where a user may be required to pay capital contributions for an augmentation of the network in order to contract for a certain amount of capacity at an entry or exit point, the ability of a user to hold contracted capacity that is unused is necessary for that user to make efficient decisions for the payment of capital contributions; and
 - other remedies exist to address the holding by a user of unused capacity for anticompetitive purposes – the holding by a user of unused capacity for this purpose may constitute hindering or preventing access and be unlawful under section 115 of the *Electricity Industry Act 2004* or otherwise in contravention of Part IV of the *Trade Practices Act*⁴³.
165. Western Power has not provided the Authority with any new information that would cause the Authority to take a different view at this current time. Moreover, the submissions made to the Authority as part of this current review process indicate that both new and established generators, electricity retailers and major electricity users oppose a right of Western Power to unilaterally reduce a user's contracted capacity.
166. The Authority maintains the view that a user should be able to maintain a level of contracted capacity regardless of whether this capacity is used or unused. The Authority also considers that market mechanisms should be preferred over

⁴³ Economic Regulation Authority, 2 March 2007, Final Decision on the Proposed Access Arrangement for the South West Interconnected Network, paragraphs 944 and 945.

administrative processes to resolve situations where one user holds contractual rights to unused capacity that may be used by another user, and that may in turn enable a network augmentation to be avoided. Further, given the existence of mechanisms to deal with the holding of unused capacity for anticompetitive reasons, the Authority considers that the right of a user to hold unused capacity is consistent with efficient investment in, and use of, the network in accordance with the Code objective.

167. The Authority requires the following amendment to be made prior to the approval of the proposed access arrangement revisions.

Required Amendment 8

The proposed access arrangement revisions should be amended to delete clause 3.8 of the electricity transfer access contract or to amend clause 3.8 to make any reduction in a user's contracted capacity subject to agreement with the user.

Controllers (clause 6)

168. Clause 6 of the proposed electricity transfer access contract sets out rights of Western Power and obligations of the user where the user is not the controller at a connection point. No material changes to clause 6 have been proposed from the corresponding clause 6 of the current electricity transfer access contract.
169. Clause 6.1 of the proposed electricity transfer access contract requires that the user must nominate to Western Power the controller of a connection point where the equipment at the connection point or operation of the connection points exceed certain thresholds. Clause 6.1 also provides for Western Power to require the user to procure that the controller of a connection point enter into a connection contract directly with Western Power.
170. Clause 6.2 is relevant to the circumstance where the user is not also the controller of a connection point and Western Power does not have a connection contract directly with the controller. In this circumstance, clause 6.2(a) requires that the user ensure that the controller complies with obligations under the electricity transfer access contract including obligations arising from "good electricity industry practice" (under clause 11); the Technical Rules (under clause 12); technical characteristics of facilities and equipment (under clause 13); cooperation (under clause 14); access to premises (under clause 15); directions from the system operator (under clause 16); removal of equipment (under clause 17); and curtailment (under clause 25).
171. Synergy submits that clause 6 imposes unreasonable or impractical requirements on the user.

172. First, Synergy submits that it is not reasonable that, under clause 6.1(a) of the proposed electricity transfer access contract, the user may be required to nominate the controller of a connection point prior to the commencement of the service.⁴⁴

Synergy submits that, for the reasons set out below, It is not reasonable within section 5.3(a) of the [Access Code] for clause 6.1(a) of the [electricity transfer access contract] to require a User who is not the Controller of a Connection Point to nominate a person as the Controller of a Connection Point before the Start Date of the relevant Service.

Synergy is aware that Western Power has allocated to retail Users such as Synergy Connection Points without prior notice to the User. Further Western Power has retrospectively allocated Connection Points to retail Users such as Synergy. Therefore Synergy submits that clause 6.1(a) should be amended as underlined as follows:

"If the User* is the not the Controller* of a Connection Point* then the User* must, by notice to Western Power* before the Start Date* of the relevant Services* or as soon as reasonably practical thereafter nominate a person as the Controller* for the Connection Point* where... "

173. Under the terms of the applications and queuing policy, a connection point cannot normally be added to the access contract with a user other than pursuant to an application from the user. There are circumstances, however, where a connection point may be added to an access contract other than by an application from the user and subsequent to the commencement of a service, most notably under the default supplier provisions of sections 35 to 38 of the *Electricity Industry Customer Contract Regulations 2005*. In such circumstances, the Authority recognises that, as indicated by Synergy, it would be impractical for the user to nominate the controller of a connection point prior to the commencement of the service.
174. The Authority therefore considers that clause 6.1 of the electricity transfer access contract should accommodate these circumstances and the revised clause 6.1(a), as suggested by Synergy, is one way of achieving this.

Required Amendment 9

The proposed access arrangement revisions should be amended such that clause 6.1(a) of the electricity transfer access contract be made to provide for the user to nominate a controller as soon as reasonably practical after the commencement of the service.

175. Secondly, Synergy submits that, under clause 6.1(e) of the proposed electricity transfer access contract, the user should not have to procure that a controller of a connection point enter into a connection contract with Western Power.⁴⁵

Clause 6.1(e) of the [electricity transfer access contract] places an absolute obligation on a User to procure the nominated Controller to enter into a Connection

⁴⁴ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

⁴⁵ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Contract, Synergy submits that this is not reasonable within section 5.3(a) of the [Access Code].

Western Power is already adequately protected if the nominated person does not enter into a Connection Contract because, under clause 6.2(d), in these circumstances Western Power is not obliged to provide the Reference Service.

There may be many reasons why the person nominated as a Controller does not wish to enter into a Connection Contract. For example, that Western Power insists on unreasonable terms or on terms not acceptable to the nominated person.

It is not reasonable in these circumstances for there to be an obligation on the User to effectively force the person nominated as a Controller to enter into the Connection Contract. Synergy submits that such an absolute obligation is also not reasonably necessary to protect Western Power's interests, particularly given that there is sufficient incentive, both commercially and practically, for the User to encourage the person nominated as a Controller to enter into a Connection Contract so that the User (and presumably the person nominated as Controller) can use the Reference Service.

Therefore Synergy submits that clause 6.1(e) of the [electricity transfer access contract] should be amended as underlined as follows:

"If Western Power* requires, the User* must use reasonable endeavours to procure that the person nominated by the User* as a Controller* enters into a Connection Contract* with Western Power* in respect of the Connection Point*".

176. The obligation under clause 6.1(e) for a user to procure that a controller of a connection point enter into a connection contract with Western Power is subject to clause 6.1(a) that establishes the thresholds above which the requirement for a connection contract applies. These thresholds relate generally to the potential for operations at the connection point to disrupt the network.
177. The obligation on the user to procure that the controller of a connection point enter into a connection contract with Western Power is likely to mean that the user is required to compel the controller to enter into a connection contract with Western Power. This may entail the user not commencing the retail supply of electricity, or suspending supply, until the connection contract is entered into.
178. The Authority concurs with Synergy that it is unreasonable for Western Power to require the user to procure that the controller of a connection point enter into a connection contract with Western Power. The Authority observes that the user is compelled to provide Western Power with details of the controller at a connection point. After receiving such information, Western Power itself has the ability to enforce that the controller enter into a connection contract by the ability to cease supply of the reference service; that is, by disconnection of the connection point. The user does not have such a power to cease supply of an electricity service and hence, in the absence of action by Western Power, has a limited ability to enforce the requirement for the controller to enter into a connection contract.

Required Amendment 10

The proposed access arrangement revisions should be amended such that clause 6.1(e) of the electricity transfer access contract requires only that the user uses reasonable endeavours to procure that a controller enter into a connection contract with Western Power.

179. Thirdly, Synergy submits clause 6.2 causes an unreasonable requirement for Synergy to establish a network inspection service to ensure that equipment connected to the network continues to comply with the Technical Rules and gives rise to commercial risks and financial barriers for Synergy in the retail electricity market.⁴⁶ More particularly, Synergy submits that clause 6.2 should be amended to lessen the obligations of the user:⁴⁷

Synergy submits that clause 6.2(a) of the [electricity transfer access contract] should be amended as underlined as follows:

"Subject to clause 6.2(b) if the User* is not the Controller* of a Connection Point*, and the Controller* of that Connection Point* has not entered into a Connection Contract* with Western Power* in respect of the Connection Point* then the User* must use reasonable endeavours to ensure that the Controller* of that Connection Point*..."

Synergy submits that the insertion of the words "must use reasonable endeavours" are necessary for the same reasons set out above in relation to clause 6.1(e) of the [electricity transfer access contract].

Synergy submits that a new clause 6.2(b) should be inserted as follows:

"Notwithstanding clause 6.2(a) the User* is not required to:

(i) do anything to determine whether or not the Controller* or its equipment is complying or compliant with the Technical Rules*: or

(ii) commence, maintain or continue legal proceedings:

(A) unless Western Power* provides an indemnity satisfactory to the User*, acting as a Reasonable and Prudent Person*, for all its costs of and relating to such proceedings: or

(B) to the extent that:

(I) the Controller* has obligations to Western Power* arising independently from this Contract, which, in the circumstances, Western Power acting as a Reasonable and Prudent Person*, should enforce: or

(II) Western Power* has rights or powers arising independently from this Contract*, which, in the circumstances, Western Power*, acting as a Reasonable and Prudent Person, should exercise."

Synergy submits that it is not reasonable to require a User, such as a retailer, to be effectively responsible for its customers' compliance with the Technical Rules or for the technical characteristics of its customers' Facilities and Equipment when, for the reasons set out under heading 3(b) above, Western Power is in a better position to do this. Further Synergy submits it is not reasonable to place an absolute obligation on a User, such as a retailer, to take action, on behalf of Western Power, and in order to protect Western Power's interests, against a retail User's customer, particularly in circumstances when Western Power has the ability to take such action independently of the retail User.

The effect is to allocate the risk of damage to the Network to a party that is not easily able to mitigate or bear such risk, in circumstances where such party is also expected to bear the cost of actions to mitigate the risk. Synergy reiterates its submissions set out under heading 3(b) above in this regard.

⁴⁶ Synergy submission of 24 October 2008 and verbal communication of 31 October 2008.

⁴⁷ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Synergy submits that such a provision falls outside the ambit of power contemplated by a standard access contract required by section 5.1(b) of the [Access Code] Further that such provision is not reasonable within section 5.3(a) of the [Access Code] Finally Synergy submits that such a provision is contrary to the Code objective. It is not an economically efficient operation and use of the network or services of the network for the network operator to pass risks, which it is best able to mitigate and bear, to parties who have no interest in the risk and who are not best able to bear that risk, nor to mitigate it, let alone bear the cost of mitigation.

180. The Authority observes that clause 6.2(a) of the proposed electricity transfer access contract, which requires the user to procure the compliance of the controller of a connection point with terms of the electricity transfer access contract, is similar to clause A3.38 of the model standard access contract under the Access Code. However, the Authority observes that there are differences:

- clause 6.2(a) of the proposed electricity transfer access contract applies to all connection points and not just those over certain thresholds of capacity as applies under clause A3.38 of the model standard access contract; and
- clause 6.2(a) of the proposed electricity transfer access contract requires the user to procure compliance on a greater range of matters than clause A3.38 of the model standard access contract, including on the technical characteristics of facilities and equipment, directions from the system operator, removal of equipment and curtailment.

181. The Authority considers that it is unreasonable that the user is required to procure compliance of a controller, effectively on Western Power's behalf, noting that Western Power has the ability to require that the controller at a connection point enter into a connection contract with Western Power in circumstances where the facilities and level of energy transfer at the connection point are such as to have the potential to disrupt the network. As such, the Authority considers that it is reasonable that Western Power bear the costs potentially arising from such a requirement.

Required Amendment 11

The proposed access arrangement revisions should be amended such that clause 6.2(a) of the electricity transfer access contract is made subject to a provision that the user is not required to commence, maintain or continue legal proceedings to procure compliance of a controller with obligations under the access contract unless Western Power provides an indemnity for all of the user's costs of and relating to such proceedings.

Tariffs and Charges (clause 7)

182. Clause 7 of the proposed electricity transfer access contract specifies the tariffs and charges applicable to the services provided under the access contract (clause 7.1), the obligation of the user to pay the component charges of the relevant tariff (clause 7.2) and relief of the user from liability for payment of charges during any period of disconnection due to a force majeure event claimed by Western Power (clause 7.3). Clause 7 corresponds to clause 7 of the current electricity transfer access contract.

183. Western Power has proposed inclusion of a new clause 7.1(f), relating to the information relied on by Western Power for the purposes of calculating the tariffs and charges for a service:
- (f) For the purposes of calculating Tariffs* and Charges* for a Service*:
 - (i) Western Power* is entitled to rely on the information contained in Schedule 3 (as updated from time to time in accordance with this Contract*); and
 - (ii) where information contained in Schedule 3 is updated, or to be updated, in accordance with this Contract*, the updated information:
 - (A) will not apply to any period before; and
 - (B) must not be used to calculate a Tariff* or Charge* until,

the date that the information is actually updated in accordance with this Contract*.
184. Synergy addresses several elements of clause 7 in its submission on the proposed electricity transfer access contract.⁴⁸
185. First, Synergy submits that clause 7.1 requires Western Power to apply a price change on and from the date energy was consumed so that changed charges apply to the period that the energy was transferred and consumed. Synergy submits that clause 7.1 should make it express that Western Power cannot engage in rounding or "pro-metering" as appears contemplated in the price list.
186. Under clause 7.1, the tariffs and charges applying for a service at a connection point are determined according to the price list and the details of the relevant connection points as specified in schedule 3 to the electricity transfer access contract. Clause 7.1 also deals with circumstances of a price list not being in effect at any given time, the determination of tariffs payable in a new access arrangement period, and a reliance on information in schedule 3 of the electricity transfer access contract to determine applicable tariffs.
187. Synergy has provided the Authority with clarification of its concerns with clause 7.1, indicating that clause 7.1 does not adequately deal with the circumstance where a change in the charges applying under a reference tariff (as indicated in the price list) occurs during a billing period.⁴⁹ Synergy refers to the price list of the proposed access arrangement revisions, which deals with the circumstance with the following note:⁵⁰
- For the avoidance of doubt, the prices within this Price List will apply to all consumption during the pricing year. Where consumption is metered with an accumulation meter and the meter reading interval causes some of the metered consumption to lie within the pricing year covered by this price list and the remainder within a previous or subsequent pricing year not covered by this price list, the consumption covered by this price list will be determined by prorating the metered consumption uniformly on a daily basis.
188. Synergy submits that this matter should be dealt with in the electricity transfer access contract. In any case, however, Synergy submits that, contrary to this note, Western Power's billing system is unable to undertake the prorating of consumption

⁴⁸ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

⁴⁹ Email from Synergy to the Economic Regulation Authority of 16 February 2009.

⁵⁰ Revised proposed access arrangement, Appendix 5: p. 1.

to days within a consumption period. Synergy submits that, until this practical matter is resolved, clause 7.1 of the electricity transfer access contract should make it clear that Western Power cannot engage in rounding or prorating of consumption for billing purposes.

189. The Authority concurs with Synergy that the circumstance of a billing period spanning a change in charges applying under a reference tariff should be dealt with in the electricity transfer access contract, rather than the price list, and that the relevant provision should be reasonable and contain sufficient detail, consistent with the requirements of section 5.3 of the Access Code. The Authority further considers that, in including such a provision in the electricity transfer access contract, Western Power will necessarily have to ensure consistency with the capabilities of its billing system.

Required Amendment 12

The proposed access arrangement revisions should be amended such that clause 7.1 of the electricity transfer access contract includes a provision dealing with the determination of amounts payable by the user where there is a change in the charges payable under a reference tariff during a billing period. The provision must represent a reasonable balance between the interests of the user and Western Power.

190. Secondly, and in relation to the proposed new clause 7.1(f), Synergy refers to its submission on the processes by which details of connection points in schedule 3 of the access contract may be altered. The Authority has addressed these matters in relation to clause 3 of the electricity transfer access contract (paragraphs 137 to 141, above).
191. Thirdly, Synergy objects to the provisions of clause 7.3 of the electricity transfer access contract that require a user to pay a portion of standing charges for services where the service is interrupted pursuant to a force majeure event claimed by Western Power. Under clause 7.3(a), if a service is unavailable for any consecutive period of two days or longer, a user is relieved of obligations to pay charges except for 10 per cent of standing charges. Synergy submits that it is unreasonable for a user to have to pay any amount of charges in these circumstances.
192. The requirement under clause 7.3 for the payment of 10 per cent of standing charges reproduces clause A3.42(b) of the model standard access contract under the Access Code. As such, and under section 5.5 of the Access Code, the Authority must determine that this requirement is consistent with section 5.3 of the Access Code.

Invoicing and Payment (clause 8)

193. Clause 8 of the electricity transfer access contract comprises terms of invoicing and payment, including requirements for Western Power to issue invoices to the user (clause 8.1 of the electricity transfer access contract under the proposed access arrangement revisions); requirements for Western Power to provide information to the user to enable the user to calculate any amounts owed by Western Power to the user and requirements for the user to invoice Western Power for any such

amounts (clause 8.2); requirements for payment of invoices (clause 8.3); requirements for dealing with disputed invoices and under or over-payments (clause 8.4, 8.6 and 8.7); and the determination of liabilities for goods and services tax (clause 8.8). Clause 8 of the proposed electricity transfer access contract corresponds to clause 8 of the current electricity transfer access contract.

194. Western Power has proposed several changes to clause 8, including:

- addition of a new clause 8.1(d) allowing parties to agree on alternative arrangements for invoicing to standard arrangements set out in clauses 8.1(a) to 8.1(c);
- addition of a new clause 8.5 to indicate that nothing in the electricity transfer access contract affects or limits the operation of sections 65 and 66 of the *Energy Operators (Powers) Act 1979 (WA)*;
- addition of new clauses 8.6(d) and 8.6(e) that establish a sunset provision for claims in relation to under and over-payments;
- addition of a new clause 8.8(e) to adjust any payments as necessary where a change in the rules or rate of goods and services tax occurs.

195. In addition to these proposed changes, submissions have been made to the Authority on existing terms of clause 8 including:

- the format in which invoicing information is provided by Western Power to the user (clause 8.1(c)); and
- a strengthening of requirements for Western Power to provide to the user information necessary for determination any amount payable by Western Power to the user (clause 8.2(a)).

196. The proposed changes to clause 8 and other matters raised in submissions are addressed as follows in the order of the relevant provisions of clause 8.

Format of Electronic Information

197. Under clause 8.1(c) of the proposed electricity transfer access contract, Western Power is required, at the same time as issuing an invoice, to provide to the user the metering information used to calculate the charges. This information is required to be provided in electronic form. This clause is unchanged from the current electricity transfer access contract.

198. Synergy submits that the clause should be amended to more specifically state that the information is to be provided in a particular data format referred to as the “CSV format” or other format acceptable to the user.⁵¹ Synergy includes in its submission technical information on the CSV format to indicate that the format is an actual or emerging standard format for the transfer of electronic information.

199. The requirement under clause 8.1(c) of the electricity transfer access contract for Western Power to provide information in electronic form, without specification of the format of the information, is materially the same as the requirement under clause A3.44 of the model standard access contract under the Access Code. As such, and

⁵¹ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

under section 5.5 of the Access Code, the Authority must determine that clause 8.1(c) is consistent with section 5.3 of the Access Code.

200. The Authority notes that the format of information exchanged electronically between Western Power and a user is, at least in part, governed by the Communication Rules under clause 6.7 of the Metering Code. The Communication Rules require that information exchanged between parties to the Metering Code be in “XML format”.⁵² The Authority considers that any debate and determination of an alternative format for information exchange would best occur through a process of amendment of the Communication Rules.

Alternative Arrangements for Invoicing

201. A proposed new clause 8.1(d) provides for Western Power and a user to implement, by mutual agreement, invoicing arrangements different to standard invoicing arrangements set out in clauses 8.1(a) to 8.1(c).
202. Perth Energy submits that it supports this proposed provision for reason that it increases commercial flexibility for both the user and Western Power.
203. The Authority considers that provision under the proposed new clause 8.1(d), for alternative invoicing arrangements to be agreed between Western Power and the user, is simply declaratory of rights under the Access Code for a user and Western Power to negotiate terms of access different to the terms of reference services. As such, the Authority considers the proposed clause 8.1(d) to be consistent with section 5.3 of the Access Code.

User Invoices

204. Clause 8.2(a) of the proposed electricity transfer access contract requires Western Power to provide the user with all information necessary for the user to determine any amounts payable by Western Power to the user. Section 8.2(c) deals with the situation where the user disputes the information provided by Western Power and provides for the user to issue an invoice to Western Power for the amount the user considers to be correct and to notify Western Power of a dispute over the information provided. These clauses are unchanged from the current electricity transfer access contract.
205. Synergy submits that clause 8.2(c) should be broadened to deal with situations where Western Power fails to provide information (and thereby fails to comply with clause 8.2(a)), or Western Power does not provide information in an electronic format suitable for use by the user.⁵³
206. The provisions of clauses 8.2(a) and 8.2(c) of the electricity transfer access contract for Western Power to provide information and for the user to dispute the information provided are materially the same as the provisions of clauses A3.45(a) and A3.45(c) of the model standard access contract under the Access Code. As such, and under section 5.5 of the Access Code, the Authority must determine that clauses 8.2(a) and 8.2(c) are consistent with section 5.3 of the Access Code.

⁵² Electricity Industry Metering Code 2005 Communication Rules, 10 February 2006, clause 3.1.

⁵³ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

207. In any case, the Authority considers that the provisions of clause 8.2(c) for the dispute of information provided by Western Power are sufficiently broad to deal with Western Power failing to provide information or providing information in a format that the user is unable to utilise.

Payment of Invoices

208. Clause 8.3 of the proposed electricity transfer access contract establishes an obligation for each party to the access contract to pay invoices by the relevant due date and provides for interest to be paid on overdue invoices. This clause is unchanged from the current electricity transfer access contract.
209. Synergy submits that clause 8.3 should be amended to make the user's obligation to pay invoices subject to Western Power having provided relevant metering information in a format acceptable to the user.⁵⁴
210. The provisions of clauses 8.3 of the electricity transfer access contract, establishing the obligations to pay invoices by relevant due dates, are materially the same as the provisions of clause A3.46 of the model standard access contract under the Access Code. As such, and under section 5.5 of the Access Code, the Authority must determine that clause 8.3 is consistent with section 5.3 of the Access Code.

Subordination to the *Energy Operators (Powers) Act 1979 (WA)*

211. Western Power has proposed a new clause 8.5 as follows:

8.5 Charge* errors

Nothing in this clause or elsewhere in this Contract* affects or limits the operation of sections 65 and 66 of the *Energy Operators (Powers) Act 1979 (WA)* in relation to Charges* paid or payable by the User* under this Contract*.

212. Sections 65 and 66 of the *Energy Operators (Powers) Act 1979 (WA)* provide for the meter readings of energy operators to be *prima facie* evidence of the extent, characteristics and value of energy supplied, make provision for incorrect meter readings and make provisions for the testing of meters.
213. The Authority considers that the proposed clause 8.5 is declaratory in nature as the electricity transfer access contract will be subject to the *Energy Operators (Powers) Act 1979 (WA)* regardless of whether or not this is stated in the electricity transfer access contract. The Authority therefore considers that the proposed clause is reasonable and consistent with section 5.3 of the Access Code.

Sunset Clauses on Claims for Adjusting Payments

214. Western Power has proposed additional provisions to clause 8.6 of the proposed electricity transfer access contract⁵⁵ that establish a time limit for claims for adjusting payments in respect of payment errors. The additional provisions have effect to:

⁵⁴ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

⁵⁵ Clause 8.6 corresponds to clause 8.5 of the current electricity transfer access contract.

- require any party to give notice of a payment error as soon as reasonably practicable after the error is detected (clause 8.6(a)(i));
 - cause a party not to be entitled to an adjusting payment if the other party is notified after the expiry of 18 months after the payment error (clause 8.6(d)); and
 - limit adjusting payments to the correction of a payment error that occurred in the 12 month period preceding the date on which the payment error was notified by one party to the other (clause 8.6(e)).
215. Western Power submits that the proposed new provisions are for the purpose of providing certainty as to the limit of the period for which a billing error will be corrected, and to ensure that the time limit on adjusting payments of 12 months aligns with a similar limit under section 65 of the *Energy Operators (Powers) Act 1979*.⁵⁶
216. Support for these proposed changes has been indicated in submissions from Alinta Sales and Perth Energy, noting consistency with provisions for settlements in the wholesale electricity market and consistency of provisions for claims by both parties to an access contract.
217. Taking into account the submissions and consistency with relevant provisions of the *Energy Operators (Powers) Act 1979*, the Authority considers the proposed provisions of clause 8.6 to be consistent with section 5.3 of the Access Code and the Code objective.
218. Synergy submits that the limits on periods of adjusting payments and sunset clauses on claims for adjusting payments make it necessary to have stronger requirements for Western Power to provide information to users in support of invoices under clause 8.1 of the electricity transfer access contract.⁵⁷ The Authority addressed this matter above (paragraphs 197 to 200 and 204 to 207).

Goods and Services Tax

219. Western Power has proposed a new clause 8.7(e) in the proposed electricity transfer access contract. Clause 8.7(e) provides for retrospective adjustments to be made to payments in respect of changes to either transactions to which the goods and services tax applies or the rate at which the goods and services tax applies.
220. No parties that made submissions to the Authority addressed the proposed clause 8.7(e).
221. The Authority observes that the proposed clause 8.7(e) provides for adjustments to payments to be made in accordance with the goods and services tax liabilities under Commonwealth taxation law and that any such adjustments are not to the advantage of Western Power. As such, the Authority considers the proposed clause to be consistent with section 5.3 of the Access Code and the Code objective.

⁵⁶ Western Power submission of 17 December 2008; Revised access arrangement information Appendix 12: section 3.5.

⁵⁷ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Security for Contribution (clause 10)

222. Clause 10 of the proposed electricity transfer access contract requires a user to provide security to guarantee the present value of any contribution payable to Western Power under the contributions policy of the access arrangement.⁵⁸ No change is proposed to this clause other than to establish it as a separate clause from other security provisions (under clause 9) and to change the reference to a “capital contribution” to a “contribution” in accordance with Western Power’s proposed changes to its capital contributions policy.
223. Synergy submits that clause 10 may impose an unreasonable requirement on Synergy to provide financial security for works required by customers and the associated contributions that need to be paid to Western Power by the customer.⁵⁹
224. Provision exists under clause A3.51(b) of the model standard access contract of the Access Code for a service provider to require the user to provide security for unpaid contributions. However, this requirement may only apply where it is the user that must pay the contribution. It is not clear whether clause 10 of the proposed electricity transfer access contract is similarly limited.
225. The Authority considers that it would be unreasonable and inconsistent with section 5.3 of the Access Code for a user to be required to provide security for contributions owed directly to Western Power by another party. The Authority requires that clause 10 of the proposed electricity transfer access contract be amended to clarify that a user may only be required to provide security for contributions owed by the user.

Required Amendment 13

The proposed access arrangement revisions should be amended such that clause 10 of the electricity transfer access contract clearly applies only in respect of a contribution payable by the user.

Technical Rules (clause 12)

226. Clause 12 of the proposed electricity transfer access contract⁶⁰ establishes requirements for Western Power and the user to comply with the Technical Rules.
227. Clause 12.1 of the proposed electricity transfer access contract requires that Western Power and the user both comply with the Technical Rules. Western Power has proposed changes to this clause to:
- make the requirement subject to any exemptions given to either Western Power or the user under Chapter 1 of the Technical Rules; and

⁵⁸ Clause 10 corresponds to clause 9(c) of the current electricity transfer access contract.

⁵⁹ Synergy submission of 24 October 2008 and verbal communication of 31 October 2008.

⁶⁰ Clause 12 corresponds to clause 11 of the current electricity transfer access contract.

- indicate as an explanatory note that “[f]or the avoidance of doubt, this includes a requirement on the User to comply with the Technical Rules with respect to any other person or person's equipment that will gain access, or Connect, to the Network through a Connection Point”.
228. Synergy submits that the proposed clause 12 is unreasonable as it causes an unreasonable requirement for a user that is also a retailer to establish a network inspection service to ensure that equipment connected to the network continues to comply with the Technical Rules and gives rise to commercial risk and financial barriers for the user.⁶¹ Synergy submits that clause 12 should be amended as follows:

"The User* must comply with the Technical Rules*, subject to any exemptions given to the User* or to any other person that will gain access, or Connect*, to the Network* through a Connection Point* under Chapter 1 of the Technical Rules*. (For the sake of clarity, this clause includes a requirement on the User* to, in so far as is reasonably practical, seek to ensure compliance with the Technical Rules* with respect to any other person or person's equipment that will gain access, or Connect*, to the Network* through a Connection Point*. However, nothing in this clause requires a User* to:

(i) do anything to determine whether or not such other person or their equipment is complying or compliant with the Technical Rules; or

(ii) commence, maintain or continue legal proceedings:

(C) unless Western Power* provides an indemnity satisfactory to the User*, acting as a Reasonable and Prudent Person*, for all its costs of and relating to such proceedings: or

(D) to the extent that:

(I) the other person has obligations to Western Power* arising independently from this Contract*, which, in the circumstances, Western Power*, acting as a Reasonable and Prudent Person*, should enforce: or

(II) Western Power* has rights and powers arising independently from this Contract*, which, in the circumstances, Western Power*, acting as a Reasonable and Prudent Person*, should exercise"

229. The Authority is of the view that the explanatory note proposed for clause 12.1 (indicating, for the avoidance of doubt, that a requirement on the user to comply with the Technical Rules includes a requirement with respect to any other person or person's equipment that will gain access, or connect, to the network through a connection point") creates a new obligation for the user, as the user would now be responsible for persons and equipment connected to the network through a connection point. The user's obligations to ensure compliance with the Technical Rules are addressed under clause 6.2 of the proposed electricity transfer access contract (addressed at paragraphs 179 to 181 of this Draft Decision) and the Authority considers that clause 12.1 should be consistent with clause 6.2, including the amendment to this clause required by the Authority.

⁶¹ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Required Amendment 14

The proposed access arrangement revisions should be amended such that clause 12.1 of the electricity transfer access contract is consistent with clause 6.2 and limits the obligation of the user to ensure that any other person or person's equipment complies with the Technical Rules only to the extent:

- that is reasonably practical for the user; and
- that Western Power provides an indemnity for all of the user's costs of and relating to proceedings against any other person for the purposes of ensuring compliance.

230. Clause 12.2 of the proposed electricity transfer access contract deals with the costs of compliance with the Technical Rules and requires that:

- both Western Power and the user each bear their own costs of compliance with the Technical Rules (clause 12.2(a) and (b));
- the user bear any costs incurred by Western Power in complying with the Technical Rules and resulting from an act or omission of the user (clause 12.2(c); and
- the user bear any costs incurred by Western Power in upgrading the network in accordance with the Technical Rules and to resolve faults caused by the user's equipment (clause 12.2(d)).

231. Western Power has not proposed any material changes to clause 12.2.

232. Synergy submits that clause 12.2(c) is unreasonable as it does not limit the circumstance where the user must bear costs incurred by Western Power to acts or omissions in breach of the access contract, and potentially allows Western Power to recover costs from multiple parties.⁶² Synergy submits that clause 12.2(c) should be amended as follows:

"Notwithstanding clause [12.2](b), where an act or omission of the User' in breach of this Contract* causes Western Power* to incur extra costs in order to ensure Western Power complies with the Technical Rules*, the User* shall bear Western Power's reasonable extra costs so incurred to the extent that such costs are already not repaid by the User* or any other party under any other arrangement, including the Contributions Policy*".

233. The Authority accepts Synergy's submission that qualification of clause 12.2(c) is necessary to reasonably constrain the circumstances in which the user is liable for costs incurred by Western Power and that the qualifications should be that the act or omission of the user is in breach of the access contract and that Western Power has not recovered the relevant costs from any other party.

⁶² Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Required Amendment 15

The proposed access arrangement revisions should be amended such that clause 12.2 of the electricity transfer access contract provides that an act or omission of the user that causes Western Power to incur extra costs for compliance with the Technical Rules only causes the user to be liable for those costs where:

- the act or omission of the user is in breach of the access contract; and
- Western Power has not already recovered the costs from another party.

User's Representations and Warranties (clause 18)

234. Clause 18 of the proposed electricity transfer access contract sets out the representations and warranties of Western Power and the user.⁶³
235. Western Power has not proposed any material changes to clause 18.
236. Synergy submits that a provision of clause 18 that requires the user to give a warranty of compliance with the applications and queuing policy is unreasonable.⁶⁴

Synergy submits that it is not reasonable for clause [18](a)(i) of the [electricity transfer access contract] to require a User to give a warranty that it has complied with the Application Queuing Policy unless it is technically feasible for a User to comply with such policy. In this respect Synergy cannot give the warranty sought because, for the reasons to be set out in Synergy's submission on the Application Queuing Policy, it is not technically feasible for Synergy to comply with the existing Applications and Queuing Policy. Synergy does not know the position of other Users but would expect that other Users may also have these same difficulties.

In these circumstances Synergy submits that it is not reasonable to require a regulated contract to impose an obligation to give a warranty that is not reasonably capable of being given or that will be breached as soon as it is given.

237. Clause 18(a)(i) of the electricity transfer access contract is materially the same as clause A3.68(a)(i) of the model standard access contract under the Access Code. As such, the Authority is required to determine that clause 18(a)(i) is consistent with section 5.3 of the Access Code and the Code objective.

Liability and Indemnity (clause 19)

238. Clause 19 of the proposed electricity transfer access contract defines liabilities of Western Power and the user to each other, limitations to liability, and various requirements for each party in indemnifying the other in respect of various events.

⁶³ Clause 18 corresponds to clause 17 of the current electricity transfer access contract.

⁶⁴ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

239. Western Power has not proposed material changes from the corresponding clause of the current electricity transfer access contract (clause 18) with the exception that maximum liabilities of the user to Western Power in respect of different types of connection points have been increased by either 10 or 20 per cent (clause 19.5).
240. In submissions made to the Authority, Alinta Sales and Synergy raise concerns with the maximum liability of retailers, the inflation indexation of limits to liability and asymmetry in maximum liabilities of Western Power and users. These matters are addressed in turn below.

Maximum Liability of Retailers

241. Clauses 19.5(a) to (c) set out the maximum liabilities of users:

- (a) Subject to clause 19.5(c), the maximum liability of Western Power* to the User* and the Indemnifier* collectively under and in connection with this Contract* is limited to an amount of \$5 million in the aggregate and refreshed annually each 1 July, except that the liability described in clause 20 is not counted for the purposes of Western Power*'s maximum liability under this Contract*.
- (b) Subject to clause 19.5(c), the maximum liability of both the User* and the Indemnifier* collectively to Western Power* under and in connection with this Contract* is limited to the sum of:
 - (A) for each Connection Point* at which Generation Plant* (other than wind or solar powered generation) is connected at a voltage of 66 kV and above - \$22 million in the aggregate, refreshed annually each 1 July; and
 - (B) for each Connection Point* at which wind or solar powered Generation Plant* is connected at a voltage of 66 kV or above - \$11 million in the aggregate, refreshed annually each 1 July; and
 - (C) for each Connection Point* at which Generation Plant* is connected at a voltage below 66 kV - \$1.2 million in the aggregate, refreshed annually each 1 July; and
 - (D) for each Connection Point* at which Consuming* plant is connected at a voltage of 66 kV and above - \$6 million in the aggregate, refreshed annually each 1 July; and
 - (E) for every 100 Connection Points* at which Consuming* plant is connected at a voltage below 66 kV - \$1.2 million in the aggregate, refreshed annually each 1 July,

except that the liabilities described in clause 20 are not counted for the purposes of both the User*'s and the Indemnifier*'s collective maximum liability under this Contract*.
- (c) The maximum liability amounts applicable under clauses 19.5(a) and 19.5(b) shall be CPI*-Adjusted* annually each 1 July.

242. Synergy submits that the amounts of liability established under clause 19.5(b) are unreasonable for retailers with multiple connection points under access contracts:⁶⁵

Synergy submits that where the User has multiple Connection Points, clause 19.5(b) of the [electricity transfer access contract] should be deleted and replaced with the following:

⁶⁵ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

"The maximum liability of both the User' and the Indemnifier collectively to Western Power* under and in connection with this Contract* is limited to an amount of \$60 million in the aggregate, refreshed annually each 1 July, except that the liabilities described in clause 19 are not counted for the purpose of both the User's* and the Indemnifiers collective maximum liability under this Contract*."

Synergy submits that the amount of \$60 million is a reasonable amount for a maximum aggregate liability under a contract of this nature where the User has multiple Connection points. The existing clause would otherwise effectively require all Users to insure the Network, possibly for more than it is worth. For example if clause 19.5 were applied as written then it would require Synergy to take out approximately \$8.8 billion worth of insurance. Synergy cannot see how such a requirement is reasonable or meets the Code objective.

Further, if the clause is not so amended, and Synergy's submissions in relation to clauses 3.1(c), 6.2(a) and 12 ... are not made, then Users will be forced to take on an uninsurable liability that they cannot easily mitigate. Synergy understands that insurers will not give insurance to cover a User's liability to Western Power for damage caused by third parties other than the User, Synergy submits that such an outcome is not reasonable within section 5.3(a) of the [Access Code],

243. The Authority accepts Synergy's submission that the maximum liabilities under clause 19.5(b) of the proposed electricity transfer access contract are unreasonable in that, for users that are retailers with many connection points, the maximum liability of the user may be an amount in excess of any reasonably conceivable level of damages to the network or Western Power and, as a result, this clause is not consistent with section 5.3 of the Access Code. The Authority suspects that this may be an unintended consequence of clause 19(c).
244. The Authority has sought information from Western Power on the appropriate value of a maximum liability for a user under clause 19(c). In response, Western Power has indicated that it accepts that the formula of clause 19.5(b) produces unreasonable results for Synergy and that it endorses the concept of an aggregate liability cap for large electricity retailers.⁶⁶ Western Power further suggests that a cap of \$70 to \$80 million may be appropriate for large retailers.

Required Amendment 16

The proposed access arrangement revisions should be amended such that the calculation of liability under clause 19.5 of the electricity transfer access contract is limited to a cap on liabilities with the effect that the maximum liability of both the user and the indemnifier collectively to Western Power is limited to an amount of \$80 million in the aggregate, except that the liabilities described in clause 20 are not counted for the purpose of both the user's and the indemnifier's collective maximum liability.

⁶⁶ Email from Western Power to the Economic Regulation Authority of 12 February 2009.

Inflation Indexation of Limits to Liability

245. Clause 19.5(c) of the proposed electricity transfer access contract provides for the maximum liability amounts applicable under clauses 19.5(a) and 19.5(b) to be escalated for inflation each year.
246. Synergy submits that there should be no provision for inflation indexation as:
- any amounts specified should be sufficient to cover a maximum liability for the access arrangement period; and
 - the relatively small increases in levels of liability would be inconsistent with practices of insurance providers that typically issue insurance policies (for the relevant insurances) for amounts in multiples of \$1 million or \$5 million.
247. The Authority recognises that maximum limits on liability tend to be specified under commercial contracts in round numbers that may have some basis in an assessment of potential liability, but are specified in the round numbers for convenience. The Authority concurs with Synergy that annual inflation indexation of these values is pedantic and may potentially complicate the insurance transactions of users.
248. Inflation indexation of limits to liability is not contemplated under the model standard access contract under the Access Code.
249. Taking these matters into account, the Authority considers that clause 19.5(c) is not reasonable and is inconsistent with section 5.3 of the Access Code. The Authority requires this clause to be deleted from the proposed electricity transfer access contract before the proposed access arrangement revisions will be approved.

Required Amendment 17

The proposed access arrangement revisions should be amended to delete clause 19.5(c) of the electricity transfer access contract.

Asymmetry in Maximum Liabilities of Western Power and Users

250. Alinta Sales submits that clause 19.5 of the proposed electricity transfer access contract imposes materially asymmetric caps on the liability of each party to the access contract:

Specifically, Western Power's maximum annual liability to any single network user is limited to \$5 million in aggregate (other than with respect to personal injury). In contrast, the maximum annual aggregate liability of network users is the sum of:

- \$20 million for each connection point at which generation plant (other than wind or solar powered generation) is connected at a voltage of 66 kV and above; and
- \$5 million for each connection point at which consuming plant is connected at a voltage of 66 kV and above; and
- \$1 million for every 100 connection points at which consuming plant is connected at a voltage below 66 kV.

Alinta requests the Authority consider whether clause 19.5 of the proposed standard [electricity transfer access contract] satisfies the Code objective and specifically whether the clause is reasonable as required by clause 5.3(a) of the [Access] Code.

251. The Authority considers that there is no necessary reason why maximum levels of liability should be the same for both parties to an access contract. Rather, maximum levels of liability may reasonably vary between the parties if, for example, there is a difference between the parties in the potential to cause damages to the other party. In the case of the SWIN, the Authority considers that it is reasonably likely that the actions of a user could give rise to greater damage to the network and (directly and indirectly) to the network service provider, than the damage that may be caused to a user by the actions of the network service provider. As such, the Authority does not consider the asymmetry between Western Power and the user in maximum levels of liability to be necessarily unreasonable.

Insurances (clause 21)

252. Clause 21 and schedule 5 of the proposed electricity transfer access contract specify requirements for Western Power and the user to hold insurances in respect of certain events and for certain amounts.⁶⁷
253. Western Power has not proposed any material changes to clause 21 or schedule 5, but has proposed some changes in wording.
254. Synergy has submitted that some specific details of requirements for insurances as listed in schedule 5 are unreasonable and therefore inconsistent with section 5.3 of the Access Code.⁶⁸
255. The requirements for insurances as set out in schedule 5 of the proposed electricity transfer access contract (showing changes from the electricity transfer access contract under the current access arrangement) are as follows.

Part 1 User* insurances

- (a) The User* must effect and maintain, commencing from the Commencement Date*, ~~insurance that will provide comprehensive cover in respect to all of the User*'s liabilities under this Contract*~~, including the following policies of insurance:
- (i) public and products liability of:
 - (A) public liability insurance for a limit of not less than the maximum liability of the User* under clause 19.5 per claim and unlimited in the aggregate of all claims made; and
 - (B) products liability insurance for a limit of not less than the maximum liability of the User* under clause 19.5 per claim and in the aggregate, refreshed annually;

covering the User*'s liability to Western Power* or any third party for death, bodily injury and loss or damage to property caused by any act, omission or negligence in relation to this Contract*;
 - (ii) workers' compensation insurance for all persons employed by the User* including employer's liability at common law, with a limit of cover in respect of any one occurrence at least equal to \$50 million;

⁶⁷ Clause 21 corresponds to clause 20 in the current electricity transfer access contract.

⁶⁸ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

- (iii) motor vehicle third party property insurance for all loss or damage to property caused by or attributable to the use of a motor vehicle in the performance of the services or any work under the Contract*, for a limit of \$10 million per claim and unlimited in the aggregate of all claims made; and
 - (iv) contractors' plant ~~and~~ equipment insurance covering all loss or damage to the User*'s ~~contractor's~~ plant or equipment used in connection with this Contract* for its replacement value.
- (b) The policies of insurance under Schedule 56 Part 1(a) must be with an insurer authorised under the Insurance Act 1973 (Cth) or the equivalent in the United States of America or the United Kingdom.

Part 2 Western Power* insurances

- (a) Western Power* must effect and maintain, commencing from the Commencement Date*, the following policies of insurance:
- (i) public and products liability of:
 - (A) public liability insurance for a limit of not less than the maximum liability of Western Power* under clause 19.5 per claim and unlimited in the aggregate of all claims made; and
 - (B) products liability insurance for a limit of not less than the maximum liability of Western Power* under clause 19.5 per claim and in the aggregate, refreshed annually;

covering Western Power*'s liability to the User* or any third party for death, bodily injury and loss or damage to property caused by any act, omission or negligence in relation to this Contract*;
 - (ii) workers' compensation insurance for all persons employed by Western Power* including employer's liability at common law, with a limit of cover in respect of any one occurrence at least equal to \$50 million;
 - (iii) motor vehicle third party property insurance for all loss or damage to property caused by or attributable to the use of a motor vehicle in the performance of the services or any work under the Contract*, for a limit of \$10 million per claim and unlimited in the aggregate of all claims made; and
 - (iv) contractors' plant ~~and~~ equipment insurance covering all loss or damage to ~~contractor's~~ Western Power*'s plant or equipment used in connection with this Contract* for its replacement value.
- (b) The policies of insurance under Schedule 5 Part 2(a) must be with an insurer authorised under the *Insurance Act 1973 (Cth)* or the equivalent in the United States of America or the United Kingdom.

256. The particular concerns of Synergy are that:

- for Part 1(a)(i)(A), the requirement for insurance to be unlimited in aggregate is unreasonable; and
- requirements for workers compensation, motor vehicle and third party property insurance under Part 1(a)(ii) and Part 1(a)(iii) will not be applicable to retailers and hence these parts should be qualified by "if applicable".

257. The Authority concurs with Synergy that it is not reasonable that insurance be unlimited in the aggregate as it is not reasonable to require insurance in circumstances where it is not required or to an extent that is not required. In the absence of any information to determine a particular value for a limit, the Authority considers that liability in the aggregate should be capped at \$50 million for each 12 months.

Required Amendment 18

The proposed access arrangement revisions should be amended so that part 1(a)(i)A of schedule 5 of the electricity transfer access contract provides for the insurance requirement to be limited in the aggregate to \$50 million in each 12 months.

258. The Authority also concurs with Synergy that the requirements for workers compensation, motor vehicle and third-party property insurance under part 1(a)(ii) and part 1(a)(iii) of schedule 5 of the proposed electricity transfer access contract are not reasonable and should not apply where they are not required.

Required Amendment 19

The proposed access arrangement revisions should be amended so that the requirements for workers compensation, motor vehicle and third-party property insurance under part 1(a)(ii) and part 1(a)(iii) of the electricity transfer access contract apply only where these insurances are reasonably requested by Western Power.

Dispute Resolution (clause 29)

259. Clause 29 of the proposed electricity transfer access contract sets out provisions for dispute resolution. Western Power has proposed a new clause 29.3(b) to indicate that, if parties are unable to agree on a location for a meeting for resolution of a dispute, then the location will be determined by Western Power.
260. Synergy submits that this proposed clause should be amended to indicate that Western Power will act as a reasonable and prudent person in determining a location.⁶⁹
261. There is no general requirement for Western Power to act as a reasonable and prudent person under an electricity transfer access contract. Accordingly, the Authority considers that such a requirement is reasonably necessary for clause 29.3(b) of the proposed electricity transfer access contract to be consistent with section 5.3 of the Access Code.

⁶⁹ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Required Amendment 20

The proposed access arrangement revisions should be amended so that clause 29.3(b) of the electricity transfer access contract requires that Western Power act reasonably in determining a location for a meeting for resolution of a dispute.

Assignment by the User (clause 31)

262. Clause 31 of the proposed electricity transfer access contract⁷⁰ comprises provisions for the user to assign its interests under the access contract to another party and includes:

- a permission for the user to make a bare transfer;
- a requirement that the user notify Western Power of any details of a bare transfer; and
- for any transfer other than a bare transfer, a permission for the user to assign its rights in accordance with the transfer and relocation policy.

263. Western Power has proposed changes to the definitions of “assignment” and “bare transfer” in the electricity transfer access contract, introducing a provision for novation of an access contract:

Assignment* includes an assignment or Novation*.

Bare Transfer* means an assignment* under which the User* Assigns* the whole or a part of its access rights under this Contract* to an assignee, but under which there is no Novation*, with the result that the User*'s obligations under this Contract*, and all other terms of this Contract*, remain in full force and effect after the Assignment*, whether or not the assignee becomes bound to the User* or any other party to fulfil those obligations—means an Assignment of all or part of the User*'s Access Rights*, following which the User*'s obligations under the Contract*, and all other terms of this Contract*, remain in full force and effect despite the Assignment*.

Novate* and Novation* mean to substitute, with the consent of all Parties* to this Contract* and with effect on and from a date nominated as the effective date of the novation, an assignee for the User* as a party to this Contract*, with the result that:

- (a) all rights and obligations of the User* under this Contract* become rights and obligations of the assignee as if the assignee had been named in the Contract* in place of the User*; and
- (b) the User* is released from any obligations under this Contract* arising on or after the effective date of the novation, but remains liable for any default by it in the performance of those obligations prior to the effective date of the novation.

264. Synergy submits that the new definition of “novate” and “novation” restricts rights of assignment:⁷¹

⁷⁰ Clause 31 corresponds to clause 30 in the current electricity transfer access contract.

⁷¹ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Western Power has inserted a new definition of “Novate” and “Novation”. The effect of the definition appears to be to impose restrictions on what constitutes a Novation in a manner that fetters a User’s ability to agree with an incoming party the terms and conditions of the Novation; in particular the User cannot contract with the incoming party to provide that the incoming party remains liable for any default by the User in the performance of obligations prior to the effective date of the novation. Synergy submits that such a condition is not reasonable within clause 5.3(a) of the [Access Code] and is not necessary to protect any business interests of Western Power. Therefore the restriction should be deleted,

265. The Authority considers that the introduction of the provision for novation of an access contract does not limit the mechanisms for transfer of rights under an access contract, but rather expands the mechanisms to include novation of a contract as well as assignment of rights under contract.
266. An assignment is the transfer of rights and obligations under an existing contract by a party to that contract to another party. A novation is the discharge of the existing contract and the entry into a new contract with the new party (usually on the same terms as the previous contract). By discharging and entering into a new contract the rights and obligations under the “old” contract will come to an end (and the existing party will be released from any new obligations) and new rights and obligations of the substituted party come into force under the new contract. The definition of “novation” proposed for the electricity transfer access contract attempts to introduce an effective provision for novation as, although the access contract remains on foot, the user who novates the contract is liable for those rights and liabilities up to the date of novation with the new user liable from that date. In this way, Western Power appears to be attempting to replicate the practical effect of a “true” novation.
267. Clause 31.3 of the proposed electricity transfer access contract states “for an assignment other than a bare transfer, the user may assign its access rights subject to compliance with the transfer and relocation policy.” The definition of “assignment” indicates that an assignment “includes an assignment or novation”. The Authority interprets this clause and associated definition of an assignment to mean that an assignment is not limited to a novation; that is, it includes other mechanisms such as an assignment. As such, a party retains the ability to assign the contract without the limitations attached to a novation.
268. The Authority also considers that the exclusion of novation from a bare transfer is consistent with the concept of a bare transfer where the original parties to an access contract retain all contractual obligations.

Confidentiality (clause 33)

269. Clause 33 of the proposed electricity transfer access contract establishes requirements for the parties to keep the access contract and related information confidential.⁷²
270. Clause 33.1 contains a list of the circumstances or characteristics of relevant information that give rise to a requirement to keep the information confidential.

⁷² Clause 33 corresponds to clause 32 in the current electricity transfer access contract.

271. Western Power has proposed an additional item in clause 33.1 so that this clause includes “information about or relating to a controller”.
272. Synergy submits that the proposed new provision of clause 33.1 should also include information about or relating to a proposed controller.⁷³
273. Clause 33.1 encompasses information exchanged between the parties to the access contract that is exchanged under the contract or in negotiations preceding the contract. This may include information on actual or proposed controllers of connection points. The Authority accepts Synergy’s submission that information about actual or proposed controllers may equally be regarded as confidential. As the term “controller” under the electricity transfer access contract does not include a proposed controller, the Authority considers that it is necessary for clause 33.1 to be amended to include a proposed controller for the clause to be consistent with section 5.3 of the Access Code.

Required Amendment 21

The proposed access arrangement revisions should be amended so that clause 33.1 of the electricity transfer access contract extends the requirement for confidentiality of information to encompass information exchanged in negotiations preceding the contract and information about, or relating to, a proposed controller.

SERVICE STANDARD BENCHMARKS

Access Code Requirements

274. A service standard is defined in section 1.3 of the Access Code as either or both of the technical standard and reliability of delivered electricity. A service standard benchmark is a benchmark for a service standard for a reference service in an access arrangement.
275. Section 5.1(c) of the Access Code requires that an access arrangement include service standard benchmarks for each reference service.
276. The requirements for service standard benchmarks are set out in section 5.6 of the Access Code. A service standard benchmark must be reasonable and must be sufficiently detailed and complete to enable a user or applicant to determine the value represented by the reference service at the reference tariff.

⁷³ Synergy submission of 16 December 2008 on Electricity Transfer Access Contract.

Current Access Arrangement

277. The current access arrangement specifies service standard benchmarks for four measures of reliability of network services:

- transmission services –
 - circuit availability;
 - system minutes interrupted (specified separately for the meshed and radial networks); and
- distribution services –
 - system average interruption duration index (**SAIDI**);
 - system average interruption frequency index (**SAIFI**);
 specified separately for urban areas, rural-short and rural-long feeders and the Perth central business district.

278. Circuit availability refers to the availability of the transmission network; that is, the transmission network available to users that are directly connected. Circuit availability is measured as a percentage of total possible hours available (i.e. the actual circuit hours available for transmission divided by the total possible circuit hours available), where a higher percentage indicates a higher standard of service.

279. System minutes interrupted refers to the period of network outages measured in minutes and is recorded separately for meshed and radial networks.⁷⁴ System minutes interrupted is measured as the sum of megawatt minutes of unserved energy at substations that are connected to the meshed/radial transmission network divided by the system peak megawatts. A lower value of system minutes interrupted indicates a higher standard of service.

280. SAIDI is the average duration of outages (in minutes) per customer on the distribution network in a year. A lower value indicates a higher standard of service.

281. SAIFI is the average number of interruptions per customer on the distribution network in a year. A lower value indicates a higher standard of service.

282. A range of exclusions are specified for the service standard benchmarks for both transmission and distribution services.

Proposed Revisions

283. Western Power has included service standard benchmarks in the proposed access arrangement revisions for the same service standards as in the current access arrangement, but has proposed changes to the values of the service standard benchmarks (at clauses 3.15 to 3.23 of the proposed access arrangement revisions).

⁷⁴ A meshed network in an electricity network where there is more than one path between network nodes. A radial network is a network where there is only a single path between network nodes.

284. Compared with the service standard benchmarks applied under the current access arrangement, the proposed service standard benchmarks for the transmission network represent a decline in service standards as measured by circuit availability and by system minutes interrupted for the meshed network, but an improved service standard as measured by system minutes interrupted for the radial network (Table 1).

Table 1 Current and proposed service standard benchmarks for transmission services

	Circuit availability (% of total time)	System minutes interrupted (meshed network)	System minutes interrupted (radial network)
Current Access Arrangement			
Year ending June 2007	98.2	7.8	3.9
Year ending June 2008	98.2	7.8	3.9
Year ending June 2009	98.2	7.8	3.9
Proposed Revisions			
Year ending June 2010	98.0	9.3	1.4
Year ending June 2011	98.0	9.3	1.4
Year ending June 2012	98.0	9.3	1.4

285. At clause 3.21 of the proposed access arrangement revisions, Western Power has proposed two changes to exclusions from measures of circuit availability for transmission lines.

- “T configuration circuits” have been removed from the exclusions for the measure of circuit availability for transmission lines, for the stated reason that Western Power has implemented changes to its reporting systems that facilitate reporting on the T configuration circuits.⁷⁵
- An exclusion of the duration of planned outages from the measure of circuit availability has been revised to include periods when availability is temporarily restored. Western Power indicates that this change is a statement of existing practice under the current access arrangement and is included for the purposes of clarification.

286. Compared with the service standard benchmarks applied under the current access arrangement, the proposed service standard benchmarks for the distribution network represent a general improvement in service standards with the exception of interruption duration (SAIDI) for the CBD region (Table 2 and Table 3).

⁷⁵ Revised access arrangement information, p. 161.

Table 2 Current and proposed service standard benchmarks — system average interruption duration index (SAIDI) for distribution services

	SWIN total	CBD	Urban	Rural Short	Rural Long
Current Access Arrangement					
Year ending June 2007	277	21.4	222	425	741
Year ending June 2008	259	20.0	208	398	693
Year ending June 2009	224	17.3	179	343	598
Proposed Revisions					
Year ending June 2010	225	38	161	253	599
Year ending June 2011	210	38	150	233	567
Year ending June 2012	201	38	142	222	548

Table 3 Current and proposed service standard benchmarks — system average interruption frequency index (SAIFI) for distribution services

	SWIN total	CBD	Urban	Rural Short	Rural Long
Current Access Arrangement					
Year ending June 2007	3.44	0.32	3.12	4.89	5.58
Year ending June 2008	3.22	0.30	2.91	4.58	5.22
Year ending June 2009	2.78	0.26	2.51	3.95	4.50
Proposed Revisions					
Year ending June 2010	2.44	0.24	1.88	3.05	4.89
Year ending June 2011	2.29	0.24	1.76	2.83	4.64
Year ending June 2012	2.18	0.24	1.67	2.70	4.47

287. At sections 3.16 and 3.17 of the proposed revisions Western Power has proposed additional exclusions for measures of SAIDI and SAIFI for distribution services.

288. The current access arrangement includes exclusions from these measures of:

- major event days in accordance with IEEE1366-2003 definitions as adopted by the Steering Committee in National Regulatory Reporting Requirements (SCNRRR);
- outages shown to be caused by a fault or other event on the transmission system or a third party system (for instance, without limitation outages

caused by an intertrip signal, generator unavailability or a customer installation); and

- *force majeure* events.

289. Western Power has proposed additional exclusions of:

- “planned outages”; and
- “single customer interruptions”.

290. Western Power indicates that these additional exclusions:

- provided a better measure of network performance; and
- result in the application of definitions that are consistent with the “normalised unplanned” methodology of the SCNRRR.

Submissions

291. Service standard benchmarks are addressed in submissions from Alinta Sales and Synergy.⁷⁶

292. Alinta Sales submits that the service standard benchmarks included in the proposed access arrangement revisions do not meet the requirements of section 5.6 of the Access Code for reasons that:

- the absence of material improvements in service quality for transmission services (as indicated by the service standard benchmarks for circuit availability and system minutes of off supply) is inconsistent with forecast increases in capital expenditures for improving the reliability of transmission services;
- the service standard benchmarks for the distribution network do not include a service standard for momentary interruptions to supply; and
- the service standard benchmarks for the distribution network are significantly less stringent than the required service levels for distribution networks in other Australian jurisdictions.

293. On the comparability of service standard benchmarks proposed by Western Power with those applying to network businesses in other jurisdictions, Alinta Sales indicates that, for example, Energex and ESTA Utilities must use best endeavours to achieve a CBD (equivalent) SAIDI target of 15 and 25 minutes, respectively. Western Power’s CBD SAIDI target sits well above these levels at 38 minutes. For urban (equivalent) SAIDI targets, the comparable benchmark targets for Energex, ETSA Utilities and Ergon Energy comparable targets are 95, 115, and 142 minutes, compared with 142 to 161 for Western Power.

294. Synergy submits that service standard benchmarks should be established for a greater range of services and elements of services, particularly the service standards for the metering activities that form part of reference services.

⁷⁶ Alinta Sales Pty Ltd submission of 17 December 2008; Synergy submission of 17 December 2008 on Reference Services.

Considerations of the Authority

295. The Authority has given separate consideration to the particular service standards for which service standard benchmarks are established and the proposed service standard benchmarks.

Service Standards

296. The current access arrangement specifies service standard benchmarks for four measures of reliability of network services:
- circuit availability and system minutes interrupted (specified separately for the meshed and radial network) for transmission services; and
 - SAIDI and SAIFI (specified separately for urban areas, rural-short and rural-long feeders and the Perth central business district) for distribution services.
297. Western Power has proposed setting service standard benchmarks for the same service standards for the second access arrangement period.
298. The Authority's consideration of additional service standards being included in the access arrangement are set out in turn for the transmission and distribution networks, as follows.

Transmission Service Standards

299. Western Power has not proposed any substantive changes to the service standards for which benchmarks are set for the transmission network.
300. The absence of changes to the service standards is despite contemplation during the process of approval of the current access arrangement that the service standard benchmarks for the transmission network in the second access arrangement period would include benchmarks for average outage duration and frequency of off-supply events. In approval of the current access arrangement, the Authority considered that the access arrangement should include service standards for average outage duration on the transmission network and the frequency of off-supply events:⁷⁷

The principal reason stated by Western Power for not including service standard benchmarks for average outage duration and frequency of off-supply events is that there is a lack of historical data to establish benchmarks. As discussed above, the Authority considers that the objective for the first access arrangement period should be to ensure that service standards are measured so as to enable a more rigorous determination of a potentially wider set of service standard benchmarks for the second access arrangement period. This is consistent with the introduction of service standards in other Australian jurisdictions at the time of electricity industry reform. The Authority notes in this regard that Western Power has stated an intention in its submission to the Authority to undertake the necessary work during the first access arrangement period to determine performance standard benchmarks for the required performance measures. Accordingly, the Authority expects that performance

⁷⁷ Economic Regulation Authority, 2 March 2007, Final Decision on the Proposed Access Arrangement for the South West Interconnected Network, paragraph 163.

standard benchmarks for average outage duration and frequency of off-supply events will be able to be established for the second access arrangement period.

301. Western Power has not addressed the additional service standards for the transmission network as contemplated in the Authority's Final Decision for the current access arrangement.
302. In the absence of adequate explanation as to why benchmarks for the additional service standards should not be included in the access arrangement for the second access arrangement period, the Authority requires amendment of the proposed access arrangement revisions to include benchmarks for average outage duration and frequency of off-supply events. These benchmarks should be consistent with those that apply to transmission businesses in the National Electricity Market.⁷⁸
 - loss of supply event frequency, specified as a number of loss of supply events in a one year period, with benchmarks specified for events of low and high duration measured as system minutes interrupted; and
 - average outage duration, measured in minutes.

Required Amendment 22

The proposed access arrangement revisions should be amended to include service standard benchmarks for:

- loss of supply event frequency, specified as a number of loss of supply events in a one year period with benchmarks specified for events of low and high duration measured as system minutes interrupted; and
- average outage duration, measured in minutes.

Distribution Service Standards

303. Western Power has proposed to include service standard benchmarks in the access arrangement for the same service standards as under the current access arrangement; that is, SAIDI and SAIFI. Western Power has, however, proposed changes to the calculation methods for these service standards and to "exclusions" from measurement of the service standards.
304. In this Draft Decision, the Authority has addressed the following matters relating to the proposed service standards applied to distribution services under the proposed access arrangement revisions:
 - the proposed changes in calculation methods for SAIDI and SAIFI;
 - the inclusion of additional service standards for momentary interruptions to supply;

⁷⁸ For example, refer to Australian Energy Regulator, 14 June 2007, Decision: Powerlink Queensland transmission network revenue cap 2007-08 to 2011-12, chapter 7.

- the inclusion of additional service standards for particular locations on the distribution network;
 - the inclusion of additional service standards for metering activities; and
 - the proposed changes to exclusions from measures of service standards.
305. Western Power has proposed that the calculation methods for SAIDI and SAIFI be changed to be consistent with the “nomalised unplanned” methodology of the SCNRRR, involving the exclusion from the calculation of service standards of planned outages and single-customer outages.
306. The Authority concurs with Western Power that the measures of service standards applied under the access arrangement should be consistent with nationally consistent methods. This allows comparability of service standards across different networks and assists a user to determine the value of a reference service at the reference tariff, consistent with the requirements of section 5.6 of the Access Code.
307. The proposed exclusion of planned interruptions from calculations of SAIDI and SAIFI is in accordance with the SCNRRR methods that are intended to function as nationally consistent methods.⁷⁹
308. However, the SCNRRR methods explicitly include outages affecting a single customer in measures of SAIDI and SAIFI.⁸⁰ Accordingly, the Authority considers that this exclusion should not apply to measures of SAIDI and SAIFI under the access arrangement.

Required Amendment 23

The proposed access arrangement revisions should be amended such that definitions of SAIDI and SAIFI do not make provision for the exclusion of single customer interruptions.

309. The Authority has given consideration to whether service standard benchmarks should be established for service standards other than SAIDI and SAIFI.
310. Alinta Sales submits that the access arrangement should include service standard benchmarks for service standards that capture momentary interruptions in supply. Alinta Sales submits that momentary interruptions of supply can be of particular significance for some electricity customers and the SAIDI and SAIFI measures of service reliability do not adequately capture the incidence of momentary interruptions.
311. The Authority gave attention to a service standard that captures momentary interruptions in its approval of the current access arrangement, in particular the inclusion of a service standard benchmark for the average number of momentary interruptions per customer per year, measured as the “momentary average

⁷⁹ Utility Regulators Forum (Steering Committee on National Regulatory Reporting Requirements), March 2002, National Regulatory Reporting for Electricity Distribution and Retailing Businesses, p. 7.

⁸⁰ Utility Regulators Forum (Steering Committee on National Regulatory Reporting Requirements), March 2002, National Regulatory Reporting for Electricity Distribution and Retailing Businesses, p. 6.

interruption frequency index, or **(MAIFI)**.⁸¹ While initially giving consideration to a requirement for the current access arrangement to include service standard benchmarks for MAIFI, the Authority did not persist in this requirement due to a submission from Western Power that it was not practically possible to accurately produce MAIFI data without a multi-million dollar investment.⁸²

312. The inability of many electricity distributors to report MAIFI data has previously been recognised by the Utility Regulators Forum's Steering Committee (SCNRRR) where it was indicated for MAIFI to be an "optional" service standard in reporting requirements for electricity distributors, notwithstanding the potential value of MAIFI data as an indicator of service reliability.⁸³
313. Alinta Sales submits that there is potential value in requiring measurement of MAIFI as a service standard, but does not provide any demonstration of benefits. However, the Authority remains of the view that there has not been demonstration of sufficient need for this performance standard to be established to warrant the investment that would be necessary to produce MAIFI data.
314. Alinta Sales also submits that the service standards under the current access arrangement do not adequately provided indications of the reliability of distribution services at particular locations on the network.
315. The Authority observes that measures of service reliability at particular locations are addressed in service standards established for distribution services in other jurisdictions.
316. In Victoria, the reliability of distribution services at particular locations is addressed by:
- service standard benchmarks and reporting requirements for the duration of interruptions (SAIDI for planned and unplanned interruptions) for the 15 per cent of customers experiencing the longest time of off supply in the reporting period; and
 - reporting requirements for the frequency of short-duration interruptions (MAIFI) and duration of interruptions (SAIDI for planned and unplanned interruptions) for low-reliability feeders for which the service standards are above (worse than) a specified threshold.⁸⁴
317. The Authority considers that service standard benchmarks that provide an indication of the worst levels of service reliability that may be expected from the distribution network are important in enabling a network user or applicant to assess the value represented by a reference service at a reference tariff, and hence consistent with the requirements of section 5.6(b) of the Access Code. This

⁸¹ Defined as the total number of customer interruptions of one minute or less, divided by the total number of distribution customers.

⁸² Economic Regulation Authority, 2 March 2007, Final Decision on the Proposed Access Arrangement for the South West Interconnected Network, paragraph 184. Western Power, 19 May 2006. Response to the Required Amendments detailed in ERA's Draft Decision on Western Power's Proposed Access Arrangement for the Network of the South West Interconnected System, Part A, section 3.9.

⁸³ Utility Regulators Forum (Steering Committee on National Regulatory Reporting Requirements), March 2002, National Regulatory Reporting for Electricity Distribution and Retailing Businesses, pp. 4, 5.

⁸⁴ Essential Services Commission, October 2005, Electricity Distribution Price Review 2006-10 Final Decision Volume 1 Statement of Purpose and Reasons, pp. 28 – 30.

particularly applies for connection points on rural feeders for which low levels of reliability may be masked by system-wide average measures of SAIDI and SAIFI.

318. The Authority addressed requirements for reporting on service levels on the worst performing feeders in its Final Decision on the current access arrangement, but did not require service standard benchmarks to be established and determined that it could not require reporting on service levels in the absence of relevant service standard benchmarks.⁸⁵
319. The relevant issue for the Authority in this Draft Decision is whether service standard benchmarks should be established for feeders with poor levels of service reliability. The proposed access arrangement revisions include substantial forecast increases in capital expenditure and non-capital costs include allowances for capital works (wood pole replacement) and maintenance programs undertaken to maintain or improve reliability. The Authority considers that service standard benchmarks should be established for the worst performing feeders in the distribution network to establish an element of accountability for this expenditure.

Required Amendment 24

The proposed access arrangement revisions should be amended to include service standard benchmarks for SAIDI and SAIFI for customers served by the 15 per cent of worst performing feeders.

320. Finally, Synergy has submitted that the access arrangement should include service standard benchmarks for metering activities.
321. The Authority considers that it is not necessary for the access arrangement to include service standard benchmarks for metering activities. While metering activities are appropriately subject to agreed service obligations and standards, these are established under Part 5 of the Metering Code, including under any service level agreement that exists between Western Power and the user.

Service Standard Benchmarks

General Approach to the Authority's Consideration of Service Standard Benchmarks

322. Section 5.6 of the Access Code requires that a service standard benchmark must be reasonable and must be sufficiently detailed and complete to enable a user or applicant to determine the value represented by the reference service at the reference tariff.
323. In order to satisfy the requirements of the Access Code, the Authority considers that service standard benchmarks must be established at values that are reasonable forecasts of the values of the relevant service standards to be achieved during the

⁸⁵ Economic Regulation Authority, 2 March 2007, Final Decision on the Proposed Access Arrangement for the South West Integrated Network, paragraph 184.

access arrangement period, and are the values that users of the network can expect to be achieved.

324. As a general principle, the Authority considers that recent historical measures of service standards provide an appropriate starting point for determining service standard benchmarks for the access arrangement period. However, as the benchmarks need to be a forecast for the access arrangement period, historical measures need to be adjusted for factors considered likely to cause service standards to vary from historical measures during the access arrangement period. These factors may include, for example, new investment or changes to maintenance activities that directly or indirectly improve service quality.
325. Western Power provides supporting information for the proposed revisions to service standard benchmarks in the revised access arrangement information.⁸⁶ Additional information relevant to the consideration of Western Power's proposed service standard benchmarks is Western Power's service standard performance report for 2007/08⁸⁷ and the Authority's February 2008 report titled "*2006/07 Annual Performance Report: Electricity Distributors*", which is available from the Authority's web site.⁸⁸
326. Of particular relevance to the consideration of service standard benchmarks is the forecasts of new facilities investment and non-capital costs that support the maintenance and improvement of service standards. Subsequent to submission of the proposed access arrangement revisions, Western Power has provided the Authority with anticipated revisions to cost forecasts, which incorporate substantial reductions in forecast costs, particularly for the first and second years of the second access arrangement period (addressed at paragraph 339 and following of this Draft Decision). Western Power has indicated that it envisages being able to maintain current levels of reliability despite the anticipated decrease in forecast costs.⁸⁹

Transmission

327. The two years of actual performance data and the service standard benchmarks for transmission services in the first and second access arrangement periods are shown in Table 4. The proposed service standard benchmarks for the transmission network represent a decline in service standards as measured by circuit availability and by system minutes interrupted for the meshed network, but an improved service standard as measured by system minutes interrupted for the radial network.

⁸⁶ Revised access arrangement information, Part A: section 6; Part D: section 3.

⁸⁷ Western Power, 28 October 2008, Access Arrangement Service Standard Benchmark Report Financial Year Ending June 2008 (available from the Economic Regulation Authority web site: http://www.era.wa.gov.au/2/721/48/service_standar.pm)

⁸⁸ Economic Regulatory Authority web site: http://www.era.wa.gov.au/2/246/51/reports__decisi.pm

⁸⁹ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs.

Table 4 Service standard benchmarks and actual performance for transmission services⁹⁰

	Circuit availability (% of total time)		System minutes interrupted (meshed network)		System minutes interrupted (radial network)	
	B'mark	Actual	B'mark	Actual	B'mark	Actual
Year ending June 2005	-	-	-	5.8	-	1.5
Year ending June 2006	-	98.0	-	5.1	-	0.9
Current Access Arrangement						
Year ending June 2007	98.2	98.0⁹¹	7.8	14.2	3.9	1.4
Year ending June 2008	98.2	98.2	7.8	8.7⁹²	3.9	1.8
Year ending June 2009	98.2	-	7.8	-	3.9	-
Proposed Revisions						
Year ending June 2010	98.0	-	9.3	-	1.4	-
Year ending June 2011	98.0	-	9.3	-	1.4	-
Year ending June 2012	98.0	-	9.3	-	1.4	-

328. The actual performance data indicate service standards close to or better than the benchmarks in 2006/07 and 2007/08 for the measures of circuit availability and system minutes interrupted on the radial network, but worse than benchmark performance for measures of system minutes interrupted on the meshed network (indicated by Western Power to be a result of significant outages caused by large scale bush fires).
329. Western Power indicates that there are no significant drivers to either improve or relax the service standard benchmarks for the transmission services and benchmarks for the second access arrangement period, and benchmarks are established at the average of the actual performance for 2005/06 to 2007/08.
330. Notwithstanding the claim by Western Power that there are no drivers for improving or worsening service standards, the proposed access arrangement revisions incorporate substantial forecast increases in non-capital costs in monitoring and maintenance activities and in new facilities investment for the transmission network. These proposed increases in costs are examined in this Draft Decision at paragraph 623 and following.

⁹⁰ Actual values for 2004/05 and 2005/06 are reproduced from the access arrangement information (Part A: section 6). Actual values for 2006/07 and 2007/08 are reproduced from Western Power, 28 October 2008, Access Arrangement Service Standard Report Financial Year Ending June 2008.

⁹¹ A value of 97.9 is indicated in the access arrangement information (Part A: section 6).

⁹² A value of 8.6 is indicated in the access arrangement information (Part A: section 6).

331. Alinta Sales highlights a possible inconsistency of increases in non-capital costs and new facilities investment without improvement in service standards.⁹³
332. Western Power has subsequently provided the Authority with anticipated revisions to cost forecasts indicating substantial reductions in new facilities investment and non-capital costs in the first two years of the second access arrangement period, although still with significant real increases in costs over the level of costs in the first access arrangement period. Western Power indicates that the revised forecasts of costs are sufficient to allow for current levels of reliability to be maintained, but that the projected improvements in service standard benchmarks may need to be reviewed.⁹⁴ The Authority has not received any further information from Western Power in this regard.
333. Under this Draft Decision, the Authority is requiring further reductions in forecast non-capital costs. In light of these reductions, the Authority considers that service standard benchmarks for the transmission network are reasonably established to reflect actual performance in the first access arrangement period.

Distribution

334. Actual performance data and the SAIDI and SAIFI service standard benchmarks for distribution services in the current and second access arrangement periods are shown in Table 5 and Table 6. As Western Power has proposed changes to the calculation of SAIDI and SAIFI for the second access arrangement period (as addressed at paragraph 303 and following of this Draft Decision), actual performance data are presented as two values for each year, the first value being consistent with the definitions of service standards under the current access arrangement and the second value, indicated in brackets, being consistent with the definitions of service standards proposed for the second access arrangement period.

⁹³ Alinta Sales Pty Ltd submission of 17 December 2008.

⁹⁴ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs.

Table 5 Service standard benchmarks and actual performance — system average interruption duration index (SAIDI) for distribution services

	SWIN total		CBD		Urban		Rural Short		Rural Long	
	B'mark	Act.	B'mark	Act.	B'mark	Act.	B'mark	Act.	B'mark	Act.
Current Access Arrangement⁹⁵										
Year ending June 2007	277	275 (229)	21.4	33 (33)	222	173 (142)	425	406 (329)	741	711 (624)
Year ending June 2008	259	284 (230)	20.0	55 (51)	208	207 (165)	398	323 (260)	693	717 (611)
Year ending June 2009	224	-	17.3	-	179	-	343	-	598	-
Proposed Revisions										
Year ending June 2010	225	-	38	-	161	-	253	-	599	-
Year ending June 2011	210	-	38	-	150	-	233	-	567	-
Year ending June 2012	201	-	38	-	142	-	222	-	548	-

⁹⁵ Actual values for 2006/07 and 2007/08 are reproduced from the revised access arrangement information (Part A: section 6) with values in round brackets calculated consistently with the service standard benchmarks proposed for the second access arrangement period.

Table 6 Service standard benchmarks and actual performance — system average interruption frequency index (SAIFI) for distribution services

	SWIN total		CBD		Urban		Rural Short		Rural Long	
	B'mark	Act.	B'mark	Act.	B'mark	Act.	B'mark	Act.	B'mark	Act.
Current Access Arrangement⁹⁶										
Year ending June 2007	3.44	2.87 (2.52)	0.32	0.26 (0.25)	3.12	2.03 (1.80)	4.89	4.35 (3.79)	5.58	5.43 (4.72)
Year ending June 2008	3.22	2.77 (2.50)	0.30	0.23 (0.22)	2.91	2.10 (1.91)	4.58	3.50 (3.13)	5.22	5.56 (4.99)
Year ending June 2009	2.78	-	0.26	-	2.51	-	3.95	-	4.50	-
Proposed Revisions										
Year ending June 2010	2.44	-	0.24	-	1.88	-	3.05	-	4.89	-
Year ending June 2011	2.29	-	0.24	-	1.76	-	2.83	-	4.64	-
Year ending June 2012	2.18	-	0.24	-	1.67	-	2.70	-	4.47	-

335. With the exception of service standard benchmarks for SAIDI in the CBD area, Western Power has proposed service standard benchmarks for SAIDI and SAIFI that represent improvements in service reliability over reliability levels achieved in 2006/07 and 2007/08.
336. Western Power indicates that the forecast capital and operating expenditures forecast for the second access arrangement period (as provided in the proposed access arrangement revisions as submitted) include provision for “modest but achievable improvements in distribution service performance” and that reliability improvements have been estimated by simulation modelling of the distribution system.⁹⁷ Western Power also provides details of planned improvements in reliability (specified as a reduction in SAIDI of 29 minutes for the entire SWIN) to be achieved by 2011/12 as a result of specific capital projects.⁹⁸

⁹⁶ Actual values for 2006/07 and 2007/08 are reproduced from the revised access arrangement information (Part A: section 6) with values in round brackets calculated consistently with the service standard benchmarks proposed for the second access arrangement period.

⁹⁷ Revised access arrangement information, section 6.3.2.

⁹⁸ Revised access arrangement information, Appendix 1: p. 51.

337. Western Power has subsequently provided the Authority with anticipated revisions to cost forecasts indicating substantial reductions in forecasts of costs in the first two years of the second access arrangement period, although still with large real increases in costs over the level of costs in the first access arrangement period. Western Power indicates that the revised forecasts of costs are sufficient to allow for current levels of reliability to be maintained, but that the projected improvements in service standard benchmarks may need to be reviewed.⁹⁹ The Authority has not received any further information from Western Power in this regard.
338. Under this Draft Decision, the Authority is requiring further reductions in forecast non-capital costs for the distribution network. In light of these reductions, the Authority considers that the proposed service standard benchmarks for the distribution network are reasonably established to reflect actual performance in the first access arrangement period and the modest improvements proposed by Western Power.

PRICE CONTROL

Introduction

339. For each reference service specified in the access arrangement, there must be a reference tariff established under the access arrangement.
340. Section 5.1(d) of the Access Code requires that the access arrangement must include a “price control”. A price control is a constraint on the level of reference tariffs that specifies the level of tariffs either directly, such as with price caps, or indirectly through constraints on the level of overall revenue able to be earned by the service provider.
341. The specific requirements and objectives for a price control are set out in sections 6.1 to 6.5 of the Access Code:
- 6.1 Subject to section 6.3, an access arrangement may contain any form of price control provided it meets the objectives set out in section 6.4 and otherwise complies with this Chapter 6.
 - 6.2 Without limiting the forms of price control that may be adopted, price control may set target revenue:
 - (a) by reference to the service provider’s approved total costs; or
 - (b) by setting tariffs with reference to:
 - (i) tariffs in previous access arrangement periods; and
 - (ii) changes to costs and productivity growth in the electricity industry;
 or
 - (c) using a combination of the methods described in sections 6.2(a) and 6.2(b).
 - 6.3 The first access arrangement must contain the form of price control described in section 6.2(a).

⁹⁹ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs.

- 6.4 The price control in an access arrangement must have the objectives of:
- (a) giving the service provider an opportunity to earn revenue (“target revenue”) for the access arrangement period from the provision of covered services as follows:
 - (i) an amount that meets the forward-looking and efficient costs of providing covered services, including a return on investment commensurate with the commercial risks involved;
plus:
 - (ii) for access arrangements other than the first access arrangement, an amount in excess of the revenue referred to in section 6.4(a)(i), to the extent necessary to reward the service provider for efficiency gains and innovation beyond the efficiency and innovation benchmarks in a previous access arrangement;
plus:
 - (iii) an amount (if any) determined under section 6.6 [adjustments for unforeseen events];
plus:
 - (iv) an amount (if any) determined under section 6.9 [adjustments for technical rule changes];
plus:
 - (v) an amount (if any) determined under an investment adjustment mechanism (see sections 6.13 to 6.18);
plus:
 - (vi) an amount (if any) determined under a service standards adjustment mechanism (see sections 6.29 to 6.32);
plus –
 - (vii) an amount (if any) determined under section 6.37A [tariff equalisation contributions];
 - and
 - (b) enabling a user to predict the likely annual changes in target revenue during the access arrangement period; and
 - (c) avoiding price shocks (that is, sudden material tariff adjustments between succeeding years).

6.5 The amount determined in seeking to achieve the objective specified in section 6.4(a)(i) is a target, not a ceiling or a floor.

342. In this section of the Draft Decision, the Authority addresses the determination of target revenue for the second access arrangement period and the form of the price control.

343. Western Power has determined a value of target revenue by reference to forecast costs for the second access arrangement period – the “building block” method. This is consistent with section 6.2(a) of the Access Code and with the method for determination of target revenue for the first access arrangement period.

344. The Authority’s assessment of Western Power’s determination of target revenue is documented in the following sections of this Draft Decision, addressing the following matters:

- forecasts of demand for services;

- an amount of tariff equalisation contributions;
 - a forecast of non-capital costs;
 - amounts of actual and forecast new facilities investment and values of the capital base at the commencement of the second access arrangement period and a notional capital base over the term of the second access arrangement period;
 - a rate of return (weighted average cost of capital);
 - an allowance for the cost of working capital; and
 - adjustments to target revenue for the second access arrangement period to reflect certain cost and revenue outcomes for the first access arrangement period.
345. In considering Western Power's proposed target revenue, the Authority has had to make assessments of the actual and forecast costs of Western Power over the first and second access arrangement periods, including:
- an assessment of whether the forecast of non-capital costs for the second access arrangement period meets the requirement of section 6.40 of the Access Code of including only those costs that would be incurred by a service provider efficiently minimising costs;
 - an assessment of whether new facilities investment in the first access arrangement period may be added to the capital base of the network under the provisions of section 6.51A of the Access Code, including an assessment of whether, and to what extent, the new facilities investment satisfies the new facilities investment test under section 6.52 of the Access Code; and
 - an assessment of whether forecast new facilities investment for the second access arrangement period may be taken into account in determining target revenue (by notional addition to the capital base), including an assessment of whether, and to what extent, the new facilities investment satisfies the new facilities investment test under section 6.52 of the Access Code.
346. For the purposes of the approval of proposed access arrangement revisions, and pursuant to sections 6.41, 6.51 and 6.51A of the Access Code, the Authority has a discretion whether to recognise costs in the total costs and target revenue that underlie the price control. This includes forecast non-capital costs, actual new facilities investment during the first access arrangement period and forecast new facilities investment. Before recognising these costs in total costs and target revenue, the Authority must be satisfied that the costs meet the tests of section 6.41, 6.51 and 6.51A of the Access Code. The responsibility rests with Western Power to demonstrate to the Authority that the costs satisfy these tests.
347. In making an assessment of costs, the Authority has obtained advice on a range of relevant matters including:
- a review by Wilson & Co Limited of Western Power's forecast expenditures for the second access arrangement period;¹⁰⁰

¹⁰⁰ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report.

- a review by Geoff Brown & Associates Ltd of Western Power's governance arrangements as they relate to the control of work programs and costs;¹⁰¹ and
- a review by Geoff Brown & Associates Ltd of a sample of capital projects and programs and the amounts of new facilities investment for these projects and programs claimed by Western Power to meet the new facilities investment test under section 6.52 of the Access Code.¹⁰²

348. These reviews and the Authority's assessment of costs have been hampered by a lack of necessary information, both as submitted by Western Power in the revised access arrangement information and as subsequently provided to the Authority and its consultants in response to specific requests. The inadequacy of information has been of particular concern in respect of actual new facilities investment in the first access arrangement period, which is required to demonstrate the amounts of new facilities investment that satisfy the relevant tests under the Access Code for addition to the capital base of the SWIN.

349. The following requests for information and/or documents were made by the Authority to Western Power to address this concern:

- The Authority wrote to Western Power on 5 February 2009 advising that the Authority would be unable to determine the amount of new facilities investment to roll into the capital base in the absence of information concerning the efficiency of capital expenditure during the first access arrangement period.
- On 5 February 2009, the Authority issued Western Power with a notice pursuant to section 51 of the *Economic Regulation Authority Act 2003* to provide information and/or documents to demonstrate that actual new facilities investment during the first access arrangement period satisfies the test under section 6.51A of the Access Code, and forecast new facilities investment for the second access arrangement period is reasonably expected to satisfy the test. The information was requested to be provided by 9 March 2009.
- On 4 March 2009, Western Power wrote to the Authority and indicated that Western Power does not have "rigorous commentary on the [new facilities investment test] for the vast majority of expenditure dating back to the commencement of the current access arrangement period" and while it had documentation containing "information and elements relevant to the [new facilities investment test]", it needed to prepare "new supporting documentation for almost all projects and programs of work to specifically demonstrate that [the new facilities investment test] is satisfied".
- Subsequent to Western Power's letter of 4 March, the Authority explored the merits of a sampling approach to assess Western Power's new facilities investment as a practical way to progress the draft decision.
- On 19 March 2009, the Authority advised Western Power that the section 51 notice would remain in place (and therefore Western Power was required to

¹⁰¹ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

¹⁰² Geoff Brown & Associates Ltd, 14 July 2009, Review of New Facilities Investment Test Compliance: Western Power AA1 Projects.

comply with it). However, in order to advance the Authority's assessment of the proposed revisions to Western Power's access arrangement:

- Western Power should provide information and documents to demonstrate satisfaction of the requirements for the new facilities investment test for 30 selected projects; and
 - the Authority may request further information and/or documents relating to the selected projects or for additional projects (i.e. the sample of projects did not replace the original section 51 notice information requirements).
- Western Power provided information and documents relating to the sample of 30 projects.
 - On 23 April 2009, the Authority advised Western Power that it was considering the information provided by it and was not in a position to comment on the adequacy of the information until the relevant assessments were undertaken. The Authority also advised, that "in relation to the information submitted for the 30 sample projects, an initial indication from our consultant is that it may be difficult to arrive at a conclusive view in relation to the new facilities investment test". The Authority encouraged Western Power to submit any additional information which it believed addressed the requirements of the section 51 notice that would assist the Authority in undertaking its assessment in relation to the new facilities investment test.
 - As at the date of this Draft Decision, the information requested in the section 51 notice issued by the Authority on 5 February 2009 remains outstanding.
350. By virtue of the inadequacy of information, Western Power has not demonstrated to the Authority's satisfaction that the actual and forecasts costs meet the relevant tests of the Access Code.
351. In reaching this decision, the Authority has also had regard to information from a range of sources that indicates substantial deficiencies in Western Power's management and governance processes as they relate to the undertaking and costs of operating and capital activities. Of particular concern to the Authority has been information to indicate the following:
- A failure of Western Power to maintain processes and documentation to sustain rigorous and accurate assessments of capital projects and programs against the requirements of the new facilities investment test.¹⁰³
 - Instances of significant over-design or over-engineering of capital projects.¹⁰⁴
 - Systematic shortcomings in governance processes for major works, particularly during the course of much of the first access arrangement period, including:

¹⁰³ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power. Geoff Brown & Associates Ltd, 14 July 2009, Review of New Facilities Investment Test Compliance: Western Power AA1 Projects.

¹⁰⁴ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power. Geoff Brown & Associates Ltd, 14 July 2009, Review of New Facilities Investment Test Compliance: Western Power AA1 Projects. Economic Regulation Authority, 19 February 2009, Final Determination on the New Facilities Investment Test for a 66/11 kV Medical Centre Zone Substation Expansion and Voltage Conversion of the Distribution Network.

- poor internal cost estimating processes;¹⁰⁵
 - a possibility that Western Power sometimes specifies requirements for equipment over and above industry standards and norms, thus limiting competition amongst potential suppliers;¹⁰⁶
 - evidence of overcharging of Western Power by contractors, enabled by poor contractual arrangements and limited reconciliation of purchase orders, quotations and invoices;¹⁰⁷ and
 - excessive contingency provisions in project budgets.¹⁰⁸
- A lack of quality control for works undertaken by contractors, and instances of contractors failing to undertake works in accordance with specifications, notably in the case of inspection of wood poles.¹⁰⁹
352. The Authority has also had regard to evidence of deficiencies in the management of network assets and operations that may give rise to inefficiencies in capital works and operating and maintenance activities. This evidence includes the following.
- Western Power's contraventions of its transmission (ETL2) and distribution (EDL1) licences.¹¹⁰ Contraventions relate, in part, to deficiencies of Western Power's asset management system, including:
 - a lack of understanding of key processes for operational and capital work programs; and
 - poor documentation of the condition of the distribution system leading to reactive and imprecise systems for maintenance activities.
 - Confidential information obtained by the Authority relating to Western Power's budgeting of capital and operating activities.¹¹¹
353. Another matter considered by the Authority when assessing the proposed expenditures is a submission by Western Power dated 25 May 2009 advising the Authority of anticipated revisions to cost forecasts in which Western Power indicated the uncertain nature of forecasts as a result of, amongst other things, the global financial crisis.¹¹²

¹⁰⁵ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

¹⁰⁶ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

¹⁰⁷ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

¹⁰⁸ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

¹⁰⁹ Department of Commerce Energy Safety, May 2009, 2008 Distribution Wood Pole Audit Review, pp. 9, 10, 28.

¹¹⁰ Economic Regulation Authority, 8 January 2009, Section 32 - Electricity Industry Act 2004 Notice of Failure to Comply with Licence.

¹¹¹ This information is subject to a claim for confidentiality by Western Power and the Authority has therefore set out its detailed findings in relation to these submissions in a 'Confidential Annexure' to this Draft Decision.

¹¹² Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs

354. In light of the Authority's decision that it is not satisfied that all of Western Power's proposed costs meet the new facilities investment test in section 6.52 of the Access Code, the Authority has considered below whether it is satisfied that any lesser amount meet the test.

Forecast Demand for Services

Western Power's Forecast

355. In the revised access arrangement information, Western Power has provided forecasts of transmission demand and energy at three levels:
- a demand forecast for the bulk transmission system, based on the demand forecasts reported in the July 2007 Statement of Opportunities by the Independent Market Operator (**IMO**);
 - demand forecasts for each substation, developed by statistical extrapolation from previous peak demands for each substation and adjustment for expected new bulk loads; and
 - demand forecasts for load areas developed using the bulk transmission forecasts and individual substation forecasts.
356. The demand forecasts prepared by the IMO and reported in the 2007 Statement of Opportunities are based on an assumed rate of economic growth in Western Australia of three to four per cent annual growth in Gross State Product.
357. The area-based demand forecasts used by Western Power to develop the forecasts of new facilities investment for the transmission network are shown in Table 7.

Table 7 Western Power's Area-Based Forecasts (MW) used to develop the forecasts of new facilities investment for the transmission network¹¹³

Area	2009/10	2010/11	2011/12
Bunbury	318	332	351
Cannington	333	364	374
East Country	129	134	163
Eastern Goldfields	116	120	124
East Perth	350	363	371
Guildford	170	179	173
GT	30	34	39
Kwinana	319	348	363
Muja	303	310	319
North Country	181	180	187
Northern Terminal	968	1011	1,055
South Fremantle	243	257	265
South Terminal	407	423	417
West Terminal	184	175	183
Total	4,229	4,382	4,531
Growth	4.4%	3.6%	3.4%
IMO 2007 "10% probability of exceedance" forecast	4,233	4,361	4,505

358. Western Power has also forecast requirements for connection of generation that includes:

- generation projects that have been assigned capacity credits as part of the Reserve Capacity Mechanism operating in the wholesale electricity market;
- committed generation projects, being those that have a signed access agreement; and
- the most probable generation projects required to maintain the minimum reserve margin.¹¹⁴

359. Western Power has forecast total distribution energy sales by extrapolation of actual energy sales for 2006/07 by a forecast rate of growth in energy demand of 2.2 per cent per annum as published by the IMO in 2007. Forecast energy sales for the distribution network are shown in Table 8.

¹¹³ Revised access arrangement information, p. 62. Forecasts are for coincident system peak demand.

¹¹⁴ Revised access arrangement information, pp. 64, 65.

Table 8 Western Power's forecast energy sales for the distribution network¹¹⁵

Year	Forecast energy sales (GWh)
2007/08 (actual)	13,087
2008/09	13,375
2009/10	13,670
2010/11	13,970
2011/12	14,278

Considerations of the Authority

360. The forecasts of peak energy demand for the transmission network and total energy demand for the distribution network are derived from projections of the IMO as published in the July 2007 Statement of Opportunities and, in turn, forecasts of economic growth for Western Australia, including forecasts of rates of growth of Gross State Product in Western Australia of:
- 3.2 per cent in 2009/10;
 - 3.1 per cent in 2010/11; and
 - 5.0 per cent in 2011/12.
361. The rates of economic growth on which the forecasts of energy demand have subsequently been based are substantially greater than more recent forecasts of growth in Gross State Product of:
- -1.25 per cent in 2009/10;
 - -0.5 per cent in 2010/11; and
 - 3.75 per cent in 2011/12.¹¹⁶
362. The IMO has published a revised forecast of energy demand that takes into account the expectation of lower rates of economic growth in Western Australia and correspondingly lower rates of growth in energy demand. The lower forecasts of sent-out energy and maximum demand and lower forecasts of total sent-out energy are shown in Table 9 and Table 10.

¹¹⁵ Revised access arrangement information, p. 114.

¹¹⁶ Government of Western Australia, May 2009, 2009-10 Budget Economic and Fiscal Outlook, Budget Paper No. 3, p. 152.

Table 9 Revised forecasts of sent-out energy produced by the Independent Market Operator¹¹⁷

Year	2008 forecast sent-out energy (GWh)	2009 forecast sent-out energy (GWh)	Change
2009/10	18,504	17,145	-1,359
2010/11	21,066	17,726	-3,340
2011/12	21,492	18,177	-3,315
2012/13	21,851	20,206	-1,645
2013/14	22,500	21,600	-900
2014/15	22,940	21,648	-1,292
2015/16	23,373	22,055	-1,318
2016/17	23,752	22,607	-1,145
2017/18	24,087	22,955	-1,132

Table 10 Revised forecasts of expected maximum demand produced by the Independent Market Operator¹¹⁸

Year	2008 Forecast 10% probability of exceedence (MW)	2009 Forecast 10% probability of exceedence (MW)	Change
2009/10	4260	4200	-61
2010/11	4704	4397	-307
2011/12	4860	4725	-134
2012/13	5010	5132	123
2013/14	5192	5452	260
2014/15	5354	5518	164
2015/16	5497	5721	224
2016/17	5631	5903	273
2017/18	5759	6065	306

363. Given the IMO's forecast, the Authority considers that rates of growth in energy demand and demand for network services are likely to be lower than the forecasts provided by Western Power in the revised access arrangement information. The Authority has taken this into account in its assessment of Western Power's forecasts of costs, as documented in subsequent sections of this Draft Decision (see paragraph 373 and following). The Authority has taken into account a likelihood of lower rates of growth of energy demand in considering the deliverability of maintenance activities and capital works underlying cost forecasts and in

¹¹⁷ Independent Market Operator, July 2008, Statement of Opportunities p. 46. Independent Market Operator, July 2009, Statement of Opportunities p. 50.

¹¹⁸ Independent Market Operator, July 2009, Statement of Opportunities p. 33.

requiring Western Power to submit a revised forecast of new facilities investment for the second access arrangement period (paragraph 654).

Tariff Equalisation Contributions

Access Code Requirements

364. Section 6.37A of the Access Code provides for target revenue to include an amount of tariff equalisation contributions, which comprise an amount levied on users of the SWIN to finance amounts paid by the Western Australian Government to Horizon Power for the provision of electricity services in areas not serviced by the SWIN:

6.37A If the service provider for the Western Power Network is or will be required, by a notice made under section 129D(2) of the Act, to pay a tariff equalisation contribution into the Tariff Equalisation Fund during an access arrangement period, then an amount may be added to the target revenue for the covered network for the access arrangement period, which amount—

- (a) must not exceed the total of the tariff equalisation contributions which are or will be required to be paid under the notice, including any amount that was payable or paid before the commencement of the access arrangement period; and
- (b) must be separately identified as being under this section 6.37A.

Proposed Revisions

365. Under the current access arrangement, an amount of tariff equalisation contributions of \$177 million (in dollar values of 30 June 2006) was added to the target revenue for the first access arrangement period (2006/07 to 2008/09).¹¹⁹

366. Western Power has not made an allowance in target revenue for tariff equalisation contributions in its determination of target revenue for the second access arrangement period (2009/10 to 2011/12). In its covering letter of 1 October 2008 to the access arrangement documents, Western Power indicated that the absence of an allowance for tariff equalisation contributions is due to advice from the Office of Energy that the contributions will not be required in the second access arrangement period.

Submissions

367. The Department of Treasury and Finance submits that the State Government has yet to make a determination on whether a tariff equalisation contribution will be required from Western Power during the second access arrangement period and that, depending upon the Government's decision, a tariff equalisation contribution may be required to be included in target revenue.¹²⁰

368. Perth Energy supports the view that any equalisation payments made to Horizon Energy should be funded through a community service obligation from the

¹¹⁹ Economic Regulation Authority, 2 March 2007, Final Decision on the Proposed Access Arrangement for the South West Interconnected Network, Appendix B.

¹²⁰ Department of Treasury and Finance submission of 17 December 2008.

government. This increases transparency and improves the efficiency in the electricity market.¹²¹

Considerations of the Authority

369. Under section 6.37A of the Access Code, an amount in respect of a tariff equalisation contribution is to be added to target revenue only if the service provider is required by a notice under section 129D(2) of the *Electricity Industry Act 2004* to pay the same amount into the tariff equalisation fund. Western Power has submitted to the Authority that this will not occur for the second access arrangement period and, accordingly, no amount has been added to target revenue. This is in accordance with provisions of the Access Code.
370. Notwithstanding this, the submission of the Department of Treasury and Finance indicated that the government may elect to require a tariff equalisation contribution for the second access arrangement period. This has not occurred as of the date of this Draft Decision and, as such, no amount in respect of a tariff equalisation contribution is able to be included in the target revenue and price control as required under this Draft Decision.
371. The Authority understands that the State Government is considering the possible amounts of a tariff equalisation contribution for the term of the second access arrangement period. The Department of Treasury and Finance has indicated to the Authority that these amounts may be in the order of \$115.4 million in 2009/10, \$140.9 million in 2010/11 and \$146.4 million in 2011/12 (in nominal dollar values).¹²² The Authority took the prospect of a required tariff equalisation contribution in 2009/10 into account in the approval of Western Power's price list for 2009/10.¹²³ If amounts of tariff equalisation contributions as indicated by the Department of Treasury and Finance are determined for inclusion under the access arrangement in the second access arrangement period, the Authority estimates that the effect will be an increase in the required reference service revenue and average tariffs for distribution services by 26 per cent.¹²⁴ Further information on the effect of these potential values of tariff equalisation contributions is provided later in this Draft Decision in relation to the value of target revenue for the second access arrangement period (paragraph 838 of this Draft Decision).
372. If the amount of tariff equalisation contributions is not determined and gazetted in accordance with section 129D(2) of the *Electricity Industry Act 2004* and prior to the Authority's approval of the proposed access arrangement revisions, it is not possible to have any amount included in the target revenue under the Access Code and reflected in reference tariffs for the second access arrangement period. In the absence of a tariff equalisation contribution, the manner in which the Western Australian State Government will finance the operations of Horizon Power is not a

¹²¹ Perth Energy submission of 17 December 2008.

¹²² Email advice from the Department of Treasury and Finance of 13 May 2009.

¹²³ Economic Regulation Authority, 18 May 2009, Determination on the Proposed 2009/10 Price List for the South West Interconnected Network.

¹²⁴ The effect of tariff equalisation contributions was calculated as a difference in the present value of required reference service revenue and in the discounted weighted average tariff for distribution services. The calculation of the effect of tariff equalisation contributions was determined using the same financial model as applied in determination of required reference service revenue under this Draft Decision except that no allowance was made for a cost of working capital as it may relate to the value of the tariff equalisation contribution.

matter for the Authority to address in its determination on the proposed access arrangement revisions.

Non-Capital Costs

Access Code Requirements

373. Section 6.40 of the Access Code makes provision for the total costs and target revenue to include an amount in respect of forecast non-capital costs for the access arrangement period.

6.40 Subject to section 6.41, the non-capital costs component of approved total costs for a covered network must include only those non-capital costs which would be incurred by a service provider efficiently minimising costs.

374. Sections 6.41 and 6.42 of the Access Code provide for the non-capital costs component of target revenue to include the non-capital costs of an “alternative option” of providing covered services, subject to certain conditions being met. An alternative option refers to an activity undertaken by Western Power for the purposes of providing a covered service as an alternative to investing in a major augmentation of the network,¹²⁵ and may include such activities as demand-side management or generation either instead of, or in addition to, network augmentation.¹²⁶

6.41 Where, in order to maximise the net benefit after considering alternative options, a service provider pursues an alternative option in order to provide covered services, the non-capital costs component of approved total costs for a covered network may include non-capital costs incurred in relation to the alternative option (“alternative option non-capital costs”) if:

- (a) the alternative option costs do not exceed the amount of alternative option costs that would be incurred by a service provider efficiently minimising costs; and
- (b) at least one of the following conditions is satisfied:
 - (i) the additional revenue for the alternative option is expected to at least recover the alternative option costs; or
 - (ii) the alternative option provides a net benefit in the covered network over a reasonable period of time that justifies higher reference tariffs; or
 - (iii) the alternative option is necessary to maintain the safety or reliability of the covered network or its ability to provide contracted covered services.

6.42 For the purposes of section 6.41(b)(i) “additional revenue” for an alternative option means:

- (a) the present value (calculated at the rate of return over a reasonable period) of the increased tariff income reasonably anticipated to arise from the increased sale of covered services on the network to one or more users (where “increased sale of covered services” means sale of covered services which

¹²⁵ A major augmentation of the network is defined in section 1.3 of the Access Code as an augmentation with a cost exceeding \$10 million for the distribution network or \$30 million for the transmission network.

¹²⁶ Definition in section 1.3 of the Access Code.

would not have occurred had the alternative option not been undertaken);
minus

- (b) the present value (calculated at the rate of return over the same period) of the best reasonable forecast of the increase in non-capital costs (other than alternative option costs) directly attributable to the increased sale of the covered services (being the covered services referred to in the expression “increased sale of covered services” in section 6.42(a)),

where the “rate of return” is a rate of return determined by the Authority in accordance with the Code objective and in a manner consistent with this Chapter 6, which may be the rate of return most recently approved by the Authority for use in the price control for the covered network under this Chapter 6.

Proposed Revisions

375. Under the proposed price control for the second access arrangement period, Western Power has made an allowance in target revenue for forecast non-capital costs for the transmission and distribution networks.
376. Subsequent to submission of the proposed access arrangement revisions, Western Power has advised the Authority that the forecasts of non-capital costs (along with forecasts of new facilities investment) will be revised to take into account the effect of the global financial crisis on local economic conditions and budget constraints imposed by the State Government.¹²⁷ Western Power has provided the Authority with “indicative anticipated revisions” to forecasts of costs indicating reductions in forecast non-capital costs (in real terms) of 12 per cent for the transmission network and 13 per cent for the distribution network.
377. Western Power’s forecasts of non-capital costs as originally submitted are indicated in Table 11 and Table 12, together with the estimated actual costs for the first access arrangement period and the anticipated revised forecasts for the second access arrangement period.

¹²⁷ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs.

**Table 11 Non-capital costs for the transmission network
(real \$ million at 30 June 2009)¹²⁸**

	Year	Year	Year
First access arrangement period	2006/07	2007/08	2008/09
Forecast for first access arrangement period ¹²⁹	73.86	76.23	76.78
Estimated actual for first access arrangement period ¹³⁰	75.23	75.58	74.52
Second access arrangement period	2009/10	2010/11	2011/12
Forecast for second access arrangement period ¹³¹	100.90	105.97	112.78
Anticipated revised forecast for the second access arrangement period ¹³²	77.19	96.17	108.65

¹²⁸ Numerical amounts throughout this Draft Decision are generally shown to 2 decimal places and, hence, where total amounts are shown these amounts may not total exactly due to rounding.

¹²⁹ Revised access arrangement information, Appendix 9. Some inconsistencies exist between values shown in Appendix 9 and in the body of the revised access arrangement information and in Appendix 1. Values indicated in Appendix 9 have been assumed to be the correct values.

¹³⁰ Revised access arrangement information, Appendix 9. Some inconsistencies exist between values shown in Appendix 9 and in the body of the revised access arrangement information and in Appendix 1. Values indicated in Appendix 9 have been assumed to be the correct values.

¹³¹ Revised access arrangement information, Appendix 7 (Revenue Model).

¹³² Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information, Appendix 7: Revenue Model).

**Table 12 Non-capital costs for the distribution network
(real \$ million at 30 June 2009)**

	Year	Year	Year
First access arrangement period	2006/07	2007/08	2008/09
Forecast for current first arrangement period ¹³³	209.02	210.60	214.67
Estimated actual for first access arrangement period ¹³⁴	254.88	259.54	262.97
Second access arrangement period	2009/10	2010/11	2011/12
Forecast for second access arrangement period ¹³⁵	393.99	416.48	436.37
Anticipated revised forecast for the second access arrangement period ¹³⁶	287.39	366.40	426.43

378. Western Power has provided supporting information for the forecasts in Appendix 1 of the revised access arrangement information.

Submissions

379. Several parties that made submissions to the Authority have questioned whether the substantial increases in non-capital costs forecast for the second access arrangement period meet the requirements of the Access Code for total costs to include only non-capital costs that would be incurred by a service provider efficiently minimising costs. Particular concerns raised include:¹³⁷

- the forecast increases in non-capital costs are disconnected from increases in demand;
- the cost escalation assumptions should be questioned in light of the world economic downturn (global financial crisis);
- the access arrangement information is lacking sufficient detail on the key drivers of cost increases over the first access arrangement period; and

¹³³ Revised access arrangement information, Appendix 9. Some inconsistencies exist between values shown in Appendix 9 and in the body of the revised access arrangement information and in Appendix 1. Values indicated in Appendix 9 have been assumed to be the correct values.

¹³⁴ Revised access arrangement information, Appendix 9. Some inconsistencies exist between values shown in Appendix 9 and in the body of the revised access arrangement information and in Appendix 1. Values indicated in Appendix 9 have been assumed to be the correct values.

¹³⁵ Revised access arrangement information, Appendix 7 (Revenue Model).

¹³⁶ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information, Appendix 7: Revenue Model).

¹³⁷ Western Australia Major Energy Users submission 16 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008; Perth Energy submission of 17 December 2008; Synergy submission of 22 December 2008 on the Price Control.

- the information provided in support of forecasts of non-capital costs lacks any benchmarking of Western Power's costs against costs of other network service providers.
380. Parties have also requested that the Authority examine particular factors relevant to a determination of whether forecast non-capital costs are consistent with the requirements of the Access Code, including:¹³⁸
- the efficiency of the non-capital expenditure in the first access arrangement period;
 - the appropriateness of the forecasting methods and procedures;
 - assumptions of cost escalation;
 - the drivers of step changes in non-capital expenditure;
 - the benefits of higher non-capital costs, including whether higher non-capital costs are reflected in service standards;
 - the relationships and trade-offs between levels of non-capital costs in maintenance categories and levels of capital expenditure in refurbishment and replacement of assets; and
 - the effect of claimed expenditure constraints in the first access arrangement period.

Considerations of the Authority

Approach to the Assessment of Forecasts of Non-Capital Costs

381. Under section 6.40 of the Access Code, the Authority must be satisfied that the forecast non-capital costs for the second access arrangement period include only those non-capital costs that would be incurred by a service provider efficiently minimising costs.
382. The starting point for the Authority in considering the forecast of non-capital costs has been the levels of expenditure in the first access arrangement period. The focus of the Authority's consideration of forecasts of non-capital costs has been, firstly, to consider whether the most recent recorded actual non-capital costs of the first access arrangement period (for the year 2007/08) are consistent with the costs that would be incurred by a service provider efficiently minimising costs and, secondly, whether Western Power has adequately substantiated and justified differences in forecast non-capital costs from the actual non-capital costs incurred in the first access arrangement period.
383. The process adopted by the Authority in considering the forecasts of non-capital costs has therefore been to:

¹³⁸ Western Australia Major Energy Users submission of 16 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008; Department of Treasury and Finance submission of 17 December 2008; Synergy submission of 22 December 2008 on the Price Control.

- verify records of actual non-capital costs for the first two years of the first access arrangement period for which actual cost data are available (2006/07 and 2007/08);
- assess whether the actual non-capital costs for the first access arrangement period are efficient and consistent with the requirements of section 6.40 of the Access Code; and
- assess whether Western Power has provided adequate justification for forecast trends and step changes in levels of non-capital costs over the term of the second access arrangement period.

Verification of Non-Capital Costs in the First Access Arrangement Period

384. In accordance with the Authority's *Guidelines for Access Arrangement Information*,¹³⁹ Western Power has provided regulatory accounts that reconcile costs of regulated activities with a set of base accounts for the business.¹⁴⁰ These regulatory accounts provide the following reconciliation of claimed non-capital costs with recorded operating costs.

Table 13 Reconciliation of claimed non-capital costs for 2006/07 and 2007/08 with recorded operating costs for the Western Power business (real \$ million at 30 June 2009)¹⁴¹

Network and Year	Base Account	Adjustment	Regulatory Account	Claimed non-capital costs
Transmission 2006/07	75.2	0	75.2	75.2
Transmission 2007/08	75.6	0	75.6	75.6
Distribution 2006/07	254.9	0	254.9	254.9
Distribution 2007/08	259.5	0	259.5	259.5

385. The amounts indicated in the regulatory accounts and in the claimed non-capital costs exclude amounts indicated in the regulatory financial statements as "other operating expenditure" and amounting to \$75.0 million in 2006/07 and \$73.7 million in 2007/08. These amounts are indicated by Western Power to comprise payments to the Tariff Equalisation Fund under section 129F of the *Electricity Corporations Act 2005*.¹⁴²

386. The Authority observes that the regulatory accounts presented by Western Power were audited for Western Power by the Office of the Auditor General. The Authority has had the regulatory accounts independently reviewed¹⁴³ and is satisfied that the

¹³⁹ Economic Regulation Authority, 26 June 2008, Electricity Networks Access Code 2004 Guidelines for Access Arrangement Information.

¹⁴⁰ Revised access arrangement information, Appendices 8 and 9.

¹⁴¹ Revised access arrangement information, Appendices 8 and 9. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information Appendix 7: Revenue Model).

¹⁴² Email from Western Power to the Economic Regulation Authority of 28 November 2008.

¹⁴³ BDO Kendalls, 2 July 2009, Regulatory Financial Audit Western Power.

regulatory accounts provide a true and correct indication of non-capital costs in 2006/07 and 2007/08.

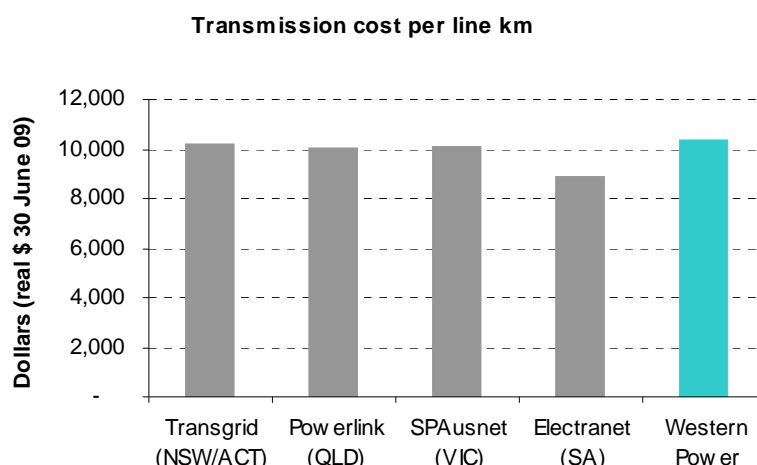
Non-Capital Costs in the First Access Arrangement Period

387. The Authority has given consideration to whether the actual non-capital costs for the first access arrangement period appear to be consistent with a service provider efficiently minimising costs and therefore constitute a relevant cost base against which forecasts of non-capital costs for the second access arrangement period can be assessed.
388. The revised access arrangement information does not include information relevant to establishing the efficiency of non-capital costs in the first access arrangement period.
389. The Authority considers that there is a strong likelihood that the actual non-capital costs of the first access arrangement period are efficient costs by virtue of the incentive properties of the revenue cap price control applying under the current access arrangement. That is, Western Power would have some incentive to seek efficiencies in non-capital costs due to an ability to retain the benefits of cost savings relative to the forecasts on which the price control was set, and also due to Western Power being exposed to the risk of cost overruns relative to the forecasts.
390. Notwithstanding the incentives for efficiency in non-capital costs, the Authority observes that there has been a substantial overrun of non-capital costs for the distribution network in the first access arrangement period (Table 12 at paragraph 377, above). Western Power attributes the overrun of non-capital costs to:
- a carryover of work and/or invoiced costs from 2005/06 to the first year of the access arrangement period (2006/07);
 - greater than expected inflation of costs of labour, materials and contractors;
 - greater than anticipated work volumes as asset management plans and maintenance regimes were implemented, and due to an increase in faults as a result of the poor condition of some distribution assets;
 - less than expected savings from initiatives undertaken to improve the efficiency of operation and maintenance activities; and
 - unanticipated requirements for network-support generation.¹⁴⁴
391. In view of this overrun, the Authority considers that there is reason to make an assessment of the efficiency of the actual non-capital costs in the first access arrangement period before the level of actual non-capital costs can be assessed as being consistent with a service provider efficiently minimising costs, and therefore constitute a relevant cost base against which forecasts of non-capital costs for the second access arrangement period can be assessed. The Authority has undertaken this assessment by considering:
- the governance arrangements and business processes for operations and maintenance activities; and

¹⁴⁴ Revised access arrangement information, Appendix 1: pp. 153, 154.

- comparisons of cost indices between Western Power and other transmission and distribution businesses.
392. In reviewing governance arrangements and business processes, the Authority has obtained advice from Geoff Brown & Associates. The advice identifies deficiencies in governance and business processes for operating and maintenance activities, consistent with other evidence for deficiencies in cost control by Western Power. These deficiencies included fragmentation and lack of coordination of maintenance activities for the distribution network, planning of maintenance activities in an *ad hoc* manner that is likely to have varied across operating divisions, and inefficiencies in contractual arrangements for major work programs, such as vegetation management and asset inspections. The advice indicates that these deficiencies were being addressed by changes in management practices during the course of the first access arrangement period.¹⁴⁵
393. A comparison of cost indices for operating expenditures for transmission and distribution businesses has been compiled by Wilson Cook & Co.¹⁴⁶ The comparison of costs indices for 2007/08 of cost per line kilometre for transmission and cost per customer, cost per line kilometre and cost per kWh for distribution indicate a cost performance of Western Power within the range of measures for other network businesses, albeit at the top end of the range (Figures 1 to 4 below).

Figure 1 Transmission cost per line km for 2007/08 of non-capital costs for Western Power and other Australian electricity network businesses¹⁴⁷



¹⁴⁵ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

¹⁴⁶ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, pp. 74, 85.

¹⁴⁷ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report. Further analysis undertaken by the Authority using additional sources. Eastern States network statistics (km and MW) sourced from Australian Energy Regulator, State of the Energy Market 2008, and operating costs sourced from final regulatory determinations of the Australian Energy Regulator.

Figure 2 Distribution cost per line km for 2007/08 of non-capital costs for Western Power and other Australian electricity network businesses¹⁴⁸

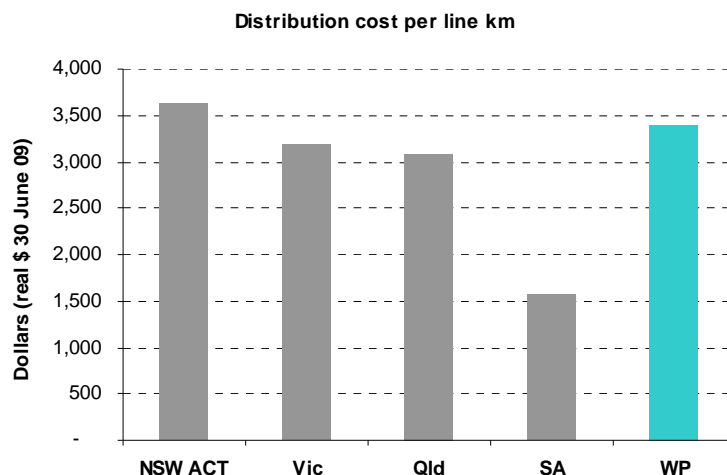
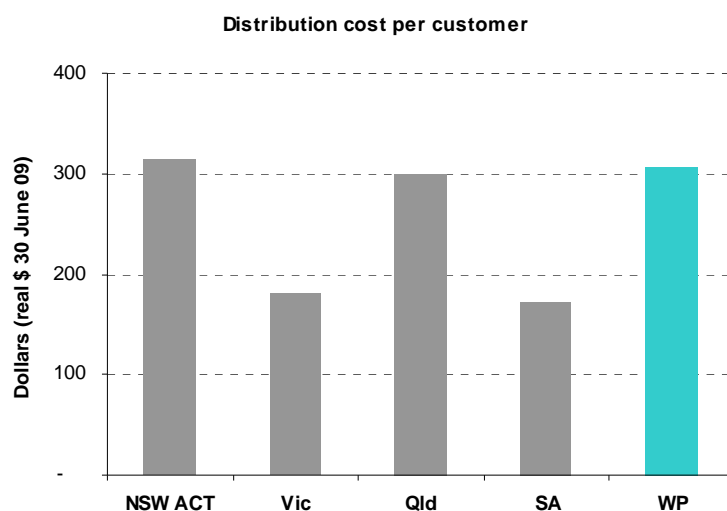


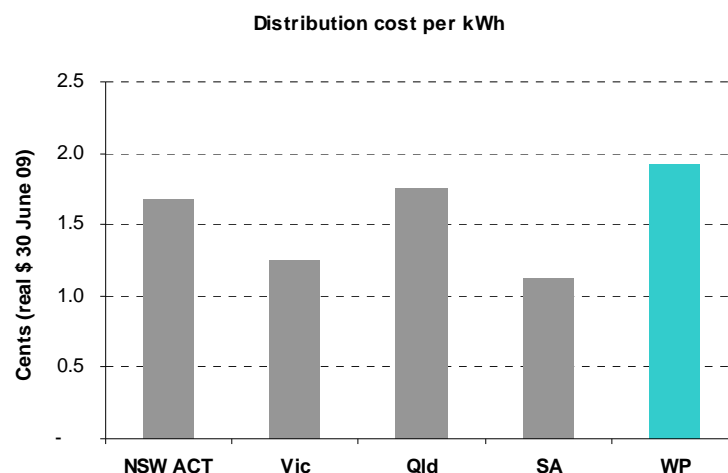
Figure 3 Distribution cost per customer for 2007/08 of non-capital costs for Western Power and other Australian electricity network businesses¹⁴⁹



¹⁴⁸ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report. Further analysis undertaken by the Authority using additional sources. Eastern States network statistics (customers, km and GMh) sourced from distribution network service provider performance reports for 2007/08, and operating costs sourced from final regulatory determinations of the Australian Energy Regulator.

¹⁴⁹ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report. Further analysis undertaken by the Authority using additional sources. Eastern States network statistics (customers, km and GMh) sourced from distribution network service provider performance reports for 2007/08, and operating costs sourced from final regulatory determinations of the Australian Energy Regulator.

Figure 4 Distribution cost per kWh for 2007/08 of non-capital costs for Western Power and other Australian electricity network businesses¹⁵⁰



394. This comparison of cost indices is not a conclusive indication that the non-capital costs of Western Power are comparable with those of other network business and accord with industry benchmarks. The comparison does not take into account a range of business-specific factors that may cause cost indices to differ between network businesses for reasons other than cost efficiency. For example, the comparison also does not take into account that Western Power may not have been undertaking maintenance activities in accordance with best practice within the industry,¹⁵¹ which may cause Western Power's costs to appear artificially low in comparison with other network businesses. There may also be differences between Western Power and other network businesses in the demarcation of transmission and distribution activities.
395. The advice on governance, business processes and comparisons of cost indices indicates that there may be some doubt as to whether the actual non-capital costs recorded by Western Power for 2007/08 include only those non-capital costs that would be incurred by a service provider efficiently minimising costs. Nevertheless, evidence for the level of inefficiency of costs is limited and, given incentives for efficiencies in non-capital costs, the Authority considers that there are not sufficient grounds to conclude that the actual costs for 2007/08 are inefficient and to derive a lower base level of costs as a starting point for the assessment of forecast non-capital costs for the second access arrangement period. Accordingly, the Authority has assessed the forecasts of non-capital costs for the second access arrangement period by considering the information that may justify changes in costs from the actual costs of 2007/08.

¹⁵⁰ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report. Further analysis undertaken by the Authority using additional sources. Eastern States network statistics (customers, km and GMh) sourced from distribution network service provider performance reports for 2007/08, and operating costs sourced from final regulatory determinations of the Australian Energy Regulator.

¹⁵¹ In the revised access arrangement information (Appendix 1: p. 47), Western Power indicates that some maintenance works have been less than necessary for compliance with policies for asset management resulting in a backlog of maintenance work.

Forecast Increases in Non-Capital Costs

Changes from Actual Costs incurred in the First Access Arrangement Period

396. The method adopted by the Authority to assess Western Power's forecast of non-capital costs has been to consider differences from the level of non-capital costs actually incurred by Western Power in 2007/08 and, for the purposes of this assessment, determined to be efficient within the meaning of section 6.40 of the Access Code. In considering differences between the forecast costs for the second access arrangement period and the actual costs of 2007/08, the Authority has had regard to changes over time in unit costs and to information provided by Western Power to justify step changes in levels of operating activities and the associated non-capital costs.
397. Western Power has proposed forecasts of non-capital costs that embody significant real increases over actual costs in the first access arrangement period in almost all categories of expenditure. Western Power indicates that forecast non-capital costs for the transmission network and distribution network are, respectively, 42 per cent and 60 per cent higher in real terms than for the first access arrangement period.¹⁵² The values of costs and cost line items showing the increases in forecast costs for the second access arrangement period are indicated in Table 14 and Table 15.

Table 14 Actual and forecast non-capital costs for the transmission network (real \$ million at 30 June 2009)¹⁵³

Item	05/06 Actual	06/07 Actual	07/08 Actual	08/09 Forecast	09/10 Forecast	10/11 Forecast	11/12 Forecast
Maintenance strategy	3.99	6.03	4.33	0	0	0	0
Preventative routine maintenance	11.06	11.84	11.74	12.09	21.42	22.65	23.91
Preventative condition maintenance	11.02	9.36	6.80	10.43	14.17	14.94	17.26
Corrective deferred maintenance	4.39	3.44	4.84	4.45	5.73	6.53	7.21
Corrective emergency maintenance	1.55	1.72	1.85	1.86	2.98	3.27	3.42
SCADA and communications	3.52	7.00	7.17	6.00	8.12	8.93	9.92
Non-reference services	7.00	10.78	5.46	4.45	5.99	5.67	5.94
Network operations	10.44	6.52	12.77	9.64	12.92	14.00	14.70
Other (non-recurring)	0	0	0	1.30	2.18	1.94	1.70
Business support	18.93	18.54	20.63	24.30	27.39	28.04	28.70
Total	71.90	75.23	75.58	74.52	100.90	105.97	112.78

¹⁵² Revised access arrangement information, pp. 83, 129.

¹⁵³ Revised access arrangement information, Appendix 9. Some inconsistencies exist between values shown in Appendix 9 and in the body of the revised access arrangement information and in Appendix 1. Values indicated in Appendix 9 have been assumed to be the correct values.

Table 15 Actual and forecast non-capital costs for the distribution network (real \$ million at 30 June 2009)¹⁵⁴

Item	05/06 Actual	06/07 Actual	07/08 Actual	08/09 Forecast	09/10 Forecast	10/11 Forecast	11/12 Forecast
Maintenance strategy	5.80	9.58	8.86	0	0	0	0
Preventative routine maintenance	30.89	28.95	30.89	31.73	54.11	56.33	59.36
Preventative condition maintenance	20.56	35.62	31.82	49.52	91.22	93.07	95.91
Corrective deferred maintenance	20.18	27.66	28.11	22.82	23.33	25.71	28.45
Corrective emergency maintenance	38.29	56.50	60.45	48.83	71.03	74.31	78.45
Reliability	2.31	3.77	1.54	1.95	1.06	1.08	1.11
SCADA and communications	0.87	1.40	1.24	1.08	1.39	1.43	1.62
Non-reference services	2.18	4.84	6.10	5.30	7.42	8.61	9.81
Network operations	9.34	13.33	10.81	13.58	20.03	21.83	23.20
Other (non-recurring)	0	0	0	0.03	22.24	25.47	23.05
Call centre	6.26	5.26	5.12	6.40	5.37	5.47	5.55
Metering	17.48	21.01	19.23	15.90	20.21	24.46	29.07
Business support	61.68	46.95	55.35	65.82	76.58	78.70	80.80
Total	215.84	254.88	259.54	262.97	393.99	416.48	436.37

398. Western Power's anticipated revisions to these forecast costs, submitted to the Authority on 25 May 2009, are indicated in Table 16 and Table 17.

¹⁵⁴ Revised access arrangement information, Appendix 9. Some inconsistencies exist between values shown in Appendix 9 and in the body of the revised access arrangement information and in Appendix 1. Values indicated in Appendix 9 have been assumed to be the correct values.

Table 16 Actual and anticipated revised forecast non-capital costs for the transmission network (real \$ million at 30 June 2009)¹⁵⁵

Item	05/06 Actual	06/07 Actual	07/08 Actual	08/09 Forecast	09/10 Forecast	10/11 Forecast	11/12 Forecast
Maintenance strategy	3.99	6.03	4.33	0	0	0	0
Preventative routine maintenance	11.06	11.84	11.74	12.09	13.66	19.98	23.90
Preventative condition maintenance	11.02	9.36	6.80	10.43	8.39	13.32	17.23
Corrective deferred maintenance	4.39	3.44	4.84	4.45	4.49	6.56	7.22
Corrective emergency maintenance	1.55	1.72	1.85	1.86	1.85	3.23	3.43
SCADA and communications	3.52	7.00	7.17	6.00	7.51	7.61	9.91
Non-reference services	7.00	10.78	5.46	4.45	0.98	5.71	5.93
Network operations	10.44	6.52	12.77	9.64	9.17	9.80	10.56
Other (non-recurring)	0	0	0	1.30	0	1.90	1.67
Business support	18.93	18.54	20.63	24.30	31.13	28.06	28.71
Total	71.90	75.23	75.58	74.52	77.19	96.17	108.65

¹⁵⁵ Revised access arrangement information, p. 84. Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information Appendix 7: Revenue Model).

Table 17 Actual and anticipated revised forecast non-capital costs for the distribution network (real \$ million at 30 June 2009)¹⁵⁶

Item	05/06 Actual	06/07 Actual	07/08 Actual	08/09 Forecast	09/10 Forecast	10/11 Forecast	11/12 Forecast
Maintenance strategy	5.80	9.58	8.86	0	0	0	0
Preventative routine maintenance	30.89	28.95	30.89	31.73	32.89	47.56	59.37
Preventative condition maintenance	20.56	35.62	31.82	49.52	40.60	71.34	95.96
Corrective deferred maintenance	20.18	27.66	28.11	22.82	15.52	25.68	28.43
Corrective emergency maintenance	38.29	56.50	60.45	48.83	58.06	68.49	78.45
Reliability	2.31	3.77	1.54	1.95	2.83	1.05	1.11
SCADA and communications	0.87	1.40	1.24	1.08	1.76	1.43	1.57
Non-reference services	2.18	4.84	6.10	5.30	7.51	8.66	9.82
Network operations	9.34	13.33	10.81	13.58	17.08	18.36	19.64
Other (non-recurring)	0	0	0	0.03	0.20	15.22	16.67
Call centre	6.26	5.26	5.12	6.40	5.37	5.52	5.56
Metering	17.48	21.01	19.23	15.90	20.20	24.45	29.08
Business support	61.68	46.95	55.35	65.82	85.39	78.66	80.77
Total	215.84	254.88	259.54	262.97	287.39	366.40	426.43

High-Level Justifications for Increases in Costs

399. Western Power describes three high-level drivers of operating expenditure for the transmission and distribution networks:

- increases in energy demand and new connections for load and generation capacity;
- an ongoing effect of previously constrained expenditure; and
- a continuing increase in unit costs, particularly in light of the resources boom in Western Australia.¹⁵⁷

400. For the distribution network, Western Power also indicates that increases in non-capital costs are driven by more onerous safety, health and environmental regulations.¹⁵⁸

401. In addition to drivers of cost increases, Western Power indicates that a significant component of expenditure that formed part of non-capital costs in the first access

¹⁵⁶ Revised access arrangement information, p. 130. Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information Appendix 7: Revenue Model).

¹⁵⁷ Revised access arrangement information, pp. 79 - 81, 127.

¹⁵⁸ Revised access arrangement information, p. 127.

arrangement period (under the line item of “maintenance strategy”) has been re-allocated to direct overhead costs.¹⁵⁹ Information provided by Western Power indicates that costs previously accounted for under “maintenance strategy” now forms part of an indirect cost pool allocated to works programs.¹⁶⁰

402. The anticipated revised forecasts of non-capital costs indicate a substantial reduction in the forecast non-capital costs for the first and second years of the second access arrangement period (2009/10 and 2010/11) relative to the original forecasts submitted as part of the proposed access arrangement revisions in October 2008. Western Power indicates that the reduction in forecast costs is due to reduced forecasts of load growth and “responsible moderation of operating expenditure ... to limit tariff increases”.¹⁶¹

Expanding transmission and distribution networks

403. Western Power contends that increases in energy demand and consequent growth of the transmission and distribution network drives increases in non-capital costs through increases in activities of inspection and operation, primarily involving:
- an increase in the number of technicians employed to manage and maintain the additional assets; and
 - an increase in the costs of SCADA and communications.¹⁶²
404. These increases in costs are indicated by Western Power to be partially offset by improvements in asset-condition monitoring and replacement of existing assets with new assets.¹⁶³
405. The Authority accepts that the expansions in the transmission and distribution networks will result in higher non-capital costs, particularly in the cost line items of “network operations” and “SCADA & communications”. The Authority has taken this into account in its assessment of forecast costs for these particular cost line items (paragraph 456 and following of this Draft Decision).

Previous budget constraints

406. Western Power contends that there exists a backlog in preventative maintenance for the transmission and distribution networks arising from budget constraints existing prior to the commencement of the access arrangement for the SWIN on 1 July 2007. This results in increased costs for several work programs for the second access arrangement period to expand inspection and maintenance activities to levels consistent with requirements under asset management policies.¹⁶⁴ This includes increased inspection activity and increased vegetation management activity.¹⁶⁵

¹⁵⁹ Revised access arrangement information, pp. 84, 130.

¹⁶⁰ Western Power, Presentation titled “Business Support Detailed Presentation” (DMS#5269534).

¹⁶¹ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs.

¹⁶² Revised access arrangement information, pp. 80, 127.

¹⁶³ Revised access arrangement information, pp. 80, 131.

¹⁶⁴ Revised access arrangement information, pp. 81, 82, 128.

¹⁶⁵ Revised access arrangement information, p. 128.

407. The Authority has received advice that Western Power's asset management plans reflect typical practice in the electricity transmission industry in Australasia and that increases in expenditure to conduct preventative maintenance in accordance with the asset management plans are justified.¹⁶⁶
408. Given the substantial increases in forecast activities and costs for preventative maintenance, the Authority has given consideration to whether Western Power has the capacity to undertake the increased activity. Western Power claims that the increase in the level of maintenance activities is deliverable by a combination of the use of internal resources (80 per cent of expenditure for transmission and 85 per cent for distribution) and contractors (20 per cent of expenditure for transmission and 15 per cent for distribution).¹⁶⁷ Western Power has further indicated that, for the transmission network, preventative maintenance activities and related costs have been reduced by an amount of \$10 million in accordance with constraints on capacity to undertake the activities.¹⁶⁸
409. Western Power provided to the Authority on a confidential basis a report by PB Associates that reviewed the delivery strategy. PB Associates concluded that Western Power's delivery plan for capital and operating works was insufficiently advanced or robust to provide certainty of full implementation of the works programs and that reducing the works program by three to five per cent would be prudent.¹⁶⁹
410. The Authority considers that there is a significant potential that the forecast of non-capital costs put forward by Western Power in the proposed access arrangement revisions may not be a reasonable forecast due to the volume of works and activities not being delivered by Western Power. However, the Authority observes that the anticipated revisions to cost forecasts provided to the Authority by Western Power indicate substantially reduced forecasts of maintenance costs in the first two years of the second access arrangement period (a reduction of 17 per cent in real terms).¹⁷⁰ The revised forecasts are addressed further below, but at this point the Authority notes that the reduction in costs is greater than the reduction in the work program contemplated by PB Associates to take into account constraints on deliverability. As such, the Authority is not concerned about the deliverability of the volume of works and activities underlying the anticipated revised forecast of non-capital costs.

Increases in unit costs

411. In deriving forecasts of costs, Western Power has applied escalation factors for real increases in wages, contract services and materials, with composite cost escalators applied for each category of operating expenditure based on the proportions of

¹⁶⁶ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, p. 71.

¹⁶⁷ Revised access arrangement information, pp 85 – 131.

¹⁶⁸ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, p. 72.

¹⁶⁹ PB Associates, August 2008, Western Power's Ability to Deliver AA2 Program of Works Business Assurance Report, Prepared for Western Power, p. 10.

¹⁷⁰ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs. The value of 17 per cent refers to the reduction in the total forecast of preventative and corrective maintenance costs.

each of these three categories of inputs to the relevant activities.¹⁷¹ The escalation factors were produced by Western Power's human resources staff (for internal labour costs) or were provided to Western Power by Access Economics, with the consultant's report provided as Appendix 2 of the revised access arrangement information and cost escalators for various input categories summarised in Appendix 1 of the revised access arrangement information.¹⁷² In summary, the cost escalators applied by Western Power are derived from escalators for particular inputs as follows.

- Real increases in labour costs for all years of the second access arrangement period, with real increases of approximately 2 per cent per annum for external labour and 3.5 per cent per annum for internal labour.
- Real increases in land costs for all years of the second access arrangement period, with real increases of 2.5 to 3 per cent per annum for Perth land in 2009/10 and 2010/11 and then a substantially greater rate of increase of about 5 per cent in 2011/12, and for non-Perth land real increases of about 2 per cent in 2009/10 and 2010/11 and then a substantially greater rate of increase of about 4 per cent in 2011/12.
- For most materials, no real increases or slight real decreases in unit costs in 2009/10 and 2010/11 and then substantial real increases in unit costs at a rate of generally 3 to 4 per cent in 2011/12. Exceptions are raw copper and raw aluminium for which real decreases in unit costs are expected for the entire period.

412. These cost escalators for particular inputs were used by Access Economics and Western Power to derive combined materials escalators and average escalators for operating and capital activities (activity escalators) as shown in Table 18.

¹⁷¹ Revised access arrangement information, p. 81.

¹⁷² Revised access arrangement information, Appendix 1: pp. 54, 55.

Table 18 Combined material escalators and weighted average escalators applied by Western Power in forecasts of capital and operating costs for the second access arrangement period (real annual rate of change, per cent)¹⁷³

Escalator category	2009/10	2010/11	2011/12
Labour			
Utilities workers	2.02	1.49	2.03
Western Power internal workers	3.44	3.32	2.73
Combined materials escalators			
Transmission operating	1.10	-1.13	3.44
Transmission capital	1.00	-1.20	3.41
Distribution operating	0.50	-1.51	3.05
Distribution capital	1.24	-1.08	3.52
Activity escalators			
Transmission operating	2.40	1.71	2.57
Transmission capital	1.58	0.08	2.98
Distribution operating	2.30	1.60	2.61
Distribution capital	2.08	0.94	2.80

413. For non-capital costs, the real increases in unit costs and resultant activity escalators contribute to only a small part of the forecast real increases in non-capital costs from 2007/08 levels (as submitted with the proposed access arrangement revisions). The cost escalation factors applied by Western Power indicate that real increases in unit costs account for increases in non-capital costs over the cost levels of 2007/08 of:
- \$23.57 million of the total real increase in non-capital costs of \$105.88 million for the transmission network; and
 - \$94.37 million of the total real increase in non-capital costs of \$494.79 million for the distribution network.
414. The report by Access Economics at Appendix 2 of the revised access arrangement information is dated 4 April 2008 and was prepared prior to the global economic downturn in the third quarter of 2008. The cost escalators are likely to have been premised on continuing “economic boom” conditions in Western Australia and the concomitant ongoing strength in labour markets in Western Australia, price pressures on labour costs and land prices, continuing high energy costs and continuing high commodity prices.
415. Following a request from the Authority to re-consider cost escalation rates in light of the economic downturn, Western Power has provided the Authority with a further report by Access Economics that presents forecasts of unit cost escalations in

¹⁷³ Revised access arrangement information, Appendix 1: p. 55. Real values were calculated using inflation rates as shown in this reference.

labour and materials, updated to May 2009 (Table 19). These revised forecasts include forecasts of real decreases in labour costs for 2010/11 and 2011/12, and real decreases in unit costs of materials over the period.

Table 19 Labour and combined material escalators for capital and operating costs determined at May 2009 (real annual rate of change, per cent)¹⁷⁴

Escalator category	2009/10	2010/11	2011/12
Labour			
Utilities workers	3.57	-1.08	-0.58
Combined materials escalators			
Transmission operating	-0.20	-2.54	1.17
Transmission capital	0.99	-4.40	-0.10
Distribution operating	0.30	-3.32	0.00
Distribution capital	-0.60	-2.54	1.27

416. Western Power has not advised the Authority of revised escalators for capital and operating activities (activity escalators). Notwithstanding this, the Authority considers that the labour and materials escalators provided in the Access Economics report of May 2009 indicate that it would be reasonable to assume no real increase in unit costs during the course of the second access arrangement period. The Authority has taken this into account in examining particular categories of forecast costs, with a general view that cost forecasts for the second access arrangement period should not include any allowance for real increases in unit costs.

More onerous safety, health and environmental regulations

417. While indicating that a driver of increases in non-capital costs for the distribution network is more onerous safety, health and environmental regulations, Western Power has not provided details of any relevant changes in regulations. Western Power indicates that part of the increase in non-capital costs is due to expansion in activities of vegetation management and activities to provide benefits of public safety (bulk globe replacement on streetlights on a three year rather than four year cycle),¹⁷⁵ but does not relate these activities to changes in regulatory requirements.
418. In the absence of information on new regulatory requirements to be faced by Western Power in the second access arrangement period, the Authority is unable to take this driver of costs into account.

Risks if proposed works are not undertaken

419. Western Power identifies three areas of risks if forecast non-capital costs are not allowed for:

¹⁷⁴ Access Economics, 29 May 2009, Material and labour cost escalation factors. Real values were calculated using forecast inflation rates as shown in this reference.

¹⁷⁵ Revised access arrangement information, pp. 128, 129, Appendix 1: section 3.8.

- unacceptable increases in the risk of deterioration in the reliability performance of the transmission network over the medium term (after the second access arrangement period);
- increases in unacceptable delays in new customer connections during the second access arrangement period; and
- increases in risks to public safety during and beyond the second access arrangement period.¹⁷⁶

420. In advising the Authority of its anticipated revisions to forecasts of non-capital costs, with reductions of 12 to 13 per cent below the original forecasts, Western Power indicates that, in reviewing the forecast expenditures, Western Power “will continue its risk-based approach and develop revised proposals based on the following strategies:

- direct expenditure to progressively address the highest public safety risks and compliance obligation; ... and
- maintain current levels of reliability”.¹⁷⁷

Business Support Costs

421. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast “business support” costs as indicated in Table 20.

Table 20 Actual and forecast business support costs (real \$ million at 30 June 2009)¹⁷⁸

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	18.54	20.63	24.30	27.39	28.04	28.70
Transmission – % change		11.2	17.8	12.7	2.4	2.4
Distribution - cost	46.95	55.35	65.82	76.58	78.70	80.80
Distribution – % change		17.9	18.9	16.3	2.8	2.7
Total – cost	65.49	75.98	90.13	103.97	106.74	109.50
Total – % change		16.0	18.6	15.4	2.7	2.6

422. Business support costs for the transmission and distribution networks are forecast to be \$92.27 million greater in real terms in total over the second access arrangement period than cost levels of 2007/08.¹⁷⁹ Of this amount:

¹⁷⁶ Revised access arrangement information, pp. 85, 132.

¹⁷⁷ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs.

¹⁷⁸ Revised access arrangement information, Appendix 9.

¹⁷⁹ The amount of \$92.27 million is calculated by summing the difference between the total forecast costs for 2009/10, 2010/11 and 2011/12 and the total cost for 2007/08; that is, (103.97 - 75.98) plus (106.74 - 75.98) plus (109.50 - 75.98).

- \$18.42 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and
 - \$73.86 million can be attributed to an increase in business support activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.
423. In explanation of the forecast costs provided with the proposed access arrangement revisions, Western Power indicates the increases in business support costs from actual costs recorded for 2007/08 arise from a number of increases in costs in 2008/09 and 2009/10 that are maintained for the second access arrangement period, and escalation in unit costs.
424. The increases in costs over actual costs recorded for 2007/08 are indicated to be:¹⁸⁰
- increases in costs of human-resources activities of \$2.5 million in 2008/09 and \$2.9 million in 2009/10;
 - an additional cost of \$5.0 million per year from 2008/09, indicated to be for a centrally-managed strategic initiative fund;
 - an increase in strategy and corporate affairs costs of approximately \$6 million in 2009/10;
 - increases in finance-activity costs of approximately \$2.2 million in 2008/09 and a further \$1.6 million in 2009/10;
 - increases in legal and governance costs by approximately \$2.4 million in 2008/09 and \$0.7 million in 2009/10;
 - increases in insurance costs by \$1.2 million in 2008/09 and increases in each subsequent year by between \$0.7 million and \$1.1 million;
 - an increase in rates and taxes by approximately \$1.1 million in 2008/09 and increases in each subsequent year by between \$0.8 million and \$1.0 million;
 - an increase in the energy safety levy by \$0.2 million in 2008/09 and further \$0.1 million in 2009/10, indicated to be required under the *Energy Safety Levy Notice 2008* published in the Government Gazette on 29 April 2008; and
 - an additional annual cost of approximately \$1.7 million from 2009/10 for costs incurred under the State Government's Power Outage Payment Scheme, where customers affected by power interruptions lasting 12 continuous hours or longer may be eligible for a payment of \$80, with the total cost estimated on the basis of historical averages.
425. There are two decreases in costs indicated:
- a decrease in costs of the office of the chief executive officer by \$1.2 million in 2009/10; and
 - a decrease in call centre costs by \$1.0 million in 2009/10, following an increase in call centre costs of \$1.3 million in 2008/09.

¹⁸⁰ Revised access arrangement information, Appendix 1: pp. 58-61.

426. The forecast increases in business support costs in the second access arrangement period from the level of recorded actual costs of 2007/08 amount to \$92.27 million over the second access arrangement period. Of the total increase in costs, Western Power has provided information that explains approximately \$46 million of this amount, being:
- real escalation of the level of costs incurred in 2007/08 to a total over the second access arrangement period of \$18.42 million;
 - an amount of \$5 million per annum from 2008/09 for the strategic initiative fund (a total of \$15 million in the second access arrangement period);
 - increases in rates and taxes by about \$6.5 million over the second access arrangement period, based on advice from Landgate on land-tax liability;
 - increases in the Energy Safety Levy by about \$1.0 million over the second access arrangement period in accordance with government requirements; and
 - an allowance of an additional \$1.7 million per annum (\$5.1 million in total for the second access arrangement period) for payments under State Government's Power Outage Payment Scheme.
427. As already indicated in this Draft Decision, the Authority considers that there is no justification for forecast costs to reflect an expectation of real increases in unit costs over the second access arrangement period. The Authority thus considers that the forecast business support costs should account only for a real escalation of costs for 2007/08 to 2008/09. This is indicated by Western Power to be at a real rate of 3.30 per cent for the transmission network and 3.69 per cent to the distribution network, and accounts for an increase in forecast costs of \$8.2 million in the second access arrangement period.
428. The Authority has considered the amount of approximately \$5 million per annum indicated by Western Power to be for the strategic initiative fund. Western Power has indicated that the proposed strategic initiatives are in categories of operational excellence, green initiatives and customer and community-focussed initiatives.¹⁸¹ Wilson Cook & Co has advised the Authority that the amounts for green initiatives and customer and community-focussed initiatives "could be regarded as discretionary for a network business unless there were demonstrable benefits but the amounts are small for a business of Western Power's size and contribute to the Corporation's responsibility to be a good corporate citizen".¹⁸² The Authority considers that Western Power could better justify this expenditure, but accepts that an allowance of costs for activities of this type is appropriate for Western Power.
429. The Authority has also considered the forecast increase of \$1.7 million per annum for payments under the State Government's Power Outage Payment Scheme. Western Power has advised that the forecast amounts of payments are based on *all* eligible customers receiving payments, while not all such payments may be claimed by customers and paid.¹⁸³ Actual and forecast payments for the period

¹⁸¹ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, p. 65.

¹⁸² Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, p. 65.

¹⁸³ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, p. 65.

2006/07 to 2008/09 are in the range of \$0.34 to \$0.48 million. The Authority considers that the values of these payments should be based on actual values of payments likely to be made, rather than a hypothetical amount determined on the basis that all possible payments were made. Accordingly, the Authority considers that an allowance for these payments would be better established at \$0.5 million per annum.

430. The Authority thus considers that Western Power has explicitly justified approximately \$32 million of the forecast \$92 million real increase in non-capital costs for business support.
431. The Authority accepts that some real increase in business support costs may arise with the increasing size of Western Power's business. In this regard, the Authority observes that the cost forecasts provided by Western Power in the revised access arrangement information indicate some minor scale economies in business support costs, with business support costs being 5.3 per cent of total forecast capital and non-capital costs in the second access arrangement period, compared with 6.5 per cent in the first access arrangement period. However, the anticipated revised forecast of costs indicates diseconomies of scale in business support costs, with business support costs being 8.2 per cent of the revised forecast total capital and non-capital costs.
432. The Authority has received advice from Wilson Cook & Co that the forecast business support costs are reasonable, although this advice is not supported by documented analysis or reasons.¹⁸⁴ Given the limitations of this advice, the Authority is not satisfied that Western Power has adequately substantiated the forecast of business support costs. In particular, the Authority is not satisfied that an increase in business support costs in approximately direct proportion to the total increase in costs of the business is consistent with a service provider efficiently minimising costs. Rather, the Authority considers that significant economies of scale should be observable in these costs.
433. Taking into account the above, the Authority considers that Western Power has not adequately demonstrated that all of the forecast increase in business support costs of approximately \$92 million over actual costs incurred in 2007/08 is consistent with the requirements of section 6.40 of the Code. The Authority considers that a forecast of business support costs for the second access arrangement period that would comply with the requirements of section 6.40 of the Access Code would provide only for a total increase in real costs of \$40 million over 2007/08 costs (equivalent to \$13.3 million in each year), which allows for adequately substantiated increases in costs (\$32 million) plus some increase in business support costs with the size of Western Power's business (\$8 million).
434. In the submission provided to the Authority on anticipated revisions to cost forecasts, Western Power indicates a higher forecast of business support costs for 2009/10 (\$31.13 million rather than \$27.39 million for the transmission network, and \$85.39 million rather than \$76.58 million for the distribution network), and approximately the same forecasts for 2010/11 and 2011/12. No explanation is provided for the increase in the forecast costs for 2009/10 and the Authority

¹⁸⁴ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, p. 66.

considers that, in the absence of any further justification, this revised forecast would also be inconsistent with section 6.40 of the Access Code.

435. The Authority has derived a reduced forecast of business support costs allowing for an increase in costs over the second access arrangement period of \$40 million in total. When allocated between the transmission and distribution networks in the same proportions as in the forecasts provided by Western Power, the amended business support costs are as indicated in Table 21.

Table 21 Amended forecast of business support costs (real \$ million at 30 June 2009)

	2007/08	2009/10	2010/11	2011/12
	Actual	Forecast	Forecast	Forecast
Transmission – proposed	20.63	27.39	28.04	28.70
Transmission – amended		23.52	23.46	23.41
Distribution – proposed	55.35	76.58	78.70	80.80
Distribution – amended		65.79	65.85	65.90
Total – proposed	75.98	103.97	106.74	109.50
Total amended		89.31	89.31	89.31

Preventative Maintenance

436. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast costs for “preventative routine maintenance” and “preventative condition maintenance” as indicated in Table 22 and Table 23.

Table 22 Actual and forecast preventative routine maintenance costs (real \$ million at 30 June 2009)¹⁸⁵

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	11.84	11.74	12.09	21.42	22.65	23.91
Transmission – % change		-0.8	3.0	77.1	5.8	5.5
Distribution - cost	28.95	30.89	31.73	54.11	56.33	59.36
Distribution – % change		6.7	2.7	70.5	4.1	5.4
Total – cost	40.79	42.64	43.82	75.53	78.98	83.27
Total – % change		4.5	2.8	72.3	4.6	5.4

¹⁸⁵ Revised access arrangement information, Appendix 9.

**Table 23 Actual and forecast preventative condition maintenance costs
(real \$ million at 30 June 2009)¹⁸⁶**

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	9.36	6.80	10.43	14.17	14.94	17.26
Transmission – % change		-27.4	53.4	35.9	5.4	15.6
Distribution - cost	35.62	31.82	49.52	91.22	93.07	95.91
Distribution – % change		-10.7	55.6	84.2	2.0	3.0
Total – cost	44.99	38.62	59.95	105.39	108.01	113.17
Total – % change		-14.2	55.2	75.8	2.5	4.8

437. Preventive routine maintenance costs for the transmission and distribution networks are forecast to be \$109.88 million greater in real terms in total over the second access arrangement period than cost levels of 2007/08. Of this amount:

- \$10.33 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and
- \$99.54 million can be attributed to an increase in preventative routine maintenance activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.

438. Preventive condition maintenance costs for the transmission and distribution networks are forecast to be \$210.71 million greater than cost levels of 2007/08 in real terms. Of this amount:

- \$9.39 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and
- \$201.33 million can be attributed to an increase in preventative condition maintenance activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.

439. For both transmission and distribution, Western Power attributes the forecast increase in preventative routine maintenance costs to an expansion in inspection and maintenance activities to a level in full compliance with asset maintenance plans and policies.¹⁸⁷ The principal elements of increased expenditure are indicated to be for:

- increased maintenance of primary plant items for the transmission network such as transformers and circuit breakers;
- treatment of insulators with silicon, increased line patrols, building maintenance and secondary plant maintenance for the transmission network;

¹⁸⁶ Revised access arrangement information, Appendix 9.

¹⁸⁷ Revised access arrangement information, Appendix 1: p. 97, 98, 161.

- an enhanced program of power pole inspections for the distribution network at an additional annual cost of approximately \$10 million for timber poles and \$4 million per annum for metal poles and street lighting poles;
 - an increase in “substation bundled inspections” on the distribution network in response to an increased occurrence of ring main faults, and at an additional cost of about \$10 million per annum; and
 - a program of bulk replacement of streetlight lamps at a cost of approximately \$3 million per annum.¹⁸⁸
440. Western Power indicates that the forecast increases in preventative condition maintenance costs arise from:
- addressing conditions and defects identified through preventative routine maintenance programs;
 - removing a backlog of transmission and distribution conditions;
 - a specific five year inspection and maintenance project for transformers; and
 - a specific five year project for lattice towers.¹⁸⁹
441. The forecast increases in preventative maintenance costs include amounts in respect of assumed escalation in unit costs. As already indicated in this Draft Decision, the Authority considers that there is no justification for forecasts of costs to reflect an expectation of real increases in unit costs over the second access arrangement period. The Authority thus considers that the forecast preventative maintenance costs should not include any amount in respect of real escalation of unit costs for the years 2009/10 to 2011/12.
442. The anticipated revisions to cost forecasts submitted by Western Power to the Authority incorporate substantial reductions in the forecast costs for preventative maintenance, as indicated in Table 24 and Table 25. Western Power indicates lower forecasts of preventative routine maintenance costs and preventative condition maintenance costs for 2009/10 and 2010/11, but approximately the same forecast costs for 2011/12.

¹⁸⁸ Wilson Cook & Co Ltd, May 2009, Review of Western Power’s Expenditures for Second Access Arrangement Final Report, pp. 71, 72, 80, 81.

¹⁸⁹ Revised access arrangement information, Appendix 1: pp. 99, 100, 162.

Table 24 Proposed and anticipated-revised forecasts of preventative routine maintenance costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	21.42	22.65	23.91
Transmission – anticipated revised	13.66	19.98	23.90
Distribution – proposed	54.11	56.33	59.36
Distribution – anticipated revised	32.89	47.56	59.37
Total – proposed	75.53	78.98	83.27
Total – anticipated revised	46.55	67.54	83.27

Table 25 Proposed and anticipated revised forecasts of preventative condition maintenance costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	14.17	14.94	17.26
Transmission – anticipated revised	8.39	13.32	17.23
Distribution – proposed	91.22	93.07	95.91
Distribution – anticipated revised	40.60	71.34	95.96
Total – proposed	105.39	108.01	113.17
Total – anticipated revised	48.99	84.66	113.18

443. The Authority observes that the anticipated revisions to forecast preventative maintenance costs include substantial real increases in costs from year to year over the second access arrangement period: a 45 per cent increase in preventative routine maintenance costs from 2009/10 to 2010/11 and 23 per cent increase from 2010/11 to 2011/12; and a 73 per cent increase in preventative condition maintenance costs from 2009/10 to 2010/11 and 34 per cent increase from 2010/11 to 2011/12. Western Power has not provided any information to indicate why, if the anticipated revised forecasts incorporate large reductions to costs in the first year of the second access arrangement period, there remains a need for the very substantial increases over the period such that levels of cost in the final year (2011/12) are the same as the original forecast.
444. In view of the lack of justifying information for the substantial increases in forecast costs over the second access arrangement period, the Authority is not satisfied that the anticipated revised forecasts are consistent with the requirements of section 6.40 of the Access Code. The Authority expects that Western Power will provide further information to support the anticipated revised forecasts following the issuing of this Draft Decision. Pending any such information being received, and for the purposes of this Draft Decision, the Authority considers that the year-to-year

increases in forecasts costs should be limited to 15 per cent, as indicated in Table 26 and Table 27.

Table 26 Proposed and amended forecasts of preventative routine maintenance costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	21.42	22.65	23.91
Transmission – amended	13.66	15.71	18.07
Distribution – proposed	54.11	56.33	59.36
Distribution – amended	32.89	37.82	43.49
Total – proposed	75.53	78.98	83.27
Total – amended	46.55	53.53	61.56

Table 27 Proposed and amended forecasts of preventative condition maintenance costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	14.17	14.94	17.26
Transmission – amended	8.39	9.65	11.10
Distribution – proposed	91.22	93.07	95.91
Distribution – amended	40.60	46.68	53.69
Total – proposed	105.39	108.01	113.17
Total – amended	48.99	56.34	64.79

Corrective Maintenance

445. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast corrective deferred maintenance and corrective emergency maintenance costs, as follows (Table 28 and Table 29).

Table 28 Actual and forecast corrective deferred maintenance costs (real \$ million at 30 June 2009)¹⁹⁰

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	3.44	4.84	4.45	5.73	6.53	7.21
Transmission – % change		40.5	-8.1	28.7	14.0	10.5
Distribution - cost	27.66	28.11	22.82	23.33	25.71	28.45
Distribution – % change		1.6	-18.8	2.2	10.2	10.6
Total – cost	31.10	32.95	27.27	29.05	32.24	35.66
Total – % change		6.0	-17.2	6.5	11.0	10.6

Table 29 Actual and forecast corrective emergency maintenance costs (real \$ million at 30 June 2009)¹⁹¹

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	1.72	1.85	1.86	2.98	3.27	3.42
Transmission – % change		7.6	0.3	60.1	9.8	4.7
Distribution - cost	56.50	60.45	48.83	71.03	74.31	78.45
Distribution – % change		7.0	-19.2	45.5	4.6	5.6
Total – cost	58.23	62.30	50.69	74.01	77.58	81.87
Total – % change		7.0	-18.6	46.0	4.8	5.5

446. Corrective deferred maintenance costs in total for the transmission and distribution networks are forecast to be \$1.91 million less than cost levels of 2007/08.
447. For the transmission network corrective deferred maintenance costs are forecast to be \$4.95 million greater in real terms over the second access arrangement period than cost levels of 2007/08. Of this amount:
- \$1.15 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and
 - \$3.80 million can be attributed to an increase in corrective deferred maintenance activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.
448. The forecast corrective deferred maintenance costs for the distribution network are below or similar to the level of actual costs for 2007/08 in real terms, with the total

¹⁹⁰ Revised access arrangement information, Appendix 9.

¹⁹¹ Revised access arrangement information, Appendix 9.

costs forecast for the second access arrangement period being \$6.86 million less in real terms than the level of costs in 2007/08.

449. Corrective emergency maintenance costs for the transmission and distribution networks are forecast to be \$46.54 million greater in real terms in total over the second access arrangement period than cost levels of 2007/08. Of this amount:
- \$15.21 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and
 - \$31.34 million can be attributed to an increase in corrective emergency maintenance activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.
450. In supporting documents to the proposed access arrangement revisions, Western Power provides very limited justification or reasons for the changes in corrective emergency maintenance costs, other than indicating that the cost forecasts are based on historical trends and cost escalation factors.¹⁹² The increase in corrective emergency maintenance costs for the distribution network in 2009/10 is indicated to be, in part about \$6.2 million per year, due to a forecast increase in hire costs for emergency response generators for the purposes of decreasing the number of customers affected by planned outages. Western Power indicates that deploying emergency response generators to 400 additional planned maintenance events per annum will have the effect of reducing outage durations over the South West Interconnected System (**SWIS**) by 44.2 SAIDI minutes (indicating that, on average, each planned interruption is responsible for 0.03 SWIS SAIDI minutes).¹⁹³
451. Western Power indicates that the additional preventative maintenance activities and costs will not have an effect on costs of corrective maintenance until after the second access arrangement period.¹⁹⁴
452. The Authority has received advice that the overall increasing trend in corrective maintenance costs is unreasonable given the increased preventative maintenance costs being proposed by Western Power.¹⁹⁵ While the increase in preventative maintenance activities and costs may not give rise to an immediate reduction in corrective maintenance costs, there is an apparent inconsistency with the increase in preventative maintenance activities being associated with a rising trend in corrective maintenance costs, rather than these costs remaining approximately constant in real terms. Notwithstanding this advice, the Authority recognises that the forecast corrective maintenance costs reflect not only a rate of faults, which may be expected to be stabilised or reduced by an increase in preventative maintenance activities, but also by additional corrective maintenance activities to improve service standards while addressing the same number of faults. The additional use and costs of emergency response generators are a case in point.
453. The anticipated revisions to cost forecasts submitted by Western Power to the Authority incorporate substantial reductions in the forecast costs for corrective maintenance (Table 30 and Table 31).

¹⁹² Revised access arrangement information, Appendix 1: pp. 100, 101, 162, 163.

¹⁹³ Revised access arrangement information, Appendix 1: pp. 157, 158.

¹⁹⁴ Revised access arrangement information, Appendix 1: p. 101.

¹⁹⁵ Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, pp. 72, 82.

Table 30 Proposed and anticipated-revised forecasts of corrective deferred maintenance costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	5.73	6.53	7.21
Transmission – anticipated revised	4.49	6.56	7.22
Distribution – proposed	23.33	25.71	28.45
Distribution – anticipated revised	15.52	25.68	28.43
Total – proposed	29.05	32.24	35.66
Total – anticipated revised	20.01	32.25	35.66

Table 31 Proposed and anticipated-revised forecasts of corrective emergency maintenance costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	2.98	3.27	3.42
Transmission – anticipated revised	1.85	3.23	3.43
Distribution – proposed	71.03	74.31	78.45
Distribution – anticipated revised	58.06	68.49	78.45
Total – proposed	74.01	77.58	81.87
Total – anticipated revised	59.92	71.72	81.88

454. The Authority observes that the anticipated revisions to forecast corrective maintenance costs include substantial real increases in costs from year to year over the second access arrangement period: a 61 per cent increase in corrective deferred maintenance costs from 2009/10 to 2010/11 and an 11 per cent increase from 2010/11 to 2011/12; and a 20 per cent increase in corrective emergency maintenance costs from 2009/10 to 2010/11 and 14 per cent increase from 2010/11 to 2011/12. Western Power has not provided any information to indicate why, if the anticipated revised forecasts incorporate large reductions to costs in the first year of the second access arrangement period, there remains a need for the substantial increases over the period such that levels of cost in the final year (2011/12) are the same as the original forecast.
455. The Authority is required by the Access Code to assess the information contained in the proposed access arrangement revisions and may only take into account the submission containing anticipated revisions as a submission by Western Power. However, if the anticipated revisions were submitted by Western Power in response to the Authority's draft decision, the Authority would not be satisfied that the anticipated revised forecasts were consistent with the requirements of section 6.40 of the Access Code as there is a lack of justifying information for the substantial

increases in forecast costs over the second access arrangement period. The Authority expects that Western Power will provide further information to support the anticipated revised forecasts following the issuing of this Draft Decision. For the purposes of this Draft Decision, the Authority considers that the year-to-year increases in forecasts costs should be limited to 15 per cent, as indicated in Table 32 and Table 33.

**Table 32 Amended forecast of corrective deferred maintenance costs
(real \$ million at 30 June 2009)**

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	5.73	6.53	7.21
Transmission – amended	4.49	5.16	5.94
Distribution – proposed	23.33	25.71	28.45
Distribution – amended	15.52	17.84	20.52
Total – proposed	29.05	32.24	35.66
Total amended	20.01	23.01	26.46

**Table 33 Amended forecast of corrective emergency maintenance costs
(real \$ million at 30 June 2009)**

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	2.98	3.27	3.42
Transmission – amended	1.85	2.13	2.45
Distribution – proposed	71.03	74.31	78.45
Distribution – amended	58.06	66.77	76.79
Total – proposed	74.01	77.58	81.87
Total amended	59.92	68.91	79.24

Network Operations and SCADA & Communications

456. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast costs for “network operations” and “SCADA & communications” as indicated in Table 34 and Table 35.

Table 34 Actual and forecast network operations costs (real \$ million at 30 June 2009)¹⁹⁶

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	6.52	12.77	9.64	12.92	14.00	14.70
Transmission – % change		<u>95.7</u>	<u>-24.5</u>	<u>34.0</u>	<u>8.3</u>	<u>5.0</u>
Distribution - cost	13.33	10.81	13.58	20.03	21.83	23.20
Distribution – % change		<u>-18.9</u>	<u>25.6</u>	<u>47.5</u>	<u>9.0</u>	<u>6.3</u>
Total – cost	19.85	23.58	23.22	32.96	35.83	37.90
Total – % change		18.8	-1.5	41.9	8.7	5.8

Table 35 Actual and forecast SCADA & communications costs (real \$ million at 30 June 2009)¹⁹⁷

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	7.00	7.17	6.00	8.12	8.93	9.92
Transmission – % change		2.5	-16.3	35.3	10.0	11.0
Distribution - cost	1.40	1.24	1.08	1.39	1.43	1.62
Distribution – % change		-11.7	-12.6	28.3	3.3	12.9
Total – cost	8.39	8.40	7.08	9.51	10.37	11.54
Total – % change		0.1	-15.7	34.3	9.1	11.3

457. Network operations costs for the transmission and distribution networks are forecast to be \$35.93 million greater in real terms in total over the second access arrangement period than cost levels of 2007/08. Of this amount:

- \$5.67 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and
- \$30.26 million can be attributed to an increase in network operations activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.

458. SCADA & communications costs for the transmission and distribution networks are forecast to be \$6.20 million greater in real terms in total over the second access arrangement period than cost levels of 2007/08. Of this amount:

- \$2.00 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and

¹⁹⁶ Revised access arrangement information, Appendix 9.

¹⁹⁷ Revised access arrangement information, Appendix 9.

- \$4.20 million can be attributed to an increase in SCADA & communications activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.
459. For the transmission network, Western Power attributes the increases in network operations and SCADA & communications costs to the increasing size of the transmission network, increased functionality of the network and an increased requirement for switching activities to support a larger works program.
460. For the distribution network, Western Power attributes the increases in network operations and SCADA costs to:¹⁹⁸
- forecast increases in access requests and consequent increases in staff numbers;
 - an additional “Metro South” operations desk and staff for this;
 - additional planning and support staff for operations;
 - increased switching activities to support expanded capital and maintenance programs;
 - expenditure on diesel fuel for “peak-logging” generators deployed on the edges of the network; and
 - growth of the network and requirements for more personnel, software maintenance costs and software licence costs and “continued roll out of distribution automation and smart grid initiatives”.
461. Taking into account the expected increase in network operations and communications activities requirements with expansion of the network, the Authority considers that the forecast network operations and SCADA & communications costs, less a correction to remove allowances for escalation in unit costs during the second access arrangement period (amounting to a total of \$5.89 million for the transmission and distribution networks over the second access arrangement period), would be consistent with the requirements of section 6.40 of the Access Code.
462. The anticipated revisions to cost forecasts submitted by Western Power to the Authority in May 2009 incorporate substantial reductions in the forecast costs.
463. In the submission provided to the Authority on anticipated revisions to cost forecasts, Western Power indicates lower forecasts of network operations costs in all years of the second access arrangement period:
- for the transmission network –
 - \$9.17 million rather than \$12.92 million for 2009/10
 - \$9.80 million rather than \$14.00 million for 2010/11
 - \$10.56 million rather than \$14.70 million for 2011/12; and

¹⁹⁸ Revised access arrangement information, Appendix 1: pp. 104, 165 – 167. Wilson Cook & Co Ltd, May 2009, Review of Western Power’s Expenditures for Second Access Arrangement Final Report, p. 79.

- for the distribution network –
 - \$17.08 million rather than \$20.03 million for 2009/10
 - \$18.36 million rather than \$21.83 million for 2010/11
 - \$19.64 million rather than \$23.20 million for 2011/12.
464. In the submission provided to the Authority on anticipated revisions to cost forecasts, Western Power indicates lower forecasts of SCADA & communications costs in the first two years of the second access arrangement period for the transmission network:
- \$7.51 million rather than \$8.12 million for 2009/10; and
 - \$7.61 million rather than \$8.93 million for 2010/11.
465. For the distribution network, Western Power indicates slightly higher forecast SCADA & communications costs for the first year of the second access arrangement period: \$1.76 million rather than \$1.39 million for 2009/10.
466. Given that Western Power has submitted anticipated revisions to forecast network operations and SCADA & communications costs with a reduction in these costs by an amount greater than the amount attributable to escalation in unit costs, the Authority considers that the forecast costs should be amended in accordance with Western Power's anticipated revisions to the forecast non-capital costs, as indicated in Table 36 and Table 37.

Table 36 Amended forecast of network operations costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	12.92	14.00	14.70
Transmission – amended	9.17	9.80	10.56
Distribution – proposed	20.03	21.83	23.20
Distribution – amended	17.08	18.36	19.64
Total – proposed	32.96	35.83	37.90
Total amended	26.25	28.16	30.19

Table 37 Amended forecast of SCADA & communications costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	8.12	8.93	9.92
Transmission – amended	7.51	7.61	9.91
Distribution – proposed	1.39	1.43	1.62
Distribution – amended	1.76	1.43	1.57
Total – proposed	9.51	10.37	11.54
Total amended	9.27	9.04	11.49

Call Centre

467. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast “call centre” costs for the distribution network as indicated in Table 38.

Table 38 Actual and forecast call centre costs (real \$ million at 30 June 2009)¹⁹⁹

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Distribution - cost	5.26	5.12	6.40	5.37	5.47	5.55
Distribution – % change		-2.6	24.9	-16.2	1.9	1.4

468. Call centre costs for the distribution network are forecast to be \$1.01 million greater than cost levels of 2007/08 in real terms, which can be entirely attributed to real increases in unit costs at escalation rates applied by Western Power. Western Power indicates that the forecast of call centre costs has been derived by escalation of historical costs for forecast changes in labour and materials costs.²⁰⁰

469. The Authority considers that consistency of the forecast of call centre costs with section 6.40 of the Access Code requires correction of the forecast to remove allowances for cost escalation during the second access arrangement period (\$0.67 million).

470. The anticipated revisions to cost forecasts submitted by Western Power to the Authority include approximately the same forecast call centre costs as the original forecast.

471. The Authority considers that the forecast of call centre costs should be amended to remove the amount attributable to escalation of unit costs in the second access

¹⁹⁹ Revised access arrangement information, Appendix 9.

²⁰⁰ Revised access arrangement information, Appendix 1: p. 160.

arrangement period. The amended forecast of call centre costs is indicated in Table 39.

Table 39 Amended forecast of call centre costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Distribution – proposed	5.37	5.47	5.55
Distribution – amended	5.25	5.26	5.20

Metering

472. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast metering costs for the distribution network as indicated in Table 40.

Table 40 Actual and forecast metering costs (real \$ million at 30 June 2009)²⁰¹

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Distribution - cost	21.01	19.23	15.90	20.21	24.46	29.07
Distribution – % change		-8.5	-17.3	27.1	21.0	18.9

473. Metering costs for the distribution network are forecast to be \$16.05 million greater in real terms in total over the second access arrangement period than cost levels of 2007/08. Of this amount:

- \$4.70 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and
- \$11.35 million can be attributed to an increase in metering activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.

474. Western Power has attributed the forecast increases in metering costs to:

- growth of the network and a forecast increase in meter readings from 6.05 million per annum to 7.37 million per annum; and
- requirements under the Metering Code to audit all “CT metering installations” over a five year cycle.²⁰²

475. Western Power has also included in the forecast metering costs an allowance for the operation and maintenance of “smart meters”. Western Power indicates that this accounts for \$22 million of forecast metering costs.²⁰³

²⁰¹ Revised access arrangement information, Appendix 9.

²⁰² Revised access arrangement information, Appendix 1: pp. 168, 169.

476. Subsequent to submission of the proposed access arrangement revisions, Western Power has indicated to the Authority that the inclusion in the forecast non-capital costs of costs relating to smart meters is an error, consistent with the following statement in the revised access arrangement information:²⁰⁴

Consideration is being given at a national level for the introduction of 'smart meters', with current indications being that smart metering will be phased in nationally under arrangements that are yet to be finalised. As issues such as technical standards, funding arrangements, and the timing of a smart meter rollout are yet to be determined, Western Power will not be seeking specific funding for this work in this submission. Rather, once the requirements for smart meter implementation are determined, Western Power will develop a response and seek funding under [the unforeseen events] 'pass-through' arrangements in the Access Arrangement.

477. The Authority observes that, after correction for the costs associated with smart meters, forecast metering costs for the second access arrangement period are slightly below the actual metering costs of 2007/08. On this basis, the Authority accepts that the forecast of metering costs less the allowance for smart meters and less a correction to remove allowances for cost escalation during the second access arrangement period (amounting to a total of approximately \$3.19 million) is consistent with the requirements of section 6.40 of the Access Code.
478. In the advice provided to the Authority on anticipated revisions to cost forecasts, Western Power does not indicate any change to forecast metering costs.
479. The amended forecast of metering costs with the correction to remove costs associated with smart meters and the allowance for escalation in unit costs is indicated in Table 41.

Table 41 Amended forecast of metering costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Distribution – proposed	20.21	24.46	29.07
Distribution – amended	16.27	16.44	16.34

Non-Recurring Costs

480. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast non-recurring non-capital costs as indicated in Table 42.

²⁰³ Western Power, (undated), Powerpoint presentation provided to Wilson Cook & Co Ltd titled "Metering Opex Access Arrangement Submission Presentation Presented by Mr A. Stephenson". Values are \$3.49 million in 2009/10, \$7.09 million in 2010/11, \$10.92 million in 2011/12.

²⁰⁴ Revised access arrangement information, Appendix 1: p. 53.

Table 42 Actual and forecast non-recurring costs (real \$ million at 30 June 2009)²⁰⁵

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	0	0	1.30	2.18	1.94	1.70
Transmission – % change		-	-	67.6	-11.0	-12.1
Distribution - cost	0	0	0.03	22.24	25.47	23.05
Distribution – % change		-	-	-	14.5	-9.5
Total – cost	0	0	1.33	24.42	27.41	24.76
Total – % change		-	-	1730.5	12.3	-9.7

481. For the transmission network, the non-recurrent costs are indicated to arise in the removal of redundant assets and remediation of line easements, and management of asbestos risks in transmission assets.²⁰⁶
482. For the distribution network, the non-recurrent costs are indicated to arise in:
- research and development projects for demand-side management, with a total forecast cost of \$9.6 million;
 - research and development projects for positioning Western Power as an “energy solutions” business, with a forecast cost of \$16.7 million;
 - field surveys for capturing and improving asset information, with a forecast cost of \$14.3 million;
 - training of staff and contractors, with a forecast cost of \$29.7 million; and
 - maintenance of automated switches, with a forecast cost of \$0.43 million.²⁰⁷
483. The Authority has received advice that the proposed non-recurrent costs are reasonable, although this advice is unsupported by analysis or reasons, and does not take into account Western Power’s anticipated revised forecast of costs.²⁰⁸
484. On the forecast costs for research and development associated with demand management, the Authority observes that regulators of electricity distribution businesses in other jurisdictions have allowed for costs of research and development for demand-side management in regulated revenues, although the allowed levels of costs are substantially lower (at between \$0.6 and \$1 million per year rather than approximately \$3 million per year as proposed by Western Power),

²⁰⁵ Revised access arrangement information, Appendix 9.

²⁰⁶ Revised access arrangement information, Appendix 1: pp. 105, 106.

²⁰⁷ Revised access arrangement information, Appendix 1: pp. 169–174.

²⁰⁸ Wilson Cook & Co Ltd, May 2009, Review of Western Power’s Expenditures for Second Access Arrangement Final Report, pp. 84, 85.

and the distribution businesses are held to some account for the use of these funds.²⁰⁹

485. On Western Power's forecast costs for research and development associated with development of Western Power as an "energy solutions" business, no further justification for these costs has been provided. The Authority is not satisfied that these research and development activities and associated costs are sufficiently closely related to the provision of covered services to warrant inclusion in the total costs and target revenue under the price control.
486. On Western Power's forecast costs for training, the Authority is satisfied that an amount of training activities may appropriately be included in the total costs and target revenue under the price control. However, the Authority considers that the level of costs forecast by Western Power should be reduced to reflect a reduction in forecast new loads for the second access arrangement period and a reduced capital investment program, as addressed later in this Draft Decision (see paragraph 637).
487. On Western Power's forecasts costs for field surveys for capturing and improving asset information, the Authority recognises that there is evidence of Western Power's asset management being hampered by poor asset information (as indicated at paragraph 352 of this Draft Decision). The Authority considers that there is at least a *prima facie* case for expenditure to improve this information.
488. The Authority considers that the level of costs forecast for maintenance of automated switches is immaterial.
489. Taking the above into account, the Authority considers that the forecast of non-recurring costs is inconsistent with the requirements of section 6.40 of the Access Code. The Authority considers that consistency with section 6.40 would require a reduction in the forecast costs for research and development on demand management to a total of \$3 million over the second access arrangement period, exclusion of costs for research and development for Western Power's "energy solutions" business initiative, and a halving of the forecast cost for training. This results in a reduction in the forecast non-recurrent costs by \$38.2 million.
490. In the advice provided to the Authority on anticipated revisions to cost forecasts, Western Power indicates substantially lower forecasts of non-recurring costs of \$35.66 million rather than \$76.59 million, with reductions as follows:
 - for the transmission network –
 - zero rather than \$2.18 million in 2009/10, with values for 2010/11 and 2011/12 being approximately the same; and
 - for the distribution network –
 - \$0.20 million rather than \$22.24 million in 2009/10
 - \$15.22 million rather than \$25.47 million in 2010/11

²⁰⁹ Australian Energy Regulator, 28 April 2009, Final decision New South Wales Distribution Determination 2009-10 to 2013-14, pp. xxxii – xxxv. Essential Services Commission, October 2005, Electricity Distribution Price Review 2006-10 Final Decision Volume 1 Statement of purpose and Reasons, pp. 213, 240.

- \$16.67 million rather than \$23.05 million in 2011/12.

491. The Authority observes that anticipated revised forecast of non-recurrent costs is of a similar value to the reduced value considered by the Authority to be consistent with section 6.40 of the Access Code.
492. On this basis, the Authority considers that the forecast of non-recurrent costs should be reduced to the amount of the anticipated revised forecast, as indicated in Table 43.

Table 43 Amended forecast of non-recurrent costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	2.18	1.94	1.70
Transmission – amended	0	1.90	1.67
Distribution – proposed	22.24	25.47	23.05
Distribution – amended	0.20	15.22	16.67
Total – proposed	24.42	27.41	24.76
Total amended	0.20	17.12	18.34

Reliability

493. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast non-capital costs for a cost item of reliability improvement as indicated in Table 44.

Table 44 Actual and forecast reliability-improvement costs (real \$ million at 30 June 2009)²¹⁰

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Distribution - cost	3.77	1.54	1.95	1.06	1.08	1.11
Distribution – % change		-59.0	26.2	-45.5	1.6	2.6

494. Western Power has forecast reliability improvement costs at a level less than actual costs recorded for 2007/08.
495. Reliability improvement costs are indicated by Western Power to comprise inspection and maintenance activities designed to increase the reliability of the distribution network, such as pole top inspections, line patrols and maintenance works resulting from the inspections.²¹¹

²¹⁰ Revised access arrangement information, Appendix 9.

²¹¹ Revised access arrangement information, Appendix 1: p. 173.

496. Western Power has advised that the costs for reliability improvement were forecast to decline in the second access arrangement period as the relevant activities and costs are increasingly included in the planned maintenance programs.²¹² In its submission to the Authority on the anticipated revisions to the forecast of non-capital costs, Western Power has foreshadowed increases in forecast reliability-improvement costs for 2009/10, but has not provided reasons for the increase. Western Power indicates, however, the review of forecast costs was based on strategies of directing expenditure to progressively addressing the highest public safety risks and compliance obligations and maintaining current levels of reliability.²¹³
497. In the submission provided to the Authority on anticipated revisions to cost forecasts, Western Power indicates an increase in the forecast costs for reliability in 2009/10 (\$2.83 million rather than \$1.06 million), but approximately the same costs in 2010/11 and 2011/12.
498. Taking into account Western Power's anticipated revisions to forecast costs for maintenance activities, the Authority considers that it is not unreasonable that Western Power may increase some activities related directly to maintaining and improving the reliability of distribution services. On this basis, the Authority considers that an amendment of the forecast non-capital costs for reliability improvement to the levels of anticipated revisions by Western Power is consistent with the requirements of section 6.40 of the Access Code (Table 45).

Table 45 Amended forecast of reliability-improvement costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Distribution – proposed	1.06	1.08	1.11
Distribution – amended	2.83	1.05	1.11

Non-Reference Services

499. In the cost forecasts presented as part of the proposed access arrangement revisions, Western Power has presented actual and forecast non-capital costs for the provision of “non-reference services” (also referred to as “miscellaneous services”) as indicated in Table 49.

²¹² Wilson Cook & Co Ltd, May 2009, Review of Western Power's Expenditures for Second Access Arrangement Final Report, p. 79.

²¹³ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs.

Table 46 Actual and forecast non-reference (miscellaneous) services costs (real \$ million at 30 June 2009)²¹⁴

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
	Actual	Actual	Forecast	Forecast	Forecast	Forecast
Transmission - cost	10.78	5.46	4.45	5.99	5.67	5.94
Transmission – % change		-49.4	-18.5	34.7	-5.5	4.9
Distribution - cost	4.84	6.10	5.30	7.42	8.61	9.81
Distribution – % change		25.9	-13.1	40.1	16.0	14.0
Total – cost	15.62	11.55	9.75	13.42	14.27	15.76
Total – % change		-26.0	-15.6	37.6	6.4	10.4

500. Forecast costs for the provision of non-reference services for the transmission and distribution networks are forecast to be \$8.78 million greater in real terms in total over the second access arrangement period than cost levels of 2007/08. Of this amount:
- \$2.78 million can be attributed to real escalation of the level of costs of 2007/08 at escalation rates applied by Western Power; and
 - \$6.00 million can be attributed to an increase in non-reference service activities and costs, and escalation of this incremental cost at escalation rates applied by Western Power.
501. Western Power does not provide reasons or justification for the forecast costs for non-reference services for the transmission network.
502. For the distribution network, Western Power indicates that the increases in costs for the second access arrangement period arise from demand for services affected by the high level of state economic activity, such as the relocation of incumbent assets for industrial, commercial and residential land and property developments.²¹⁵ The Authority is satisfied that the increase in forecast costs for the distribution network is satisfactorily explained by the expansion of the distribution network and increased demand for services.
503. The Authority is prepared to accept that the forecasts of non-capital costs for the provision of non-reference services are consistent with section 6.40 of the Access Code given the justification for these costs provided by Western Power and taking into account that the amount of these costs are deducted from the amount of total costs to derive a target revenue to be recovered by reference tariffs.
504. In the advice provided to the Authority on anticipated revisions to cost forecasts, Western Power indicates a lower forecast of reference service costs for the transmission network in 2009/10 (\$0.98 million rather than \$5.99 million), but approximately the same costs for 2010/11 and 2011/12 and for the distribution network.

²¹⁴ Revised access arrangement information, Appendix 9.

²¹⁵ Revised access arrangement information, Appendix 1: p. 174.

505. The Authority considers that the forecast costs should be amended in accordance with Western Power's anticipated revisions to the forecast non-capital costs for non-reference services as indicated in Table 47.

Table 47 Amended forecast of non-reference service costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
	Forecast	Forecast	Forecast
Transmission – proposed	5.99	5.67	5.94
Transmission – amended	0.98	5.71	5.93
Distribution – proposed	7.42	8.61	9.81
Distribution – amended	7.51	8.66	9.82
Total – proposed	13.42	14.27	15.76
Total amended	8.49	14.36	15.75

Total Non-Capital Costs

506. Taking into account the consideration of the individual cost line-items as set out above (paragraph 421 and following), the Authority considers that Western Power's forecasts of non-capital costs as set out in the revised access arrangement information are not consistent with the requirements of section 6.40. The Authority will require amendment of the revised proposed access arrangement so that the target revenue and price control reflect a forecast of non-capital costs as indicated in Table 48.

Table 48 Amended forecast non-capital costs (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
Transmission – proposed	100.90	105.97	112.78
Transmission – amended	69.59	81.14	89.03
Distribution – proposed	393.99	416.48	436.37
Distribution – amended	263.74	301.38	330.75
Total – proposed	494.89	522.44	549.15
Total amended	333.32	382.52	419.77

Required Amendment 25

The proposed access arrangement revisions should be amended to reflect a forecast of non-capital costs as follows (real \$ million at 30 June 2009):

	2009/10	2010/11	2011/12
Transmission:	69.58	81.14	89.03
Distribution:	263.74	301.38	330.75
Total:	333.32	382.52	419.77

Capital Base and New Facilities Investment

Access Code Requirements

507. The capital base is the value ascribed to the network assets that are used to provide covered services. Where the target revenue for a price control is set by reference to the service provider's total costs, section 6.43 of the Access Code provides for the value of the capital base to be used to calculate a return on the capital base and an amount of depreciation.
508. Under the current access arrangement, an initial capital base was established under sections 6.46 and 6.48 of the Access Code at an "optimised deprival value" of the network assets.
509. Section 6.48 of the Access Code requires that the capital base at the start of any access arrangement period other than the first access arrangement period be determined in a manner that is consistent with the Code objective. A note to section 6.48 indicates that:

A number of options are available in relation to the determination of the capital base at the start of an access arrangement period, including:

- rolling forward the capital base from the previous access arrangement period applying benchmark indexation such as the consumer price index or an asset specific index, plus new facilities investment incurred during the previous access arrangement period, less depreciation and redundant capital etc; and
 - valuation or revaluation of the capital base using an appropriate methodology such as the Depreciated Optimised Replacement Cost or Optimised Deprival Value methodology.
510. Notwithstanding that section 6.48 of the Access Code does not mandate a method of valuation of the capital base, sections 6.50 to 6.63 of the Access Code contemplate new facilities investment being added to the capital base and the value of any redundant assets being subtracted from the capital base, consistent with use of the "roll forward" method for determination of the capital base.

511. Section 6.51A of the Access Code provides that new facilities investment may be added to the capital base if it passes certain tests:

6.51A New facilities investment may be added to the capital base if:

- (a) it satisfies the new facilities investment test; or
- (b) the Authority otherwise approves it being added to the capital base if:
 - (i) it has been, or is expected to be, the subject of a contribution; and
 - (ii) it meets the requirements of section 6.52(a); and
 - (iii) the access arrangement contains a mechanism designed to ensure that there is no double recovery of costs as a result of the addition.

512. The new facilities investment test is set out in section 6.52 of the Access Code:

6.52 New facilities investment satisfies the new facilities investment test if:

- (a) the new facilities investment does not exceed the amount that would be invested by a service provider efficiently minimising costs, having regard, without limitation, to:
 - (i) whether the new facility exhibits economies of scale or scope and the increments in which capacity can be added; and
 - (ii) whether the lowest sustainable cost of providing the covered services forecast to be sold over a reasonable period may require the installation of a new facility with capacity sufficient to meet the forecast sales;

and

- (b) one or more of the following conditions is satisfied:
 - (i) either:
 - A. the anticipated incremental revenue for the new facility is expected to at least recover the new facilities investment; or
 - B. if a modified test has been approved under section 6.53 and the new facilities investment is below the test application threshold – the modified test is satisfied;
 - or
 - (ii) the new facility provides a net benefit in the covered network over a reasonable period of time that justifies the approval of higher reference tariffs; or
 - (iii) the new facility is necessary to maintain the safety or reliability of the covered network or its ability to provide contracted covered services.

513. The “modified test” referred to in section 6.52(b)(i)B of the Access Code and set out in section 6.53 provides for an access arrangement to specify that new facilities investment below a threshold value to not be subject to the tests of sections 6.52(b)(i)A, (ii) and (iii) of the Access Code.

514. Section 6.54 of the Access Code requires that the Authority, in making a determination under the new facilities investment test, must have regard to whether the new facilities investment was required by a written law or a statutory instrument.

515. Sections 6.61 to 6.63 of the Access Code provide for an amount to be subtracted from the capital base in respect of redundant network assets.

516. With proposed revisions to an access arrangement typically being considered by the Authority prior to commencement of the access arrangement period in which the revisions to the access arrangement will apply, the capital base at the start of the access arrangement period will need to be determined (if being determined by the roll forward method) without knowledge of all the new facilities investment that will occur in the current access arrangement period. In this circumstance, section 6.50 of the Access Code provides for a forecast of the new facilities investment to occur prior to the revisions commencement date to be added to the capital base if, at the time of inclusion, it is reasonably expected to satisfy the test in section 6.51A.
517. In determination of total costs for an access arrangement period, section 6.51 of the Access Code provides for the forward-looking and efficient costs of providing covered services to include capital costs in relation to forecast new facilities investment for the access arrangement period that, at the time of inclusion, is reasonably expected to satisfy the test of section 6.51A. This forecast new facilities investment is not, however, added to the capital base and would again be subject to the test of section 6.51A prior to being added to the capital base at the commencement of the next access arrangement period.

Proposed Revisions

518. Consistent with the current access arrangement, Western Power has specified capital base values separately for the transmission and distribution networks.
519. The capital base for each of the transmission and distribution networks has been calculated by Western Power for the beginning of the second access arrangement period using a roll forward method that involves commencing with the opening value at the beginning of the first access arrangement period and:
- adding the values of new facilities investment during the first access arrangement period that Western Power considers to meet the requirements of the new facilities investment test under section 6.52 of the Access Code, and/or that were financed by capital contributions (including values forecast for 2008/09 as provided for under section 6.50 of the Access Code);
 - deducting values of redundant assets;
 - deducting values of depreciation as allowed for in target revenue for the first access arrangement period; and
 - adjustment for actual and forecast inflation to dollar values at 30 June 2009.
520. Western Power's calculated values of the capital base for the transmission and distribution networks at the commencement of the second access arrangement period (1 July 2009) are as follows.²¹⁶

²¹⁶ Proposed access arrangement revisions, clause 6.1.

Table 49 Proposed capital base at 30 June 2009 for the transmission network (real \$ million at 30 June 2009)²¹⁷

	2006/07	2007/08	2008/09	2009/10
Opening asset value	1,523.25	1,776.47	2,035.17	2,415.47
New facilities investment	306.86	317.00	443.64	
Redundant assets	0	0	0	
Depreciation	-53.64	-58.30	-63.34	
Closing asset base	1,776.47	2,035.17	2,415.47	

Table 50 Proposed capital base at 30 June 2009 for the distribution network (real \$ million at 30 June 2009)²¹⁸

	2006/07	2007/08	2008/09	2009/10
Opening asset value	1,751.70	2,088.70	2,454.06	2,911.66
New facilities investment	448.03	481.29	582.91	
Redundant assets	-4.21	-4.03	-3.92	
Depreciation	-106.81	-111.90	-121.40	
Closing asset base	2,088.70	2,454.06	2,911.66	

521. For the purposes of determining target revenue for the second access arrangement period, Western Power has determined notional values of the capital base for the transmission and distribution networks at the commencement of each year of the second access arrangement period, incorporating forecasts of new facilities investment.

²¹⁷ Revised access arrangement information, Appendix 7 (Revenue Model).

²¹⁸ Revised access arrangement information, Appendix 7 (Revenue Model).

522. Western Power's notional capital base values for the second access arrangement period are indicated in Table 51 and Table 52.

Table 51 Proposed notional capital base values for the second access arrangement period for the transmission network (real \$ million at 30 June 2009)²¹⁹

	2009/10	2010/11	2011/12
Opening asset value	2,415.47	3,021.22	3,720.54
New facilities investment (net of contributions)	680.00	785.46	530.33
Redundant assets	0	0	0
Depreciation	-74.25	-86.14	-100.36
Closing asset base	3,021.22	3,720.54	4,150.51

Table 52 Proposed notional capital base values for the second access arrangement period for the distribution network (real \$ million at 30 June 2009)²²⁰

	2009/10	2010/11	2011/12
Opening asset value	2,911.66	3,281.96	3,679.80
New facilities investment (net of contributions)	520.87	566.27	636.21
Redundant assets	-3.78	-3.68	-3.59
Depreciation	-146.78	-164.74	-183.24
Closing asset base	3,281.96	3,679.80	4,129.19

523. Subsequent to submission of the proposed access arrangement revisions, Western Power has advised the Authority that the forecasts of new facilities investment will be revised to take into account the effect of the global financial crisis on local economic conditions and budget constraints imposed by the State Government.²²¹ Western Power has provided the Authority with "indicative anticipated revisions" to forecasts of costs indicating reductions in forecast new facilities investment (in real terms) of 25 per cent for the transmission network and 18 per cent for the distribution network (Table 53).

²¹⁹ Revised access arrangement information, Appendix 7 (Revenue Model).

²²⁰ Revised access arrangement information, Appendix 7 (Revenue Model).

²²¹ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs.

Table 53 Forecast and anticipated-revised forecast new facilities investment (real \$ million at 30 June 2009)

	Year	Year	Year
Transmission	2009/10	2010/11	2011/12
Forecast	729.98	869.86	593.79
Anticipated revised forecast	306.14	659.27	681.01
Distribution	2009/10	2010/11	2011/12
Forecast	707.99	758.71	822.98
Anticipated revised forecast	532.07	642.89	692.08

Submissions

524. Submissions made to the Authority on new facilities investment and updating the value of the capital base draw the Authority's attention to a range of matters that interested parties contend should be addressed. These include:

- whether Western Power is capable of undertaking and delivering the program of capital works that underlies the forecast of new facilities investment;²²²
- a requirement that the Authority be satisfied that the actual and proposed new facilities investment is prudent and efficient, and meets the requirements of the new facilities investment test, particularly in light of large differences between forecast and actual new facilities investment for the first access arrangement period and weak incentives under the investment adjustment mechanism and price control for Western Power to seek efficiencies in capital expenditures;²²³
- whether the downturn in economic conditions in Western Australia (since Western Power submitted the proposed access arrangement revisions) reduces requirements for new facilities investment in the second access arrangement period and/or reduces the unit costs of capital works;²²⁴ and
- whether levels of forecast new facilities investment are adequately related to the drivers of investment.²²⁵

525. These matters are addressed by the Authority under the heading of "considerations of the Authority", below.

²²² Perth Energy submission of 17 December 2008.

²²³ Synergy submission of 22 December 2008 on the Price Control; Verve Energy submission of 2 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008.

²²⁴ Synergy submission of 22 December 2008 on the Price Control; Western Australia Major Energy Users submission of 16 December 2008; Chamber of Commerce and Industry Western Australia submission of 17 December 2008.

²²⁵ Synergy, submission of 22 December 2008 on the Price Control; Western Australia Major Energy Users, submission of 16 December 2008.

526. Other submissions address matters related to the broader scheme of investment under the Access Code and in the context of operation of the wholesale electricity market.
527. The WAMEU and Alinta Sales address an absence of constraints on Western Power for making investments and having the value of investments reflected in regulated tariffs, with implications for the affordability of tariffs for users.²²⁶
528. Under the scheme of regulation established under the Access Code, investment is constrained by the regulatory test under Chapter 9 of the Access Code and the new facilities investment test under section 6.52. These tests are intended to ensure that, for large capital projects, the investment in the network is the most efficient means of addressing constraints in the electricity system and, for any projects, that any investment added to the capital base is cost-efficient and that any resultant price increases to users are justified by associated benefits. The Authority has considered Western Power's actual and new facilities investment with recognition of the specific requirements and intentions of these tests.
529. Griffin Energy Developments Pty Ltd submits that the requirement under the wholesale electricity market for generators to have unconstrained access to the network may result in inefficient investment in the network.²²⁷ This is a matter relating to the design and operation of the wholesale electricity market and is under consideration by the Office of Energy following separate reviews on the effectiveness of the wholesale electricity market as required under the Market Rules,²²⁸ as well as the Australian Energy Market Commission (**AEMC**) in the particular context of connection to and augmentation of the transmission network to accommodate development of renewable generation in the Western Australian market.²²⁹ Accordingly, the Authority has not addressed this matter in consideration of the proposed access arrangement revisions.

Considerations of the Authority

530. The Authority has given consideration to Western Power's calculation of the capital base for each of the transmission and distribution networks and consistency of these calculations with the requirements of the Access Code. These considerations are documented below under headings of:
- the general method applied in calculating the capital base;
 - verification that stated new facilities investment in the first access arrangement period occurred (or for 2008/09 is reasonably forecast to occur);

²²⁶ Alinta Sales Pty Ltd submission of 17 December 2008; Western Australia Major Energy Users submission of 16 December 2008; Mr Noel Schubert submission of 16 December 2008.

²²⁷ Griffin Energy Development Pty Ltd submission of 17 December 2008.

²²⁸ Under clause 2.16.11 of the Market Rules, the Authority must provide to the Minister for Energy a report on the effectiveness of the market at least annually. Further information about this annual reporting process is available from the Economic Regulation Authority web site:
http://www.era.wa.gov.au/1/53/42/wholesale_elect.pm?s=1

²²⁹ Australian Energy Market Commission, 28 December 2008, Review of Energy Market Frameworks in Light of Climate Change Policies 1st Interim Report. Energy Market Consulting Associates, 22 June 2009, Review of WA Energy Market Framework in Light of Climate Change Policies: Advice on Network Issues Identified in AEMC's First Interim Report, a report to The Australian Energy Market Commission (AEMC).

- determination of the capital base at the commencement of the second access arrangement period, taking into account an assessment of actual new facilities investment in the first access arrangement period against the test of section 6.51A of the Access Code, and values of depreciation and redundant assets; and
- determination of notional values of the capital base in each year of the second access arrangement period taking into account the assessment of forecast new facilities investment against the test of section 6.51A of the Access Code, and forecast values of depreciation and redundant assets.

General Method

531. Western Power has calculated the capital base for each of the transmission and distribution networks using a roll forward method, applied in a manner consistent with the method contemplated in the note to section 6.48 of the Access Code.
532. The roll forward method has been favoured by utility regulators throughout Australia and is the method mandated for electricity transmission and distribution networks of the National Electricity Market under Chapters 6A and 6 of the National Electricity Rules.
533. The Authority is satisfied that the method used by Western Power is consistent with the Code objective.

Verification of New Facilities Investment in the First Access Arrangement Period

534. In accordance with the Authority's *Guidelines for Access Arrangement Information*,²³⁰ Western Power has provided regulatory accounts that reconcile costs of regulated activities with a set of base accounts for the business.²³¹ These regulatory accounts provide a reconciliation of claimed new facilities investment with actual capital costs incurred in 2006/07 and 2007/08 as indicated in Table 54.

²³⁰ Economic Regulation Authority, 26 June 2008, Electricity Networks Access Code 2004 Guidelines for Access Arrangement Information.

²³¹ Revised access arrangement information, Appendices 8 and 9.

Table 54 Reconciliation of claimed new facilities investment for 2006/07 and 2007/08 with recorded capital costs for the Western Power business (real \$ million at 30 June 2009)²³²

Network and Year	Base Account	Adjustment	Regulatory Account	Claimed new facilities investment
Transmission 2006/07	314.8	-7.9	306.9	306.9
Transmission 2007/08	329.3	-12.4	317.0	317.0
Distribution 2006/07	448.1	0	448.1	448.0
Distribution 2007/08	481.3	0	481.3	481.3

535. Western Power indicates that the adjustments made in the regulatory accounts to capital expenditures for transmission are for capitalised borrowing costs that are not properly recorded as capital expenditure in the regulatory accounts.²³³
536. The Authority observes that the regulatory accounts presented by Western Power were audited for Western Power by the Office of the Auditor General.
537. The Authority has had the regulatory accounts independently reviewed by BDO Kendalls, finding some discrepancy between the regulatory financial statements and statutory accounts in respect of some capital expenditure.²³⁴ In particular, the review found discrepancies between the regulatory financial statements and Western Power's balance sheet amounting to an over-reporting of capital expenditure in the regulatory financial statements of \$28.681 million in 2006/07 and an under-reporting of capital expenditure of \$1.331 million in 2007/08.
538. The amount of capital expenditure of \$28.681 million in 2006/07 is attributed by BDO Kendalls to an amount spent in the year but financially accrued in statutory accounts in 2005/06. The Authority is satisfied that this amount does reflect capital expenditure that occurred in the first access arrangement period and is appropriately considered as a component of new facilities investment for this period.
539. The amount of capital expenditure of \$1.331 million in 2007/08 is attributed by BDO Kendalls to a late recognition of accruals recorded in Western Power's general ledger which was not reflected in a project list and, hence, not reflected in regulatory accounts. Taking into account that this is a relatively small value and the discrepancy has the effect of decreasing the value of new facilities investment considered for addition to the capital base, the Authority has not sought to resolve the discrepancy.
540. Notwithstanding this audit verification and independent review of expenditures in 2006/07 and 2007/08, the Authority considers that there may be some costs

²³² Revised access arrangement information, Appendices 8 and 9. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information Appendix 7, Revenue Model).

²³³ Revised access arrangement information, Appendix 8: sheet 11, note 11.2.

²³⁴ BDO Kendalls, 2 July 2009, Regulatory Financial Audit Western Power.

claimed by Western Power as new facilities investment in the first access arrangement period that may not appropriately be added to the capital base.

541. First, a review of a sample of capital projects indicates that some investment in the distribution network under the “subdivisions program” may be inappropriately represented as new facilities investment. Costs under this program comprise expenditure by Western Power on augmentations of the distribution network for new land subdivisions, where Western Power undertakes the works under contract to the subdivision developers. Information provided by Western Power indicates that amounts of expenditure claimed to comprise new facilities investment and to meet the new facilities investment test may include an amount of approximately \$65 million that comprises a shortfall in cost recovery for the contracted works undertaken by Western Power.²³⁵ The Authority considers that such costs are inappropriately classified as new facilities investment for the purposes of determining the capital base as the costs relate to activities of Western Power as a contractor providing construction services. As such, the Authority considers that these costs should be removed from the amount of new facilities investment proposed to be added to the capital base for the distribution network.
542. Secondly, there is some indication that new facilities investment for 2008/09 is overstated. At the time of this Draft Decision, it has not been possible for the Authority to determine the capital base at the commencement of the second access arrangement period by applying a known actual value of new facilities investment in the final year of the first access arrangement period (2008/09). In this circumstance, section 6.50 of the Access Code requires that the capital base be determined on the basis of a forecast of new facilities investment in this year.
543. A review of a sample of investment projects for the first access arrangement period indicates the forecast new facilities investment for 2008/09 may include amounts in respect of projects that either did not proceed or have been delayed, but costs are included in the values of investment to be added to the capital base. This includes a 132 kV upgrade of a transmission line in Margaret River and a major augmentation of the transmission network in the Mid-West region, with combined costs in the first access arrangement period of approximately \$63.5 million.²³⁶
544. In this Draft Decision, the Authority has reduced the transmission new facilities investment to be added to the capital base at the commencement of the second access arrangement period by this amount (\$63.5 million). However, due to the passage of time in the process of assessment and approval of the proposed access arrangement revisions, the Authority expects that the actual new facilities investment for 2008/09 will be known prior to final approval of the revisions. Therefore, the Authority expects the value of the capital base to be re-determined prior to final approval of the revisions, taking into account actual new facilities investment in 2008/09.

²³⁵ Geoff Brown & Associates Ltd, 14 July 2009, Review of New Facilities Investment Test Compliance: Western Power AA1 Projects.

²³⁶ Geoff Brown & Associates Ltd, 14 July 2009, Review of New Facilities Investment Test Compliance: Western Power AA1 Projects.

Capital Base at the Commencement of the Second Access Arrangement Period

Application of the Section 6.51A Test to Actual New Facilities Investment

545. At section 4.4 of Part A of the revised access arrangement information, Western Power claims that all of the new facilities investment for the first access arrangement period either satisfies the new facilities investment test or has been financed by capital contributions and, in both cases, can be added to the capital base under section 6.51A of the Access Code. In support of this claim, Western Power has provided a consultant's report as Appendix 5 of the revised access arrangement information that provides an opinion on whether the new facilities investment made, or forecast to be made, in the first access arrangement period meets the new facilities investment test. Western Power relies on this report to demonstrate that the new facilities investment in the first access arrangement period either meets the new facilities investment test, or has been financed by capital contributions.²³⁷

New Facilities Investment Test

546. The new facilities investment test of section 6.52 of the Access Code comprises two parts.
547. The first part of the new facilities investment test under section 6.52(a) of the Access Code is a test of whether the new facilities investment does not exceed the amount that would be invested by a service provider efficiently minimising costs taking into account whether the new facility exhibits economies of scale or scope, the increments in which new capacity can be added and long term forecasts of sales of services. This is hereafter referred to as the "efficiency test".
548. The second part of the new facilities investment test under section 6.52(b) of the Access Code is a test of whether the new facilities investment provides benefits that justify addition of the new facilities investment to the capital base of the covered network and the recovery of the cost of the investment from users of the network generally. Three limbs of the second part of the new facilities investment test provide for new facilities investment to be added to the capital base if:
- the anticipated incremental revenue for the new facility is expected to at least recover the new facilities investment (the "incremental revenue test"); or
 - the new facility provides a net benefit in the covered network over a reasonable period of time that justifies the approval of higher reference tariffs (the "net benefits test"); or
 - the new facility is necessary to maintain the safety and reliability of the covered network or its ability to provide contracted covered services (the "safety and reliability test").
549. The purpose of the second part of the new facilities investment test is to enable market forces to discipline investment in the network and to ensure that investment only occurs where there is a net economic benefit. The manner in which this is achieved is to allow new facilities investment to be added to the capital base where

²³⁷ Revised access arrangement information, pp. 91, 135.

the benefits are such that those who generate, transport and/or consume electricity in the SWIS (as a group) are better off (or at least no worse off) in economic terms than they would be if the investment did not occur. The benefits to existing users may be in the form of:

- economies of scale in the network, which is the subject of the incremental revenue test under section 6.52(b)(i)A of the Access Code;
- broad benefits through better functioning of the covered network or electricity system as a whole, which is the subject of the net benefits test under section 6.52(b)(ii) of the Access Code; and
- the maintenance of safety and reliability of the network, which is the subject of the safety and reliability test under section 6.52(b)(iii) of the Access Code.

550. In the event that the benefits to existing users are less than the value of new facilities investment, the residual amount (that would not satisfy the new facilities investment test) would need to be financed by some other means. This would typically be a capital contribution from the user of the network or end customer of electricity whose service application gives rise to the need for the investment. The requirement for the new user to pay a contribution should, in principle, engender efficient investment, as the new user would only pay a contribution where the benefits to the user exceed the value of the contribution.

551. In the revised access arrangement information, Western Power has not provided an analysis of new facilities investment against the requirements of the new facilities investment test for individual new facilities or assets. Rather, Western Power has presented general reasons why the Authority should accept that new facilities investment satisfies the requirements of the test.

552. For the purposes of consideration of the first part of the new facilities investment test, the efficiency test under section 6.52(a) of the Access Code, Western Power distinguishes between new facilities investment that is subject to the investment adjustment mechanism under clauses 5.49 to 5.53 of the current access arrangement and that which is not.²³⁸ The investment adjustment mechanism adjusts Western Power's target revenue in the second access arrangement period in a manner that exactly corrects for the economic loss or gain to Western Power as a result of forecasting errors in particular categories of capital expenditure in the first access arrangement period. The investment adjustment mechanism applies to investment that is categorised as being "demand driven", including investment for, or relating to:

- connection of new generation capacity;
- connection of new load;
- augmentation of the capacity of networks for the provision of covered services; and
- augmentation of the distribution network under the regional power improvement program and state underground power program.

²³⁸ Revised access arrangement information, Appendix 5: pp. 5 – 7.

553. New facilities investment that is not subject to the investment adjustment mechanism is that which is not directly related to the increases in demand for services, and includes investment for, or relating to:

- replacement of assets that have reached the end of their technical or economic lives;
- compliance with regulatory requirements, including required improvements in reliability;
- network operation, including SCADA and communications infrastructure; and
- corporate and business activities, such as buildings and IT systems.

554. The amounts of new facilities investment subject to and not subject to the investment adjustment mechanism are shown in Table 55 and Table 56.

Table 55 Amounts of new facilities investment in the first access arrangement period for the transmission network subject to and not subject to the investment adjustment mechanism (real \$ million at 30 June 2009)²³⁹

	2006/07	2007/08	2008/09
Subject to the investment adjustment mechanism			
Growth Transmission			
Capacity Expansion	127.43	109.13	188.26
Customer Access	19.26	75.59	47.80
Generation Driven	121.29	90.73	139.53
Total	267.99	275.45	375.59
Not subject to the investment adjustment mechanism			
Non-Growth Transmission			
Asset Replacement	13.88	11.74	26.79
Regulatory Compliance	4.20	5.87	18.97
Reliability Driven	5.14	5.25	2.01
SCADA and Communications	5.94	3.91	4.74
Corporate			
IT (including market reform)	6.45	11.66	8.53
Support	3.26	3.12	7.01
Total	38.87	41.55	68.05
Total new facilities investment	306.86	317.00	443.64

²³⁹ Revised access arrangement information, Appendix 5, Appendix 9. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information Appendix 7: Revenue Model)

Table 56 Amounts of new facilities investment in the first access arrangement period for the distribution network subject to and not subject to the investment adjustment mechanism (real \$ million at 30 June 2009)²⁴⁰

	2009/10	2010/11	2011/12
Subject to the investment adjustment mechanism			
Growth Distribution			
Capacity Expansion	81.67	63.23	89.20
Customer Access	194.80	195.15	131.89
Gifted Assets	23.67	20.91	94.30
Total	300.14	279.29	315.39
Not subject to the investment adjustment mechanism			
Non-Growth Distribution			
Asset Replacement	29.37	40.58	61.10
Regulatory Compliance	36.54	35.74	65.57
Reliability Driven	5.90	19.46	28.78
SCADA and Communications	2.41	2.16	2.57
Metering	11.54	12.77	12.60
SUPP	22.66	22.66	29.29
RPIP	10.35	24.30	22.00
Corporate			
IT (including market reform)	19.35	34.99	24.58
Support	9.77	9.35	21.03
Total	147.89	202.00	267.52
Total new facilities investment	448.03	481.29	582.91

555. For new facilities investment that is not subject to the investment adjustment mechanism, Western Power contends that the price control under the access arrangement provides a commercial incentive to seek efficiencies in capital expenditures and that this incentive is sufficiently strong for the Authority to assume that this new facilities investment is prudent and efficient.²⁴¹
556. The incentive referred to by Western Power is an incentive to out-perform the forecasts of capital expenditure applied in determining target revenue and the price control for the first access arrangement period (or to minimise any under-performance). In the event that actual investment in an access arrangement period is less than the forecast, Western Power obtains a benefit for the remainder of the

²⁴⁰ Revised access arrangement information, Appendix 5, Appendix 9. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information Appendix 7: Revenue Model).

²⁴¹ Revised access arrangement information, Appendix 5: pp. 6, 7.

access arrangement period equal to the rate of return on the difference between the actual and forecast investment; that is, the prices that Western Power charged included a return on an amount of forecast investment that Western Power did not make and Western Power retains this amount for the duration of the access arrangement period. Similarly, if actual investment is greater than the forecast, Western Power incurs a penalty for the remainder of the access arrangement period, with the penalty equal to the rate of return (or the cost of capital) on the difference between the actual investment and the forecast as this return was not reflected in prices and Western Power is not able to subsequently recoup this cost.

557. The Authority accepts the existence of the incentive claimed by Western Power. However, the Authority considers that this incentive is weak and that the existence of this incentive is not a sufficient ground to be satisfied that the new facilities investment that is not subject to the investment adjustment mechanism satisfies the efficiency test of section 6.52(a) of the Access Code. Accordingly, the Authority has had regard to other evidence presented by Western Power for the efficiency of investment in the first access arrangement period. This is considered as follows, taking into account also the new facilities investment that is subject to the investment adjustment mechanism.
558. Western Power and its consultants recognise the absence of commercial incentives for efficiency of new facilities investment subject to the investment adjustment mechanism.²⁴² Under the investment adjustment mechanism, adjustments are made to target revenue for an access arrangement period to correct for differences between forecast and actual new facilities investment in the preceding access arrangement period. Where the entire amount of the investment is able to be added to the capital base, Western Power incurs no penalty where actual new facilities investment is in excess of the forecast amount, nor retains any benefit where actual new facilities investment is less than the forecast amount.
559. In the absence of incentives under the price control for efficiency of capital projects for investment that is subject to the investment adjustment mechanism, Western Power has relied on other evidence to demonstrate that the new facilities investment satisfies the efficiency test of section 6.52(a) of the Access Code. This evidence is examined below with a view to consideration of new facilities investment that is both subject to and not subject to the investment adjustment mechanism.
560. To support the claim that new facilities investment in the first access arrangement period satisfies the efficiency test of section 6.52(a) of the Access Code, Western Power cites its planning, governance, project management and work processes and claims that these are consistent with the efficient minimisation of costs of provided covered services.²⁴³ Western Power's consultants indicate that these processes directly address criteria of cost efficiency, as indicated in Table 57.

²⁴² Revised access arrangement information, Appendix 5: pp. 5 – 7.

²⁴³ Revised access arrangement information, Part A: section 4.4.

Table 57 Efficiency criteria and relevant processes of cost management applied by Western Power²⁴⁴

Efficiency criteria	Western Power Process
The lowest sustainable cost option has been selected for implementation at the right time.	Planning process Business case process
The evaluation of project costs is accurate and considers the long-term forecast change in load and sales as well as any economies of scale and scope that are available.	Planning process Business case process Estimating process
The labour and materials are procured using a strategy for least cost.	Resource planning Materials procurement process
The project is implemented using rigorous cost control and project management techniques.	Project implementation

561. Western Power provides detailed descriptive information on these processes in the revised access arrangement information.²⁴⁵ Western Power's consultants also provide an opinion that these "business processes and related governance arrangements ... act to drive efficient investment and facilitate investment decision making and outcomes that are aligned with the requirements [of the first part] of the new facilities investment test".²⁴⁶
562. Western Power has not provided any additional evidence of cost efficiency in capital expenditure such as an *ex post* analysis of project costs or comparison of realised costs with industry benchmarks of costs for certain project types.
563. The Authority has considered whether the processes adopted by Western Power for the planning and procurement of new facilities investment are likely to result in cost-efficiency in capital projects. In doing so, the Authority has considered whether the nature of these processes support a presumption of cost efficiency for the new facilities investment of the first access arrangement period, including both investment that is subject to the investment adjustment mechanism and that which is not.
564. In considering the planning and procurement processes for new facilities investment, the Authority obtained advice from Geoff Brown & Associates.²⁴⁷ This advice indicates that the planning and procurement processes applied during the first access arrangement period, and particularly early in this period, were deficient in a number of respects, including:
- poor processes of cost estimation, resulting in an absence of a sound basis for cost control in the execution of capital projects and programs;
 - a possibility that specifications for products and services may differ from industry standards, resulting in a potential for less competition between suppliers and higher costs;

²⁴⁴ Revised access arrangement information, Appendix 5: Table 4.1.

²⁴⁵ Revised access arrangement information, Appendix 5: section 4.

²⁴⁶ Revised access arrangement information, Appendix 5: p. 32.

²⁴⁷ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

- over-specification of some assets;
 - a low level of rigour in analysis of options for large capital projects;
 - a lack of integration in planning for the transmission and distribution networks resulting in potential for inefficient investment, particularly in zone substation assets;
 - poor processes of contract management with suppliers, resulting in potential for significant over-charging by suppliers; and
 - inclusion of excessive contingency provisions in funding increases for projects, approved late in project implementation.
565. The Authority has also received advice from Wilson Cook & Co, which indicates a contrary view that capital expenditure has been well planned and major investments subjected to detailed studies of options and alternatives.²⁴⁸ However, this view is limited to matters of the scope and timing of capital expenditure and Wilson Cook & Co expressly state that they “are not able to offer an opinion on its efficiency in terms of cost-effectiveness, as information on the variances in expenditure was not supplied”. Wilson Cook & Co also recognise weaknesses in Western Power’s budgeting and financial control.²⁴⁹ Moreover, the review of governance and planning processes undertaken by Geoff Brown & Associates was more detailed than that of Wilson Cook & Co, and the Authority has accordingly given greater weight to the former.
566. The Authority considers that the deficiencies in planning and procurement processes during the first access arrangement period are contrary to Western Power’s contention that the processes of planning and procurement are sufficient evidence to support a conclusion that new facilities investment during the first access arrangement period satisfies the efficiency test of section 6.52(a) of the Access Code. The Authority considers that deficiencies in the processes of planning and procurement during the first access arrangement period suggest a degree of inefficiency in that part of new facilities investment that was undertaken by Western Power; that is, the capital projects and programs other than assets constructed by other parties and gifted to Western Power.
567. In addition to considering the planning and procurement processes of Western Power, the Authority has also considered a review of a sample of 30 capital projects in the first access arrangement period, accounting for approximately 35 per cent of new facilities investment in the transmission network and 75 per cent of new facilities investment in the distribution network. This review was undertaken for the Authority by Geoff Brown & Associates.²⁵⁰
568. The review of the sample of projects reveals that Western Power is unable to provide sufficient information to demonstrate the investment to be efficient under the terms of section 6.52(a) of the Access Code. Information provided by Western Power was sufficient for a high-level assessment of whether the scope of work for

²⁴⁸ Wilson Cook & Co Ltd, May 2009, Review of Western Power’s Expenditures for Second Access Arrangement Final Report, p. 37.

²⁴⁹ Wilson Cook & Co Ltd, May 2009, Review of Western Power’s Expenditures for Second Access Arrangement Final Report, pp. 38, 45, 50, 60.

²⁵⁰ Geoff Brown & Associates Ltd, 14 July 2009, Review of New Facilities Investment Test Compliance: Western Power AA1 Projects.

particular projects is reasonable (without obvious over-engineering) and whether costs are within an “expected” range. This high level assessment may identify major inefficiencies, but is unlikely to identify less serious, but nonetheless material, inefficiencies, particularly if these are systemic.²⁵¹

569. The review of projects identifies possible instances of expenditure on capital projects that may not be consistent with the efficiency test of section 6.52(a) of the Access Code, including:
- installation equipment exceeding requirements;²⁵² and
 - conversion of a Joel Terrace substation to 132kV instead of a lower cost 66kV conversion in the absence of a development plan to demonstrate the long term cost efficiency of the higher voltage option.
570. Potential cost inefficiencies arising through project design have also been evident from the Authority’s determination on an application by Western Power for the Authority to make a determination under the new facilities investment test of a proposed substation. In assessing the application, the Authority determined that the amount of investment that would pass the efficiency test of section 6.52(a) of the Access Code would be approximately 10 per cent less than Western Power’s proposed cost of the project.²⁵³
571. Turning to the second part of the new facilities investment test under section 6.52(b) of the Access Code, Western Power addressed the requirements of these tests under categories and values of capital works as indicated in Table 58.

²⁵¹ Geoff Brown & Associates Ltd, 14 July 2009, Review of New Facilities Investment Test Compliance: Western Power AA1 Projects.

²⁵² Details of this project are subject to a claim of confidentiality by Western Power and have therefore been inserted in a ‘Confidential Annexure’ to this Draft Decision.

²⁵³ Economic Regulation Authority, 19 February 2009, Final Determination on the New Facilities Investment Test for a 66/11 kV Medical Centre Zone Substation Expansion and Voltage Conversion of the Distribution Network, p. 10.

Table 58 New facilities investment in the first access arrangement period by expenditure category (real \$ million at 30 June 2009)²⁵⁴

	2006/07	2007/08	2008/09
Transmission – growth			
Capacity expansion	127.43	109.13	188.26
Customer access	19.26	75.59	47.80
Generation driven	121.29	90.73	139.53
Total	267.99	275.45	375.59
Distribution – growth			
Capacity expansion	81.67	63.23	89.20
Customer access	194.80	195.15	131.89
Gifted assets	23.67	20.91	94.30
Total	300.14	279.29	315.39
Networks – non-growth			
Asset replacement – transmission	13.88	11.74	26.79
Asset replacement – distribution	29.37	40.58	61.10
Regulatory compliance – transmission	4.20	5.87	18.97
Regulatory compliance – distribution	36.54	35.74	65.57
Reliability driven – transmission	5.14	5.25	2.01
Reliability driven – distribution	5.90	19.46	28.78
SCADA & comms – transmission	5.94	3.91	4.74
SCADA & comms – distribution	2.41	2.16	2.57
Metering - distribution	11.54	12.77	12.60
State underground power program	22.66	22.66	29.29
Rural power improvement program	10.35	24.30	22.00
Total	147.94	184.44	274.42
Corporate			
IT and market reform – transmission	6.45	11.66	8.53
IT and market reform – distribution	19.35	34.99	24.58
Business support – transmission	3.26	3.12	7.01
Business support – distribution	9.77	3.35	21.03
Total	38.82	59.11	61.14
Total new facilities investment	754.89	798.30	1026.55

²⁵⁴ Revised access arrangement information, Appendix 5: pp. 10, 11, Appendix 9.

572. Of these categories of capital works, Western Power addressed the application of the second part of the new facilities investment test to the “growth” categories of investment:
- capacity expansion (for transmission and distribution);
 - customer access (for transmission and distribution);
 - generation driven (for transmission); and
 - gifted assets (for distribution).
573. Capacity expansion projects are indicated by Western Power’s consultants to be projects for “increasing the capacity of the network infrastructure to cater for the additional load imposed by the connection of new small customers and the intrinsic load growth of existing customers, having consideration of the overall system growth and diversified load forecasts”.²⁵⁵ Western Power’s consultants further indicate that all new facilities investment in capacity expansion projects is undertaken to continue to operate the network in accordance with the Technical Rules and maintain the safety, reliability and quality of electricity supply. Western Power’s consultants, accordingly, contend that by virtue of the nature of the capital projects in this category all of the new facilities investment for capacity expansion satisfies the “safety and reliability” test under section 6.52(b)(iii) of the Access Code.
574. Customer access projects are indicated by Western Power’s consultants to be projects for the connection of new customers to the network.²⁵⁶ A case study of a customer access project against the requirements of the second part of the new facilities investment test indicates that Western Power considers customer access projects to comprise only the customer-specific assets and that any investment in “shared assets” of the network are considered to be capacity expansion projects.²⁵⁷
575. Generation driven projects are indicated by Western Power’s consultants to be projects for the connection of new generators to the network.²⁵⁸ Western Power’s consultants indicate that generation driven projects are treated under the new facilities investment test in the same manner as customer access projects, which would imply that it is only the generator-specific assets that are treated as generation driven projects and any investment in shared assets of the network are treated as capacity expansion projects.
576. Western Power’s consultants indicate that for customer access projects and generation driven projects, the amount of the new facilities investment that satisfies the second part of the new facilities investment test is determined by estimating an amount of incremental revenue consistently with the incremental revenue test of section 6.52(b)(i)A of the Access Code.²⁵⁹ This suggests that Western Power does not routinely consider the other limbs of the second part of the new facilities investment test when dealing with new facilities investment for customer access projects and generation driven projects.

²⁵⁵ Revised access arrangement information, Appendix 5: section 5.1.

²⁵⁶ Revised access arrangement information, Appendix 5: section 5.2.

²⁵⁷ Revised access arrangement information, Appendix 5: section 6.4.

²⁵⁸ Revised access arrangement information, Appendix 5: section 5.3.

²⁵⁹ Revised access arrangement information, Appendix 5: pp. 35, 36.

577. Western Power's consultants also indicate that gifted assets are projects for distribution network assets that are fully funded by another party. These assets are deemed by Western Power to be fully financed by capital contributions and a determination on whether the new facilities investment in these assets is governed by section 6.51A(b). Under the treatment of capital contributions applying in the first access arrangement period, it is not necessary for this new facilities investment to be assessed against the requirements of the second part of the new facilities investment test.
578. The Authority has a number of concerns with Western Power's assessment of new facilities investment to growth related investment.
579. First, there is conflicting information on the manner in which Western Power assesses new facilities investment in growth-related assets under the new facilities investment test.
580. Western Power's consultants have indicated that for customer access and generation-driven projects:
- investments in customer-specific or generation-specific assets are considered under the incremental-revenue test of section 6.52(b)(i)A of the Access Code; and
 - investments in shared assets of the network are considered to be capacity expansion projects and are presumed to meet the safety and reliability test of section 6.52(b)(iii) of the Access Code.
581. This treatment of customer access and generation driven projects is contrary to other information available to the Authority indicating that, under the capital contributions policy of the current access arrangement, Western Power assesses investment in shared assets under the incremental revenue test:
- In an application made to the Authority for determination that new facilities investment in a substation meets the new facilities investment, Western Power assessed the investment against both the incremental revenue test and safety and reliability test, despite the substation being an asset of the shared network.²⁶⁰
 - Western Power's scheme of charging "headworks" contributions for new connections to the distribution network arises from assessment of investment in assets of the shared network under the incremental revenue test.²⁶¹ This implies that, for these customer access projects for the distribution network, investments in shared assets of the network are not presumed to be undertaken for the purposes of maintaining safety and reliability and to meet the safety and reliability test under section 6.52(b)(iii).
582. Secondly, supporting documents for the proposed access arrangement revisions do not provide details of assessments of individual investment projects that would enable the Authority to determine whether Western Power has appropriately

²⁶⁰ Economic Regulation Authority, 19 February 2009, Final Determination on the New Facilities Investment Test for a 66/11 kV medical centre Zone Substation Expansion and Voltage Conversion of the Distribution Network.

²⁶¹ Western Power, undated, Distribution Headworks Scheme (<http://www.westernpower.com.au/documents/edgeofgrid/technicaldocumentforpublicconsultation.pdf>)

applied the incremental revenue test. In a recent determination, the Authority found that for one investment project Western Power under-valued incremental revenue.²⁶²

583. Thirdly, in its assessments of new facilities investment against the new facilities investment test Western Power has not considered in detail the net benefits test under section 6.52(b)(ii) of the Access Code. There is substantial potential for shared network assets and user-specific assets (particularly for generation-driven projects) to have net benefits for those who generate, transport or consume electricity. To ignore these net benefits may result in an incorrect determination of the amount of new facilities investment for a project that meets the new facilities investment test.
584. Taking these matters into account, the Authority considers that Western Power has not applied an appropriate degree of rigour in determining the value of new facilities investment in the growth categories of investment, which meets the second part of new facilities investment test. It follows that, for some network augmentations, Western Power may have determined values of capital contributions that are greater or less than would be determined if the new facilities investment test was applied correctly, with a tendency to underestimate the value of the investment that satisfies the second part of the new facilities investment test. To the extent to which this has occurred, contributions may have been required to an extent that would be contrary to the capital contributions policy applying under the access arrangement for the first access arrangement period.
585. Notwithstanding that Western Power may have incorrectly applied the new facilities investment test for some network augmentations in the growth categories of investment, this does not necessarily affect the amount of new facilities investment in the first access arrangement period that may be added to the capital base. Under the treatment of capital contributions applying in the first access arrangement period, the amount added to the capital base is the total of the amount that satisfies the new facilities investment test and the amount of any contribution. While there is some indication that Western Power has incorrectly estimated the amount of new facilities investment that satisfies the second part of the new facilities investment test and possibly over-charged for capital contributions on some network augmentations, this does not affect the total amount that may be added to the capital base where the tendency has been to underestimate the amount satisfying the test. The treatment of contributions in the first access arrangement period is further addressed below (paragraph 588 and following).
586. Western Power does not appear to have given any consideration to assessment under the new facilities investment test of the amounts of investment in “non-growth” categories of works; that is, investment in asset replacement, regulatory compliance, SCADA & communications, metering, the state underground power program, the rural power improvement program, and assets for business support (at values previously indicated in Table 58).
587. Despite Western Power not having assessed the non-growth investment against the requirements of the second part of the new facilities investment test, the

²⁶² Economic Regulation Authority, 19 February 2009, Final Determination on the New Facilities Investment Test for a 66/11 kV Medical Centre Zone Substation Expansion and Voltage Conversion of the Distribution Network.

Authority is prepared to accept that the investment is undertaken either to maintain the safety and reliability of the network (in the case of the non-growth investment in the networks) or to provide net benefits to users of the network through improving the efficiency of Western Power's business (in the case of investment in assets for business support). Accordingly, the Authority accepts for the purposes of this Draft Decision that the new facilities investment that is not subject to the investment adjustment mechanism falls within the scope of the net benefits test and/or the safety and reliability test under sections 6.52(b)(ii) and (iii) of the Access Code and satisfies these tests.

Treatment of Contributions

588. Section 6.51A of the Access Code provides for new facilities investment that is financed by contributions to be added to the capital base if the new facilities investment meets the requirements of the efficiency test of section 6.52(a) of the Access Code and the access arrangement contains a mechanism designed to ensure that there is no double recovery of costs as a result of addition to the capital base.
589. Western Power proposes that the entire amount of new facilities investment financed by capital contributions in the first access arrangement period be added to the capital base. The new facilities investment financed by capital contributions is indicated in Table 59.

Table 59 Amounts of new facilities investment in the first access arrangement period financed by contributions (real \$ million at 30 June 2009)²⁶³

	2006/07	2007/08	2008/09
Transmission			
Customer driven – bulk loads	36.70	33.47	27.00
Total	36.70	33.47	27.00
Distribution			
Customer driven	102.43	83.98	28.93
Customer driven – gifted assets	23.68	39.60	94.30
State underground power program	16.99	16.99	21.97
Total	143.10	140.57	145.20
Total contributions	179.80	174.04	172.20

590. As indicated previously in this Draft Decision (paragraph 565), the Authority considers that deficiencies in the processes of planning and procurement during the first access arrangement period suggest a degree of inefficiency in that part of new facilities investment that was undertaken by Western Power; that is, the capital projects and programs other than assets constructed by other parties and gifted to Western Power. The Authority is not satisfied that the entire amount of new facilities investment undertaken by Western Power in the first access arrangement period and financed by capital contributions (including investment financed by

²⁶³ Revised access arrangement information, Appendix 7 (Revenue Model).

capital contributions, but excluding gifted assets) meets the requirements of section 6.52(a) of the Access Code.

591. The Authority is satisfied that the current access arrangement treats capital contributions under a mechanism that prevents double recovery of costs where new facilities investment financed by capital contributions is added to the capital base. The current access arrangement provides for the amount of any capital contributions to be deducted from target revenue, either as a forecast of capital contributions deducted from target revenue for the first access arrangement period, or as an adjustment to target revenue in the second or subsequent access arrangement periods that accounts for differences between forecast and realised capital contributions.²⁶⁴ In its calculation of the target revenue under the proposed access arrangement revisions, Western Power has made a full adjustment to target revenue for the second access arrangement period to account for differences between forecast and realised capital contributions in the first access arrangement period.
592. Taking the above matters into account, the Authority is satisfied that the new facilities investment financed by capital contributions meets the requirements of section 6.51A(b) of the Access Code and can be added to the capital base.²⁶⁵

Conclusion on Application of the Section 6.51A Test

593. Under section 6.51A of the Access Code, the new facilities investment may be added to the capital base if:
- it satisfies the new facilities investment test (as set out under section 6.52 of the Access Code); or
 - the Authority otherwise approves it being added to the capital base if:
 - it has been, or is expected to be, the subject of a capital contribution; and
 - it meets the requirements of section 6.52(a) of the Access Code; and
 - the access arrangement contains a mechanism designed to ensure that there is no double recovery of costs as a result of the addition.
594. After having regard to information provided by Western Power and other advice (see paragraph 530 and following), the Authority considers that the entire amount of new facilities investment for the first access arrangement period does not satisfy the requirements of section 6.51A of the Access Code for addition to the capital base.
595. For the reasons stated at paragraphs 540 to 544 of this Draft Decision, the Authority considers the proposed value of new facilities investment includes some amounts that can not be appropriately added to the capital base due to either being amounts that are not appropriately considered as new facilities investment or that comprise an overstatement of costs for 2008/09. The Authority considers that the

²⁶⁴ Current access arrangement, clauses 5.27 to 5.32, 5.40 to 5.43 and Appendix 8.

²⁶⁵ The Authority notes that the change in treatment of capital contributions will require Western Power to properly record and differentiate between total investment, investment comprising gifted assets and in-cash capital contributions. The Authority will look to make amendments to guidelines for regulatory accounts to ensure that this requirement is clear.

proposed value of new facilities investment to be added to the capital base should be reduced by \$63.5 million for the transmission network in 2008/09 (in nominal dollar values of 2008/09) and \$65 million for the distribution network divided across years 2006/07 to 2008/09 (in nominal dollar values of 2007/08).

596. For reasons stated at paragraphs 555 to 568 of this Draft Decision and having regard to the factors set out by the Authority in paragraphs 345 to 353, the Authority considers that new facilities investment undertaken by Western Power exceeds the amount that would be invested by a service provider efficiently minimising costs as a result of cost inefficiencies arising in both the design and governance of capital projects.
597. The Authority does not have sufficient information to make a definitive assessment on a project-by-project basis of the extent to which the actual value of new facilities investment exceeds the amount that would be invested by a service provider efficiently minimising costs. However, on the basis of available information, the Authority considers that there is evidence to support the view that there were systematic inefficiencies in the design and governance of capital projects in the first access arrangement period and that the entire amount of new facilities investment does not satisfy the efficiency test of section 6.52(a) of the Access Code.
598. In the absence of sufficient relevant information provided by Western Power to establish that the actual new facilities investment for the first access arrangement period satisfies the efficiency test of section 6.52(a) of the Access Code, the Authority is faced with either requiring the capital base to be re-valued by some method other than a roll forward calculation (as allowed for under section 6.48 of the Access Code), or a difficult decision in determining a lesser amount of new facilities investment that satisfies this test and, accordingly, the test of section 6.51A for addition to the capital base under a roll forward calculation.
599. The Authority does not favour a re-valuation of the capital base by a method other than the roll forward calculation for reasons of time and cost of doing so. Moreover, an alternative valuation method would require substantial revisions to other sections of the access arrangement, including provisions dealing with the treatment of capital contributions.
600. The Authority has, thus, using available information, determined a value of new facilities investment in the first access arrangement period that it is satisfied meets the efficiency test of section 6.52(a) of the Access Code.
601. However, information available to the Authority does not enable an estimate of the precise extent of inefficiency in new facilities investment. Accordingly, the Authority has considered a possible range in the extent of inefficiency.
602. The Authority considers inefficiencies in new facilities investment arise from two main factors.
603. First, project-specific information available to the Authority suggests that there has been systematic over-engineering of capital projects resulting in inefficiencies in the design of network assets.
604. Secondly, the Authority considers that there have been deficiencies in the planning and governance of capital works, including inadequate consideration of options when planning network augmentations and poor cost-control and contract management for capital projects and programs. The Authority, however, does not

have sufficient information to place a precise value on the extent of such inefficiencies. The Authority accepts that the vast majority of capital projects and programs undertaken during the first access arrangement period are likely to have been necessary and appropriate and that the extent of inefficiency is likely to have resulted mainly from deficiencies of governance rather than the choice of capital projects.

605. Taking the above factors into account, the Authority considers that the extent of inefficiency is likely to be more than a nominal amount, but less than 25 per cent of the total value of new facilities investment.
606. Taking into account the lack of information for this determination (refer to paragraph 345 and following) and the significant commercial effect that the determination will have on Western Power's business, the Authority considers that the extent of inefficiency to be taken into account in determining the value of new facilities investment to be added to the capital base should not be at the maximum of the possible range. On this basis, and having regard to the Code objective, the Authority has determined that the extent of inefficiency amounts to 15 per cent of the total amount of new facilities investment other than that amount of new facilities investment comprising assets constructed by other parties and gifted to Western Power.
607. For new facilities investment claimed to satisfy the new facilities investment test, Western Power has not adequately undertaken and documented assessments of new facilities investment against the requirements of the second part of the new facilities investment test under section 6.52(b) of the Access Code. The Authority is of the view that Western Power has tended to underestimate the value of new facilities investment that satisfies the second part of the new facilities investment test under section 6.52(b) of the Access Code. While this may have resulted in Western Power determining values of capital contributions for some network augmentations that are in excess of values that would accord with the capital contributions policy under the current access arrangement, it does not affect the total amount of the investment that may be added to the capital base where the balance of the investment is financed by a capital contribution and the conditions of section 6.51A(b) for adding investment financed by capital contributions to the capital base are satisfied.
608. For new facilities investment financed by capital contributions, the Authority is satisfied that the access arrangement as applied for the first access arrangement period includes a mechanism designed to ensure that there is no double recovery of costs as a result of the addition of the amount of the investment to the capital base.
609. The Authority will, accordingly, require that the amount of new facilities investment for the first access arrangement period that is to be added to the capital base should be reduced to exclude investment to the value of \$63.5 million for the transmission network and \$65 million for the distribution network that is not appropriately considered as new facilities investment or that comprise an overstatement of costs for 2008/09, and further reduced by an amount of 15 per cent of the new facilities investment (other than that comprising gifted assets) to reflect likely inefficiencies in the undertaking of investment. The amended values of new facilities investment are shown in Table 60.

Table 60 Amounts of new facilities investment in the first access arrangement period to be added to the capital base (real \$ million at 30 June 2009)²⁶⁶

	2006/07	2007/08	2008/09
Transmission			
Total new facilities investment	306.86	317.00	443.64
Reduction equivalent to \$63.5 million nominal in 2008/09	0	0	(63.50)
Revised total new facilities investment	306.86	317.00	380.14
15 per cent reduction	(46.03)	(47.55)	(57.02)
Value to be added to the capital base	260.83	269.45	323.12
Distribution			
Total new facilities investment	448.03	481.29	582.91
Reduction equivalent to \$65 million nominal in 2007/08	(22.31)	(22.31)	(22.31)
Revised total new facilities investment	425.72	458.98	560.60
Gifted assets	(23.68)	(39.60)	(94.30)
New facilities investment net of gifted assets	402.04	419.39	466.30
15 per cent reduction	(60.31)	(62.91)	(69.94)
Value to be added to the capital base (including gifted assets)	365.41	396.47	490.65

²⁶⁶ Revised access arrangement information, Appendix 7 (Revenue Model).

Required Amendment 26

The proposed access arrangement revisions should be amended to reflect actual new facilities investment in the first access arrangement period reduced to:

- exclude investment to the value of \$63.5 million (nominal) for the transmission network in 2008/09 that comprises an overstatement of costs for 2008/09;
- exclude investment to the value of \$65 million (nominal in 2007/08 dollar values) for the distribution network that comprises an amount of costs that is not appropriately considered as new facilities investment; and
- exclude a further amount of 15 per cent of the new facilities investment (other than that comprising gifted assets) to reflect likely inefficiencies in the undertaking of investment.

610. For the purposes of this Draft Decision, the Authority has determined the total cost of providing covered services by applying these adjustments to determine values of asset categories as indicated in Table 61 and Table 62. For the purposes of determining values of categories of assets, the Authority has allocated the amended values of new facilities investment across asset categories in the same proportions as in the values of new facilities investment proposed by Western Power to be added to the capital base.

Table 61 Amended new facilities investment in the first access arrangement period for the transmission network (real \$ million at 30 June 2009)

	2006/07	2007/08	2008/09
Transmission cables	4.73	4.05	5.99
Transmission steel towers	74.82	105.87	98.40
Transmission wood poles	13.09	12.44	16.19
Transmission metering	0	0	0
Transmission transformers	50.12	44.44	60.92
Transmission reactors	3.78	2.84	3.81
Transmission capacitors	24.44	18.67	25.03
Transmission circuit breakers	51.76	43.03	66.88
SCADA & communications	6.40	4.40	4.96
IT	5.48	9.91	6.21
Other non-network assets	2.77	2.65	5.11
Land and easements	23.44	21.15	29.61
Total new facilities investment	260.83	269.45	323.12

Table 62 Amended new facilities investment in the first access arrangement period for the distribution network (real \$ million at 30 June 2009)

	2006/07	2007/08	2008/09
Wooden poles	78.36	95.65	133.66
Underground cables	150.48	145.68	176.28
Transformers	49.15	48.08	57.78
Switchgear	37.83	43.70	55.30
Street lighting	14.85	14.91	18.02
Meters and services	9.29	10.31	10.22
SCADA & communications	15.58	28.24	19.93
IT	2.01	1.96	2.41
Other non-network assets	7.87	7.54	17.06
Land and easements	0	0	0
Total new facilities investment	365.41	396.07	490.65

Redundant Assets

611. In determination of total costs for the first access arrangement period, Western Power included in a notional roll forward of the capital base a forecast of the value of redundant assets for the access arrangement period. The forecast value was deducted from the capital base (in relevant asset categories) and an equivalent amount was included in the total costs through an amount of accelerated depreciation.
612. Values of redundant assets forecast for the first access arrangement period and taken into account in determination of notional capital base values for the first access arrangement period are shown in Table 63.

Table 63 Forecast value of redundant assets in the first access arrangement period (real \$ million at 30 June 2009)²⁶⁷

	2006/07	2007/08	2008/09
Transmission	0	0	0
Distribution			
Wooden pole lines	3.16	3.02	2.94
Transformers	0.84	0.81	0.78
Switchgear	0.21	0.20	0.20
Total Distribution	4.21	4.03	3.92
Total	4.21	4.03	3.92

²⁶⁷ Revised access arrangement information, Appendix 7.

613. In deriving the capital base for the commencement of the second access arrangement period, Western Power has applied the same values of redundant assets and accelerated depreciation as forecast for the first access arrangement period, with these values escalated for inflation to dollar values of 30 June 2009.
614. The treatment of redundant assets applied in the first access arrangement period is intended to compensate Western Power for asset redundancy: the reduction in the value of the capital base is offset by an allowance for accelerated depreciation. However, this mechanism appropriately compensates Western Power for asset redundancy only where no revenue is gained from the disposal of the redundant assets. Where revenue is gained from disposal of the redundant assets, Western Power would be over-compensated for asset redundancy by the amount of the revenue, which would be inconsistent with applying the roll forward calculation of the capital base in a manner consistent with the Code objective.
615. In the regulatory accounts for the first access arrangement period, Western Power identifies revenue from disposal of redundant assets from the transmission network of \$0.31 million in 2006/07 and \$1.80 million in 2007/08 (nominal dollar values).²⁶⁸ The Authority requires that these values, and any additional values of revenues from redundant assets in 2008/09, be taken into account (as deductions) in determination of the capital base at the commencement of the second access arrangement period.

Required Amendment 27

The proposed access arrangement revisions should be amended to add the value of any revenues from disposal of assets in the first access arrangement period to the value of redundant assets applied in calculation of the capital base at the commencement of the second access arrangement period.

616. For the purposes of this Draft Decision, the Authority has included the value of revenues from disposal of assets in the value of redundant assets as indicated in Table 64.

²⁶⁸ Revised access arrangement information, Appendix 8.

Table 64 Amended value of redundant assets in the first access arrangement period (real \$ million at 30 June 2009)

	2006/07	2007/08	2008/09
Transmission			
Land and easements	0.33	1.85	0
Distribution			
Wooden pole lines	3.16	3.02	2.94
Transformers	0.84	0.81	0.78
Switchgear	0.21	0.20	0.20
Total distribution	4.21	4.03	3.92
Total	4.54	5.88	3.92

Depreciation

617. A note to Section 6.48 of the Access Code contemplates a roll forward calculation of the capital base involving a deduction of an amount of depreciation.
618. In calculating its proposed value of the capital base at the commencement of the second access arrangement period, Western Power has applied values of depreciation taken into account in determining notional capital base values and the target revenue for the first access arrangement period, escalated for inflation to dollar values at 30 June 2009. The Authority is satisfied that this approach is consistent with applying the roll forward calculation in a manner consistent with the Code objective.

Capital Base at the Commencement of the Second Access Arrangement Period

619. The Authority has calculated revised values of the capital base for the transmission and distribution networks at 30 June 2009 in accordance with the Authority's determination under this Draft Decision on the value of new facilities investment in the first access arrangement period that may be added to the capital base under section 6.51A of the Access Code, and on the value of redundant assets to be subtracted from the capital base.
620. The Authority's revised capital base at 30 June 2009 for the transmission network of \$2,199.18 million compares with a value of \$2,415.47 million proposed by Western Power (in dollar values of 30 June 2009).
621. The Authority's revised capital base at 30 June 2009 for the distribution network of \$2,651.57 million compares with a value of \$2,911.66 million proposed by Western Power (in dollar values of 30 June 2009).
622. The calculation of the revised capital base values is shown in Table 65 and Table 66.

Table 65 Authority's revised capital base at 30 June 2009 for the transmission network (real \$ million at 30 June 2009)

	2006/07	2007/08	2008/09	2009/10
Opening asset value	1,523.25	1,730.11	1,939.40	2,199.18
New facilities investment	260.83	269.45	323.12	
Redundant assets	-0.33	-1.85	0	
Depreciation	-53.64	-58.30	-63.34	
Closing asset base	1,730.11	1,939.40	2,199.18	

Table 66 Authority's revised capital base at 30 June 2009 for the distribution network (real \$ million at 30 June 2009)

	2006/07	2007/08	2008/09	2009/10
Opening asset value	1,751.70	2,006.99	2,286.23	2,651.57
New facilities investment	365.41	396.07	490.65	
Redundant assets	-4.21	-4.03	-3.92	
Depreciation	-106.81	-111.90	-121.40	
Closing asset base	2,006.09	2,286.23	2,651.57	

Notional Capital Base over the Second Access Arrangement Period

Application of the Section 6.51A Test to Forecast New Facilities Investment

623. Section 6.51 of the Access Code provides for the target revenue for an access arrangement period to include capital costs calculated in respect of an amount of forecast of new facilities investment that is reasonably expected to satisfy the test in section 6.51A of the Access Code.
624. The practical effect of section 6.51A is that Western Power may notionally add forecast new facilities investment to the capital base in each year of the second access arrangement period to the extent that the forecast amounts either:
- are reasonably expected to satisfy the new facilities investment test; or
 - are (or are to be) financed by a contribution, are reasonably expected to meet the requirements of the first part of the new facilities investment test (the efficiency test of section 6.52(a) of the Access Code), and the access arrangement contains a mechanism designed to ensure that there is no double recovery of costs as a result of addition of the amount to the capital base.
625. For the second access arrangement period, Western Power proposes to only take into account, for the purposes of determining target revenue, forecast new facilities investment that is reasonably expected to satisfy the new facilities investment test.

Western Power proposes to not add to the capital base any new facilities investment that is financed by contributions. This proposed treatment of contributions is addressed at paragraph 646 and following of this Draft Decision.

626. Western Power has determined amounts of forecast new facilities investment to be notionally added to the capital base by deriving a total amount of forecast new facilities investment and subtracting a forecast of capital contributions. These amounts are shown in Table 67 and Table 68.

Table 67 Forecast new facilities investment for the second access arrangement period for the transmission network (real \$ million at 30 June 2009)²⁶⁹

	2009/10	2010/11	2011/12
Growth			
Capacity expansion	460.26	449.16	292.98
Generation driven	36.43	112.49	49.52
Customer driven	92.56	165.18	121.42
Estimating risk (3.5 per cent)	20.62	25.44	16.24
Asset replacement and renewal			
Asset Replacement	30.58	30.95	38.61
Estimating risk (3.5 per cent)	1.07	1.08	1.35
Improvement in service			
Reliability driven	6.14	9.64	9.25
SCADA and communications	13.04	13.39	15.83
Estimating risk (3.5 per cent)	0.67	0.81	0.88
Compliance			
Regulatory compliance	45.86	41.45	37.11
Estimating risk	1.60	1.45	1.30
Corporate			
IT	9.10	7.30	4.45
Business support	12.05	11.53	4.86
Total new facilities investment	729.98	869.86	593.79
Forecast Contributions	49.98	84.39	63.47
Net addition to the capital base	680.00	785.47	530.33

²⁶⁹ Revised access arrangement information, p. 76, Appendix 7 and Appendix 9. Some inconsistencies exist between values shown in Appendices and in the body of the revised access arrangement information. Values indicated in the Appendices have been assumed to be the correct values.

Table 68 Forecast new facilities investment for the second access arrangement period for the distribution network (real \$ million at 30 June 2009)²⁷⁰

	2009/10	2010/11	2011/12
Growth			
Capacity expansion	77.78	90.59	97.30
Customer access	149.16	151.93	157.61
Gifted assets	97.91	99.74	103.47
Estimating risk (3.5 per cent)	11.37	11.98	12.54
Asset replacement and renewal			
Asset Replacement	71.48	84.26	128.83
State underground power program	35.32	38.41	22.69
Metering	45.63	46.06	47.69
Estimating risk (3.5 per cent)	5.33	5.91	6.97
Improvement in service			
Reliability driven	44.41	54.41	67.40
Rural power improvement program	8.41	5.40	3.13
SCADA and communications	5.91	5.93	5.93
Estimating risk (3.5 per cent)	2.06	2.30	2.68
Compliance			
Regulatory compliance	87.92	103.31	135.08
Estimating risk	3.08	3.62	4.73
Corporate			
IT	27.30	21.90	13.34
Business support	34.91	33.00	13.59
Total new facilities investment	707.99	758.71	822.98
Forecast Contributions	187.13	192.44	186.77
Net addition to the capital base	520.87	566.27	636.21

New Facilities Investment Test

627. Western Power's approach to determining an amount of forecast new facilities investment that satisfies the new facilities investment test is:

- in respect of the efficiency test of section 6.52(a) of the Access Code, to contend that the planning and procurement processes of Western Power are such as to ensure that the forecast of new facilities investment is a reasonable forecast of costs that would satisfy the efficiency test; and

²⁷⁰ Revised access arrangement information, p. 122, Appendix 7 and Appendix 9. Some inconsistencies exist between values shown in Appendices and in the body of the revised access arrangement information. Values indicated in the Appendices have been assumed to be the correct values.

- in respect of the tests of section 6.52(b) of the Access Code, to indicate a forecast of contributions determined in accordance with the contributions policy (as an amount that does not satisfy the new facilities investment test or is otherwise chargeable as a contribution) and deducting this amount from the forecast total new facilities investment.²⁷¹
628. Western Power indicates that the forecast of contributions is derived to be consistent with historical levels of capital contributions as a percentage of total capital expenditure.²⁷²
629. The approach taken by the Authority to assessing the forecast of new facilities investment and the amount of this forecast investment claimed by Western Power to satisfy the new facilities investment test has been to:
- assess whether the forecast of new facilities investment is reasonably expected to satisfy the efficiency test under section 6.52(a) of the Access Code; and
 - assess whether Western Power has made a reasonable forecast of the amount of new facilities investment that will satisfy the new facilities investment in its entirety and that is not otherwise financed by capital contributions.
630. These matters are addressed in turn as follows.
631. Western Power indicates that the forecast of new facilities investment for the transmission network is driven by the following factors.
- A forecast requirement for connection of new generation projects necessary to meet the IMO's projected reserve capacity target. Necessary generation connections were determined on a hierarchy of likelihood of connection of, in order, projects with assigned capacity credits, committed generation projects with an access agreement to the network, queued applications for generation connection in order of Western Power's own assessment of the probability of the application proceeding, and additional generation capacity determined according to known proposals and factors such as fuel availability.²⁷³
 - Customer-driven augmentations for connection of new generation and new major loads.²⁷⁴
 - Forecast major augmentations of the transmission network to satisfy demand growth, including
 - the new Pinjar – Geraldton 330 kV transmission line;
 - the new Kojonup – Albany 132 kV transmission line;
 - the Grange Resources Mine 220 kV supply;
 - the Shotts – East Terminal 330 kV transmission line;

²⁷¹ Western Power submission of 17 December 2009.

²⁷² Email correspondence from Western Power of 13 July 2009.

²⁷³ Revised access arrangement information, pp. 64 to 66, Appendix 1: pp. 78, 79.

²⁷⁴ Revised access arrangement information, Appendix 1: pp. 79, 80.

- the new Gindalbie Metals – Eneabba – Three Springs 330 kV transmission line; and
 - the new Wanneroo – Hocking – Wangara 132 kV transmission line.²⁷⁵
 - Other augmentations comprising specific projects for expansion of the capacity of the transmission network including new and upgraded transmission lines, new and upgraded zone substations, acquisition of land for sites and easements, and other minor projects.²⁷⁶
 - Network replacement and maintenance, including a backlog of works from the first access arrangement period.²⁷⁷
 - Compliance with safety, health and environmental regulations.²⁷⁸
 - Specific projects for maintaining the reliability of the transmission network.²⁷⁹
 - Specific projects for improvements to SCADA and communications systems.²⁸⁰
632. Western Power indicates that the forecast of new facilities investment for the distribution network is driven by the following factors.
- High levels of growth in electricity demand and new connections.
 - Network replacement and maintenance, including a backlog of works from the first access arrangement period and taking into account that the age of many assets of the distribution network significantly exceeds their expected lives.²⁸¹
 - More onerous safety, health and environmental regulations.²⁸²
 - A strategy of “feeder load reduction”, involving establishment of new zone substations, creation of new distribution feeders and upgrading of existing feeders according to a planning criterion that feeder peak loads are kept below 80 per cent of “normal cyclic rating”.²⁸³
 - Improvements in reliability to meet standards established under the *Electricity Industry (Network Quality and Reliability of Supply) Code 2005*, including a backlog of works.²⁸⁴
633. Western Power states in its revised access arrangement information that its overarching network investment strategy, network planning processes and governance arrangements for capital investment should provide sufficient comfort to the Authority that the company’s capital expenditure satisfies the requirements of

²⁷⁵ Revised access arrangement information, pp 68, 69, Appendix 1: pp. 64 – 69.

²⁷⁶ Revised access arrangement information, Appendix 1: pp. 69 – 77.

²⁷⁷ Revised access arrangement information, pp. 69, 70, Appendix 1: pp. 81 – 86.

²⁷⁸ Revised access arrangement information, pp. 70, 71, Appendix 1: pp 86 – 88.

²⁷⁹ Revised access arrangement information, pp. 70, 71, Appendix 1: pp 88 – 90.

²⁸⁰ Revised access arrangement information, pp. 70, 71, Appendix 1: pp 90 – 92.

²⁸¹ Revised access arrangement information, p. 116, Appendix 1: pp. 42, 43.

²⁸² Revised access arrangement information, pp. 119, 120, Appendix 1: pp. 52, 53.

²⁸³ Revised access arrangement information, p. 117.

²⁸⁴ Revised access arrangement information, pp. 117, 119, Appendix 1: p. 47

the first part of the new facilities investment test – the efficiency test of section 6.52(a) of the Access Code.²⁸⁵

634. The Authority has received advice from an engineering management consultant, Geoff Brown & Associates, on the planning and procurement processes of Western Power and whether these processes can be relied on as evidence that the forecast new facilities investment is reasonably expected to satisfy the efficiency test of section 6.52(a) of the Access Code.²⁸⁶ Of particular relevance to forecasts of new facilities investment for the second access arrangement period, this advice addresses the processes for development of the proposed works program and estimation of costs. The advice also takes into account a review of several investment projects and programs.
635. The Authority's expert's advice indicates that Western Power has implemented substantial improvements to its processes of cost estimation and applied these improved processes to the determination of cost forecasts for the second access arrangement period. These improvements include establishing an estimating centre within Western Power, with an initial focus on expenditure forecasts for the second access arrangement period. The Authority is advised that the investment planning and estimating processes for the investment forecasts have been substantially improved over the course of the first access arrangement period and are robust, although there may be some weakness in optimisation of capital projects.²⁸⁷
636. On the basis of this advice, the Authority accepts that the planning and procurement processes applied by Western Power in development of the forecast of new facilities investment for the second access arrangement period support a view that this forecast is consistent with the requirements of the efficiency test of section 6.52(a) of the Access Code.
637. Notwithstanding this, the Authority has given attention to three matters affecting the forecast of new facilities investment and whether this forecast is consistent with the efficiency test of section 6.52(a) of the Access Code:
- the economic downturn that has emerged subsequent to Western Power submitting its proposed access arrangement revisions;
 - the inclusion by Western Power of a 3.5 per cent margin in forecasts of new facilities investment as an “estimating risk factor”; and
 - the ability of Western Power to undertake the capital works program that underlies the forecast of new facilities investment given that the program is substantially larger than that of the first access arrangement period.
638. Western Power has indicated to the Authority that the economic downturn has caused Western Power to revise forecast load growth downwards to reflect the deferral of some large new connections. In particular, Western Power has removed allowances from the forecast for expenditures in 2009/10 for the Pinjar – Geraldton 330 kV transmission line and the Shotts – East Terminal 330 kV transmission line, amounting to a reduction in forecast new facilities investment for capacity

²⁸⁵ Revised access arrangement information, p. 32.

²⁸⁶ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

²⁸⁷ Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.

expansion by \$434.93 million (real dollars 2009) or 35 per cent, and a reduction in the forecast of gifted assets in the distribution network by \$248.85 million (real dollars 2009) or 80 per cent. Western Power has also anticipated other significant reductions or deferrals in forecast new facilities investment in other categories both related and unrelated to changes in demand (Table 69 and Table 70). These are partly offset by increases in forecast investment in some categories, namely customer driven investment in the transmission network (increased by \$11.55 million or three per cent) and customer access investment in the distribution network (increased by \$136.75 million or 29 per cent).

Table 69 Forecast and anticipated revised forecast of new facilities investment for the second access arrangement period for the transmission network (real \$ million at 30 June 2009)²⁸⁸

	2009/10		2010/11		2011/12	
	Original	Revised	Original	Revised	Original	Revised
Growth						
Capacity expansion	476.37	143.45	464.88	323.41	303.24	342.70
Generation driven	37.70	62.29	116.43	66.58	51.26	68.08
Customer driven	95.80	36.30	170.96	182.44	125.67	185.24
Asset replacement and renewal						
Asset Replacement	31.65	18.54	32.03	29.58	39.96	31.49
Improvement in service						
Reliability driven	6.36	1.76	9.97	1.81	9.57	0.93
SCADA and communications	13.50	10.25	13.86	13.41	16.39	15.84
Compliance						
Regulatory compliance	47.46	15.61	42.90	23.30	38.41	27.42
Corporate						
IT	9.10	4.39	7.30	7.32	4.45	4.45
Business support	12.05	6.64	11.53	11.51	4.86	4.91
Total new facilities investment	729.98	306.13	869.86	659.28	593.79	681.05
Forecast Contributions	49.98	12.69	84.39	29.87	63.47	30.38
Net addition to the capital base	680.00	293.44	785.47	629.41	530.33	650.67

Note: for comparison purposes, values of the original forecast include the 3.5% estimating risk factor.

²⁸⁸ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs and 16 June 2009. Email from Western Power to the Economic Regulation Authority of 16 June 2009. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information Appendix 7: Revenue Model).

Table 70 Forecast and anticipated revised forecast new facilities investment for the second access arrangement period for the distribution network (real \$ million at 30 June 2009)²⁸⁹

	2009/10		2010/11		2011/12	
	Original	Revised	Original	Revised	Original	Revised
Growth						
Capacity expansion	80.50	74.07	93.76	85.61	100.70	92.62
Customer access	154.38	212.74	157.25	195.00	163.13	203.77
Gifted assets	101.34	9.76	103.23	23.69	107.09	29.36
Asset replacement and renewal						
Asset Replacement	73.98	68.60	87.21	93.79	133.34	103.27
State underground power program	36.55	19.52	39.75	30.44	23.49	36.12
Metering	47.23	11.71	47.67	13.32	49.36	13.89
Improvement in service						
Reliability driven	45.97	10.83	56.31	28.54	69.76	46.31
Rural power improvement program	8.70	7.81	5.59	7.61	3.23	2.78
SCADA and communications	6.12	5.46	6.13	5.90	6.14	5.93
Compliance						
Regulatory compliance	91.00	78.65	106.92	104.16	139.81	131.06
Corporate						
IT	27.30	13.17	21.90	21.88	13.34	13.34
Business support	34.91	19.81	33.00	33.01	13.59	13.62
Total new facilities investment	707.99	532.04	758.71	642.92	822.98	692.07
Forecast Contributions	187.13	137.99	192.44	142.01	186.77	153.47
Net addition to the capital base	520.87	394.05	566.27	500.90	636.21	538.59

Note: for comparison purposes, values of the original forecast include the 3.5% estimating risk factor.

639. Western Power has not provided details of the factors underlying the anticipated revised forecasts and the Authority is unable to determine the extent to which the revisions arise from a reduction in the programs of capital works and from other factors such as lower unit costs. In regard to the latter, the Authority reiterates the

²⁸⁹ Western Power, 25 May 2009, Letter from Mr Phil Southwell, General Manager Strategy and Corporate Affairs and 16 June 2009, Email from Western Power to the Economic Regulation Authority of 16 June 2009. Real dollar values calculated using inflation factors applied by Western Power (revised access arrangement information Appendix 7: Revenue Model).

view expressed earlier in this Draft Decision that there does not appear to be justification for any assumption of real increases in unit costs for the second access arrangement period (paragraph 416).

640. With respect to the inclusion of the 3.5 per cent “estimating risk margin” in the cost forecast of new facilities investment, Western Power has included this margin as an “allowance in forecast expenditures for small errors in cost estimating”.²⁹⁰
641. The Authority is not satisfied that Western Power has provided adequate justification for inclusion of this margin in costs forecasts. In particular, Western Power has not established that its processes for estimating costs are expected to systematically under-estimate costs by the amount of the margin and, if this is the case, why the processes for estimating costs should not be altered so as to remove the systematic error rather than addressing this through a universally applied risk margin.
642. Taking the above matters into account, the Authority considers that the forecast of new facilities investment is not an amount that is reasonably expected to satisfy the efficiency test of section 6.52(a) of the Access Code. The Authority considers that the forecast new facilities investment is in excess of the amount that satisfies this test as a result of the forecast including:
- amounts in respect of capital works that are either no longer required or that may be deferred in light of the downturn in the Western Australian economy and a lower forecast of demand for network services;
 - amounts reflecting a real escalation in unit costs over the second access arrangement period; and
 - an amount of an “estimating risk margin”.
643. The second part of the new facilities investment tests comprises the incremental revenue test, net benefits test and safety and reliability test of section 6.52(b) of the Access Code. Western Power has determined an amount of new facilities investment that it contends meets the tests of section 6.52(b) by indicating a forecast of contributions determined in accordance with the contributions policy (as an amount that does not satisfy the new facilities investment test or is otherwise chargeable as a contribution) and deducting this amount from the forecast total new facilities investment.
644. The Authority has compared the forecast of contributions with actual values in the first access arrangement period. The Authority observes that the level of capital contributions forecast by Western Power is significantly greater than in the first access arrangement as a proportion of the values of new facilities investment in categories that attract contributions (Table 71). The Authority also considers that in the current access arrangement, Western Power may have tended to underestimate values of new facilities investment that satisfy the new facilities investment test and determined capital contributions at too high a level (paragraphs 582 to 585 of this Draft Decision).

²⁹⁰ Revised access arrangement information, Appendix 1: p. 56.

Table 71 Actual and forecast capital contributions (real \$ million at 30 June 2009)²⁹¹

	2006/07 Actual	2007/08 Actual	2008/09 Forecast	2009/10 Forecast	2010/11 Forecast	2011/12 Forecast
Transmission						
Customer driven investment	19.26	75.59	47.80	37.70	116.43	51.26
Generation driven investment	121.29	90.73	139.53	95.80	170.96	125.67
Total	140.56	166.32	187.33	133.50	287.38	176.92
Contributions	36.70	33.47	27.00	49.98	84.39	63.47
Ratio of contributions to investment	0.26	0.20	0.14	0.37	0.29	0.36
Distribution						
Customer driven investment	194.80	195.15	131.89	154.38	157.25	163.13
Gifted assets	23.67	20.91	94.30	101.34	103.23	107.09
Total	218.47	216.06	226.19	255.73	260.47	270.22
Contributions	143.10	140.57	145.20	187.13	192.45	186.77
Ratio of contributions to investment	0.65	0.65	0.64	0.73	0.74	0.69

645. Taking these factors into account, and subject to adjustments of the forecast new facilities investment as required (refer to paragraph 642, above) for the forecast to meet the efficiency test of section 6.52(a) of the Access Code, the Authority is satisfied that the forecast of new facilities investment that Western Power proposes to add to the capital base is reasonably expected to satisfy the tests of section 6.52(b) of the Access Code. The Authority also notes that all new facilities investment to occur in the second access arrangement period will still have to be assessed to determine whether it satisfies the new facilities test, either at the time of revisions to the access arrangement for the third access arrangement period or at the time of any application by Western Power under provisions of sections 6.71 and 6.72 of the Access Code.

New facilities investment that is the subject of a contribution

646. For the second access arrangement period, Western Power proposes a different treatment of contributions than that applied under the access arrangement for the first access arrangement period in taking the value of contributions into account in setting and applying the price control.
647. Under the current access arrangement, the value of any new facilities investment financed by contributions is added to the capital base and the value of contributions is deducted from target revenue. This treatment leaves Western Power financially neutral in respect of the financing of new facilities investment by contributions.

²⁹¹ Revised access arrangement, Appendix 7 (Revenue Model); Appendix 9.

Western Power earns future revenue from depreciation allowances and a rate of return on the value of investment added to the capital base, but bears an equivalent cost (in present value terms) by having the value of the contributions deducted from the value of revenue able to be recovered under the price control. This treatment is consistent with the requirement of section 6.51A(b) for the value of investment financed by capital contributions to be added to the capital base.

648. For the second access arrangement period, Western Power has proposed to not add to the capital base any new facilities investment financed by contributions. This treatment of contributions is also financially neutral on Western Power. Western Power does not meet the cost of the new facilities investment that is the subject of the contribution and does not gain any revenue from that investment.
649. Notwithstanding the equality of the two alternative treatments of contributions in their financial neutrality for Western Power, the two treatments have different temporal effects on network prices. This matter is given further consideration by the Authority in the determination of target revenue (paragraph 831 and following).

Conclusion on Application of the Section 6.51A Test

650. Under section 6.51 of the Access Code, the forecast total costs for providing covered services for the second access arrangement period may include costs in relation to forecast new facilities investment that is reasonably expected to satisfy the test in section 6.51A when the forecast new facilities investment is forecast to be made.
651. The test in section 6.51A of the Access Code states that new facilities investment may be added to the capital base if:
 - It satisfies the new facilities investment test (under section 6.52 of the Access Code); or
 - the Authority otherwise approves it being added to the capital base if:
 - it has been, or is expected to be, the subject of a capital contribution; and
 - it meets the requirements of section 6.52(a); and
 - the access arrangement contains a mechanism to ensure that there is no double recovery of costs as a result of the addition.
652. In determining the forecast total costs for providing covered services for the second access arrangement period, Western Power proposes to take into account only that part of forecast new facilities investment that is reasonably expected to satisfy the new facilities investment test. Western Power proposes that the amount of forecast new facilities investment that is the subject of capital contributions is not to be taken into account in determining the forecast total costs.
653. After having regard to information provided by Western Power and other advice, the Authority considers that the entire amount of forecast new facilities investment that is not subject to a contribution, and that Western Power proposes to take into account in determining the forecast total costs, does not satisfy the new facilities investment test and, hence, does not satisfy the test of section 6.51A or the requirements of section 6.51.

654. The Authority considers that a lesser amount of forecast new facilities satisfies the requirements of section 6.51 of the Access Code, which is an amount that:
- reflects a revised program of capital works that takes into account revised forecasts of demand for network services;
 - reflects a zero rate of escalation in unit costs over the second access arrangement period; and
 - excludes any “estimating risk margin”.

Required Amendment 28

The proposed access arrangement revisions should be amended to incorporate a forecast of new facilities investment that:

- reflects a revised program of capital works that takes into account revised forecasts of demand for network services;
- reflects a zero rate of escalation in unit costs over the second access arrangement period; and
- excludes any “estimating risk margin”.

655. The Authority expects that Western Power will provide further information to support revised forecasts of new facilities investment prior to the Authority’s final decision on the proposed access arrangement revisions. The Authority also notes that all new facilities investment to occur in the second access arrangement period will still have to be assessed as to whether it satisfies the new facilities investment test, either at the time of revisions to the access arrangement for the third access arrangement period or at the time of any application by Western Power under provisions of sections 6.71 and 6.72 of the Access Code.
656. For the purposes of this Draft Decision, the Authority has determined the total cost of providing covered services taking into account the anticipated revised forecast of new facilities investment provided by Western Power to the Authority on 25 May 2009, together with a corresponding allocation of the revised forecast across asset classes and the revised forecast of capital contributions, also provided by Western Power²⁹² (Table 72 and Table 73).

²⁹² Email from Western Power to the Economic Regulation Authority of 16 June 2009.

Table 72 Amended forecast new facilities investment for the transmission network (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
Transmission cables	6.26	14.13	14.97
Transmission steel towers			
Total investment	110.70	200.19	207.37
Forecast contributions	11.44	26.92	27.38
Net investment	99.27	173.27	179.99
Transmission wood poles	17.47	33.53	35.57
Transmission metering	0	0	0
Transmission transformers			
Total investment	48.09	122.90	129.07
Forecast contributions	0.93	2.18	2.22
Net investment	47.16	120.72	126.86
Transmission reactors	1.50	6.78	6.91
Transmission capacitors			
Total investment	11.73	46.99	48.13
Forecast contributions	0.01	0.03	0.03
Net investment	11.72	46.96	48.10
Transmission circuit breakers	57.27	130.72	137.92
SCADA & communications	11.34	16.54	19.12
IT	4.39	7.32	4.45
Other non-network assets	6.59	11.51	4.91
Land and easements			
Total investment	30.80	68.66	72.59
Forecast contributions	0.31	0.73	0.74
Net investment	30.49	67.93	71.84
Total investment	306.14	659.27	681.01
Total contributions	12.69	29.87	30.38
Total new facilities investment less contributions	293.46	629.41	650.63

Table 73 Amended forecast new facilities investment for the distribution network (real \$ million at 30 June 2009)

	2009/10	2010/11	2011/12
Wooden poles			
Total investment	151.75	198.72	231.25
Forecast contributions	8.17	8.60	10.48
Net investment	143.58	190.12	220.78
Underground cables			
Total investment	185.48	205.00	228.02
Forecast contributions	82.61	84.43	87.89
Net investment	102.87	120.58	140.12
Transformers			
Total investment	64.90	69.71	76.37
Forecast contributions	22.53	23.49	27.27
Net investment	42.37	46.22	49.10
Switchgear			
Total investment	59.24	72.31	83.42
Forecast contributions	14.78	15.33	17.34
Net investment	44.46	56.97	66.09
Street lighting			
Total investment	20.41	22.62	25.59
Forecast contributions	9.90	10.11	10.51
Net investment	10.51	12.51	15.08
Meters and services	11.74	13.32	13.89
SCADA & communications	13.17	21.88	13.34
IT	5.62	6.32	6.57
Other non-network assets	19.76	33.01	13.62
Land and easements	0	0	0
Total investment	532.07	642.89	692.08
Total contributions	137.99	141.97	153.48
Total new facilities investment less contributions	394.09	500.91	538.60

Redundant Assets

657. Consistent with the treatment of redundant assets in the first access arrangement period, Western Power has included a forecast of the value of redundant assets in the notional roll forward of the capital base for the second access arrangement period. The forecast value is deducted from the capital base (in relevant asset categories) and an equivalent amount included in the total costs through an amount of accelerated depreciation.

658. The treatment of redundant assets applied in the first access arrangement period and proposed for the second access arrangement period compensates Western Power for asset redundancy: the reduction in the value of the capital base is offset by an allowance for accelerated depreciation.
659. Values of redundant assets proposed for the second access arrangement period are shown in Table 74 and are indicated by Western Power to relate to assets expected to be made redundant as a result of the under-grounding of distribution lines under the State Underground Power Program.²⁹³ Given the low value of the redundancy allowances and the fact that these relate to a specific program, the Authority is satisfied that they are appropriately taken into account in determination of target revenue for the second access arrangement period.

Table 74 Value of redundant assets proposed for the second access arrangement period (real \$ million at 30 June 2009)²⁹⁴

	2009/10	2010/11	2011/12
Transmission	0	0	0
Distribution			
Wooden pole lines	2.83	2.76	2.69
Transformers	0.76	0.74	0.72
Switchgear	0.19	0.19	0.18
Total distribution	3.78	3.68	3.59
Total	3.78	3.68	3.59

Depreciation

660. Under section 6.70 of the Access Code, an access arrangement must include a specification of the method by which depreciation allowances for assets of the capital base are calculated, assumptions as to asset lives and the circumstances in which the depreciation of a network asset may be accelerated.
661. Western Power's proposed method and assumptions for calculation of depreciation allowances are set out in clauses 6.4 to 6.6 of the proposed access arrangement revisions.
662. In determination of total costs for the second access arrangement period, Western Power calculates depreciation allowances using the straight-line method with assumptions of average residual lives of existing assets included in the initial capital base values of the transmission and distribution networks, and total asset lives for new assets introduced to the capital base as new facilities investment. Western Power has maintained the same method of straight-line depreciation and assumptions of asset lives in calculation of depreciation allowances as applied for the first access arrangement period.

²⁹³ Proposed access arrangement revisions, clause 6.6.

²⁹⁴ Revised access arrangement information, Appendix 7 (Revenue Model).

663. At clause 6.6 of the proposed access arrangement revisions, Western Power indicates that accelerated depreciation will be applied to distribution assets that will be decommissioned as a result of the State Underground Power Program undertaken by Western Power on behalf of the Western Australian Government. This principle of accelerated depreciation is unchanged from the current access arrangement.
664. Assumptions of asset lives for the asset categories of the capital base of the transmission and distribution networks are indicated in Table 75.

Table 75 Assumptions of asset lives applied for calculation of depreciation allowances²⁹⁵

Asset category	Assumed asset life (years)	
	Existing assets at 30 June 2006	New assets
Transmission		
Cables	38.1	55
Steel towers	41.3	60
Wood poles	20.9	45
Metering	26.1	40
Transformers	25.5	50
Reactors	27.0	50
Capacitors	23.1	40
Circuit breakers	28.2	50
SCADA & communications	11.4	34.15
IT & T	4.2	16.85
Other non-network assets	12.0	16.85
Land and easements	Not applicable	Not applicable
Distribution		
Wooden pole lines	14.5	41
Underground cables	36.9	60
Transformers	16.9	35
Switchgear	13.5	35
Street lighting	1.2	20
Meters and services	9.2	25
IT & T	9.8	10.16
SCADA & communications	10.2	10.16
Other non-network assets	11.3	10.16
Land and easements	Not applicable	Not applicable

²⁹⁵ Revised Access Arrangement Information, Appendix 7 (Revenue Model).

665. Western Power has proposed continuing the same method of calculation of depreciation allowances and assumptions of asset lives as applied for the first access arrangement period and the Authority is satisfied that the calculation of depreciation allowances is consistent with the requirements of section 6.70 of the Access Code.

Notional Capital Base Values for the Second Access Arrangement Period

666. The Authority has calculated revised values of the notional capital base for the second access arrangement period in accordance with the Authority's determinations under this Draft Decision on whether the forecast of new facilities investment may, under section 6.50 of the Access Code, be taken into account in determination of total costs and target revenue.
667. The revised notional capital base at the end of the second access arrangement period (30 June 2012) for the transmission network of \$3,540.82 million compares with a value of \$4,150.51 million proposed by Western Power (in dollar values of 30 June 2009).
668. The revised notional capital base at the end of the second access arrangement period (30 June 2012) for the distribution network of \$3,618.32 million compares with a value of \$4,129.19 million proposed by Western Power (in dollar values of 30 June 2009).
669. The calculation of the revised capital base values is shown in Table 76 and Table 77.

Table 76 Authority's revised notional capital base values for the second access arrangement period for the transmission network (real \$ million at 30 June 2009)²⁹⁶

	2009/10	2010/11	2011/12
Opening asset value	2,199.18	2,422.58	2,976.93
New facilities investment	293.46	629.41	650.63
Redundant assets	0	0	0
Depreciation	(70.06)	(75.05)	(86.74)
Closing asset base	2,422.58	2,976.93	3,540.82

²⁹⁶ Revised access arrangement information, Appendix 7 (Revenue Model).

Table 77 Authority's revised notional capital base values for the second access arrangement period for the distribution network (real \$ million at 30 June 2009)²⁹⁷

	2009/10	2010/11	2011/12
Opening asset value	2,651.57	2,903.50	3,250.22
New facilities investment	394.09	500.91	538.60
Redundant assets	(3.78)	(3.68)	(3.59)
Depreciation	(138.38)	(150.51)	(166.92)
Closing asset base	2,903.50	3,250.22	3,618.32

Weighted Average Cost of Capital

Access Code Requirements

670. Section 6.64 of the Access Code requires that the access arrangement set out the weighted average cost of capital (**WACC**) for a covered network.
671. Section 6.65 of the Access Code provides for the Authority to make a determination of the preferred methodology for calculating the WACC in access arrangements for covered networks under the Access Code. If a determination has been made by the Authority, section 6.64(a) of the Access Code requires Western Power to use the Authority's methodology in the determination unless Western Power can demonstrate that an access arrangement containing an alternative methodology would better achieve the objectives set out in section 6.4 of the Access Code and the Code objective.
672. On 25 February 2005, the Authority made a determination (**WACC Determination**) under section 6.65 of the Access Code on the preferred WACC methodology.²⁹⁸
673. This determination has effect for five years from 25 February 2005 and is effective for the proposed revisions to the access arrangement.

Proposed Revisions

674. The WACC applied under the current access arrangement is 6.72 per cent pre-tax real.
675. Western Power has proposed a WACC of 8.95 per cent pre-tax real for the second access arrangement period. This value was determined after calculation of a "reasonable range" of WACC values according to the method established by the Authority's WACC Determination and by application of parameter values to the capital asset pricing model (**CAPM**) and WACC as shown in Table 78.

²⁹⁷ Revised access arrangement information, Appendix 7 (Revenue Model).

²⁹⁸ Economic Regulation Authority, 25 February 2005, Determination of the preferred methodology for calculating the weighted average cost of capital for covered electricity networks.

Table 78 WACC Values for the Current Access Arrangement and Proposed access arrangement revisions

Parameter	Current Access Arrangement (Determined by the Authority) ²⁹⁹	Proposed access arrangement revisions (Proposed by Western Power) ³⁰⁰
Nominal risk free rate (%)	5.81	6.45
Real risk free rate (%)	2.63	3.62
Inflation rate (%)	3.10	2.73
Capital structure (equity to total value, %)	40	40
Capital structure (debt to total value, %)	60	60
Equity beta	0.8 – 1.0	0.90 – 1.10
Market risk premium (%)	5.0 – 6.0	6.0 – 7.0
Debt margin (%)	1.225 to 1.425 (including debt establishment costs of 0.125%)	3.365 – 3.665 (including debt establishment costs of 0.125%)
Value of imputation credits (gamma, %)	30 – 60	0 – 50
Range for the real pre-tax WACC (%)	5.57 – 6.85	8.50 – 11.12
Applied real pre-tax WACC (%)	6.76	8.95

676. Western Power has included in the revised access arrangement information a report from KPMG that establishes the values of input parameters to the WACC calculation and establishes the range of WACC values.³⁰¹

677. Western Power established its proposed WACC value on the basis of a nominal risk free rate and a debt margin established from capital market data over a 60 trading-day period to 23 June 2008. Western Power indicates that the determination is subject to revision to reflect a prevailing risk free rate and updated inflation outlook at a time closer to the approval of the proposed access arrangement revisions.

²⁹⁹ Economic Regulation Authority, 2 March 2007, Final Decision, Appendix B.

³⁰⁰ Revised access arrangement information, Appendix 7 (Revenue Model).

³⁰¹ Revised access arrangement information, Appendix 6.

678. It is not clear from the proposed access arrangement revisions how Western Power intends to make such revisions given that the proposed WACC value is selected from within a broad range of values rather than being a calculated value. However, Western Power has further submitted that:³⁰²

... the value of WACC will be subject to revision to reflect the prevailing interest rates and the corresponding 10-year inflation outlook over a sampling period to be agreed (on a confidential basis) between the Authority and Western Power.

It is Western Power's intention to revise the plausible range for WACC based on the parameter recommended by KPMG and the revised market data from the agreed sampling period. It can be reasonably anticipated that Western Power will select a point value from the revised range based on the parameter values currently specified in Chapter 6A of the National Electricity Rules in relation to: equity beta (1.0); gamma (0.5); market risk premium (6%); and gearing (60%).

Submissions

679. Submissions made to the Authority include the following contentions.

- Western Power manages its business in such a manner as to reduce its commercial risk to levels substantially below comparable private businesses, and this lower risk should be reflected in a lower regulatory rate of return and lower prices of network services.³⁰³
- In determining the risk free rate and cost of debt from capital market data, Western Power has not justified either consideration of market data over a 60-day rather than 20-day period, nor its request to have the date of determination of the risk free rate and costs of debt determined by the Authority prior to the final decision and communicated to Western Power on a confidential basis.³⁰⁴
- Substantial differences exist between the values of CAPM and WACC parameters applied by Western Power to those of a determination by the Australian Energy Regulator (AER) for electricity transmission and distributions in the National Electricity Market, with the latter implying a lower value for the WACC than proposed by Western Power.³⁰⁵
- Scrutiny by the Authority of Western Power's proposed WACC is necessary due to the difference between the proposed WACC and that applied for the first access arrangement period, and the downturn in economic activity occurring since the last quarter of 2008.³⁰⁶

680. Where relevant, these submissions are addressed and responded to in the following section, which sets out the considerations of the Authority.

³⁰² Western Power submission of 17 December 2008.

³⁰³ Griffin Energy Development Pty Ltd submission of 17 December 2008.

³⁰⁴ Alinta Sales Pty Ltd submission of 17 December 2008; Synergy submission of 22 December 2008 on the Price Control.

³⁰⁵ Alinta Sales Pty Ltd submission of 17 December 2008; Synergy submission of 22 December 2008 on the Price Control (referring to Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters).

³⁰⁶ Verve Energy submission of 2 December 2008; Perth Energy submission of 17 December 2008; Department of Treasury and Finance submission of 17 December 2008.

Considerations of the Authority

681. Under the requirements of section 6.64 of the Access Code, the Authority must determine whether the WACC proposed by Western Power has been determined consistently with the methodology in the Authority's WACC Determination, or by an alternative methodology that has been demonstrated by Western Power to better achieve the objectives set out in section 6.4 of the Access Code and the Code objective.
682. The Authority's WACC Determination was that:³⁰⁷
- the CAPM be the methodology used for calculating the return on assets;
 - financial modelling be applied in real terms;
 - the WACC be formulated on a pre-tax basis, using the Officer formula with the taxation adjustment calculated using a forward transformation;
 - the debt premium be based on market evidence of debt costs for businesses with a credit risk profile consistent with a BBB or BBB+ credit rating (sources of relevant market evidence may include CBASpectrum and Bloomberg estimates of corporate bond yields);
 - nominal risk free rates be derived from Commonwealth 10 year bond rates with terms of 10 years, calculated on the basis of a 20 trading-day average of the yields, taken at the final day of the month prior to a decision on an access arrangement;
 - real risk free rates to be derived from a 20 trading-day average of the yields on Commonwealth index-linked bonds with terms of 10 years, taken at the final day of the month prior to a decision on an access arrangement;
 - the inflation forecast for the relevant period is the difference between the nominal risk free rate and real risk free rate (calculated using the Fisher equation); and
 - an appropriate benchmark gearing assumption be adopted to encourage efficient financing decisions."
683. Relevant objectives for the WACC under section 6.4 of the Access Code and the Code objective are that the WACC should be set at a value that:
- gives the service provider an opportunity to earn revenue that meets the forward-looking and efficient cost of funds;
 - is commensurate with the commercial risks involved in the provision of covered services; and
 - promotes the economically efficient investment in, and operation and use of, the SWIN and the services provided by the SWIN.
684. The Authority has considered Western Power's proposed WACC against the elements of methodology addressed in the Authority's WACC Determination and

³⁰⁷ Economic Regulation Authority, 25 February 2005, Determination of the preferred methodology for calculating the weighted average cost of capital for covered electricity networks, paragraph 5.

the values of parameters of the CAPM and WACC formulae that are applied under this methodology.

685. In considering Western Power's proposed WACC, the Authority has had regard to recent studies of regulatory rate of return values for utility businesses, including the determination of the AER on values of WACC parameters for electricity transmission and distribution businesses under the National Electricity Rules.³⁰⁸

General Method

686. The Authority's WACC Determination requires that:

- the CAPM be the methodology used for calculating the return on assets;
- financial modelling be applied in real terms; and
- the WACC be formulated on a pre-tax basis, using the Officer formula with the taxation adjustment calculated using a forward transformation.

687. Western Power has provided details of its financial modelling for the determination of total costs and target revenue and determination of the WACC as Appendix 7 of the revised access arrangement information. The Authority has scrutinised the financial model and WACC calculations and is satisfied that Western Power has undertaken financial modelling and calculated the WACC value in accordance with the general method of the Authority's WACC Determination. The Authority's consideration of the WACC proposed by Western Power has therefore been limited to the values of parameters in the calculation of the WACC, rather than the general method of determination.

Risk Free Rate and Inflation

688. Western Power has determined a value of the nominal risk free rate of 6.45 per cent from the average of implied annualised yields on 10-year Commonwealth Government Securities (government bonds) over a 60 trading-day period to 23 June 2008. An inflation forecast of 2.73 per cent was derived by consideration of the short-term inflation forecasts and the long-term inflation targets of the Reserve Bank of Australia. A value of the real risk free rate was then calculated from the nominal risk free rate and inflation rate by the Fisher equation.³⁰⁹
689. Western Power indicates that this method for the derivation of the real risk free rate differs from the method applied by the Authority in its WACC Determination (observing a real risk free rate from implied yields on inflation-indexed government bonds), but that this method is consistent with the Authority's June 2008 determination of a WACC value for regulated railway infrastructure.³¹⁰

³⁰⁸ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters. Australian Energy Regulator, May 2009, Electricity transmission and distribution network service providers, Statement of the revised WACC parameters (transmission), Statement of regulatory intent on the revised WACC parameters (distribution).

³⁰⁹ Revised access arrangement information, p. 103.

³¹⁰ Revised access arrangement information, p. 103.

690. The method applied by Western Power for derivation of the risk free rate also differs from the Authority's WACC Determination in that risk free rates are estimated from implied yields on government bonds over a 60 trading-day period, rather than a 20 trading-day period as applied by the Authority. Western Power indicates that the longer period is preferred as the 20 trading-day period may be too short for Western Power to re-finance or hedge a significant portion of its debt portfolio.
691. Western Power has further indicated that it will seek an agreement with the Authority on the date at which the values of these market parameters are to be determined and the "sampling period" of capital-market data (the number of trading days over which average values for the risk free rate and debt margins are determined), with the agreed date and period to be kept confidential.³¹¹
692. Alinta Sales and Synergy have both submitted that Western Power has failed to justify either the 60-day period sampling period of market data or the confidentiality of the date at which market data is applied in determining the risk free rate and cost of debt.³¹²
693. In previous regulatory determinations for electricity, gas and rail infrastructure services, the Authority has typically adopted a method for estimation of the risk free rates of taking the average of implied yields on 10-year government bonds over a 20 trading-day period to the end of the calendar month prior to the relevant determination. This method has not been mandated by any of the regulatory codes governing the Authority's determinations, but rather is a convention adopted by most Australian economic regulators taking into account:
- a benchmark assumption of financing of investment through long-term debt and equity instruments; hence, the observation of implied yields on 10-year government bonds rather than shorter-term securities;
 - the occurrence of day-to-day volatility in the pricing of government bonds; hence, the use of an average over 20 trading-days; and
 - the ability to avoid "cherry-picking" of market observations to achieve higher or lower estimates of the risk-free rate, by establishing a date of determination before the values of market observations at that date are known.
694. The Authority considers that, unless there is a demonstrated reason for change, maintaining the conventional practice in determining the risk free rate provides some certainty for regulated businesses in the manner in which the rate of return is to be determined, and is thereby consistent with maintaining incentives for investment in electricity network assets and with the Code objective.
695. With regard to Western Power's proposal to determine the risk free rate by observation of implied yields on government bonds over a 60 trading-day period rather than a 20 trading-day period, the Authority does not accept that there is any necessary relationship between the time period used and Western Power's activities in financial transactions. Rather, the only reason to contemplate a longer period would be increased volatility in day-to-day observations of implied yields on

³¹¹ Revised access arrangement information, pp. 104, 141.

³¹² Alinta Sales Pty Ltd submission of 17 December 2008; Synergy submission of 22 December 2008 on the Price Control.

government bonds that could introduce a bias into an average over a 20 day period. Western Power has not made any claim or provided any evidence for such increased volatility and the Authority therefore maintains the view that it is appropriate to determine the risk free rate as the average of implied yields on 10-year government bonds over a 20 trading-day period.

696. Western Power has requested that the timing of the period to be used to determine the risk free rate be established by agreement with the Authority and not be dependent upon the timing of the Authority's decision under the Access Code.
697. The Access Code does not make any explicit provision for the Authority to specify a time period for determination of the risk free rate. However, there are precedents in other Australian jurisdictions for the time of estimating the risk free rate to be fixed in the manner requested by Western Power.
698. The National Electricity Rules (at clauses 6.5.2(c)(2) and 6A.6.2(c)) make explicit provision for transmission and distribution service providers to propose a period for determination of the risk free rate, for the AER to not unreasonably withhold agreement to any such proposal, and for the period to be kept confidential until after the expiry of the period.
699. During the process of the Victorian Essential Services Commission's most recent approval of revisions to access arrangements for the Victorian gas distribution businesses, a request was made to fix a date for determining the risk free rate, which was set at 30 November 2007 and was ultimately about three months prior to the final decision.³¹³ The Commission acceded to this request.
700. The Authority is satisfied that fixing the date of estimation of the risk free rate may facilitate Western Power's activities in financial transactions and ultimately provide for efficient financing of investment and efficient investment decisions. The Authority is further satisfied that there is justification for confidentiality of this date to be maintained until after the date. Public notice of a date of estimation of the risk free rate may effectively advertise to finance providers that Western Power intends to enter into financial arrangements at a particular date and may create the opportunity for anti-competitive behaviour amongst finance providers. The Authority is also satisfied that maintaining confidentiality of the date would not be to the disadvantage of users.
701. The Authority will determine a date for estimation of the risk free rate for the purposes of the ultimate final decision on the proposed revisions to the access arrangement and will advise Western Power of this date. For the purposes of providing an indication of the WACC as part of this Draft Decision, the Authority has assessed the proposed WACC on the basis of the risk free rate estimated at 30 June 2009. The WACC value will be revised in the final decision to reflect a risk free rate determined at the date to be indicated to Western Power.
702. With regard to the determination of the real risk free rate, the practice of regulators has changed over the past two years. While the Authority and other Australian economic regulators previously determined real risk free rates by observations of implied yields on inflation-indexed government bonds, an increasingly thin market

³¹³ Essential Services Commission Victoria, 7 March 2008, Gas Access Arrangement Review 2008-2012 Final Decision – Public Version, p. 456.

for inflation-indexed government bonds has led to concerns over whether the implied yields on these bonds are indicative of risk free rates of return.³¹⁴ Accordingly, the Authority is satisfied that Western Power's proposed method of determining the risk free rate (by adjusting the nominal risk free rate by an assumed value of future inflation) better achieves an estimate of the cost of capital and therefore better achieves the objectives of section 6.4 of the Access Code.

703. The value of inflation applied by Western Power of 2.73 per cent per annum was determined on the basis of the short to medium term inflation projection for Australia of three to four per cent and a longer term view of inflation being near the midpoint of the Reserve Bank of Australia's target range for inflation of two to three per cent. The Authority is satisfied with this general approach to determining a forecast of inflation. However, since Western Power submitted the proposed access arrangement revisions in October 2008, there has been a substantial slow down in economic activity and a lowering of short to medium term expectations of inflation of 2.5 per cent for the year to June 2010 and 1.5 per cent to June 2011.³¹⁵ Taking this change in inflation expectations into account with a longer term forecast of 2.5 per cent, the Authority has applied an inflation rate of 2.4 per cent in calculating a real risk-free rate from the observed nominal risk free rate.
704. With an estimated nominal risk free rate of 5.60 per cent at 30 June 2009 and an assumed inflation rate of 2.38 per cent, the Authority estimates a real risk free rate of 3.15 per cent.

Debt Margin

705. The debt margin (also referred to as the debt premium) is a margin above the risk free rate reflecting the risk in provision of debt finance to the regulated activity.
706. Western Power has proposed determination of the WACC taking into account a range in values of the debt margin derived from fair-value yield estimates of BBB to BBB+ rated corporate bonds published by CBASpectrum, plus an amount of 12.5 basis points as an allowance for debt transaction costs. For the purposes of its proposed access arrangement revisions, Western Power determined the range of values for the debt margin from averages of fair value yield estimates over a 60 trading-day period to 23 June 2008. As with the risk free rate, Western Power proposes that the range of values of the debt margin be updated to reflect a determination over a 60 trading-day period to be agreed with the Authority.
707. The Authority's WACC Determination indicates a preferred method for estimating a debt margin as use of market evidence of debt costs for businesses with a credit risk profile consistent with a BBB or BBB+ credit rating, at the end of the month prior to a decision on proposed revisions to the access arrangement, with relevant sources of market evidence including CBASpectrum and Bloomberg. The WACC Determination also contemplates an allowance for debt issuance costs of 12.5 basis points.

³¹⁴ See, for example, Economic Regulation Authority, 23 June 2008, Final Determination 2008 Weighted Average Cost of Capital for the Freight (WestNet Rail) and Urban (Public Transport Authority) Railway Network, pp. 11 – 15. Essential Services Commission Victoria, 7 March 2008, Gas Access Arrangement Review 2008-2012 Final Decision – Public Version, pp. 450 – 460.

³¹⁵ Reserve Bank of Australia, May 2009, Statement on Monetary Policy, pp. 69, 70.

708. The method applied by Western Power for derivation of the debt margin differs from the Authority's WACC Determination in that:
- the debt margin is determined with reference to market evidence over a 60 trading-day period to a date determined by agreement with the Authority, rather than a 20 trading-day period to the end of the month prior to the Authority's decision on proposed revisions to the access arrangement; and
 - consideration is given only to market information from CBASpectrum data and does not take into account data from Bloomberg.
709. On the use of a 60 trading-day period, the Authority considers that Western Power has not provided sufficient justification for departure from the convention of using a 20 trading-day period, for the reasons as set out in paragraphs 694 and 695 of this Draft Decision.
710. The Authority accepts Western Power's submission that the debt margin should be determined at a date to be agreed with the Authority rather than at the end of the month prior to the Authority's decision on proposed revisions to the access arrangement, as explained in paragraphs 696 to 701 of this Draft Decision.
711. On the assumed credit rating for determination of the debt margin, Western Power has taken into account a range in values of the debt margin for credit ratings of BBB to BBB+. The AER has determined to apply a credit rating of BBB+, taking into account capital-market evidence that would support a credit rating assumption in the range of BBB+ to A-.³¹⁶ Given the evidence considered by the AER, the Authority has assessed Western Power's proposed WACC on the basis of an assumed credit rating of BBB+.
712. For the purposes of this Draft Decision, the Authority has considered estimates of debt margins derived from information on debt costs from the CBASpectrum and Bloomberg data sources for Australian corporate bonds.
713. CBASpectrum publishes fair value yield estimates for 10-year BBB+ rated corporate bonds and debt margins can be determined directly from these estimates.
714. Bloomberg currently publishes fair value yield estimates for BBB rated bonds of up to eight years tenor, although the data used to produce these estimates are from both BBB and BBB+ rated bonds. Derivation of estimates of debt costs for 10-year BBB+ rated bonds from Bloomberg information must necessarily be by processes of extrapolation and interpolation from estimates for shorter duration bonds or bonds of different credit ratings.
715. Given limitations of the Bloomberg information, the Authority has considered estimates of debt margins derived by four methods:
- estimates directly from CBASpectrum for 10-year BBB+ rated bonds (method 1);

³¹⁶ Australian Energy Regulator, May 2009, Electricity transmission and distribution network service providers, Statement of the revised WACC parameters (transmission), Statement of regulatory intent on the revised WACC parameters (distribution), p. 6. Australian Energy Regulator, May 2009, Final Decision, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. 390 – 392.

- using Bloomberg information only, linear extrapolation of fair value yield estimates for seven and eight year bonds to obtain an estimate for a 10 year BBB/BBB+ rated bond (method 2);
- using Bloomberg information only, taking the estimate for 10-year A-rated bonds and adding a margin to reflect the spread between A-rated and BBB/BBB+ rated bonds, where the margin is derived from the spread between fair value yields of eight year A rated and BBB/BBB+ rated bonds (method 3); and
- using Bloomberg information, taking the estimate for 10-year A-rated bonds and adding margins to reflect the spread between A-rated and BBB/ BBB+ rated bonds, where the margin is derived from the spreads evident from CBASpectrum information between fair value yields of 10-year A-rated and BBB+ rated bonds (method 4).

716. Estimates of debt margins from these four methods for the 20 business-day period to 30 June 2009 are shown in Table 79.

Table 79 Estimates at 30 June 2009 of Debt Margins for 10-Year Corporate Bonds with Credit Ratings of BBB+ (percentage points)

BBB/BBB+		BBB+	
Method 2	Method 3	Method 1	Method 4
3.17	3.11	5.86	3.41

717. There are substantial differences between estimates of debt margins derived directly from CBASpectrum information and from the various methods of deriving estimates from Bloomberg information. For the same credit rating, the estimated debt margin from CBASpectrum information is approximately 260 basis points higher than the estimated margin from Bloomberg information.
718. The Authority considers the difference to be extraordinary. Estimates from the two information sources are typically closer. Only relatively recently has there been substantial regulatory debate about whether CBASpectrum was systematically underestimating costs of debt relative to Bloomberg by 20 to 25 basis points.³¹⁷
719. The spread in estimates of fair value yields between the CBASpectrum and Bloomberg has recently been investigated by the AER, indicating the emergence and expansion of the spread since late 2008. The AER determined not to utilise estimates from CBASpectrum for reasons that:
- estimates of fair value yields from Bloomberg provided a better predictor of observed yields on actual BBB+ rated bonds, with the CBASpectrum fair value yields systematically over-estimating the observed yields;
 - a view that Bloomberg estimates of fair value yields are based on a broader data set of traded bonds;

³¹⁷ Essential Services Commission Victoria, October 2005, Electricity Distribution Price Review 2006-2010 Final Decision Volume 1 Statement of Purpose and Reasons, pp. 367 – 372.

- concern that the CBASpectrum estimates are calculated with out-dated estimates of credit ratings; and
 - CBASpectrum does not publish or otherwise provide the raw data used to estimate fair value yields, limiting the extent to which the estimate method and results can be examined.³¹⁸
720. Consistent with this determination of the AER, the Authority has taken into account only estimates for debt margins derived from fair value yield estimates of Bloomberg: methods 2 and 3 as indicated above and with estimates of debt margins of 3.11 and 3.17 per cent for BBB/BBB+ rated bonds at 30 June 2009.

Market Risk Premium

721. The market risk premium is the required return, over and above the risk free rate, on a fully diversified portfolio of assets.
722. Western Power has proposed determination of the WACC taking into account a range in values of the market risk premium of 6.0 to 7.0 per cent based on historical data on the realised equity premium in Australia over the period 1958 to 2005 (for which the data are considered to be more reliable than longer term data) and an observation that a value of 6.0 per cent is the value most commonly used by independent experts in valuation of companies subject to takeovers.³¹⁹
723. The Authority's WACC Determination does not specify a value for the market risk premium, although a value of 6.0 per cent is indicated as a possible value.
724. The Authority accepts Western Power's contention that historically realised equity premia are relevant evidence in determining a value for the market risk premium. The Authority also accepts that estimates of realised equity premia after 1958 are more reliable for the reason that estimates are based on a data set of a small sample of firms, the exclusion of certain business sectors and government price controls.³²⁰
725. In contending that historically realised equity premia since 1958 indicate a range of values for the market risk premium of 6.0 to 7.0 per cent, Western Power appears to be relying on a study indicating values of:
- 6.3 per cent for 1958 to 2005, with no value ascribed to imputation credits;
 - 6.7 per cent for 1958 to 2005, with imputation credits valued at 50 per cent; and

³¹⁸ Australian Energy Regulator, 28 April 2009, Final Decision New South Wales Distribution Determination 2009-10 to 2013-14, pp. 225 – 232.

³¹⁹ Revised access arrangement information, Appendix 6: pp. 3, 33 – 43.

³²⁰ Brailsford, T., Handley, J.C. and Maheswaran, K, April 2007, A re-examination of the historical equity risk premium in Australia, Working Paper. Addressed also in Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, p. 148.

- 7.0 per cent for 1958 to 2005, with imputation credits valued at 100 per cent.³²¹
726. The Authority observes that, subsequent to Western Power submitting its proposed access arrangement revisions, updated analysis from the study that Western Power has appeared to rely on, taking into account data on market returns through to 15 October 2008, indicates values of:
- 6.0 per cent, with no value ascribed to imputation credits;
 - 6.4 per cent, with imputation credits valued at 50 per cent; and
 - 6.7 per cent, with imputation credits valued at 100 per cent.³²²
727. The Authority accepts Western Power's contention that most market practitioners apply a value of 6.0 per cent to the market risk premium in valuation studies. The Authority observes that a wider range of surveys of market practice confirm this contention, but also indicate a significant number of market practitioners applying values of between 4.5 and 6.0.³²³
728. The WAMEU submit that the assumed market risk premium should be between 5.0 and 6.0 per cent to reflect observations of realised equity premia over the last 20 to 25 years, but does not provide nor cite evidence in support of this submission.³²⁴
729. Taking the above evidence of realised equity premia over recent decades and market practice, the Authority considers that a reasonable range of estimates for the market risk premium is 5.0 to 7.0 per cent.

Systematic Risk (Beta)

730. The systematic risk (beta) of a firm is the measure of how the changes in the returns to the firm's stock are related to the changes in returns to the market as a whole. It reflects the business's exposure to non-diversifiable risk, which is that portion of the variance in the return on an asset that arises from market-wide economic factors that affect returns on all assets, and which cannot be avoided by holding the assets as part of a diversified portfolio of assets.
731. In the CAPM, the equity beta value is a scaling factor applied to the market risk premium to reflect the relative risk to equity funds in the particular firm or activity in question.
732. Western Power has proposed a determination of the WACC taking into account a range in values of the equity beta of 0.9 to 1.1 (at a financial gearing of 60 per cent debt to assets) based on reasoning that:

³²¹ Brailsford, T., Handley, J.C. and Maheswaran, K, April 2007, A re-examination of the historical equity risk premium in Australia, Working Paper; cited in the revised access arrangement information, Appendix 6 p. 36.

³²² Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, Attachment E (John C Handley, 17 October 2008, A note on the historical equity risk premium).

³²³ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. 175 – 177.

³²⁴ Western Australia Major Energy Users submission of 16 December 2008, pp. 45 – 47.

- there is a regulatory precedent for using an equity beta value of 1.0;
 - the substantial estimation error that characterises statistical estimates of beta values for comparable businesses to Western Power, which – despite statistical estimates of beta values for comparable businesses of substantially less than 1.0 – does not allow regulators to have a sufficient degree of confidence in the statistical estimates to depart from regulatory precedent; and
 - specification of a reasonable range for the equity beta should, therefore, be a range about the value of 1.0.³²⁵
733. The WAMEU submit that the increasing amount of capital market evidence on beta values for energy infrastructure businesses supports an argument for an equity beta of no more than 0.7 and potentially much lower.³²⁶
734. The Authority's WACC Determination does not specify a value for the equity beta. A value of 1.0 (at a financial gearing of 60 per cent debt to assets) is indicated as a possible value.
735. The Authority concurs with Western Power's contention that regulatory precedent in values of WACC parameters is important in maintaining some certainty and predictability of regulatory determinations and therefore maintaining incentives of efficient investment. However, the Authority also considers that regulatory precedents should be considered in the proper context of those precedents and be considered together with current capital market evidence.
736. There has been a substantial number of regulatory determinations for electricity and gas networks that have determined WACC values applying an equity beta of 1.0.³²⁷ The first such determination was by the then Office of the Regulator General in Victoria in 2000. Even at that time the value of 1.0 was at or above the upper bound of a range evident from capital market evidence and was adopted recognising the limited debate that had occurred at that time on issues of methodology in considering beta values for regulatory purposes.³²⁸ Since this time, there have been many further empirical studies of beta values that have been subject to considerable scrutiny and debate as part of regulatory processes. This has resulted in greater weight being given by regulators to capital market evidence on beta values and a consequent downward trend in the beta values being applied in regulatory decisions. This has occurred most recently with the Victorian Essential Services Commission determining an (effective) value of 0.8 for the Victorian gas distribution businesses³²⁹ and the AER making a determination for a

³²⁵ Revised access arrangement information, Appendix 6: pp. 3, 44 – 54.

³²⁶ Western Australia Major Energy Users submission of 16 December 2008, pp. 51 – 53.

³²⁷ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, p. 183.

³²⁸ Office of the Regulator-General, Victoria, September 2000, Electricity Distribution Price Determination 2001-05: Volume 1 Statement of Purpose and Reasons, pp. 263 – 283.

³²⁹ Essential Services Commission Victoria, 7 March 2008, Gas Access Arrangement Review 2008-2012 Final Decision – Public Version, p. 13.

value of 0.8 for electricity transmission and distribution businesses in the National Electricity Market.³³⁰

737. The Authority considers that in ascribing a value to the equity beta, primary reliance should be placed on capital market evidence and statistical estimates of beta values.
738. Detailed statistical analyses of beta values for electricity transmission and distribution businesses have recently been undertaken as part of the AER's review of parameters for calculating the WACC for transmission and distribution businesses under the National Electricity Rules. This includes analysis undertaken for the businesses³³¹ as well as analysis undertaken by, or for, the AER.³³² These analyses applied a range of statistical methods for estimation of beta values and dealing with estimation error.
739. An analysis undertaken by the Allen Consulting Group for electricity transmission and distribution businesses estimated beta values for individual Australian and USA electricity and gas network businesses and portfolios of the businesses using monthly return data over a long historical period of 1990 – 1998 and 2002 – 2008 (with the period 1999 to 2001 excluded as an abnormal period affected by the “tech bubble” in world equity markets) and a recent five year period.³³³ Three statistical estimation techniques were applied (ordinary least squares, re-weighted ordinary least squares and least absolute variation). Summary results for individual stocks and portfolios of stocks are shown in Table 80 and Table 81. All values shown are equity beta values at a financial gearing of 60 per cent debt to assets.

³³⁰ Australian Energy Regulator, May 2009, Electricity transmission and distribution network service providers, Statement of the revised WACC parameters (transmission), Statement of the revised WACC parameters (transmission), Statement of regulatory intent on the revised WACC parameters (distribution), p. 6.

³³¹ Allen Consulting Group, 17 September 2008, Beta for regulated electricity transmission and distribution: report to Energy Networks Association, Grid Australia and APIA.

³³² Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. 181 – 253 and Attachment C (Olan T Henry, 28 November 2008, Econometric advice and beta estimation).

³³³ The actual period of returns for individual businesses varies depending on the period for which the business existed as a separate listed entity.

Table 80 Allen Consulting Group equity beta estimates and 95 per cent confidence intervals for individual Australian electricity and gas network businesses (1990 – 1998 and 2002 – 2008)³³⁴

Business and number of data points	Estimation method		
	OLS*	Re-weighted OLS*	LAV*
Full period			
Alinta (68)	0.81 (0.02 – 1.60)	0.90 (0.17 – 1.62)	0.95 (0.22 – 1.68)
AGL (155)	0.84 (0.43 – 1.26)	0.67 (0.32 – 1.02)	0.84 (0.17 – 1.51)
Australian Pipeline Trust (77)	0.68 (0.22 – 1.14)	0.70 (0.26 – 1.15)	0.81 (0.43 – 1.20)
GasNet (59)	0.38 (0.00 – 0.77)	0.31 (-0.02 – 0.64)	0.34 (-0.04 – 0.72)
Envestra (78)	0.36 (0.00 – 0.73)	0.33 (-0.01 – 0.67)	0.04 (-0.31 – 0.40)
DUET (36)	0.38 (0.12 – 0.65)	0.30 (0.13 – 0.47)	0.38 (0.02 – 0.73)
Hastings**(41)	0.54 (-0.10 – 1.17)	0.64 (0.10 – 1.19)	0.80 (0.13 – 1.46)
SP AusNet (27)	0.25 (-0.12 – 0.61)	0.23 (-0.11 – 0.57)	0.06 (-0.71 – 0.83)
Spark Infrastructure (29)	0.57 (0.24 – 0.91)	0.56 (0.23 – 0.89)	0.59 (0.09 – 1.09)
Average	0.53	0.52	0.53
Latest five year period			
Alinta (51)	1.29 (0.15 – 2.43)	1.26 (0.16 – 2.35)	1.29 (0.16 – 2.41)
AGL (41)	0.57 (-1.15 – 2.29)	-0.39 (-1.59 – 0.81)	0.13 (-1.43 – 1.69)
Australian Pipeline Trust (60)	0.87 (0.42 – 1.33)	0.89 (0.44 – 1.34)	0.85 (0.35 – 1.34)
GasNet (36)	0.38 (0.12 – 0.65)	0.30 (0.13 – 0.47)	0.38 (0.02 – 0.73)
Envestra (60)	0.51 (0.15 – 0.87)	0.46 (0.13 – 0.80)	0.61 (0.22 – 1.00)
DUET (42)	0.51 (-0.04 – 1.06)	0.42 (-0.07 – 0.91)	0.27 (-0.23 – 0.78)
Hastings* (41)	0.54 (-0.10 – 1.17)	0.64 (0.10 – 1.19)	0.80 (0.13 – 1.46)
SP AusNet (27)	0.25 (-0.12 – 0.61)	0.23 (-0.11 – 0.57)	0.06 (-0.71 – 0.83)
Spark Infrastructure (29)	0.57 (0.24 – 0.91)	0.56 (0.23 – 0.89)	0.59 (0.09 – 1.09)
Average	0.61	0.49	0.55

* OLS = ordinary least squares, LAV = lease absolute variation.

** Hastings Diversified Utilities Fund

³³⁴ Allen Consulting Group, 17 September 2008, Beta for regulated electricity transmission and distribution: report to Energy Networks Association, Grid Australia and APIA, pp. 43, 44.

Table 81 Allen Consulting Group equity beta estimates and 95 per cent confidence intervals for portfolios of Australian and USA electricity and gas network businesses (1990 – 1998 and 2002 – 2008)³³⁵

Sample and number of data points	Estimation method		
	OLS	Re-weighted OLS	LAV
Full period			
Australia –mean portfolio (174)	0.72 (0.43 – 1.02)	0.65 (0.40 – 0.90)	0.80 (0.50 – 1.10)
Australia –median portfolio (174)	0.72 (0.42 – 1.03)	0.65 (0.39 – 0.92)	0.87 (0.56 – 1.18)
USA –mean portfolio (177)	0.68 (0.52 – 0.85)	0.61 (0.47 – 0.75)	0.58 (0.46 – 0.71)
USA –median portfolio (177)	0.65 (0.50 – 0.81)	0.63 (0.49 – 0.78)	0.54 (0.33 – 0.75)
Last 5 years			
Australia –mean portfolio (60)	0.65 (0.46 – 0.85)	0.65 (0.45 – 0.85)	0.64 (0.40 – 0.88)
Australia –median portfolio (60)	0.65 (0.36 – 0.94)	0.64 (0.36 – 0.93)	0.68 (0.32 – 1.04)
USA –mean portfolio (60)	0.97 (0.65 – 1.29)	0.95 (0.63 – 1.27)	0.65 (0.21 – 1.09)
USA –median portfolio (60)	1.05 (0.66 – 1.43)	0.99 (0.63 – 1.36)	0.72 (0.15 – 1.29)

740. An analysis undertaken by Assoc. Prof. Olan Henry for the AER produced estimates of beta values for Australian electricity and gas network businesses and portfolios of the businesses using weekly return data over a period of six years and eight months from 1 January 2002 to 1 September 2008. Two statistical estimation techniques were applied (ordinary least squares and least absolute variation). Summary results are shown in Table 82 and Table 83. All values shown are equity beta values at a financial gearing of 60 per cent debt to assets.

³³⁵ Allen Consulting Group, 17 September 2008, Beta for regulated electricity transmission and distribution: report to Energy Networks Association, Grid Australia and APIA, p. 42. “Average portfolio” estimates refer to average returns across all businesses during the relevant time interval, which is equivalent to an equally-weighted portfolio of the securities. “Median portfolio” estimates refer to the median return that would have been delivered by any of the securities in the set of comparable entities during the relevant time interval.

Table 82 Henry equity beta estimates and 95 per cent confidence intervals for individual Australian electricity and gas network businesses (2002 – 2008)³³⁶

Business and number of data points	Estimation method	
	OLS	LAV
Alinta (294)	0.93 (0.58 – 1.28)	0.59 (0.22, 0.96)
AGL (252)	0.74 (0.35 – 1.13)	0.54 (0.19, 0.89)
Australian Pipeline Trust (348)	0.73 (0.51 – 0.95)	0.63 (0.41, 0.85)
GasNet (255)	0.32 (0.14 – 0.50)	0.24 (0.06, 0.42)
Envestra (348)	0.25 (0.15 – 0.35)	0.10 (-0.02, 0.22)
DUET (212)	0.35 (0.21 – 0.49)	0.25 (0.11, 0.39)
Hastings* (194)	1.01 (0.68 – 1.34)	0.50 (0.15, 0.85)
SP AusNet (142)	0.27 (0.03 – 0.51)	0.23 (-0.01, 0.47)
Spark Infrastructure (79)	0.59 (0.16 – 1.02)	0.76 (0.33, 1.19)
Average	0.58	0.43

* Hastings Diversified Utilities Fund

Table 83 Henry/AER equity beta estimates and 95 per cent confidence intervals for portfolios of Australian electricity and gas network businesses (2002 – 2008)³³⁷

Sample and number of data points	Estimation method	
	OLS	LAV
Australia – mean portfolio (348)	0.44 (0.34 – 0.54)	0.44 (0.36 – 0.52)

741. Statistical estimates of beta values for Australian energy network businesses in the period since 2002 point to a value of equity beta at a gearing of 60 per cent debt to assets to be in the range of 0.45 to 0.7. Higher estimates of up to about 1.0 are produced by some estimation methods from the longer period of data for Australian businesses or data for United States businesses.
742. In determining a reasonable range for the equity beta to apply in consideration of Western Power's proposed WACC, the Authority considers that some account should be taken of:

³³⁶ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, p. 234.

³³⁷ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, p. 234.

- the high level of statistical imprecision of the beta estimates, with upper bounds of confidence intervals for portfolio estimates of between 0.85 and 1.05 for beta values estimated over the most recent period by conventional consideration of monthly returns; and
- evidence of higher beta values for USA electricity and gas network businesses, with values up to about 1.0.

743. Having regard to these matters, but relying primarily on the best estimates of beta values for comparable businesses, the Authority considers that a reasonable range for the equity beta at a gearing level of 60 per cent debt to assets is 0.50 to 0.80.

Taxation

744. There are two WACC parameters that determine the cost of taxation allowed for in the Officer pre-tax WACC – the rate of tax applying to corporate profits and the value of dividend imputation.

745. Western Power has applied a taxation rate equal to the statutory corporate taxation rate of 30 per cent.

746. The Authority's WACC Determination does not specify a value for the rate of taxation. A value of 30 per cent (at a financial gearing of 60 per cent debt to assets) is indicated as a possible value. The Authority considers that the use of the corporate taxation rate in determination of the WACC is uncontroversial and reasonable.

747. The value of dividend imputation is the value of franking credits distributed to shareholders of the regulated business. The value of franking credits, represented in the WACC by the parameter "gamma", depends on the proportion of the franking credits that are created by the firm that are distributed, and the value that the investor attaches to the credit, which depends on the investor's tax circumstances (that is, their marginal tax rate). As these will differ across investors, the value of franking credits may be between nil and full value (i.e. a gamma value between zero and one).

748. Western Power has proposed a determination of the WACC taking into account a range in values of gamma of zero to 50 per cent based on reasons that:

- there is no basis for regulators to argue for an increase in the value of gamma above 50 per cent;
- a value of 50 per cent is likely to overstate the appropriate value for gamma;
- there is good reason to question the appropriateness of a value of gamma of 50 per cent since it relies upon evidence from studies that suffer from methodological flaws; and
- a value for gamma of zero is consistent with the market evidence and would appear to be consistent with a value for the market risk premium of 6.0 per cent.³³⁸

³³⁸ Revised access arrangement information, Appendix 6: pp. 4, 55 – 65.

749. The Authority's WACC Determination does not specify a gamma value. A value of 50 per cent is indicated as a possible value.
750. In Australia, regulators of utility infrastructure have, to date, generally adopted a value of gamma of about 50 per cent. This value was originally derived from a 1999 study by Hathaway and Officer, which estimated market-average values of gamma at close to 0.50.³³⁹ More recently, regulators (including the Authority) have tended to apply a value of 0.5 or to contemplate a range of values around 0.5, having regard to an updated study by Hathaway and Officer that indicated market-average gamma values of between 0.28 and 0.36,³⁴⁰ and considerations that the value may be higher for benchmark utility businesses due to higher values of franking credits for utility businesses relative to other Australian businesses.³⁴¹
751. In considering the value of imputation credits, the Authority has had regard to the detailed consideration given by the AER to this element of the WACC calculation.³⁴²
752. In accordance with mainstream finance theory, the AER has considered the value of gamma as being the product of the proportion of franking credits created by the regulated businesses that is distributed to shareholders (the distribution rate or payout ratio, F) and the value of franking credits in the hands of shareholders as a proportion of the face value of the franking credits (the utilisation rate, θ):
- $$\text{gamma} = F.\theta$$
753. The AER has adopted a distribution rate of 1.0 reflecting advice that this assumption is consistent with a standard assumption of valuation practice that all free cash flows are paid out to investors.³⁴³ On this basis, the AER has rejected use of empirically-observed market-average distribution ratios. Advice to the AER also indicates that an assumed distribution rate of 1.0 is also consistent with the Officer WACC, which is applied by Western Power in determination of the rate of return.³⁴⁴
754. The AER has considered two sources of information on the utilisation rate.

³³⁹ Hathaway, N. and R.R. Officer (1999), *The Value of Imputation Tax Credits*, Unpublished Manuscript, Graduate School of Management, University of Melbourne.

³⁴⁰ Hathaway, Neville and Officer, Bob (2004), *The Value of Imputation Tax Credits: Update 2004*, Capital Research Pty Ltd, p. 8.

³⁴¹ For example, Essential Services Commission, 28 August 2007, Gas Access Arrangement Review 2008-2012 Draft Decision, pp. 418 – 433.

³⁴² Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. 287 – 340. Australian Energy Regulator, May 2009, Final decision, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. 393 – 469.

³⁴³ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, p. 302.

³⁴⁴ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, Attachment G: John C Handley, 12 November 2008, A note on the valuation of imputation credits.

755. First, the AER has placed significant weight on an estimate of the utilisation rate of 0.57 derived in a dividend drop-off study over the period 2001 to 2004,³⁴⁵ taking into account that this study:
- is directly relevant to the current imputation tax regime, assessing the value of imputation credits over the period post 2000 after changes in tax law that allowed Australian taxpayers to claim a full cash rebate for unused imputation credits;
 - is able to be verified on the basis of statistical tests presented in the paper; and
 - is an independent and credible published study that has been through the academic refereeing process.
756. Secondly, the AER has had regard to estimates of the utilisation rate from taxation statistics, indicating a range of values of the utilisation rate, θ , from 0.67 (pre 2000) to 0.81 (post 2000) and a point estimate of 0.74.³⁴⁶
757. The distribution rate of 1.0 in combination with a range of values of the utilisation rate of 0.57 to 0.81 indicates a reasonable range in the value of gamma of 0.57 to 0.81.
758. Given the studies of the value of imputation credits reviewed by and undertaken by the AER, the Authority does not accept Western Power's contentions of an absence of reputable studies of the value of imputation credits that would provide reason to consider that a gamma of 0.5 overstates the value of imputation credits, or that there is no reason to contemplate a value of gamma of greater than 0.5. For the purposes of assessment of the proposed WACC, the Authority has taken into account a range of possible values for gamma of 0.57 to 0.81, consistent with evidence considered by the AER.
759. The Authority accepts that there is an interaction between a positive value for gamma and the value of the market risk premium. Taking into account the examination of this interaction by the AER,³⁴⁷ the Authority considers that the magnitude of this interaction is small and accounted for by having regard to a range in values of the market risk premium of 5.0 to 7.0 per cent.

³⁴⁵ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, p 327, citing Beggs, D. and Skeels C.L., 2006, Market arbitrage of cash dividends and franking credits, The Economic Record vol 82 no.258, p. 247. Australian Energy Regulator, May 2009, Final decision, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. xix, 466.

³⁴⁶ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, p 333, citing Handley, J. C. and Maheswaran, K., A measure of the efficacy of the Australian Imputation Tax System, The Economic Record vol. 84 no. 264 p.91. Australian Energy Regulator, May 2009, Final decision, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. xix, xx, 466, 467.

³⁴⁷ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. 161 – 166, 178, 179.

Financial Structure

760. Financial structure refers to the proportions of the value of the regulated business assumed to be financed by debt and equity. Financial gearing refers to the ratio of debt to total asset value.
761. Western Power has proposed a determination of the WACC on the basis of a financial structure of 60 per cent debt. This is consistent with regulatory precedent and observations of financial gearing for seven listed energy infrastructure businesses (range of 42 to 83 per cent, with an average of 65 per cent, calculated as a ratio of debt to debt plus the market value of equity).
762. The Authority's WACC Determination does not specify a value for the level of gearing, but requires that an appropriate benchmark gearing assumption be adopted to encourage efficient financing decisions. A financial gearing of 60 per cent debt to assets is indicated as a possible value.
763. The WAMEU submit that the assumed gearing for Western Power should be increased from 60 per cent to 70 per cent debt to assets, citing observed levels of gearing for a range of electricity and gas infrastructure businesses calculated as a ratio of total liabilities to a book value of assets.³⁴⁸ Gearing levels derived as a ratio of debt or liabilities to a book value of assets will typically indicate a higher level of gearing than a ratio of debt to a market value of assets.
764. In its review of WACC parameters under the National Electricity Rules, the AER has examined gearing levels for electricity and gas businesses using a range of samples of businesses, a range of data sources, a range of methods for ascribing values to total debt and total assets and a range of time periods. Having regard primarily to electricity businesses, a book value of debt and market value of equity and data from the period 2002 to 2007, the AER observed average values of financial gearing of 62 to 65 per cent and concluded that there is not persuasive evidence to depart from the regulatory precedent of a financial gearing of 60 per cent.³⁴⁹
765. Taking into account the data on gearing levels cited by Western Power and the analysis undertaken by the AER, the Authority accepts Western Power's proposal that a gearing level of 60 per cent debt to equity is reasonable for the purposes of calculation of the WACC.

WACC

766. The parameter values (or ranges in values) that the Authority considers may reasonably be applied in consideration of the WACC for the SWIN are set out in Table 84.

³⁴⁸ Western Australia Major Energy Users submission of 16 December 2008, pp. 45 – 47.

³⁴⁹ Australian Energy Regulator, December 2008, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. 61 – 86. Australian Energy Regulator, May 2009, Final decision, Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, pp. xii.

Table 84 Parameter values determined by the Authority for estimation of the WACC for the SWIN

Parameter	Value
Nominal risk free rate (%)	5.60
Real risk free rate (%)	3.15
Inflation rate (%)	2.38
Capital structure (equity to total value, %)	40
Capital structure (debt to total value, %)	60
Equity beta	0.50 – 0.80
Market risk premium (%)	5.0 – 7.0
Debt margin (excluding debt transaction costs, %)	3.110 – 3.170
Corporate taxation rate (%)	30
Value of imputation credits (gamma, %)	57 – 81

767. The ranges in the estimated cost of equity corresponding to the ranges in the values of the WACC parameters are as shown in Table 85.

Table 85 Estimated cost of equity from ranges in WACC parameter values

	Nominal	Real
Post-tax	8.10 – 11.20	5.59 – 8.61
Pre-tax	8.59 – 12.86	6.07 – 10.24

768. The ranges in estimated WACC values corresponding to the ranges in the values of the WACC parameters are as shown in Table 86.

Table 86 Estimated WACC values from ranges in WACC parameter values

	Nominal	Real
Post-tax (Officer)	6.12 – 7.34	3.65 – 4.84
Pre-tax (forward transformation of the Officer WACC)	8.74 – 10.48	6.21 – 7.91

769. The task of the Authority is to consider whether the WACC proposed by Western Power meets the objectives for the WACC under section 6.4 of the Access Code and the Code objective, being that the WACC should be set at a value that:
- gives the service provider an opportunity to earn revenue that meets the forward-looking and efficient cost of funds;
 - is commensurate with the commercial risks involved in the provision of covered services; and
 - promotes the economically efficient investment in, and operation and use of, the SWIN and the services provided by the SWIN.
770. The Authority considers that a proposed WACC would meet these objectives if it comprised of a reasonable estimate of the cost of funds at the assumed credit rating and financial structure for Western Power's business.
771. Applying the extremes of ranges in WACC parameter values and estimates of the cost of debt returns wide ranges in estimates of the WACC – a range of 6.21 to 7.91 per cent in the real pre-tax WACC. The wide ranges in estimates of the WACC result from the multiplicative effect of differences in assumptions for CAPM parameters.
772. The Authority considers that the range of values from which an estimated value of the WACC could be drawn is narrower than the ranges that the extremes of ranges in CAPM parameters would suggest. An approach by a service provider to a determination of the WACC that adopted the highest value within the reasonable range for each of the relevant CAPM parameters would not, in the Authority's view, result in a value for the WACC that different minds, acting reasonably, would attribute to the WACC. Similarly it would not be reasonable for the service provider to make a determination based on, or implying, a WACC at the lower extreme of the range.
773. The Authority has given consideration to defining a reasonable range of estimates of the WACC that would best meet the objectives of the Access Code, which would be narrower than the range that may be derived by the application of the extremes of values for each of the parameters of the WACC. However, while the Authority recognises that no reasonable person would adopt the extremes of this range, the Authority is of the view that there is no apparent rigorous statistical or other method for determining precisely at which point values close to the extreme values of the range do not reflect a reasonable view of the current market for funds.
774. In consideration of the WACC applied under the current access arrangement, the Authority took the view that the range of values of the WACC that would best meet the objectives of the Access Code should not include the values that lie within the lower 10 per cent or upper 10 per cent of the range that is derived by the application of the extremes of values for each of the parameters of the WACC. Applying this same method to the WACC values derived by the Authority for the purposes of consideration of the revised proposed access arrangement produces a range of values of 6.38 per cent to 7.74 per cent, pre-tax real.
775. Subject to revision of the market parameters of the risk free rate and debt margin before the Authority's final decision, the WACC proposed by Western Power of 8.95 per cent falls outside of this range of values. Accordingly, the Authority considers that the WACC value proposed by Western Power does not meet the Code objective and the objectives of section 6.4 of the Access Code.

776. The Authority requires that the access arrangement be amended so that target revenue is calculated on the basis of a WACC that meets the objectives of the Access Code. In determining this value, the Authority has considered a range of factors that, consistent with the Code objective and the price control objectives of section 6.64 of the Access Code, influence the effect of the WACC on the economically efficient investment in, and operation and use of, networks and network services in the SWIN, and a return on investment commensurate with the commercial risks involved.
777. The Authority considers that there are no particular circumstances of the SWIN that would cause a value of the WACC in either the lower or upper part of the range of values of the WACC indicated in paragraph 774 to better meet the relevant objectives of the Access Code than the central value of the range.
778. The Authority therefore considers that the WACC should be set at the midpoint of the range of values indicated in paragraph 774, subject to updating of these values to reflect values of the risk free rate and debt margin prior to the Authority's final decision.

Required Amendment 29

The target revenue should be revised to reflect a real pre-tax WACC value of 7.06 per cent, subject to revision of the risk free rate and debt margin at a date to be advised and prior to the Authority's final decision.

Return on Working Capital

Access Code Requirements

779. "Working capital" refers to a stock of funds that must be maintained by a service provider to pay costs as they fall due. In circumstances where, on average, the costs of providing services are incurred before the revenues from provision of services are received, a stock of working capital may need to be derived from a capital investment in the business. The cost of this stock of working capital (the required return on the capital investment) is a cost to the service provider in operating its business and providing services.
780. The Access Code does not explicitly contemplate a return on working capital as a cost.
781. The objectives for a price control set out in section 6.4 of the Access Code include the objective of giving the service provider an opportunity to earn an amount of target revenue that meets the forward looking and efficient costs of providing covered services, including a return on investment commensurate with the commercial risks involved.
782. In order to achieve this objective, it is necessary that the target revenue determined in accordance with Chapter 6 of the Access Code be sufficient to ensure that the service provider has appropriate incentives to continue to invest in provision of covered services. This requires that investors be provided with an expectation that

with efficient management they will earn a rate of return equal to the opportunity cost of funds employed in the provision of the reference service. The Authority considers that this may include a return on an amount of capital investment needed to provide working capital.

Current Access Arrangement

783. The values of target revenue applying under the price control of the current access arrangement include an allowance for a return on working capital.
784. For each of the transmission and distribution networks, a cost of working capital for each year of the current access arrangement was determined as the difference between the implicit cost incurred by Western Power by providing credit to users of services and the implicit benefit to Western Power of receiving credit from suppliers.
785. The requirement for working capital was calculated as the difference between the sum over 45 days of the average daily covered service revenue and the sum over 25 days of the average daily expenses for the year (new facilities investment and non-capital costs). This was based on:
- an assumed revenue lag of 45 days, based on meter reading cycles and payment terms of the electricity transfer access contract; and
 - an average expense lead of 20 days on operating and capital expenditure based on –
 - an expense lead of 10 days on labour costs, comprising 18 per cent of costs for the distribution network and 23 per cent of costs for the transmission network;
 - an expense lead of 30 days on direct costs of materials and services, comprising 35 per cent of costs for the distribution network and 63 per cent of costs for the transmission network; and
 - no expense lead on internal costs of materials and services or other costs.
786. The cost of working capital was calculated as the value of working capital in each year of the access arrangement period multiplied by the WACC.

Proposed Revisions

787. Western Power has included in the proposed target revenue for the second access arrangement period an allowance for a cost of working capital derived by the same calculation method as applied for the current access arrangement. The proposed costs of working capital are indicated in Table 87 and Table 88.

Table 87 Proposed Cost of Working Capital – Transmission Network
(\$million, dollar values of 30 June 2009)³⁵⁰

	2009/10	2010/11	2011/12
Net covered service revenue	391.34	462.51	546.13
Expenses			
Forecast new facilities investment	729.98	869.86	593.79
Forecast non-capital costs	100.90	105.97	112.78
Total expenses	830.88	975.83	706.57
Working capital requirement			
Receivables (45 days)	48.25	57.02	67.15
Creditors (20 days)	-45.53	-53.47	-38.61
Working capital requirement	2.72	3.55	28.54
Return on working capital at WACC = 8.95%	0.24	0.32	2.55

Table 88 Proposed Cost of Working Capital – Distribution Network
(\$million, dollar values of 30 June 2009)³⁵¹

	2009/10	2010/11	2011/12
Net covered service revenue	805.14	878.64	952.54
Expenses			
Forecast new facilities investment	520.87	566.27	636.21
Forecast non-capital costs	393.99	416.48	436.37
Total expenses	914.85	982.74	1,072.58
Working capital requirement			
Receivables (45 days)	99.26	108.33	117.12
Creditors (20 days)	-50.13	-53.85	-58.61
Working capital requirement	49.14	54.48	58.50
Return on working capital at WACC = 8.95%	4.40	4.88	5.24

Submissions

788. None of the submissions made to the Authority address the proposed allowances for costs of working capital.

³⁵⁰ Revised access arrangement information, Appendix 7 (Revenue Model). Forecast new facilities investment includes capital contributions.

³⁵¹ Revised access arrangement information, Appendix 7 (Revenue Model).

Considerations of the Authority

789. In determining proposed allowances for working capital, Western Power has determined a “stock” of working capital that is varied from year to year according to the costs and revenues for each year and assumptions of time periods of credit made available to Western Power by suppliers and credit made available by Western Power to network users. A cost of working capital is determined as a return on the funds invested in the stock of working capital in the same manner as funds invested in the physical assets (capital base) of the network.
790. To the extent that an allowance for costs of working capital can reasonably be included in the costs of providing network services,³⁵² the Authority considers that the treatment of a stock of working capital as a capital asset of the network business is appropriate and a return on this asset, calculated at the WACC, in a reasonable estimate of the cost of working capital to the business. However, the Authority observes that there is an inconsistency in Western Power’s determination of a return on the stock of working capital with the determination of a return on the capital base. Western Power calculates the return on working capital as a return on the closing value of the stock of working capital in each year, whereas the return on the capital base is calculated on the opening value of the capital base in each year.

Required Amendment 30

The target revenue should be revised to reflect an allowance for a cost of working capital calculated as a return on the opening value of a stock of working capital in each year of the second access arrangement period.

791. The Authority has revised the working capital allowances to correct this inconsistency and in accordance with revisions to the forecasts of new facilities investment and non-capital costs, and the revised WACC applied under this Draft Decision (Table 89 and Table 90).

³⁵² The Authority is aware that regulators in other Australian jurisdictions have questioned whether an allowance for costs of working capital can reasonably be included in the determination of regulated revenues for utility businesses. The Authority intends to give this matter further consideration outside of the process of assessment of proposed revisions to the access arrangement for the SWIN.

**Table 89 Authority's revised cost of working capital – transmission network
(real \$million at 30 June 2009)**

	2009/10	2010/11	2011/12
Net covered service revenue	294.92	327.24	385.96
Expenses			
Forecast new facilities investment (less	293.46	629.41	650.63
Forecast non-capital costs	69.58	81.14	89.03
Total expenses	363.04	710.54	739.66
Working capital requirement			
Receivables (45 days)	36.36	40.34	47.45
Creditors (20 days)	(19.89)	(38.93)	(40.42)
Working capital requirement at end of year	16.47	1.41	7.04
Opening value of working capital (carried over from first access arrangement period for 2008/09)	16.59	16.47	1.41
Closing value of working capital	16.47	1.41	7.04
Return on opening value of working capital at WACC = 7.06%	1.17	1.16	0.10

**Table 90 Revised Cost of Working Capital – Distribution Network
(real \$million at 30 June 2009)**

	2009/10	2010/11	2011/12
Net covered service revenue	593.11	660.59	730.73
Expenses			
Forecast new facilities investment	394.09	500.91	538.60
Forecast non-capital costs	263.74	301.38	330.75
Total expenses	657.83	802.30	869.35
Working capital requirement			
Receivables (45 days)	73.05	81.37	89.76
Creditors (20 days)	(36.05)	(43.96)	(47.51)
Working capital requirement	37.08	37.48	42.34
Opening value of working capital (carried over from first access arrangement period for 2008/09)	21.02	37.08	37.48
Closing value of working capital	37.08	37.48	42.34
Return on opening value of working capital at WACC = 7.06%	1.48	2.62	2.65

Revenue Adjustments

Access Code Requirements

792. Section 6.4 of the Access Code provides for the target revenue for an access arrangement period to include certain amounts “carried over” from the previous access arrangement period, including:
- an amount in respect of costs incurred as a result of a force majeure event under sections 6.6 to 6.8 of the Access Code;
 - an amount in respect of costs incurred as a result of changes to the Technical Rules, for which no allowance was made in the access arrangement, under sections 6.9 to 6.12 of the Access Code;
 - an amount under an investment adjustment mechanism under sections 6.13 to 6.18 of the Access Code;
 - an amount under a gain sharing mechanism under sections 6.19 to 6.28 of the Access Code; and
 - an amount under a service standards adjustment mechanism under sections 6.29 to 6.37 of the Access Code.

Proposed Revisions

793. Western Power has proposed adjustments to target revenue for the second access arrangement period under an investment adjustment mechanism specified under clauses 5.11 and 5.49 to 5.53 and Appendix 8 of the current access arrangement. The amount of the adjustment is \$49.258 million in dollar values of 30 June 2009, comprising \$16.396 million for the transmission network and \$32.862 million for the distribution network.³⁵³
794. Western Power has not proposed any adjustments to target revenue for the second access arrangement period in respect of unforeseen events or changes to the Technical Rules.
795. The current access arrangement makes no provision for adjustments to target revenue for the second access arrangement period under a gain sharing mechanism or a service standards adjustment mechanism and, accordingly, Western Power has not proposed any such adjustments.
796. Under the price control applied in the first access arrangement period, there is a carry-over amount of revenue from the first to second access arrangement period in respect of forecast and realised capital contributions (the capital contributions adjustment mechanism under clauses 5.12, 5.32, 5.43 and Appendix 8 of the current access arrangement). Western Power has recorded capital contributions in excess of forecast contributions for the first access arrangement period and, accordingly, has deducted the amount of the excess from target revenue for the second access arrangement period. The amount is \$132.606 million in dollar

³⁵³ Revised access arrangement information, Appendix 7 (Revenue Model).

values of 30 June 2009, comprising \$40.968 million for the transmission network and \$91.638 million for the distribution network.³⁵⁴

Submissions

797. None of the submissions made to the Authority addressed the adjustments to target revenue that are described above for the second access arrangement period.

Considerations of the Authority

798. The Authority has undertaken analysis to verify the amounts of adjustments to target revenue proposed in respect of the investment adjustment mechanism and the capital contributions adjustment mechanism. The results of this analysis are set out below for each of the two adjustments.

Investment Adjustment Mechanism

799. The investment adjustment mechanism is set out in clauses 5.50 to 5.53 of the current access arrangement, as follows.

5.50 The investment adjustment mechanism will apply to both transmission and distribution capital expenditure. The purpose of the investment adjustment mechanism is to adjust Western Power's target revenue in the next access arrangement period in a manner that exactly corrects for the economic loss or gain to Western Power as a result of forecasting errors in relation to particular categories of capital expenditure (the investment difference) in this access arrangement period. In order to give effect to this purpose, the investment adjustment mechanism must take account of:

- (a) The effects of inflation, both in this access arrangement period and the next access arrangement period;
- (b) The time value of money as reflected by the real pre-tax WACC as applied in this access arrangement period and the next access arrangement period; and
- (c) The cost of depreciation and the value of capital additions to the capital base at the next access arrangement period.

5.51 Given the requirements of the investment adjustment mechanism as described in section 5.50 above, Western Power's preferred approach is to:

- (a) use the Authority's revenue model (as adopted in this access arrangement period) to calculate the difference in present value terms between:
 - i. The target revenue that would have been calculated for this access arrangement period if the investment difference had been zero (i.e. there was no forecasting error in relation to the capital expenditure categories that are subject to the investment adjustment mechanism); and
 - ii. The target revenue that actually applied in this access arrangement period.

The adjustment to target revenue in the next access arrangement period should be such that its present value is equal to the present value of the difference described in (a) above.

³⁵⁴ Revised access arrangement information, Appendix 7 (Revenue Model). Capital contribution amount for the transmission network corrected to real dollar values using inflation factors applied by Western Power.

- 5.52 For the avoidance of doubt, the target revenue that actually applied in this access arrangement period includes the deemed capital contributions as set out in sections 5.29 and 5.40 of this Access Arrangement, and not the actual capital contributions received.
- 5.53 For the purposes of calculating the investment adjustment mechanism, the categories of capital expenditure that are used in calculating the investment difference are:
- (a) new facilities investment arising from the connection of new generation capacity to the transmission or distribution network from 1 July 2006;
 - (b) new facilities investment arising from the connection of new load to the transmission system or distribution system from 1 July 2006;
 - (c) new facilities investment in relation to the augmentation of the capacity of the transmission system or distribution system for the provision of covered services from 1 July 2006; and
 - (d) new facilities investment undertaken for augmentation of the distribution system under the regional power improvement program and state underground power program.
800. Western Power has calculated amounts of adjustments under the investment adjustment mechanism as compound returns on amounts of above-forecast new facilities investment under the relevant categories at the rate of return applying under the current access arrangement (6.76 per cent pre-tax real). No allowance for depreciation has been included in the adjustments.
801. These calculations are summarised in Table 91 and Table 92.

Table 91 Proposed Adjustments to Target Revenue under the Investment Adjustment Mechanism – Transmission Network (real \$million at 30 June 2009)³⁵⁵

	2006/07	2007/08	2008/09
<u>Forecast new facilities investment</u>			
Demand related			
System Capacity	86.80	111.97	108.62
Customer Driven – Bulk Loads	31.20	57.59	12.35
Customer Driven – Generation	72.98	42.50	25.02
Total	190.98	212.05	146.00
<u>Actual new facilities investment</u>			
Demand related			
System Capacity	127.43	109.13	188.26
Customer Driven – Bulk Loads	19.26	75.59	47.80
Customer Driven – Generation	121.29	90.73	139.53
Total	267.99	275.45	375.59
<u>Above-forecast investment</u>			
Demand related			
System Capacity	40.63	(2.84)	79.64
Customer Driven – Bulk Loads	(11.94)	18.00	35.45
Customer Driven – Generation	48.32	48.23	114.51
Total	77.01	63.40	229.59
<u>Adjustment to target revenue</u>			
Compound return to 2009/10 at 6.76 per cent for 2006/07 to 2008/09 and 8.95 per cent for 2009/10 ³⁵⁶	0	5.56	9.49
Amount added to target revenue in 2009/10	16.40		

³⁵⁵ Revised access arrangement information, Appendix 7 (Revenue Model).

³⁵⁶ Calculated as a compound return on the previous years above-forecast investment, consistent with the general method of financial modelling with the return calculated only on the opening asset value for each year.

Table 92 Proposed Adjustments to Target Revenue under the Investment Adjustment Mechanism – Distribution Network (real \$million at 30 June 2009)³⁵⁷

	2006/07	2007/08	2008/09
<u>Forecast new facilities investment</u>			
Demand related			
Distribution Capacity	33.47	35.41	40.91
Customer Driven	99.04	115.07	131.10
Customer Driven – Vested Assets	17.02	20.78	24.29
Other			
State Underground Power Program	18.27	16.97	17.36
Rural Power Improvement Program	10.96	11.04	12.18
Total	178.76	199.27	225.85
<u>Actual new facilities investment</u>			
Demand related			
Distribution Capacity	81.67	63.23	89.20
Customer Driven	194.80	195.15	131.89
Customer Driven – Vested Assets	23.67	20.91	94.30
Other			
State Undergrounding Power Program	22.66	22.66	29.29
Rural Power Improvement Program	10.35	24.30	22.00
Total	333.15	326.25	366.68
<u>Above-forecast investment</u>			
Demand related			
Distribution Capacity	48.20	27.82	48.29
Customer Driven	95.76	80.08	0.79
Customer Driven – Vested Assets	6.65	0.13	70.01
Other			
State Undergrounding Power Program	4.39	5.69	11.93
Rural Power Improvement Program	(0.61)	13.26	9.82
Total	154.39	126.98	140.83
<u>Adjustment to target revenue</u>			
Compound return to 2009/10 at 6.76 per cent for 2006/07 to 2008/09 and 8.95 per cent for 2009/10 ³⁵⁸	0	11.14	19.02
Amount added to target revenue in 2009/10	32.86		

³⁵⁷ Revised access arrangement information, Appendix 7 (Revenue Model).

³⁵⁸ Calculated as a compound return on the previous years above-forecast investment, consistent with the general method of financial modelling with the return calculated only on the opening asset value for each year.

802. In assessment of the amounts determined by Western Power under the investment adjustment mechanism, the Authority has addressed:
- whether the amounts to be added to the target revenue for the second access arrangement period have been calculated correctly and consistently with the methods of financial modelling applied for the determination of target revenue; and
 - whether the above-forecast new facilities investment is able to be added to the capital base for the network under section 6.51A of the Access Code, allowing Western Power to earn a return on the investment.
803. Consistency of the calculation of amounts to be added to target revenue with the methods of financial modelling applied for the determination of target revenue requires consistency with the implicit timing assumptions for costs and revenues and with the methods applied in calculation of the capital base. The Authority has verified the calculations of Western Power and is satisfied that the method of calculations has been undertaken appropriately. However, the Authority has not accepted the actual amounts, which are subject to the adjustment as discussed below.
804. Under this Draft Decision, the Authority has determined that the entire amount of new facilities investment does not meet the requirements of section 6.51A of the Access Code for addition to the capital base and has required that the amount added to the capital base be reduced from the amount proposed by Western Power. As a consequence, the amount of adjustment under the investment adjustment mechanism also changes, as shown in Table 93 and Table 94.

Table 93 Authority's amended adjustments to target revenue under the investment adjustment mechanism – transmission network by asset class (real \$million at 30 June 2009)

	2006/07	2007/08	2008/09
<u>Forecast new facilities investment subject to the investment adjustment mechanism</u>			
Transmission cables	3.79	4.89	4.74
Transmission steel towers	73.25	94.00	46.91
Transmission wood poles	6.45	8.32	8.07
Transmission transformers	37.35	35.84	27.33
Transmission reactors	2.57	1.50	0.88
Transmission capacitors	17.50	11.92	8.17
Transmission circuit breakers	29.97	30.31	26.79
SCADA and communications	1.01	0.95	0.81
Land and easements	19.09	24.33	22.31
Total	190.98	212.05	146.00
<u>Actual new facilities investment subject to the investment adjustment mechanism</u>			
Transmission cables	4.73	4.05	5.99
Transmission steel towers	74.82	105.87	98.40
Transmission wood poles	8.05	6.89	10.18
Transmission transformers	48.13	41.94	54.34
Transmission reactors	3.64	2.72	3.58
Transmission capacitors	24.30	18.56	24.80
Transmission circuit breakers	39.34	31.89	45.13
SCADA and communications	1.35	1.08	1.51
Land and easements	23.44	21.15	29.61
Total	227.79	234.13	273.56
<u>Above-forecast investment</u>			
Transmission cables	0.94	(0.84)	1.24
Transmission steel towers	1.57	11.87	51.49
Transmission wood poles	1.60	(1.43)	2.12
Transmission transformers	10.78	6.10	27.01
Transmission reactors	1.06	1.22	2.70
Transmission capacitors	6.80	6.64	16.64
Transmission circuit breakers	9.37	1.57	18.35
SCADA and communications	0.33	0.13	0.70
Land and easements	4.35	(3.18)	7.31
Total	36.81	22.08	127.55
<u>Adjustment to target revenue</u>			
Compound return to 2009/10 at 6.76 per cent for 2006/07 to 2008/09 and 7.06% for 2009/10 ³⁵⁹	0	2.66	3.98
Amount added to target revenue in 2009/10	7.11		

³⁵⁹ Calculated as a compound return on the previous years above-forecast investment, consistent with the general method of financial modelling with the return calculated only on the opening asset value for each year.

Table 94 Authority's amended adjustments to target revenue under the investment adjustment mechanism – distribution network by asset class (real \$million at 30 June 2009)

	2006/07	2007/08	2008/09
<u>Forecast new facilities investment subject to the investment adjustment mechanism</u>			
Wooden pole lines	27.45	29.67	33.69
Underground cables	94.09	104.70	118.41
Transformers	28.65	32.75	37.37
Switchgear	19.49	21.93	24.88
Street lighting	9.08	10.22	11.50
Total	178.76	199.27	225.85
<u>Actual new facilities investment subject to the investment adjustment mechanism</u>			
Wooden pole lines	39.11	43.96	49.15
Underground cables	143.49	134.72	155.32
Transformers	44.70	42.51	47.42
Switchgear	28.10	29.32	31.67
Street lighting	12.89	12.80	13.89
Total	268.29	263.31	297.45
<u>Above-forecast investment</u>			
Wooden pole lines	11.67	14.30	15.46
Underground cables	49.40	30.02	36.91
Transformers	16.05	9.76	10.05
Switchgear	8.61	7.39	6.79
Street lighting	3.81	2.57	2.38
Total	89.53	64.30	71.60
<u>Adjustment to target revenue</u>			
Compound return to 2009/10 at 6.76 per cent for 2006/07 to 2008/09 and 7.06% for 2009/10 ³⁶⁰	0	6.46	10.38
Amount added to target revenue in 2009/10	18.03		

Capital Contributions Adjustment Mechanism

805. The capital contributions adjustment mechanism described in clauses 5.32 and 5.43 of the current access arrangement (for the transmission and distribution networks, respectively) provides a mechanism for correcting for differences between forecast and actual amounts of capital contributions made to Western Power in respect of new facilities investment.
806. The capital contributions adjustment mechanism has relevance under the treatment of capital contributions established under the access arrangement for the first access arrangement period. Under this treatment, any new facilities investment financed by capital contributions is added to the capital base for the network and offset by the deduction of revenue from capital contributions from revenue able to

³⁶⁰ Calculated as a compound return on the previous years above-forecast investment, consistent with the general method of financial modelling with the return calculated only on the opening asset value for each year.

be earned under the price control. For the purposes of establishing the price control for the first access arrangement period, a forecast of capital contributions was taken into account. The capital contributions adjustment mechanism makes an adjustment to target revenue in the second access arrangement period to correct for differences between the forecast and actual amounts of capital contributions in the first access arrangement period, corrected for the time value of money at a discount rate equal to the rate of return applied in the first access arrangement period.

807. Western Power indicates that actual capital contributions in the first access arrangement period were greater than forecast for both the transmission network and distribution network resulting in necessary adjustments to target revenue for the second access arrangement period (in present value terms) of –\$37.603 million for the transmission network and –\$84.110 for the distribution network. The derivation of these amounts is shown in Table 95 and Table 96.

Table 95 Adjustments to Target Revenue under the Capital Contributions Adjustment Mechanism – Transmission Network
(real \$ million at 30 June 2009)³⁶¹

	2006/07	2007/08	2008/09
Forecast capital contributions	17.68	30.10	14.67
Actual capital contributions	36.70	33.47	27.00
Difference	-19.02	-3.37	-12.33
Escalation to 30 June 2009 at 6.76 per cent per annum	-21.68	-3.60	-12.33
Amount added to target revenue (present value at 30 June 2009)	-37.60		

Table 96 Adjustments to Target Revenue under the Capital Contributions Adjustment Mechanism – Distribution Network
(real \$ million at 30 June 2009)³⁶²

	2006/07	2007/08	2008/09
Forecast capital contributions	100.66	117.29	134.32
Actual capital contributions	143.10	140.57	145.20
Difference	-42.44	-23.28	-10.88
Escalation to 30 June 2009 at 6.76 per cent per annum	-48.38	-24.86	-10.88
Amount added to target revenue (present value at 30 June 2009)	-84.11		

808. In assessment of the amounts determined by Western Power under the capital contributions adjustment mechanism, the Authority has addressed whether the amounts to be added to the target revenue for the second access arrangement

³⁶¹ Revised access arrangement information, Appendix 7 (Revenue Model).

³⁶² Revised access arrangement information, Appendix 7 (Revenue Model).

period have been calculated correctly and consistently with the methods of financial modelling applied for the determination of target revenue. The Authority has verified the calculations of Western Power and is satisfied that the calculations have been undertaken appropriately.

Total Cost and Target Revenue

Access Code Requirements

809. Under section 6.2 of the Access Code, the target revenue for a price control may be set by reference to the service provider's approved total costs; or by reference to tariffs in previous access arrangement periods and changes to costs and productivity growth in the electricity industry; or using a combination of these two methods.

810. Objectives to be observed in setting the level of target revenue are set out in sections 6.4(a) and 6.5 of the Access Code.

6.4 The price control in an access arrangement must have the objectives of:

- (a) giving the service provider an opportunity to earn revenue ("target revenue") for the access arrangement period from the provision of covered services as follows:
 - (i) an amount that meets the forward-looking and efficient costs of providing covered services, including a return on investment commensurate with the commercial risks involved;

plus:
 - (ii) for access arrangements other than the first access arrangement, an amount in excess of the revenue referred to in section 6.4(a)(i), to the extent necessary to reward the service provider for efficiency gains and innovation beyond the efficiency and innovation benchmarks in a previous access arrangement;

plus:
 - (iii) an amount (if any) determined under section 6.6 [adjustments for unforeseen events];

plus:
 - (iv) an amount (if any) determined under section 6.9 [adjustments for technical rule changes];

plus:
 - (v) an amount (if any) determined under an investment adjustment mechanism (see sections 6.13 to 6.18);

plus:
 - (vi) an amount (if any) determined under a service standards adjustment mechanism (see sections 6.29 to 6.32);

plus –
 - (vii) an amount (if any) determined under section 6.37A [tariff equalisation contributions];

...

6.5 The amount determined in seeking to achieve the objective specified in section 6.4(a)(i) is a target, not a ceiling or a floor.

Proposed Revisions

811. Western Power has proposed to set the target revenue for the second access arrangement period by reference to an amount of approved total costs and a range of adjustments. The elements of total costs and some of the adjustments applied by Western Power have been examined above, including:
- non-capital costs;
 - the capital base and new facilities investment that form the basis for determination of capital costs (a rate of return on the capital base and depreciation allowances);
 - the rate of return (WACC); and
 - adjustments in respect of the investment adjustment mechanism and capital contributions adjustment mechanism.
812. Other features of Western Power's proposed determination of target revenue are as follows.
813. First, Western Power has determined an amount of target revenue for recovery through provision of reference services. This has been undertaken by deducting from total costs an amount of costs attributed to the provision of non-reference services.
814. Secondly, Western Power has proposed an adjustment to target revenue for the second access arrangement under a mechanism to defer recovery of an amount of revenue until the third or later access arrangement periods. Western Power states that the purpose of the proposed deferral of revenue is to reduce proposed increases in reference tariffs in the second access arrangement period. The increases stem from a change in the treatment of capital contributions in determination of the amount of new facilities investment that may be added to the capital base (paragraph 646 and following of this Draft Decision) and forecast increases in costs in the second access arrangement period.³⁶³ The effect of the proposed deferral of revenue would be to spread the increase in reference tariffs over a period longer than just the second access arrangement period.
815. Western Power's proposed values of target revenue for the second access arrangement period are shown in Table 97 and Table 98.

³⁶³ Western Power submission of 17 December 2008.

Table 97 Proposed target revenue for the transmission network (real \$million at 30 June 2009)³⁶⁴

	2009/10	2010/11	2011/12
Non-capital costs	100.90	105.97	112.78
Depreciation	74.25	86.14	100.36
Accelerated depreciation (redundant assets)	0	0	0
Return on assets	216.18	270.40	332.99
Return on working capital	0.24	0.32	2.55
Total Costs	391.58	462.83	548.68
Non-reference service revenue	-6.32	-6.00	-6.28
Investment adjustment mechanism	16.40	0	0
Capital contribution adjustment mechanism	-45.04	0	0
Net reference service revenue	356.62	456.83	542.41
Deferred reference service revenue	-4.31	-5.70	-7.53
Target reference service revenue	352.31	451.13	534.87
Present Value	1,117.02		

Table 98 Proposed target revenue for the distribution network (real \$million at 30 June 2009)³⁶⁵

	2009/10	2010/11	2011/12
Non-capital costs	393.89	416.48	436.37
Depreciation	146.78	164.74	183.24
Accelerated depreciation (redundant assets)	3.78	3.68	3.59
Return on assets	260.59	293.74	329.34
Return on working capital	4.40	4.88	5.24
Total Costs	809.54	883.51	957.77
Non-reference service revenue	-4.69	-5.56	-6.41
Investment adjustment mechanism	32.86	0	0
Capital contribution adjustment mechanism	-91.64	0	0
Net reference service revenue	746.08	877.95	951.36
Deferred reference service revenue	-55.76	-69.71	-87.13
Target reference service revenue	690.31	808.25	864.23
Present Value	1,982.78		

³⁶⁴ Revised access arrangement information, Appendix 7 (Revenue Model).³⁶⁵ Revised access arrangement information, Appendix 7 (Revenue Model).

Submissions

816. Submissions to the Authority have indicated concerns of interested parties with the methods applied by Western Power to derive the amount of target revenue to apply under the price control.
817. Alinta Sales submits that the expected revenue from non-reference services should not be excluded from the target revenue. Rather, Alinta Sales submits that the Access Code requires that the target revenue be set with respect to covered services, which include both reference and non-reference services. The effect of this would be that revenue from non-reference services would fall under the price control and revenue cap.³⁶⁶
818. Several interested parties drew attention to the effect of Western Power's proposed change in the treatment of capital contributions and the effect of this on the value of target revenue. Under the current access arrangement, the value of new facilities investment financed by capital contributions is added to the capital base and the value of contributions is deducted from target revenue in the period in which the contributions are made. For the second access arrangement period, Western Power proposes to exclude new facilities investment financed by capital contributions from the capital base and make no adjustment to target revenue in respect of the amount of contributions. While the two alternative treatments of capital contributions have the same commercial effect in present value terms over the lives of the relevant capital assets the effect on the time path of target revenue and tariffs differs. The current treatment of capital contributions has the effect of reducing target revenue in the short term (with corresponding reductions in reference tariffs), with higher target revenue in future access arrangement periods. The proposed change in treatment of capital contributions removes this effect, resulting in a higher value of target revenue than if the current treatment was maintained, and a step increase in target revenue and tariffs between the first and second access arrangement periods.
819. Several interested parties expressed concern that the change in treatment of contributions gives rise to a price shock and questioned whether the change might be contrary to the objective of section 6.4(c) of the Access Code that the price control should avoid price shocks, defined as sudden material tariff adjustments between succeeding years.³⁶⁷

Considerations of the Authority

820. The Authority has given consideration already in this Draft Decision to elements of total cost and is requiring amendments to forecast non-capital costs, the value of new facilities investment added to the capital base for the first access arrangement period, the forecast of new facilities investment for the second access arrangement period, the rate of return (WACC), and adjustments to target revenue under the

³⁶⁶ Alinta Sales Pty Ltd submission of 17 December 2008.

³⁶⁷ Verve Energy submission of 2 December 2008; Western Australia Major Energy Users submission of 16 December 2008; Griffin Energy Development Pty Ltd submission of 17 December 2008; Chamber of Commerce and Industry Western Australia submission of 17 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008; Department of Treasury and Finance, submission of 17 December 2008; Perth Energy submission of 17 December 2008.

investment adjustment mechanism and capital contributions adjustment mechanism.

821. Further matters relevant to the Authority's assessment of Western Power's determination of target revenue are the treatment of expected revenue from non-reference services, the proposed deferral of revenue from the second access arrangement period to the third and subsequent access arrangement periods, and the effects on target revenue (and reference tariffs) of Western Power's proposed change in treatment of capital contributions. These matters are addressed in turn as follows.

Revenue from Non-Reference Services

822. Western Power has proposed that the amount of target revenue established under the price control for the second access arrangement period be an amount in respect of reference services. The derivation of target revenue involves subtraction from total costs of an amount of forecast revenue for non-reference services. Under this proposed specification of target revenue and the price control, revenue earned by Western Power from the provision of non-reference services would not fall under the revenue cap price control.
823. Alinta Sales submits that this approach to specification of target revenue under the price control is contrary to implicit requirements under section 6.4 of the Access Code that target revenue be an amount for provision of all covered services, including non-reference services. Alinta Sales contends that this implies that revenue for non-reference services should necessarily fall under the revenue cap price control.
824. The Authority considers that the constraint on specification of target revenue identified by Alinta Sales is not a necessary interpretation of section 6.4 of the Access Code and would not serve the Code objective.
825. Section 6.2 of the Access Code explicitly contemplates that a price control may comprise price caps for individual reference services. Under such a price control, the target revenue applied in setting price caps would necessarily be an amount for reference services only, and exclude any amount of costs or forecast revenue for non-reference services. As such, section 6.4 of the Access Code cannot be constrained in the manner suggested by Alinta Sales.
826. If the Access Code were to require that the target revenue and price control cover the provision of non-reference services, the tariffs of non-reference services would necessarily be constrained by the price control. The Authority considers that this is contrary to the distinction in the Access Code between reference services and non-reference services and would reduce the incentive for Western Power to offer non-reference services and to negotiate with users on terms and prices for the provision of these services. The Authority considers that this would be contrary to the Code objective of efficiency in the provision and use of network services.
827. Taking these matters into account, the Authority is satisfied that Western Power's proposed exclusion of forecast revenue from non-reference services from the target revenue and price control is consistent with requirements of section 6.4 of the Access Code and the Code objective. The Authority also observes that this approach is consistent with provisions under the National Electricity Rules for network businesses in the National Electricity Market to provide negotiated services and to determine prices for these services unfettered by a price control.

828. Notwithstanding that the Authority is satisfied that the exclusion of non-reference service revenue from target revenue is consistent with requirements of the Access Code, the Authority observes that the value of non-reference service revenue taken into account in determining target revenue for the distribution network is less than the amount of non-capital costs attributed by Western Power to the provision of non-references (Table 99).

Table 99 Forecast costs and revenue for the provision of non-reference services (real \$million at 30 June 2009)³⁶⁸

	2009/10	2010/11	2011/12
Transmission network			
Forecast non-capital costs for non-reference services	5.99	5.67	5.94
Forecast revenue from non-reference services	6.32	6.00	6.28
Distribution network			
Forecast non-capital costs for non-reference services	7.42	8.61	9.81
Forecast revenue from non-reference services	4.69	5.56	6.41

829. The Authority considers that the implied pricing of non-reference services at less than the avoidable cost of provision is contrary to the Code objective of efficiency in the provision and use of network services. The Authority accordingly requires that the proposed access arrangement revisions be revised to take into account revenue from non-reference services of an amount at least equal to the costs attributed to the provision of these services.

Required Amendment 31

The proposed access arrangement revisions should be amended to determine the target revenue for reference services taking into account a forecast revenue from non-reference services at least equal to the forecast of non-capital costs attributed to provision of these services.

830. For the purposes of this Draft Decision, the Authority has determined a value of target revenue for the distribution network taking into account a forecast of revenue for non-reference services equal to a value of non-capital costs attributed to provision of non-reference services and incorporated in revised cost forecasts (paragraph 505 of this Draft Decision).

³⁶⁸ Revised access arrangement information, Appendix 7, Appendix 9.

Treatment of Capital Contributions and Deferral of Revenue

831. Western Power has proposed that recovery of part of the target revenue for the second access arrangement period be deferred to the third or later access arrangement periods. Western Power states that the purpose of the proposed deferral of revenue is to reduce proposed increases in reference tariffs in the second access arrangement period that stem from a change in the treatment of capital contributions in the calculation of target revenue and forecast increases in costs in the second access arrangement period.³⁶⁹
832. The amounts of revenue proposed to be deferred are \$17.54 million for the transmission network and \$212.60 million for the distribution network (in real dollar values of 30 June 2009 and corresponding to present values of \$14.58 million and \$177.28 million, respectively).
833. The Authority has addressed the proposed deferral of revenue in terms of a proposed adjustment mechanism to operate under the access arrangement (paragraph 1015 and following of this Draft Decision). The Authority has determined that the deferral of revenue to offset an effect of the change in treatment of capital contributions on target revenue and reference service tariffs is consistent with the objective of section 6.4(c) of the Access Code by avoiding a price shock for users of network services.
834. Contrary to Western Power's proposal, the Authority considers that the deferral of revenue from the second to the third and subsequent access arrangement periods should fully offset the effect of the change in the treatment of capital contributions. As the change in treatment of capital contributions is such as to have no net commercial impact on Western Power in present value terms, the Authority considers that the deferral of revenue should be undertaken in such a manner as to minimise the price-shock effects on network users. The Authority considers that this would be best achieved by deferring an amount of revenue equal to the total effect of the change in treatment of capital contributions.

Required Amendment 32

The proposed access arrangement revisions should be amended to provide for deferral of revenue from the second to the third and subsequent access arrangement periods in an amount that fully offsets the effect of the change in the treatment of capital contributions in the determination of target revenue.

835. With other revisions made by the Authority to the calculation of total costs and target revenue for the purposes of this Draft Decision, the Authority has determined that the change in treatment of capital contributions accounts for \$58.82 million of target revenue for the transmission network and \$348.35 million of target revenue for the distribution network, in present value terms. For the purposes of this Draft Decision, the Authority has determined an amount of target revenue for reference services on the basis of deferral of these amounts.

³⁶⁹ Western Power submission of 17 December 2008.

Target Revenue

836. The Authority has determined values of target revenue for reference services taking into account determinations and required amendments of individual elements of target revenue as set out in this Draft Decision. The values of target revenue determined by the Authority are set out for the transmission and distribution networks in Table 100 and Table 101. These tables also show the “smoothed” target revenue that becomes the revenue cap under the price control.

**Table 100 Authority’s revised target revenue for the transmission network
(real \$million at 30 June 2009)**

	2009/10	2010/11	2011/12
Non-capital costs	69.58	81.14	89.03
Depreciation	70.06	75.05	86.74
Accelerated depreciation (redundant assets)	0	0	0
Return on assets	155.28	171.05	210.19
Return on working capital	1.17	1.16	0.10
Total Costs	296.10	328.40	386.06
Non-reference service revenue	(6.32)	(6.00)	(6.28)
Investment adjustment mechanism	7.11		
Capital contribution adjustment mechanism	(40.26)		
Net costs after adjustments	256.62	322.41	379.79
Present value	830.47		
Deferred reference service revenue	(9.56)	(21.93)	(37.74)
Target reference service revenue after deferred revenue	247.06	300.47	342.05
Present value	771.65		
Smoothed reference service revenue (revenue cap)	261.53	294.57	331.78
Present value	771.65		

Table 101 Authority's revised target revenue for the distribution network (real \$million at 30 June 2009)

	2009/10	2010/11	2011/12
Non-capital costs	263.74	301.38	330.75
Depreciation	138.38	150.51	166.92
Accelerated depreciation (redundant assets)	3.78	3.68	3.59
Return on assets	187.22	205.01	229.49
Return on working capital	1.48	2.62	2.65
Total Costs	594.59	663.21	733.38
Non-reference service revenue	(7.51)	(8.66)	(9.82)
Investment adjustment mechanism	18.03		
Capital contribution adjustment mechanism	(90.05)		
Net costs after adjustments	515.06	654.55	723.56
Present value	1,641.79		
Deferred reference service revenue	(57.93)	(130.64)	(221.20)
Target reference service revenue after deferred revenue	457.13	523.91	502.37
Present value	1,293.45		
Smoothed reference service revenue (revenue cap)	465.65	494.17	524.54
Present value	1,293.45		

837. Summary comparisons of the target revenue proposed by Western Power and that determined by the Authority under this Draft Decision are set out in Table 102, Table 103 and Table 104.

Table 102 Transmission network target revenue comparison: Western Power proposal and Draft Decision

	Western Power Proposal	Draft Decision
Present value of total costs (\$million)	1,173.59	877.69
Present value of net costs after adjustments (\$million)	1,131.59	830.47
Present value of target reference service revenue after deferred revenue (\$million)	1,117.02	771.65
Discounted weighted average tariff (\$/MWh)	24.20	16.15
Forecast average tariff increase 2008/09 to 2009/10	CPI + 42.2%	CPI + 12.6%
Forecast average tariff increase 2009/10 to 2010/11	CPI + 32.2%	CPI + 12.6%
Forecast average tariff increase 2010/11 to 2011/12	CPI + 32.2%	CPI + 12.6%

Table 103 Distribution network target revenue comparison: Western Power proposal and Draft Decision

	Western Power Proposal	Draft Decision
Present value of total costs (\$million)	2,210.22	1,731.63
Present value of net costs after adjustments (\$million)	2,142.33	1,641.79
Present value of target reference service revenue after deferred revenue (\$million)	1,982.78	1,293.45
Discounted weighted average tariff (\$/MWh)	56.08	35.35
Forecast average tariff increase 2008/09 to 2009/10	CPI + 42.2%	CPI + 6.1%
Forecast average tariff increase 2009/10 to 2010/11	CPI + 25.0%	CPI + 6.1%
Forecast average tariff increase 2010/11 to 2011/12	CPI + 25.0%	CPI + 6.1%

Table 104 Total transmission and distribution network target revenue comparison: Western Power proposal and Draft Decision

	Western Power Proposal	Draft Decision
Present value of total costs (\$million)	3,384.13	2,609.32
Present value of net costs after adjustments (\$million)	3,277.97	2,472.27
Present value of target reference service revenue after deferred revenue (\$million)	3,099.80	2,065.10
Discounted weighted average tariff (\$/MWh)	38.03	24.48
Forecast average tariff increase 2008/09 to 2009/10	CPI + 42.2%	CPI + 8.4%
Forecast average tariff increase 2009/10 to 2010/11	CPI + 27.5%	CPI + 8.5%
Forecast average tariff increase 2010/11 to 2011/12	CPI + 27.6%	CPI + 8.6%

838. The Authority has noted in this Draft Decision that there is some likelihood that an amount of tariff equalisation contributions will be determined prior to the Authority's final approval of the proposed access arrangement revisions (paragraph 371 of this Draft Decision). If values of the tariff equalisation contribution were determined in accordance with current indications from the Department of Treasury and Finance, the effect would be a 26 per cent increase in average distribution tariffs, as indicated in Table 105 below. The overall effect in average network tariffs (i.e. distribution and transmission combined) would be an increase of 16 per cent as indicated in Table 106 below.

Table 105 Distribution network target revenue: effect of tariff equalisation contribution

	Draft Decision	Draft Decision with TEC
Present value of total costs (\$million)	1,731.63	1,731.63
Present value of tariff equalisation contribution (TEC)	0	332.58
Present value of target revenue with tariff equalisation contribution	1,731.63	2064.21
Present value of net costs after adjustments (\$million)	1,641.79	1,974.37
Present value of target reference service revenue after deferred revenue (\$million)	1,293.45	1,626.02
Discounted weighted average tariff (\$/MWh)	35.35	44.44
Forecast average tariff increase 2008/09 to 2009/10	CPI + 6.1%	CPI + 18.8%
Forecast average tariff increase 2009/10 to 2010/11	CPI + 6.1%	CPI + 18.8%
Forecast average tariff increase 2010/11 to 2011/12	CPI + 6.1%	CPI + 18.8%

Table 106 Total transmission and distribution network target revenue: effect of tariff equalisation contribution

	Draft Decision	Draft Decision with TEC
Present value of total costs (\$million)	2,609.32	2,609.32
Present value of tariff equalisation contribution (TEC)	0	332.58
Present value of target revenue with tariff equalisation contribution	2,609.32	2,941.90
Present value of net costs after adjustments (\$million)	2,472.27	2,804.84
Present value of target reference service revenue after deferred revenue (\$million)	2,065.10	2,397.67
Discounted weighted average tariff (\$/MWh)	24.48	28.42
Forecast average tariff increase 2008/09 to 2009/10	CPI + 8.4%	CPI + 16.7%
Forecast average tariff increase 2009/10 to 2010/11	CPI + 8.5%	CPI + 16.7%
Forecast average tariff increase 2010/11 to 2011/12	CPI + 8.6%	CPI + 16.8%

Form of the Price Control

Access Code Requirements

839. “Price Control” is defined in Chapter 1 of the Access Code as:

“price control” means the provisions in an access arrangement under section 5.1(d) and Chapter 6 which determine target revenue.

{Note: Price control can consist of direct or indirect limits, and consists of a limit on the level of tariffs through the control of overall revenue. The structure of tariffs is dealt with by the pricing methods in Chapter 7.}

840. Sections 6.1 to 6.3 of the Access Code establish requirements for the form of the price control:

- 6.1 Subject to section 6.3, an access arrangement may contain any form of price control provided it meets the objectives set out in section 6.4 and otherwise complies with this Chapter 6.
- 6.2 Without limiting the forms of price control that may be adopted, price control may set target revenue:
 - (a) by reference to the service provider’s approved total costs; or
 - (b) by setting tariffs with reference to:
 - (i) tariffs in previous access arrangement periods; and
 - (ii) changes to costs and productivity growth in the electricity industry:
 - or
 - (c) using a combination of the methods described in sections 6.2(a) and 6.2(b).

841. Section 6.3 of the Access Code constrains the choice of price control for the first access arrangement period, which is not relevant to the proposed access arrangement revisions.

842. Section 6.4 of the Access Code sets out objectives for the price control, which relate to the setting of an amount of target revenue for the access arrangement period (section 6.4(a)) as well as objectives of:

- enabling a user to predict the likely annual changes in target revenue during the access arrangement period (section 6.4(b)); and
- avoiding price shocks (that is, sudden material tariff adjustments between succeeding years (section 6.4(c)).

Current Access Arrangement

843. The current access arrangement applies a revenue cap form of price control. A separate revenue cap is applied to each of the transmission and distribution networks.

844. Under the revenue caps:

- reference tariffs were set for 2006/07 on the basis of an amount of required revenue for 2006/07, and in 2007/08 and 2008/09 on the basis of an amount of required revenue, plus corrections (by way of a correction factor) for

under-recovery or over-recovery of required revenue in the preceding year or years;

- the “correction factor” for under-recovery or over-recovery of required revenue has effect over two years – a correction is made in the first year following a particular pricing year on the basis of a combination of recorded and forecast actual revenues, and a further correction is made in the second year following a particular pricing year to take into account the complete records of actual revenues; and
- a “side constraint” applies to changes in reference tariffs from year to year such that the maximum proportional change in any reference tariff is –
+/- (percentage change in the CPI + 5 percentage points),
which is referred to as a side constraint of “CPI + 5 per cent”.

Proposed Revisions

845. Western Power has proposed retaining a revenue cap form of price control for the second access arrangement period, as set out in sections 5.25 to 5.48 of the revised proposed access arrangement.
846. The specifications of the price controls for transmission and distribution under clauses 5.35 and 5.46 of the proposed access arrangement revisions have been changed so that the maximum revenue for each network in each year of the second access arrangement period includes an amount in respect of adjustments to target revenue for unforeseen events, technical rule changes, the investment adjustment mechanism and the capital contributions adjustment mechanism as these applied for the first access arrangement period.
847. The values of the side constraints on changes to reference tariffs for the transmission and distribution networks, which are indicated under clauses 3.11, 5.35 and 5.46 of the proposed access arrangement revisions, have been changed such that the maximum proportional change in any reference tariff from 2009/10 to 2010/11 and from 2010/11 to 2011/12 is:
- +/- (percentage change in the CPI + 37.2 percentage points) for the transmission network; and
 - +/- (percentage change in the CPI + 30 percentage points) for the distribution network.

Submissions

848. The WAMEU and Alinta Sales submit that the revenue cap form of price control provides inadequate incentives for Western Power to service new demand and reduce costs.³⁷⁰ Alinta Sales further submits that values of actual non-capital costs in excess of forecast costs for the first access arrangement period are evidence of inadequate incentives to reduce costs.

³⁷⁰ Western Australia Major Energy Users submission of 16 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008.

849. The WAMEU also submit that the revenue cap form of price control creates an incentive for Western Power to seek to finance capital investment through capital contributions where revenue from these contributions are not subject to the price control.³⁷¹
850. Alinta Sales submits that a “CPI – X” form of price control should be preferred to the revenue cap, with the X value reflecting a presumption of efficiency gains over the access arrangement period.
851. Synergy and Verve Energy submit that the side constraint on changes to reference tariffs, which allows for large changes in values of reference tariffs from year to year, is inconsistent with the objective of section 6.4(c) of the Access Code that the price control should seek to avoid price shocks (that is, sudden material tariff adjustments between succeeding years).³⁷²

Considerations of the Authority

852. Under sections 6.1 and 6.2 of the Access Code, the form of price control is a matter for determination by the service provider subject to the selected form of price control complying with the requirements of section 6.2, the objectives of section 6.4, and otherwise complying with Chapter 6. In considering a proposed form of price control for the purposes of a decision to approve or not approve the proposed access arrangement revisions, the Authority must also have regard to the Code objective, which requires that the price control promote the economically efficient investment in and operation and use of, networks and services of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks.
853. A revenue cap is explicitly contemplated in the note to section 6.2(a) of the Access Code as one of several forms of price control that may be adopted.
854. A revenue cap form of price control creates an incentive for a service provider to out-perform the forecast of costs on which the price control was established, or at least to minimise any under-performance relative to that forecast. This incentive arises from the service provider bearing the risk of under-performance relative to cost forecasts, but also retaining the benefits of out-performance of forecasts.
855. The Authority does not accept the contention of the WAMEU and Alinta Sales that actual costs in excess of forecasts is evidence of a lack of incentive under the price control for Western Power to achieve cost efficiencies. Such under-performance against forecasts may be the result of inadequacies in the process of setting the forecasts or changes in circumstances during the access arrangement period that were not taken into account in setting the forecasts. Either way, the service provider would have an incentive to minimise the extent of any under-performance.
856. The Authority also does not accept the contention of Alinta Sales that a “CPI – X” form of price control would provide greater incentives for Western Power to seek efficiency gains. In referring to a “CPI – X” price control, the Authority presumes that Alinta Sales refers to a time path of increases in regulated tariffs or revenue

³⁷¹ Western Australia Major Energy Users submission of 16 December 2008, p. 87.

³⁷² Synergy submission of 22 December 2008 on the Price Control; Verve Energy submission of 2 December 2008.

whereby the increase is limited to inflation less an amount, “X”, that reflects a projection or assumption of efficiency gains that may possibly be achieved by Western Power during the course of the access arrangement period, over and above any projected efficiency gains already reflected in cost forecasts. For the purposes of this Draft Decision, the Authority has taken the approach of addressing potential efficiency gains in considering forecasts of costs and determining the values of target revenue to apply under the price control. The Authority considers that an additional allowance for expected efficiency gains, as contemplated by Alinta Sales, would potentially be inconsistent with the objective of section 6.4(a) of the Access Code for Western Power to be provided with an opportunity to recover the forward looking and efficient costs for provision of covered services.

857. The Authority accepts that a revenue cap form of price control does not provide incentives for the service provider to seek to increase demand for services and thereby increase revenue. The absence of incentives under the price control could, all other things being equal, create incentives for a service provider to fail to provide timely services at new connection points. The absence of incentives under the price control is, however, countered by other mechanisms to ensure provision of services. For Western Power, these include requirements under the *Code of Conduct for the Supply of Electricity to Small Use Customers 2004*, the *Customer Service Charter*, and requirements of the applications and queuing policy of the access arrangement.
858. The Authority also accepts that the revenue cap form of price control could create incentives for Western Power to increase the amount of revenue that it seeks to obtain through contributions. With the treatment of contributions under the proposed access arrangement revisions, revenue obtained from contributions does not fall under the revenue cap. As such, any revenue collected by Western Power from contributions over and above forecasts is retained. However, the Authority considers that Western Power is adequately constrained in its ability to charge contributions by the contributions policy of the access arrangement that limits the circumstances in which contributions may be charged. As part of this Draft Decision, the Authority is requiring strengthening of the protections available to users under the contributions policy, including greater transparency in the determination of amounts of contributions (paragraph 1156 and following).
859. Taking into account the matters addressed above, the Authority is satisfied that the proposed revenue cap form of price control is consistent with the requirements of the Access Code.
860. The Authority acknowledges the concerns of Synergy and Verve Energy that the proposed side constraint on year-to-year changes in reference tariffs provides for very substantial increases. The Authority observes that this stems from the substantial increases in costs forecast by Western Power, and the side constraint indicates the year-to-year increases in tariffs that would occur with a “smoothed” tariff path. While the Authority acknowledges that the tariff increases permitted by the side constraint could be seen as contrary to the objective of section 6.4(c) of the Access Code of avoiding price shocks, the Authority considers that, consistent with section 2.3(b) and taking into account the Code objective, the objective in section 6.4(a) of allowing for recovery of efficient costs of provision of services should prevail over the objective of section 6.4(c).
861. Under this Draft Decision the Authority is requiring the price control to be established with lower values of target revenue for the access arrangement period. With the lower values of target revenue, the values of the side constraint on

changes to reference tariffs can be more stringent. The Authority has calculated the maximum necessary proportional changes in any reference tariff from one pricing year to the next during the second access arrangement period (2009/10 to 2010/11 and from 2010/11 to 2011/12) and allowed side constraints as these amounts rounded up to a whole percentage point:

- +/- (percentage change in the CPI + 13 percentage points) for the transmission network; and
- +/- (percentage change in the CPI + 7 percentage points) for the distribution network.

Required Amendment 33

The proposed access arrangement revisions should be amended such that clauses 3.11, 5.35 and 5.46 provide for maximum proportional changes in reference tariffs from 2009/10 to 2010/11 and from 2010/11 to 2011/12 of:

- +/- (percentage change in the CPI + 13 percentage points) for the transmission network; and
- +/- (percentage change in the CPI + 7 percentage points) for the distribution network.

PRICING METHODS, PRICE LIST AND PRICE LIST INFORMATION

Access Code Requirements

Pricing Methods

862. Section 5.1(e) of the Access Code requires an access arrangement to include pricing methods in accordance with the requirements of Chapter 7 of the Access Code.
863. Section 7.1 of the Access Code indicates that “pricing methods” means the structure of reference tariffs included in an access arrangement.
864. Section 7.2 of the Access Code indicates that an access arrangement may contain any pricing methods; provided that the pricing methods collectively meet the objectives set out in sections 7.3 and 7.4 and otherwise comply with the requirements of Chapter 7. A note under section 7.2 also gives examples of tariffs that may result from pricing methods, indicating that tariffs or parts of tariffs may be set to take into account matters such as different classes of users, different voltage levels, different connection points, demand levels, energy quantities and times of use.
865. Sections 7.3 and 7.4 of the Access Code set out the objectives for pricing methods, as follows:

- 7.3 Subject to sections 7.5, 7.7 and 7.12, the pricing methods in an access arrangement must have the objectives that:
- (a) reference tariffs recover the forward-looking efficient costs of providing reference services; and
 - (b) the reference tariff applying to a user:
 - (i) at the lower bound, is equal to, or exceeds, the incremental cost of service provision; and
 - (ii) at the upper bound, is equal to, or is less than, the stand-alone cost of service provision.
- 7.4 Subject to sections 7.5, 7.7 and 7.12, the pricing methods in an access arrangement must have the objectives that:
- (a) the charges paid by different users of a reference service differ only to the extent necessary to reflect differences in the average cost of service provision to the users; and
 - (b) the structure of reference tariffs so far as is consistent with the Code objective accommodates the reasonable requirements of users collectively; and
 - (c) the structure of reference tariffs enables a user to predict the likely annual changes in reference tariffs during the access arrangement period; and
 - (d) the structure of reference tariffs avoids price shocks (that is, sudden material tariff adjustments between succeeding years).
866. Section 7.5 of the Access Code requires that the Authority, in reconciling any conflicting objectives for the pricing methods or determining which objective should prevail, should have regard to the Code objective and should permit the objectives of section 7.3 to prevail over the objectives of section 7.4.
867. Section 7.6 of the Access Code provides guidance for establishing components of tariffs:
- 7.6 Unless an access arrangement containing alternative pricing methods would better achieve the Code objective, for a reference service:
- (a) the incremental cost of service provision should be recovered by tariff components that vary with usage or demand; and
 - (b) any amount in excess of the incremental cost of service provision should be recovered by tariff components that do not vary with usage or demand.
868. Section 7.7 of the Access Code requires that tariffs be established as “postage stamp” tariffs in certain circumstances:
- 7.7 The tariff applying to a standard tariff user in respect of a standard tariff exit point must not differ from the tariff applying to any other standard tariff user in respect of a standard tariff exit point as a result of differences in the geographic locations of the standard tariff exit points.
869. Section 7.9 of the Access Code provides for “prudent discounts” to be made available to some users:
- 7.9 A service provider may propose in its access arrangement to discriminate between users in its pricing of services to the extent that it is necessary to do so to aid economic efficiency, including:
- (a) by entering into an agreement with a user to apply a discount to the equivalent tariff to be paid by the user for a covered service; and

- (b) then, recovering the amount of the discount from other users of reference services through reference tariffs.
- 870. Section 7.10 of the Access Code provides for discounts for users connecting distributed generation plant:
 - 7.10 If a user seeks to connect distributed generating plant to a covered network, a service provider must reflect in the user's tariff, by way of a discount, a share of any reductions in either or both of the service provider's capital-related costs or non-capital costs which arise as a result of the entry point for distributed generating plant being located in a particular part of the covered network by:
 - (a) entering into an agreement with a user to apply a discount to the equivalent tariff to be paid by the user for a covered service; and
 - (b) then, recovering the amount of the discount from other users of reference services through reference tariffs.
- 871. Section 7.11 of the Access Code requires that an access arrangement include a detailed policy setting out how discounts under sections 7.9 and 7.10 are to be applied, including a detailed mechanism for determining when a user will be entitled to receive a discount and for calculating the discount to which the user will be entitled.
- 872. Section 7.12 of the Access Code requires that the value of any tariff equalisation contributions be recovered as a tariff component from users of the distribution network:
 - 7.12 If an amount is added to the target revenue under section 6.37A and is intended to be recovered from users of reference services through one or more reference tariffs, then the recovery must have the objective of:
 - (a) applying only to users of reference services provided in respect of exit points on the distribution system; and
 - (b) being equitable in its effect as between users referred to in section 7.12(a); and
 - (c) otherwise being consistent with the Code objective.

Price List and Price List Information

- 873. Section 5.1(f) of the Access Code requires an access arrangement to include a price list in accordance with the requirements of Chapter 8 of the Access Code. A "price list" is defined in the Access Code as a schedule of reference tariffs.
- 874. Chapter 8 of the Access Code sets out the requirements and processes for a service provider to submit price lists to the Authority for approval and for the Authority to approve or not approve a proposed price list.
- 875. An access arrangement may or may not include a requirement on a service provider to submit price lists to the Authority for approval. A determination of whether or not price lists must be approved by the Authority occurs under section 4.36 of the Access Code:
 - 4.36 The Authority must, as a condition of approval of a proposed access arrangement, require a service provider to submit each price list under the access arrangement to the Authority under section 8.1 for approval, if:

- (a) the service provider requests such a condition; or
- (b) the Authority considers that the submission of price lists under the access arrangement to the Authority under section 8.1 for approval would improve the operation of the access arrangement.

876. If a service provider's access arrangement requires the service provider to submit price lists to the Authority for approval, then section 8.1 of the Code requires that the service provider must submit a proposed price list to the Authority at least 45 business days before the start of each pricing year other than the first pricing year. A proposed price list must be accompanied by price list information. "Price list information" is defined as a document that would reasonably be required to enable the Authority, users and applicants to understand how the service provider derived the elements of the proposed price list and assess the compliance of the proposed price list with the access arrangement.

877. Sections 8.2 to 8.6 of the Access Code set out the process for the Authority to approve or not approve a proposed price list. The Authority is obliged to approve a proposed price list if it determines that the proposed price list complies with the price control and pricing methods in the service provider's access arrangement.

Current Access Arrangement

878. The current access arrangement includes pricing methods set out at clauses 9.1 to 9.30.

879. The pricing methods indicate that reference tariffs are derived from an amount of required revenue for a pricing year by a method of cost allocation indicated at clause 9.4 to involve:

- identifying the costs of providing reference services;
- allocating the costs of providing reference services to particular customer groups;
- translating the costs of serving particular customer groups to the costs of providing reference services; and
- determining a structure of reference tariffs in a manner that reflects the underlying cost structures, in accordance with section 7.6 of the Access Code.

880. Clauses 9.7 to 9.22 of the current access arrangement comprise statements, and some supporting evidence, of compliance of the pricing methods with the objectives of sections 7.3 and 7.4 of the Access Code.

881. Clauses 9.23 to 9.27 of the current access arrangement comprise a policy for offering prudent discounts, indicating that Western Power may offer a prudent discount to a user, if the user is able to demonstrate that an alternative supply option will provide a comparable supply service at a lower price than a service offered by Western Power's reference services and reference tariffs. The discounted price offer will be set to reflect the greater of the cost of the alternative supply option or the incremental cost of service provision.

882. Clauses 9.28 to 9.30 of the current access arrangement comprise a policy for discounts on services for distributed generation. This policy indicates that Western

Power will offer a discount to a user that connects distributed generation, with the amount of the discount determined as an annualised amount of forecast savings in costs for Western Power as a result of the connection of the distributed generation.

883. The current access arrangement, as approved by the Authority in 2007, included a price list for 2006/07 in Appendix 5 and price list information in Appendix 6. Subsequent to approval of the current access arrangement, the Authority has approved price lists (with accompanying price list information) for 2007/08, 2008/09 and 2009/10.³⁷³

Proposed Revisions

884. Western Power has proposed changes to the pricing methods (clauses 9.1 to 9.30 of the proposed access arrangement revisions) to:

- indicate the proposed deferral of revenue from the second access arrangement period to the third and subsequent access arrangement periods, for the purpose of preserving cost allocations established in the first access arrangement period (clause 9.7) and avoiding a price shock for users (clause 9.19A); and
- to remove from the main access arrangement document information demonstrating compliance of the pricing methods with the relevant objectives under the Access Code, and to instead indicating that that information is provided in the price list information (involving deletion of clauses 9.12 to 9.14 of the current access arrangement).

885. The proposed access arrangement revisions include a proposed price list for 2009/10 (at Appendix 5) and associated price list information (at Appendix 6). Subsequent to submission of the proposed access arrangement revisions, and in light of the proposed revisions not having been approved by 24 April 2009, Western Power submitted an alternative proposed price list for 2009/10 and associated price list information in accordance with requirements of the current access arrangement and section 8.1 of the Access Code. The Authority subsequently approved this price list.³⁷⁴ As a consequence, the price list provided as part of the proposed access arrangement revisions is now redundant.

Submissions

886. Submissions made by the Department of Treasury and Finance and Mr Noel Schubert express concern that the structures of reference tariffs do not adequately provide for pricing of network services according to levels and times of peak demand, which are considered to be important drivers of the costs of network services.³⁷⁵

³⁷³ Economic Regulation Authority, 28 May 2007, 9 May 2008 and 18 May 2009. Determinations available from the Economic Regulation Authority web site: http://www.era.wa.gov.au/2/486/48/price_determina.pm

³⁷⁴ Economic Regulation Authority, 18 May 2009, Determination on the Proposed 2009/10 Price List for the South West Interconnected Network.

³⁷⁵ Department of Treasury and Finance submission of 17 December 2008; Mr Noel Schubert submission of 16 December 2008.

887. These parties variously submit that:

- setting tariff charges to apply to the peak demand and coincident-peak demand of the user should be a priority in the setting of reference tariffs, with the charges reflecting the long-run marginal cost of network augmentation necessary to meet peak demand;
- the tariff charges based on peak demand or coincident peak demand should be location-specific, reflecting network constraints and costs of augmenting network capacity at each location; and
- current and proposed reference tariff charges are not efficient due to the charges not being related to the peak energy demand of the user (reference tariffs RT1 and RT2), the charges for non-peak demand set higher than the variable costs of energy supply at non-peak times (reference tariffs RT3 and RT4), or having charges based on the peak demand of an individual user rather than coincident peak demand (reference tariff RT5, RT6, RT7 and RT8).

888. The WAMEU submit that the Authority should seek to ensure that variable energy charges for small customers (with accumulation meters) are not set too high, allowing for recovery of revenue in excess of the costs that these customers cause for the network.³⁷⁶

Considerations of the Authority

889. As indicated above, the Authority has approved a price list for 2009/10 outside of the approval process for the proposed access arrangement revisions. Accordingly, in this Draft Decision, the Authority has not considered the price list included in the proposed access arrangement revisions. Rather, the Authority has restricted its attention to the pricing methods applied by Western Power in determining the levels of reference tariffs and the component charges of the reference tariffs.

890. The pricing methods and price list information of the proposed access arrangement revisions indicate that Western Power determines the value of individual reference tariffs and the individual charges of the reference tariffs by applying a cost allocation model. Under this model, the capital-cost and non-capital cost components of total costs are allocated to cost pools and location zones, then customer groups (corresponding to reference services) and then charges that make up each reference tariff. Criteria for the allocation of costs relate generally to:

- the characteristics of a user at a connection point and measures of each user's proportional share of use of the network relative to other users; and
- the amount of costs that can be allocated to a user at a connection point such that the total charges paid by the user under a reference tariff are an amount generally between the incremental cost of service provision and the stand-alone cost of service provision.

891. The Authority is satisfied that the pricing methods applied by Western Power are consistent with the objectives of sections 7.3 and 7.4 of the Access Code. These

³⁷⁶ Western Australia Major Energy Users submission of 16 December 2008.

objectives, in particular the objectives of section 7.3, are principally aimed at preventing cross subsidies between users, which may occur if some users are charged prices less than the incremental costs of service provision, and preventing inefficient by-pass of the electricity network, which may occur if some users are charged prices in excess of their stand-alone costs of electricity services.

892. The submissions made to the Authority by the Department of Treasury and Finance and Mr Noel Schubert refer generally to a different process of setting network prices implemented by Western Power, with a greater objective of economic efficiency of network prices. This would involve establishing prices such that the price charged to a user for a network service reflects the extent to which the incremental use of the network may result in a need to invest in greater network capacity, or brings forward in time a need to invest in greater network capacity. That is, prices would reflect the cost that a user would cause to be incurred, by consuming an additional unit of a network service, by contributing to a need for investment in network capacity, or a need for investment in network capacity to be required earlier than would otherwise be the case.
893. The relevant measure of the cost of contributing to a need for earlier investment in network capacity is the long-run marginal cost of augmentations to network capacity. Long-run marginal cost is an incremental cost of network capacity calculated on the basis of forecast costs of increments to network capacity and the time at which these costs are expected to occur.
894. Under a long-run marginal cost approach to pricing of network services the price paid by a user for network services at a particular location and at a particular time would reflect the contribution that the user makes to congestion of the network at that location and time and the cost of investment necessary to relieve this congestion. Long-run marginal cost pricing contributes to efficient investment in network capacity by providing a price signal to users of the future costs that will result from increasing demand for network services.
895. The efficiency benefits of long-run marginal cost pricing are recognised in the National Electricity Rules, under which tariff charges for distribution networks are required to be set taking into account the long-run marginal cost of the service or component of the service, having regard to whether customers of the relevant tariff class are able or likely to respond to price signals.³⁷⁷
896. The Authority considers that there could be efficiency benefits of long-run marginal cost pricing of electricity network services provided by the SWIN. However, in considering the pricing methods under the proposed access arrangement revisions, the Authority is required, under the propose-respond scheme of regulation established by the Access Code, to assess whether the proposed revisions satisfy the objectives for pricing methods under the Access Code. The objectives of section 7.3 of the Access Code require only that reference tariffs recover the forward-looking efficient costs of providing reference services and are within the bounds of the incremental and stand-alone costs of service provision. The pricing methods under the proposed access arrangement revisions satisfy these objectives despite not being based on long-run marginal cost pricing. As such, the Authority considers that the proposed pricing methods meet the relevant requirements of the Access Code.

³⁷⁷ National Electricity Rules, Rule 6.18.5.

ADJUSTMENTS TO TARGET REVENUE IN THE NEXT ACCESS ARRANGEMENT PERIOD

Access Code Requirements

897. Sections 6.6 to 6.32 of the Access Code provide for the target revenue for an access arrangement period to be adjusted to reflect certain events or outcomes of the previous access arrangement period. In the circumstances of the access arrangement for the SWIN, these provisions of the Access Code provide for the target revenue for the third access arrangement period (due to commence in July 2012) to be adjusted for the relevant events or outcomes in the second access arrangement period, to the extent enabled by the access arrangement.
898. The events and outcomes that may give rise to adjustments to target revenue under these sections of the Access Code are:
- the service provider incurring certain costs during the previous access arrangement period as a result of unforeseen or “force majeure” events (sections 6.6 to 6.8);
 - the service provider incurring greater or lesser non-capital costs or capital related costs as a result of changes in the Technical Rules for the SWIN (sections 6.9 to 6.12);
 - the amount, nature and timing of new facilities investment in the previous access arrangement period being different to that forecast for that period, consistent with an investment adjustment mechanism set out in the access arrangement (sections 6.13 to 6.18);
 - demand growth and/or efficiency gains achieved by the service provider, consistent with a gain sharing mechanism set out in the access arrangement (sections 6.19 to 6.28); and
 - the service provider achieving service standards during the previous access arrangement period that are different to the service standard benchmarks established in the access arrangement, consistent with a service standards adjustment mechanism set out in the access arrangement (sections 6.29 to 6.32).

Current Access Arrangement

899. The current access arrangement includes adjustment mechanisms for unforeseen events (clauses 5.4 and 5.5) and changes to the Technical Rules (clauses 5.7 to 5.9). These mechanisms allow for certain costs incurred by Western Power to be carried over from the one access arrangement period to the next and, under the adjustment mechanism applying to changes in the Technical Rules, a carryover also of benefits to the second access arrangement period.
900. The current access arrangement includes an investment adjustment mechanism (clauses 5.11 and 5.49 to 5.53, and Appendix 8). The investment adjustment mechanism allows for the carryover from one access arrangement period to the next period of costs or benefits arising from differences in forecast and actual capital costs associated with differences between forecast and actual new facilities

investment. The investment adjustment mechanism applies only to certain classes of new facilities investment:

- new facilities investment arising from the connection of new generation capacity to the transmission or distribution network from 1 July 2006;
- new facilities investment arising from the connection of new load to the transmission system or distribution system from 1 July 2006;
- new facilities investment in relation to the augmentation of the capacity of the transmission system or distribution system for the provision of covered services from 1 July 2006; and
- new facilities investment undertaken for augmentation of the distribution system under the regional power improvement program and state underground power program.

901. The current access arrangement does not include a gain sharing mechanism.
902. The current access arrangement includes a services standards adjustment mechanism (clauses 5.15 to 5.24). This mechanism specifies “normal performance ranges” for services standards and requires reporting to the Authority of actual performance outside of these ranges. The service standards adjustment mechanism does not make provision for adjustment of target revenue in the second access arrangement period as a consequence of performance on services standards.
903. In addition to the adjustment mechanisms contemplated explicitly by the Access Code, the current access arrangement includes a “capital contributions adjustment mechanism” (clauses 5.12, 5.32 and 5.43, and Appendix 8). This adjustment mechanism facilitates the operation of the price control applying under the current access arrangement, in particular the treatment of capital contributions under the price control. Under the current access arrangement, the target revenue for the price control was determined taking into account a notional roll forward of the capital base that included forecast new facilities investment financed by capital contributions, but with target revenue specified as net of the forecast value of capital contributions. The capital contributions adjustment mechanism allows for an adjustment of target revenue in the second access arrangement period to correct for differences between the forecast and actual values of capital contributions in the first access arrangement period.

Proposed Revisions

904. In the proposed access arrangement revisions, Western Power has maintained the adjustment mechanisms included in the current access arrangement, with the exception of the capital contributions adjustment mechanism. The removal of the capital contributions adjustment mechanism reflects a different treatment of capital contributions in the determination of target revenue.
905. Western Power has proposed changes to the adjustment mechanism for unforeseen events and to the service standards adjustment mechanism.
906. The adjustment mechanism for unforeseen events under the proposed access arrangement revisions includes a new clause 5.6 to indicate that:

For the avoidance of doubt, a force majeure event includes but is not limited to any costs arising from the introduction of an emissions trading scheme; full retail contestability; and the roll-out of Advanced Interval Meters to the extent that such costs were not included in the calculation of target revenue for the access arrangement period or otherwise addressed through the Trigger Event provisions in section 8 of this Access Arrangement.

907. The service standards adjustment mechanism under the proposed access arrangement revisions no longer includes requirements to report to the Authority, but includes (at clauses 5.24A and 5.24B) a scheme of penalties and rewards for under-performing or out-performing against the service standard benchmarks established in the access arrangement.³⁷⁸
908. Western Power has proposed inclusion of a gain sharing mechanism in the access arrangement (clauses 5.13 to 5.14G of the proposed access arrangement revisions). The gain sharing mechanism provides a financial reward to Western Power for out-performance of the forecast of operating expenditure in the second access arrangement period. Under the proposed gain sharing mechanism, the average annual amount of out-performance of forecast operating expenditure in the second access arrangement period is added to target revenue in each of the five years subsequent to the revisions commencement date for the next access arrangement period. The gain sharing mechanism does not include any penalty for under-performing against the forecast of operating expenditure.
909. Western Power has also included in the proposed access arrangement revisions two further adjustment mechanisms that are not explicitly contemplated by the Access Code:
- a deferral of revenue for an amount of \$191.9 million (in present value terms at 30 June 2009), with the deferred amount (escalated for inflation and by the rate of return) to be included in target revenue in the third access arrangement period and/or some subsequent access arrangement period (clauses 5.37A and 5.48A of the proposed access arrangement revisions); and
 - an adjustment mechanism referred to as the “D-factor scheme” under which Western Power is able to carry-over to the third access arrangement period certain costs incurred in the second access arrangement period arising from a deferral of capital projects and from the implementation of demand management initiatives (clauses 5.54 to 5.57).

Submissions

910. Submissions made to the Authority on the proposed access arrangement revisions address the investment adjustment mechanism, which remains unchanged from the current access arrangement, and the proposed new adjustment mechanisms that comprise the gain sharing mechanism, the service standards adjustment mechanism, the D-factor scheme and the deferral of revenue.

³⁷⁸ Notwithstanding this Western Power has reporting obligations for service standards under Chapter 11 of the Access Code.

911. On the investment adjustment mechanism, concern is expressed that the mechanism reduces incentives for efficiency of new facilities investment and for efficient substitution of non-network solutions for network solutions to network constraints.³⁷⁹
912. Parties that made submissions to the Authority on the proposed access arrangement revisions broadly support the adjustment mechanisms proposed by Western Power that create incentives for cost efficiencies and improvements in service standards; that is, the gain sharing mechanism and service standard adjustment mechanism.³⁸⁰ Only one party (Perth Energy) questions whether these adjustment mechanisms should provide financial incentives at the current time, submitting that the access arrangement should be in place for a longer period before financial incentives are provided.³⁸¹
913. Notwithstanding the general support for financial incentives, several parties highlight potential deficiencies of the adjustment mechanisms, including that:
- the gain sharing mechanism is not adequately limited to cost savings that arise from efficiency gains by Western Power, as opposed to other factors such as reduced energy demand during the economic downturn;³⁸²
 - the gain sharing mechanism and service standard adjustment mechanism do not provide incentives for efficiency gains and improvements in service standards that are constant over the access arrangement period; and
 - the level of financial incentives under the gain sharing mechanism are too low.
914. With the proposed D-factor scheme, submissions to the Authority indicate general support for the access arrangement to support efficient expenditure on non-network solutions to network constraints, including demand-side management initiatives, and indicate that the proposed D-factor scheme should at least be investigated.³⁸³ The question is raised, however, as to whether the D-factor scheme is permitted, as it is not one of the adjustments contemplated under Chapter 6 of the Access Code.³⁸⁴
915. The proposed deferral of revenue is objected to by Alinta Sales, who submits that the deferral of revenue may not be permitted under the Access Code, and that the Authority should consider whether the proposed target revenue adequately reflects efficient costs.³⁸⁵
916. The matters raised in submissions are addressed further as part of the Authority's considerations of the proposed adjustment mechanisms, below.

³⁷⁹ Synergy submission of 22 December 2008 on the Price Control.

³⁸⁰ Western Australia Major Energy Users submission of 16 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008; Synergy submission of 22 December 2008 on the Price Control; Department of Treasury and Finance submission of 17 December 2008.

³⁸¹ Perth Energy submission of 17 December 2008.

³⁸² Alinta Sales Pty Ltd submission of 17 December 2008.

³⁸³ Department of Treasury and Finance submission of 17 December 2008; Mr Noel Schubert submission of 16 December 2008.

³⁸⁴ Alinta Sales Pty Ltd submission of 17 December 2008.

³⁸⁵ Alinta Sales Pty Ltd submission of 17 December 2008.

Considerations of the Authority

917. The considerations of the Authority on adjustment mechanisms proposed to apply under the access arrangement for the second access arrangement period are set out below for each of the adjustment mechanisms included in the proposed access arrangement revisions.

Adjustment for Unforeseen Events

918. Western Power indicates that the proposed clause 5.6 (set out at paragraph 906, above) has been included in the proposed access arrangement revisions to make it clear that the events indicated in the clause could lead to unexpected and significant cost increases in the second access arrangement period.
919. Synergy submits that the events specified under the proposed clause 5.6 should not be *force majeure* events as Western Power is able to exert some control over the occurrence and consequences of these events.³⁸⁶
920. The Authority accepts that the regulatory initiatives referred to in the proposed clause 5.6 are uncertain in nature and timing, and impact on the costs that would potentially be incurred by Western Power. The Authority also accepts that the regulatory initiatives and at least some of the costs that could be imposed on Western Power are beyond Western Power's control and that Western Power may not be able to prevent or overcome these costs. The Authority therefore does not accept Synergy's submission that the regulatory initiatives referred to in the proposed clause 5.6 should not be considered as events that fall within the scope of the adjustment mechanism for unforeseen events under sections 6.6 to 6.8 of the Access Code.
921. The Authority is satisfied that clause 5.6 of the proposed access arrangement revisions is declaratory in nature and includes events and costs that may, in the absence of the proposed clause 5.6, be taken into account in adjustments for unforeseen events as allowed for under sections 6.6 to 6.8 of the Access Code and clauses 5.4 and 5.5 of the proposed access arrangement revisions. The Authority notes that such adjustments are not automatic, but are subject to adequate demonstration, under section 6.8, that the costs would have been incurred by a service provider efficiently minimising costs.

Adjustment for Changes in the Technical Rules

922. Western Power has not proposed any changes to the adjustment mechanism that applies for changes in the Technical Rules.
923. Submissions made to the Authority on the proposed access arrangement revisions have not addressed this adjustment mechanism.
924. Taking into account the absence of submissions on the adjustment mechanism for changes in the Technical Rules, the Authority is satisfied that the mechanism is consistent with sections 6.9 to 6.12 of the Access Code.

³⁸⁶ Synergy submission of 17 December 2008 on Applications and Queuing Policy.

Investment Adjustment Mechanism

925. Western Power has not proposed any changes to the investment adjustment mechanism that applies under the current access arrangement.
926. Synergy submits that the investment adjustment mechanism reduces incentives for Western Power to seek efficiencies in capital expenditure and for efficient substitution of non-network solutions for network solutions to address network constraints.³⁸⁷
927. The Authority accepts that the investment adjustment mechanism may reduce some incentives for efficiency in new facilities investment by allowing *ex post* adjustments of Western Power's revenue for differences between actual and forecast costs. The Authority also considers that the investment adjustment mechanism creates some offsetting incentives for efficiency, particularly in maintaining incentives for Western Power to make timely investments for new connections.
928. The Access Code makes explicit provision for an access arrangement to include an investment adjustment mechanism. As such, the Authority considers that it is necessary to accommodate the incentive effects of such a mechanism by giving greater scrutiny to new facilities investment to ensure that only efficient investment is added to the capital base. The Authority has done this for the purpose of the current review of the access arrangement. The Authority has also recognised the incentive effects of the investment adjustment mechanism in design of the gain sharing mechanism.
929. With these measures, and taking into account the explicit provisions of the Access Code for an investment adjustment mechanism, the Authority is satisfied that the inclusion of the investment adjustment mechanism in the access arrangement is consistent with the requirements of the Access Code.

Gain Sharing Mechanism

930. Sections 6.19 and 6.20 of the Access Code provide for an access arrangement to include a gain sharing mechanism:
- 6.19 A "gain sharing mechanism" is a mechanism:
- (a) in an access arrangement which the Authority must apply at the next access arrangement review to determine an amount to be included in the target revenue for one or more of the following access arrangement periods; and
 - (b) which operates as set out in sections 6.20 to 6.28.
- 6.20 An access arrangement must contain a gain sharing mechanism unless the Authority determines that a gain sharing mechanism is not necessary to achieve the objective in section 6.4(a)(ii).
931. The required objectives for a gain sharing mechanism are set out in sections 6.21 and 6.22 of the Access Code:
- 6.21 A gain sharing mechanism must have the objective of:

³⁸⁷ Synergy submission of 22 December 2008 on the Price Control.

- (a) achieving an equitable allocation over time between users and the service provider of innovation and efficiency gains in excess of efficiency and innovation benchmarks; and
 - (b) being objective, transparent, easy to administer and replicable from one access arrangement to the next; and
 - (c) giving the service provider an incentive to reduce costs or otherwise improve productivity in a way that is neutral in its effect on the timing of such initiatives.
- 6.22 A gain sharing mechanism must be sufficiently detailed and complete to enable the Authority to apply the gain sharing mechanism at the next access arrangement period, including by prescribing the basis on which returns are to be determined for the purposes of section 6.23.
- 932. Western Power has included a gain sharing mechanism in the proposed access arrangement revisions (clauses 5.13 to 5.14G). The gain sharing mechanism provides a reward to Western Power for out-performance of an efficiency and innovation benchmark in respect of “operating expenditure” in the second access arrangement period.
- 933. Under clause 5.14C of the proposed access arrangement revisions, an “efficiency and innovation benchmark” is defined as:

the approved aggregate forecast operating expenditure for this access arrangement period adjusted for inflation, plus any operating expenditure adjustments allowed by the Authority in respect of that year (including trigger events, the D factor scheme, unforeseen events, or technical rule changes).
- 934. The approved aggregate forecast operating expenditure is indicated to be the total amount allowed by the Authority in its final decision or further final decision (as appropriate) to approve Western Power’s proposed access arrangement, or the Authority’s own approved access arrangement in accordance with section 4.24 of the Access Code.
- 935. An “above-benchmark surplus” is defined in clause 5.14C of the proposed access arrangement revisions to be the amount by which the efficiency and innovation benchmark (i.e. aggregate forecast operating costs) exceeds the aggregate actual operating expenditure in the access arrangement period, where the aggregate operating expenditure excludes any penalty amount payable under the service standard adjustment mechanism and adjustments are made to account for inflation and changes in costs brought about by trigger events, unforeseen events and changes to the Technical Rules.
- 936. Clause 5.14D of the proposed access arrangement revisions derives an amount of an “efficiency gain attributed to management effort” as the amount of the above-benchmark surplus minus any aggregate penalty incurred by Western Power under the service standard adjustment mechanism.
- 937. Clause 5.14E of the proposed access arrangement revisions provides for an “annual efficiency bonus” to be calculated as one third of the efficiency gain attributable to management effort, and for this annual efficiency bonus to be added to the target revenue for each of the five years following the target revisions commencement date.
- 938. Under the proposed gain sharing mechanism, the average annual amount of out-performance of forecast operating expenditure in the second access arrangement period, if any, is added to target revenue in each of the five years subsequent to

1 July 2012. The gain sharing mechanism does not include any penalty for under-performing against the forecast of operating expenditure.

939. Western Power submits that the proposed gain sharing mechanism complies with the requirements of sections 6.21 to 6.28 of the Access Code for reasons that:³⁸⁸

- the use of an average annual efficiency gain in the calculation addresses any regulatory concern that Western Power might engage in strategic cost shifting within the access arrangement period;
- the gain sharing mechanism provides an equitable sharing of the calculated efficiency gains between Western Power and its customers; and
- the “above-benchmark surplus” is reduced by the amount of any penalties incurred by reason of not achieving service standard benchmarks, ensuring that Western Power does not receive any efficiency gain reward in respect of any reductions in operating expenditure that have occurred at the expense of service levels.

940. The Authority has given consideration to the gain sharing mechanism proposed by Western Power against the objectives for a gain sharing mechanism under section 6.21 of the Access Code and the specific requirements under sections 5.25, 5.26 and 6.22 to 6.28. The Authority’s considerations are set out as follows, dealing in turn with matters of:

- determining efficiency and innovation benchmarks and an above-benchmark surplus;
- determining the increase in target revenue;
- the allocation of benefits of efficiency gains between Western Power and users and incentives effects of the gain sharing mechanism; and
- objectivity, transparency, ease of administration and ability to be replicated from one access arrangement period to the next.

Efficiency and Innovation Benchmarks and an Above-Benchmark Surplus

941. Sections 5.25 and 5.26 of the Access Code require that the access arrangement include “efficiency and innovation benchmarks”:

5.25 An access arrangement which contains a gain sharing mechanism must, and an access arrangement which does not contain a gain sharing mechanism may, contain efficiency and innovation benchmarks.

5.26 Efficiency and innovation benchmarks must:

- (a) if the access arrangement contains a gain sharing mechanism, be sufficiently detailed and complete to enable the Authority to make a determination under section 6.25 at the next access arrangement review; and
- (b) provide an objective standard for assessing the service provider’s efficiency and innovation during the access arrangement period; and
- (c) be reasonable.

³⁸⁸ Revised access arrangement information, pp. 177 – 179.

942. Section 6.23 of the Access Code provides for determination of a “surplus” for the purposes of operation of the gain sharing mechanism:
- 6.23 A “surplus” has arisen to the extent that:
- (a) returns actually achieved by the service provider from the sale of covered services during the previous access arrangement period;
exceeded:
 - (b) the level of returns from the sale of covered services which at the start of the access arrangement period was forecast to occur during the access arrangement period.
943. Sections 6.25 and 6.26 of the Access Code establish requirements for determining an above-benchmark surplus:
- 6.25 Subject to section 6.26, the Authority must determine how much (if any) of the surplus results from efficiency gains or innovation by the service provider in excess of the efficiency and innovation benchmarks in the previous access arrangement (“above-benchmark surplus”).
- 6.26 An above-benchmark surplus does not exist to the extent that a service provider achieved efficiency gains or innovation in excess of the efficiency and innovation benchmarks during the previous access arrangement period by failing to comply with section 11.1.
944. Western Power has not defined a surplus, but defines an above-benchmark surplus at clause 5.14C of the proposed access arrangement revisions as:
- the forecast operating expenditure for the access arrangement period, adjusted for inflation, plus operating expenditure adjustments allowed by the Authority; less
 - Western Power’s aggregate operating expenditure in the access arrangement period, excluding any penalty amount payable under the service standard adjustment mechanism.
945. The adjusted forecast operating expenditure is indicated by Western Power to be the efficiency and innovation benchmark as required under section 5.25 of the Access Code.
946. The Authority considers that a reasonable definition of a surplus is returns over and above costs incurred in the provision of services. In general, a surplus may arise from a service provider out-performing revenue or cost targets underlying the price control in the access arrangement. It follows that a surplus should be determined as an amount over and above an efficiency and innovation benchmark that is defined in terms of a level of costs and that the above-benchmark surplus should be defined as a part of the surplus that is attributable to efficiency gains or innovation by the service provider.
947. With use of a revenue cap form of price control under the proposed access arrangement revisions, the Authority considers that calculation of a surplus under section 6.23 of the Access Code with reference only to costs, and not to revenue, is appropriate under the access arrangement for the SWIN. Under the revenue cap, the revenue to be earned by Western Power from the sale of covered services is in

large part fixed under the price control.³⁸⁹ As a result, a surplus to Western Power from the sale of covered services may arise due to out-performance of cost forecasts, but not to a material extent by out-performance of forecasts of demand and revenue for covered services.

948. A first issue in the calculation of a surplus is whether the efficiency and innovation benchmark should be defined on the basis of the forecasts of costs for an access arrangement period.
949. Under section 6.40 and 6.51 of the Access Code, the forecasts of costs taken into account in determination of target revenue for an access arrangement period may include only costs that would be incurred by a service provider efficiently minimising costs. To comply with this requirement, the forecasts of costs must reflect projects of efficiency and innovation for the access arrangement period. On this basis, the Authority considers that the forecasts of costs provide an appropriate basis for definition of the efficiency and innovation benchmark.
950. A second issue in the calculation of the surplus is whether the surplus should be calculated with reference only to non-capital costs, as is presumed to be proposed by Western Power in referring to operating expenditure, or with reference also to capital costs.
951. In other Australian jurisdictions, efficiency incentive mechanisms included in regulatory arrangements for energy networks initially provided for a carryover of efficiency gains calculated with respect to both non-capital and capital costs.³⁹⁰ There has been a subsequent change in regulatory practice to exclude capital costs from efficiency incentive mechanisms due to concerns over incentives that the incentive mechanisms may create for inefficient deferral of capital expenditure from one regulatory period to the next.³⁹¹ Reflecting this change in regulatory practice, the National Electricity Rules require that efficiency incentive mechanisms for distribution systems *must* cover efficiency gains and losses in operating expenditure, but indicate only that the mechanisms *may* cover efficiency gains and losses related to capital expenditure.³⁹² For transmission systems, the National Electricity Rules require that efficiency incentive mechanisms cover only efficiency gains and losses in operating expenditure.³⁹³
952. Taking into account developments in regulatory practice in Australia, the Authority is satisfied that the calculation of a surplus with reference to non-capital costs is consistent with the requirements of section 6.23 of the Access Code.
953. A third issue in the calculation of a surplus is the adjustments to be made to forecasts of non-capital costs for the purposes of establishing the efficiency and innovation benchmark against which a surplus is calculated. Western Power proposes that the forecasts of non-capital costs be adjusted for inflation and for any

³⁸⁹ Under the price control proposed by Western Power, the revenue cap applies to the provision of reference services but not other covered services (non-reference services).

³⁹⁰ For example, Office of the Regulator General, September 2000, Electricity Distribution Price Determination 2001-2005 Volume 1 Statement of Purpose and Reasons, p. 84; Essential Services Commission, October 2002, review of Gas Access Arrangements Final Decision, pp. 155 – 181.

³⁹¹ For example, Essential Services Commission, October 2005, Electricity Distribution Price Review 2001-10 Final Decision Volume 1 Statement of Purpose and Reasons, p. 432.

³⁹² National Electricity Rules, Rule 6.5.8.

³⁹³ National Electricity Rules, Rule 6A.6.5.

- adjustments to non-capital costs allowed by the Authority for the access arrangement period, including adjustments made in respect of trigger events, the proposed D-factor scheme, unforeseen events and changes in the Technical Rules.
954. The Authority is satisfied that any *ex post* adjustments permitted under the Access Code to be made to target revenue for an access arrangement period may appropriately be added to, or subtracted from, the forecast non-capital costs for the purpose of defining efficiency and innovation benchmarks and calculating a surplus. The Access Code allows for such adjustments in respect of unforeseen events and changes in the Technical Rules.
955. The Authority does not consider that it is appropriate for the gain sharing mechanism to contemplate adjustments in respect of trigger events. The effect of a trigger event under sections 5.34 to 5.36 of the Access Code is to cause a review of the access arrangement to commence. A trigger event may relate to a change in costs of the service provider. To the extent that any such change in costs occurs as a result of a *force majeure* event or change to the Technical Rules, an adjustment would be allowed under the gain sharing mechanism with specific reference to a trigger event. Otherwise, the Authority considers that the maintenance of incentives to seek efficiencies in costs requires that Western Power bear the risk of any such change in costs, with this risk mitigated by a relevant trigger event and the associated ability of Western Power to initiate a review of the access arrangement taking into account a new forecast of costs.
956. In this Draft Decision, the Authority is requiring amendment of the proposed access arrangement revisions to remove the proposed D-factor scheme (refer to paragraph 1015 and following of this Draft Decision). Accordingly, reference to the D-factor scheme should be removed from the specification of the gain sharing mechanism. The Authority considers, however, that the gain sharing mechanism may appropriately include provision for adjustment of values of actual costs in respect of any non-capital costs incurred by Western Power in adopting a non-network alternative that has the effect of replacing or deferring a capital project for which forecast costs are accounted for in target revenue for the access arrangement period.
957. For determination of the above-benchmark surplus, section 6.25 of the Access Code specifies that it is a function of the Authority, rather than Western Power, to make this determination.
958. Western Power has proposed that the above-benchmark surplus be calculated as the amount by which the actual non-capital costs of Western Power in an access arrangement period (excluding the value of any penalties under the service standard adjustment mechanism) are less than the efficiency and innovation benchmark. Western Power has proposed an adjustment to the above-benchmark surplus to derive an “efficiency gain attributed to management effort” by deducting from the above-benchmark surplus the amount of any penalties incurred by Western Power under the service standard adjustment mechanism.
959. The Authority considers that the proposed determination of the above-benchmark surplus does not adequately address the extent to which out-performance of the efficiency and innovation benchmarks results from efficiency gains or innovation by Western Power.
960. Under the determination of the above-benchmark surplus proposed by Western Power, the above-benchmark surplus is an aggregate of any amount of out-

performance of the efficiency and innovation benchmarks over the access arrangement period. Other than adjustment for any amount of penalties incurred as a result of failure to meet service standard benchmarks, there is no attempt to distinguish out-performance resulting from random events from out-performance that results from efficiency gains and innovation by Western Power. This is a matter of concern raised in submissions to the Authority.³⁹⁴

961. The Authority considers that efficiency gains and innovation would generally result in permanent reductions in non-capital costs. As such, the Authority considers that an above-benchmark surplus will better reflect efficiency gains and innovation if it is determined from year-on-year improvements in actual non-capital costs relative to the efficiency and innovation benchmarks, rather than an aggregate level of out-performance over the access arrangement period. With this determination of a surplus, a service provider ceases to benefit under the gain sharing mechanism if the out-performance of benchmarks is not maintained.
962. The Authority accordingly determines that the above-benchmark surplus is to be calculated as a year-on-year improvement in actual non-capital costs relative to the efficiency and innovation benchmarks using the following general formula:

$$ABS_t = (EIB_t - A_t) - (EIB_{t-1} - A_{t-1})$$

where

ABS_t is the above-benchmark surplus in year t ;

EIB_t is the efficiency and innovation benchmark in year t ;

A_t is the actual non-capital costs in year t ; and

ABS_{t-1} , EIB_{t-1} and A_{t-1} are the corresponding parameters in year $t - 1$.

963. This formula can be readily applied to the second and third years of the second access arrangement period (2010/11 and 2011/12). However, a different formula must be applied for the first year of the second access arrangement period, for which there is no efficiency and innovation benchmark for the prior year.³⁹⁵
964. For the first year of the second access arrangement period (2009/10), the following formula is to be applied:

$$ABS_1 = EIB_1 - A_1$$

965. This method of calculation of the above-benchmark surplus is consistent with the method for calculation of efficiency gains preferred by the AER.³⁹⁶

³⁹⁴ Alinta Sales Pty Ltd submission of 17 December 2008; Synergy submission of 22 December 2008 on the Price Control.

³⁹⁵ Actual cost information for the last year of an access arrangement period may not be available when revisions to the access arrangement are being assessed and the gain sharing mechanism is being applied. In such circumstances, it would be necessary to make the relevant adjustments to target revenue in a subsequent access arrangement period, keeping the value of the adjustments the same in present value terms.

³⁹⁶ Australian Energy Regulator, 21 November 2008, New South Wales Draft Distribution Determination 2009–10 to 2013–14, pp. 241, 242.

966. Section 6.26 of the Access Code requires that an above-benchmark surplus does not exist to the extent that a service provider achieved efficiency gains or innovation in excess of the efficiency and innovation benchmarks by failing to comply with the requirement under section 11.1 of the Access Code to meet service standard benchmarks. Western Power has addressed this requirement by proposing that the above-benchmark surplus is reduced by the amount of any penalties incurred for reason of not achieving service standard benchmarks (clause 5.14D of the proposed access arrangement revisions). Western Power contends that this ensures that Western Power does not receive any efficiency gain reward in respect of and reductions in operating expenditure that have occurred at the expense of service levels.
967. The Authority considers that this mechanism is not consistent with the requirements of section 6.26 of the Access Code as it would create scope for Western Power to achieve an above-benchmark surplus at the expense of service standards; for example, where the cost saving by reducing service standards is greater than the penalty incurred as a result of the service standards not meeting the service standard benchmarks.
968. In principle, the requirements of section 6.26 of the Access Code could be met by ensuring that the service standard adjustment mechanism under the access arrangement imposes an efficient penalty for underperformance against service standard benchmarks, as alluded to by Synergy in its submission to the Authority on the proposed access arrangement revisions.³⁹⁷ The Authority has not, however, been able to establish efficient values of penalties as part of the service standard adjustment mechanism to be introduced into the access arrangement (refer to paragraph 1005 and following of this Draft Decision).
969. Instead, the Authority considers that the requirement of section 6.26 of the Access Code would be best achieved by Western Power not benefiting from an above-benchmark surplus in any year in which the service standard benchmarks are not met. This means that where a positive value for the above-benchmark surplus is determined for a year in which the service standard benchmarks are not met, that value will be deemed to be zero for the purposes of determining the value of an increase to target revenue in the subsequent access arrangement period.

Increase in Target Revenue

970. Sections 6.27 and 6.28 of the Access Code provide for the gain sharing mechanism to be applied to include an amount to be added to the target revenue for one or more access arrangement periods:
- 6.27 The Authority must apply the gain sharing mechanism to determine how much (if anything) is to be added to the target revenue for one or more coming access arrangement periods under section 6.4(a)(ii) in order to enable the service provider to continue to share in the benefits of the efficiency gains or innovations which gave rise to the surplus;
- 6.28 If the Authority makes a determination under section 6.27 to add an amount to target revenue in more than one access arrangement period, that determination binds the Authority when undertaking the access arrangement review at the beginning of each such access arrangement period.

³⁹⁷ Synergy submission of 22 December 2008 on the Price Control.

971. Western Power has proposed that the average annual value of the above-benchmark service for the second access arrangement period (net of any amount of penalties from the service standard adjustment mechanism) be added to target revenue in each of the five years subsequent to the second access arrangement period.
972. The method proposed by Western Power for increasing target revenue is inconsistent with the requirement of section 6.21(c) of the Access Code for a gain sharing mechanism to give the service provider an incentive to reduce costs or otherwise improve productivity in a way that is neutral in its effect on the timing of such incentives.³⁹⁸ Under the method proposed by Western Power, Western Power would have a greater incentive to achieve a permanent efficiency gain in the first year of the access arrangement period (with a reward of the value of the above-benchmark surplus in each of the three years of the access arrangement period and a further five years) than in the last year of the access arrangement period (with a reward of the value of the efficiency gain only in the final year of the access arrangement period and a further five years).
973. To meet the requirements of section 6.21 of the Access Code, the Authority considers that the method for increasing target revenue should provide for the value of an efficiency gain to accrue to Western Power for a constant period (a “carryover period”) from the year that the efficiency gain is first achieved.
974. Taking into account elements of Western Power’s proposed gain sharing mechanism and a precedent of efficiency incentive mechanisms applied by the Essential Services Commission of Victoria, the Authority has assessed the implications of a carryover period of five years subsequent to the year in which the above-benchmark surplus is recorded.
975. With a five year carryover period, a determination of the above-benchmark surplus as indicated at paragraphs 962 to 964 of this Draft Decision, and no negative adjustments to target revenue, the increases to target revenue from the commencement of the third access arrangement period and from above-benchmark surpluses in the 2009/10 to 2010/11 periods will be as follows.

$$GSMA_{2012/13} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2013/14} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2014/15} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2015/16} = ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2016/17} = ABS_{2011/12}$$

where

$GSMA_t$ is the adjustment under the gain sharing mechanism in year t .

976. A five year carryover period for any above-benchmark surplus implies a sharing between Western Power and network users of the benefits of permanent efficiency

³⁹⁸ This property of the gain sharing mechanism was observed by Synergy (submission of 22 December 2008 on the Price Control).

and innovation gains of 28 per cent of benefits to Western Power and 74 per cent of benefits to users.³⁹⁹ By comparison, in Western Power's example of operation of its proposed gain sharing mechanism in Appendix 8 of the proposed access arrangement revisions, the implied sharing of benefits of efficiency and innovation gains maintained in perpetuity is 22 per cent of benefits to Western Power and 78 per cent of benefits to users, although the proportional sharing of benefits in the example may vary depending upon the timing of the efficiency and innovation gains within the access arrangement period (with a greater proportion of benefits to Western Power when the efficiency gain is achieved early in an access arrangement period).

977. The operation of the gain sharing mechanism determined by the Authority, coupled with a five year carryover period for efficiency and innovation gains, provides for a similar allocation of benefits between Western Power and users as contemplated by Western Power. Taking this into account, the Authority is satisfied that this allocation provides an adequate incentive for Western Power to seek efficiency and innovation gains. Taking into account also that the majority of benefits ultimately accrue to consumers, the Authority is satisfied that a five year carryover period is consistent with the requirement of section 6.21(a) of the Access Code that a gain sharing mechanism have the objective of achieving an equitable allocation over time of innovation and efficiency gains in excess of efficiency and innovation benchmarks.
978. The Authority has also given consideration to whether the gain sharing mechanism should allow for negative adjustments of target revenue where Western Power underperforms against efficiency and innovation benchmarks. A carryover of under-performance is not, however, contemplated by sections 6.19 to 6.28 of the Access Code. Accordingly, the Authority considers that there should only be an adjustment to target revenue under the gain sharing mechanism where the adjustment is positive.
979. Reflecting the Authority's consideration of a gain sharing mechanism to apply under the revised access arrangement, the Authority requires amendment of the proposed access arrangement revisions as indicated below.

Required Amendment 34

The proposed access arrangement revisions should be amended to specify a gain sharing mechanism as follows.

- (a) Subject to paragraph (b) of this required amendment, an above-benchmark surplus is to be calculated for each of the years 2009/10 to 2011/12 as:

³⁹⁹ This ratio in the sharing of benefits of permanent efficiency and innovation gains has been calculated on the basis that efficiency gains and resultant decreases in costs are maintained in perpetuity. Western Power accrues the value of efficiency gains during the access arrangement period and the value of adjustments to target revenue under the gain sharing mechanism. Users of the network accrue benefits from reduced costs and network tariffs in perpetuity. The sharing of benefits is calculated on a net present value basis with a discount rate equal to the WACC applied in this Draft Decision of 7.06 per cent.

$$ABS_{2009/10} = EIB_{2009/10} - A_{2009/10}$$

$$ABS_{2010/11} = (EIB_{2010/11} - A_{2010/11}) - (EIB_{2009/10} - A_{2009/10})$$

$$ABS_{2011/12} = (EIB_{2011/12} - A_{2011/12}) - (EIB_{2010/11} - A_{2010/11}),$$

where

ABS_t is the above-benchmark surplus in year t ;

EIB_t is the efficiency and innovation benchmark for year t , being the forecast of non-capital cost for year t applied in the determination of target revenue for year t , adjusted for inflation as appropriate and adjusted to include any relevant adjustments for unforeseen events and changes to the Technical Rules as allowed for under sections 6.6 and 6.9 of the Access Code;

A_t is the actual non-capital costs incurred by Western Power in year t , adjusted for inflation as appropriate, adjusted to include any relevant adjustments for unforeseen events and changes to the Technical Rules as allowed for under sections 6.6 and 6.9 of the Access Code and to exclude any amount of non-capital costs incurred by Western Power in implementing a non-network alternative to a capital project the costs of which are included in target revenue for the access arrangement period.

- (b) In any year in which Western Power fails to meet service standard benchmarks for that year, the above-benchmark surplus for that year is zero.
- (c) Subject to paragraph (d) of this required amendment, the following amounts may be added to target revenue for one or more access arrangement periods covering the years 2012/13 to 2016/17:

$$GSMA_{2012/13} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2013/14} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2014/15} = ABS_{2009/10} + ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2015/16} = ABS_{2010/11} + ABS_{2011/12}$$

$$GSMA_{2016/17} = ABS_{2011/12}$$

Where $GSMA_t$ is the gain sharing mechanism adjustment to target revenue for year t .

- (d) In any year where the amount of an adjustment to target revenue determined under clause (d) is a negative value, the amount of the adjustment to target revenue in that year is zero.

Service Standards Adjustment Mechanism

980. Section 6.30 of the Access Code requires that an access arrangement include a services standards adjustment mechanism, defined under section 6.29 as a mechanism in an access arrangement detailing how the service provider's performance during the access arrangement period against the service standard benchmarks is to be treated by the Authority at the next access arrangement review.
981. The service standards adjustment mechanism of the current access arrangement (clauses 5.15 to 5.24) specifies a "normal performance range" about the service standard benchmark for each parameter for which a service standard benchmark exists. Where actual service standards are outside of the normal performance range, Western Power is required to report to the Authority on:
- reasons for under-performance relative to the service standard benchmarks and actions that are being taken to improve future performance;
 - actions that have led to out-performance of service standard benchmarks; and
 - whether service standards are expected to fall outside of the normal performance range in the future.
982. Western Power has proposed changes to the service standards adjustment mechanism to remove the current reporting regime and provide for financial incentives to achieve and out-perform the service standard benchmarks (clauses 5.24A and 5.24B of the proposed access arrangement revisions, for the transmission network and distribution network, respectively).
983. Under the proposed service standard adjustment mechanism, each service standard for which there is a service standard benchmark has an accompanying specification of:
- a target value, which is set equal to the service standard benchmark for each year of the second access arrangement period;
 - a lower bound and an upper bound around the target value that together define a "dead-band" of values for the service standard; and
 - a "low limit" and a "high limit" outside of the dead-band.
984. Where service standards are achieved within the range of the dead-band, no penalty or reward is imposed under the service standard adjustment mechanism. The rewards and penalties apply on a per unit basis to the under-performance or out-performance of the dead-band range, with the penalty or reward rates increasing over each of the three years of the second access period (Table 107, Table 108 and Table 109, below).⁴⁰⁰

⁴⁰⁰ Proposed access arrangement revisions, clauses 5.24A and 5.24B.

Table 107 Performance limits and incentive rates proposed to apply under the service standard adjustment mechanism for the Transmission Network

Service standard	Year	Dead-band					Incentive rate (\$ real at 30 June 2009 per 0.1% circuit availability and per 0.1 system minutes interrupted)
		Low Limit	Lower bound	Target	Upper bound	High Limit	
Circuit availability (%)	2009/10	97.0	97.5	98	98.5	99.0	165,094
	2010/11	97.0	97.5	98	98.5	99.0	218,215
	2011/12	97.0	97.5	98	98.5	99.0	288,532
System minutes interrupted (meshed network)	2009/10	7.4	8.4	9.3	10.2	11.2	84,322
	2010/11	7.4	8.4	9.3	10.2	11.2	111,474
	2011/12	7.4	8.4	9.3	10.2	11.2	147,369
System minutes interrupted (radial network)	2009/10	1.1	1.3	1.4	1.5	1.7	29,481
	2010/11	1.1	1.3	1.4	1.5	1.7	38,974
	2011/12	1.1	1.3	1.4	1.5	1.7	51,524

Table 108 Performance limits and incentive rates proposed to apply for SAIDI under the service standard adjustment mechanism for the Distribution Network

Service standard	Year	Dead-band					Incentive rate (\$ real at 30 June 2009 per SAIDI minute)
		Low Limit	Lower bound	Target	Upper bound	High Limit	
SAIDI – CBD (minutes)	2009/10	30	34	38	42	46	89,845
	2010/11	30	34	38	42	46	118,877
	2011/12	30	34	38	42	46	155,200
SAIDI – urban (minutes)	2009/10	129	145	161	177	193	89,845
	2010/11	120	135	150	165	180	118,877
	2011/12	114	128	142	156	170	155,200
SAIDI – rural short (minutes)	2009/10	202	228	253	278	304	3,416
	2010/11	186	210	233	256	280	4,548
	2011/12	178	200	222	244	266	5,906
SAIDI – rural long (minutes)	2009/10	479	539	599	659	719	3,416
	2010/11	454	510	567	624	680	4,548
	2011/12	438	493	548	603	658	5,906

Table 109 Performance limits and incentive rates proposed to apply for SAIFI under the service standard adjustment mechanism for the Distribution Network

Service standard	Year	Dead-band					Incentive rate (\$ real at 30 June 2009 per SAIFI event ⁴⁰¹)
		Low Limit	Lower bound	Target	Upper bound	High Limit	
SAIFI – CBD	2009/10	0.19	0.22	0.24	0.26	0.29	4,216,767
	2010/11	0.19	0.22	0.24	0.26	0.29	5,587,216
	2011/12	0.19	0.22	0.24	0.26	0.29	7,313,110
SAIFI – urban	2009/10	1.50	1.69	1.88	2.07	2.26	4,216,767
	2010/11	1.41	1.58	1.76	1.94	2.11	5,587,216
	2011/12	1.34	1.50	1.67	1.84	2.00	7,313,110
SAIFI – rural short	2009/10	2.44	2.75	3.05	3.36	3.66	183,284
	2010/11	2.26	2.55	2.83	3.11	3.40	243,520
	2011/12	2.16	2.43	2.70	2.97	3.24	317,136
SAIFI – rural long	2009/10	3.91	4.40	4.89	5.38	5.87	183,284
	2010/11	3.71	4.18	4.64	5.10	5.57	243,520
	2011/12	3.58	4.02	4.47	4.92	5.36	317,136

985. Western Power proposes that the reward or penalty amounts are added to target revenue with escalation to ensure that the adjustments to target revenue are of the same present value, and have the same financial effect, as if the reward or penalty amounts are applied in the year immediately following the relevant performance year (clauses 5.24A(c) and 5.24B(c) of the proposed access arrangement revisions).
986. Western Power has indicated that the service standards adjustment mechanism is similar to service standard incentive schemes initially adopted in other jurisdictions and continuing to be applied in several instances.⁴⁰²
987. Western Power has further indicated that the rationales for particular features of the proposed mechanism are as follows.⁴⁰³
- The dead-bands establish a performance tolerance around the service standard benchmarks and are intended to eliminate random variation in service standards from the adjustment mechanism. The bounds of the dead-band were set by reference to historical data on system performance.

⁴⁰¹ The proposed access arrangement revisions incorrectly state the incentive rate to be in units of dollars per SAIFI minute. The Authority has confirmed with Western Power that this is an error and the correct units are dollars per SAIFI event (email from Western Power to the Authority of 6 April 2009).

⁴⁰² Revised access arrangement information, p. 181.

⁴⁰³ Revised access arrangement information, pp. 181, 182.

- The values of penalty/reward rates were determined so that a maximum of 0.5 per cent of the proposed target revenue is at risk (calculated as the potential loss or gain if the realised values for all service standards are at the limits under the service standard adjustment mechanism). The values of reward and penalty rates are not based on values that consumers may attribute to reliability improvements, which is acknowledged by Western Power.
 - For the transmission network, penalty/reward rates are such that the revenue at risk is divided evenly between the service standards of circuit availability and system minutes interrupted, reflecting a consideration that these two service standards are of a similar significance.
 - For the distribution network, penalty/reward rates are such that the revenue at risk is allocated between SAIDI and SAIFI on a two-thirds one-third basis, and revenue at risk is allocated between CBD, urban, rural-long and rural-short categories on the basis of respective customer numbers in each category.
988. The Authority is satisfied that the Code objective would be served by the access arrangement including a service standards adjustment mechanism with financial incentives for achieving and outperforming service standard benchmarks. There is sufficient historical data on service standards to be able to rigorously establish service standard benchmarks and financial incentives that are of value in countering any incentives for Western Power to benefit from achieving savings on operating costs at the expense of service standards.
989. The Access Code does not provide guidance for the operation of a service standards adjustment mechanism other than the general requirements of section 6.31 for the mechanism to be:
- sufficiently detailed and complete to enable the Authority to apply the mechanism at the next access arrangement review; and
 - consistent with the Code objective.
990. In the context of the service standards adjustment mechanism, consistency with the Code objective requires that the mechanism provides incentives for a service provider to efficiently incur costs to achieve, and potentially improve on, service standards benchmarks established for the access arrangement period. These costs may be of a capital nature, such as costs of replacing network assets subject to failure, or a non-capital nature, such as costs of undertaking preventative maintenance or employing additional work crews to restore supply more quickly when an outage occurs.
991. The Authority has assessed the consistency of the proposed services standards adjustment mechanism with the Code objective by giving attention to:
- the performance criteria proposed to be applied in determining the penalty and reward adjustments, in particular the proposed dead-band ranges and limits;
 - the specification and operation of the proposed service standards adjustment mechanism and the resultant incentives for actions to achieve and outperform service standard benchmarks; and

- the value of incentive rates proposed to be applied in determining penalty and reward adjustments.

992. These matters are addressed in turn, below.

Performance Criteria under the Service Standard Adjustment Mechanism

993. Western Power has proposed that:

- the service standard benchmarks for each performance parameter comprise the performance targets under the service standard adjustment mechanism;
- a dead-band range apply under the service standard adjustment mechanism such that no adjustment occurs where actual service standards are within a specified range of the service standard benchmark; and
- low and high limits apply to the achieved service standards that may be taken into account in calculating the adjustments under the service standard adjustment mechanism.

994. Western Power states that the purpose of these arrangements is to cause the service standard adjustment mechanism to not have effect where variations to service standards occur as a result of random factors (such as normal variation in weather conditions) that do not reflect underlying changes in performance, and to limit the revenue risk to which Western Power is exposed.

995. The Authority considers that neither the dead-band ranges nor the high and low limits serve to provide incentives for Western Power to efficiently incur costs to achieve, and potentially improve on, service standard benchmarks established for the access arrangement period. Reasons for this view of the Authority are as follows.

996. First, the dead-band range would allow service standards to vary by material amounts from the service standard benchmarks (in the order of +/- 10 per cent) without penalties or rewards being incurred. Contrary to the intent of Western Power for the service standard adjustment mechanism to not have effect within this range, the Authority considers that it is this range of outcomes for service standards that the mechanism should be primarily directed. That is, the mechanism should be directed at providing incentives for Western Power to undertake the works and activities reflected in cost forecasts that are intended to allow service standard benchmarks to be achieved, and to motivate Western Power to seek opportunities to make incremental improvements to service standards during the access arrangement period over and above the service standard benchmarks. The effect of the dead-band range would be to substantially reduce the incentives for Western Power to meet the service standard benchmarks. This effect was of concern to some parties that made submissions to the Authority on the proposed access arrangement revisions.⁴⁰⁴

997. Secondly, the Authority considers that the high and low limits on the achieved service standards that may be taken into account in calculating adjustments under the services standards adjustment mechanism are inconsistent with incentives for Western Power to act efficiently to achieve the service standard benchmarks. The

⁴⁰⁴ Western Australia Major Energy Users submission of 16 December 2008.

limits do not distinguish between causes of under-performance and out-performance of service standard benchmarks that are within Western Power's control and those that are not. To the extent that Western Power is concerned about a risk of large penalties arising under the service standards adjustment mechanism from events that are outside of its control, the Authority considers that these risks would be better avoided by providing for certain events to be excluded from the calculation of achieved service standards where it can be clearly demonstrated that:

- the event was outside of the control of Western Power and Western Power was unable to mitigate the impact of the event; and
- the event had a material impact on Western Power's reliability performance.

998. The Authority observes that such events would be largely, if not entirely, excluded from the service standard adjustment mechanism by the "exclusions" for measurement of service standards in clauses 3.15 to 3.22 of the proposed access arrangement revisions. The Authority considers that Western Power is adequately protected from risks by the exclusions to the measurement of service standards and that further protection by the dead-bands and limits under the service standard adjustment mechanism is not consistent with the Code objective.

Operation of the Service Standard Adjustment Mechanism

999. The proposed service standard adjustment mechanism provides for a penalty or reward to be determined for each year of the access arrangement period according to the difference between a service standard benchmark and the actual service standard in each year.

1000. The Authority considers that, by addressing only the under-performance or out-performance of service standard benchmarks only in individual years of the access arrangement period, the proposed service standards adjustment mechanism creates undesirable incentives for inefficiency of investment in, and operation of, the network to maintain or improve service standards. In particular, the proposed mechanism would cause the value of incentives to maintain or improve service standards to vary over the course of an access arrangement period. Western Power would have a stronger incentive to undertake works to make a permanent improvement in service standards in the first year of the access arrangement period, attracting a reward for each of the three years of the access arrangement period, than in the last year of the access arrangement period, attracting a reward for only one year.⁴⁰⁵

1001. The Authority considers that consistency of the service standard adjustment mechanism with the Code objective requires that the incentives created by the mechanism for maintaining and improving service standards should be constant across the access arrangement period.

1002. The Authority considers that under-performance or out-performance of the service standard benchmarks should be calculated as a year-on-year change in performance relative to the service standard benchmarks. This can be undertaken

⁴⁰⁵ This property of the service standard adjustment mechanism was observed by Synergy (submission of 22 December 2008 on the price control).

using the following general formula for each of the measures of service standards for the transmission and distribution networks:

$$SSD_t = (SSB_t - SSA_t) - (SSB_{t-1} - SSA_{t-1})$$

where

SSD_t is the service standard difference in year t ;

SSB_t is the service standard benchmark in year t ;

SSA_t is the actual service standard in year t ; and

SSD_{t-1} , SSB_{t-1} and SSA_{t-1} are the corresponding parameters in year $t - 1$.

1003. This formula can be readily applied to the second and third years of the second access arrangement period (2010/11 and 2011/12) for which service standard benchmarks exist for the previous year.⁴⁰⁶

1004. For the first year of the second access arrangement period (2009/10), the following formula can be applied:

$$SSD_t = SSB_t - SSA_t$$

Values of Incentive Rates

1005. A service standards adjustment mechanism would provide incentives for a service provider to efficiently incur costs to improve service standards if the value of the financial incentive to achieve an incremental improvement in service quality is set so that:

- the value of any penalty for under-performing against service standard benchmarks is equal the economic loss that would be incurred as a result of the under-performance; and
- the value of any reward for out-performing against service standard benchmarks is equal to the value of the economic gain generated as a result of the out-performance.

1006. Western Power has proposed incentive rates derived from an amount of revenue at risk under the service standards adjustment mechanism. The rates have no relationship to either the cost of improving service standards or the value of improved service standards to electricity customers, which is acknowledged by Western Power.⁴⁰⁷ Western Power states that basing the incentive rates only on an amount of revenue at risk, rather than the cost or value of service quality, is intended to ensure that Western Power makes a “tangible financial commitment” to achieving service standard benchmarks rather than driving further improvements in service standards.

⁴⁰⁶ Performance information on services standards for the last year of an access arrangement period may not be available when revisions to the access arrangement are being assessed and the service standard adjustment mechanism is being applied. In such circumstances, it would be necessary to make the relevant adjustment to target revenue in a subsequent access arrangement period, keeping the value of the adjustment the same in present value terms.

⁴⁰⁷ Revised access arrangement information, p. 181.

1007. The Authority considers that consistency with the Code objective ideally requires that incentive rates reflect the value of improvements in service quality. There is precedent for this in incentive schemes established in the National Electricity Market for distribution networks, although not for transmission networks.
1008. For distribution networks, precedent exists in Australia for establishing incentive rates under service-quality incentive schemes on the basis of either the cost or value of improvements in service quality. In first implementing incentive schemes for the Victorian electricity distribution networks in 2000, the Victorian Essential Services Commission determined incentive rates based on estimates of the cost to the distributors of improving service quality. The costs were specified as an annualised marginal cost of reliability, expressed in terms of dollars per megawatt hour of additional energy supply and converted to incentive rates per units of outage duration and frequency on the basis of assumptions of average durations of outages and average energy demand of customers.⁴⁰⁸ The incentive rates were based on costs to minimise the revenue risk to the distribution businesses with the introduction of the incentive schemes.⁴⁰⁹ The incentive schemes were revised in 2005 to apply incentive rates based on estimates of the value to electricity customers. As with the incentive rates applied in 2000, this value was derived initially as a value expressed in dollars per megawatt hour of energy supply and converted to incentive rates per units of outage duration and frequency.⁴¹⁰
1009. For transmission networks, a guideline for service quality incentive schemes that has been developed by the AER for the National Electricity Market provides for incentive rates to be based on a percentage of regulated revenue at risk.⁴¹¹ It is not clear whether the incentive rate will reflect the economic value of changes in reliability (the guideline is vague on this design criterion). This approach may reflect a difficulty in determining a value of changes in service quality for transmission. For transmission, changes in service standards would not necessarily have a direct and readily identifiable effect on electricity customers. Instead, changes in transmission service quality would typically result in changes in outcomes in the electricity market, such as different electricity prices as higher or lower cost generation is dispatched.
1010. For the Western Power transmission and distribution networks, establishing incentive rates that reflect the economic value of changes in service standards would require studies to ascertain the relevant economic values. These studies would necessarily have to take into account the characteristics of the electricity market in Western Australia, the current reliability levels of the Western Power networks, and the characteristics of electricity customers.
1011. The Authority considers that it is not possible to undertake these studies within the timeframe for approval of the proposed access arrangement revisions. As such, the Authority is not able to determine, as part of this Draft Decision, effective incentive rates reflecting the benefits and/or costs of improvements in service

⁴⁰⁸ Office of the Regulator General, Victoria, May 2000, 2001 Electricity Distribution Price Review Draft Decision, pp. 268, 269.

⁴⁰⁹ Office of the Regulator General, Victoria, May 2000, 2001 Electricity Distribution Price Review Draft Decision, p. 56.

⁴¹⁰ Essential Services Commission, October 2005, Electricity Distribution Price Review 2006-10 Final Decision Volume 1 Statement of Purpose and Reasons, p. 88.

⁴¹¹ Australian Energy Regulator, March 2008, Electricity transmission network service providers: service target performance incentive scheme, pp. 8, 11.

quality.⁴¹² Given this constraint, the Authority considers that the Code objective is best served by a service standard adjustment mechanism incorporating incentive rates determined according to an amount of regulated revenue at risk, rather than having no financial incentives at all.

1012. In considering the amount of revenue that may be placed at risk under the service standard adjustment mechanism, the Authority observes that:

- parties making submissions to the Authority on the proposed access arrangement revisions contend that the financial incentives under the proposed service standard adjustment mechanism may be too small to be effective;⁴¹³
- for transmission networks in the National Electricity Market, the National Electricity Rules require that a service target performance incentive scheme should ensure that the maximum revenue increment or decrement as a result of operation of the scheme will fall within one per cent and five per cent of the maximum allowed revenue for the relevant regulatory year;⁴¹⁴
- for distribution networks in the National Electricity Market, the AER is proposing to establish incentive rates under a service target performance incentive scheme consistent with a cap of five per cent of the regulated revenue target being at risk under the scheme;⁴¹⁵
- for the South Australian electricity distribution network, the Essential Services Commission of South Australia determined incentive rates under an incentive scheme to provide for a maximum amount of rewards or penalties of 1.6 per cent of prescribed distribution revenue;⁴¹⁶ and
- the Office of Gas and Electricity Markets in the United Kingdom has previously proposed an incentive scheme for service quality on electricity networks with penalties up to 1.75 per cent of revenue, and rewards up to 2 per cent of revenue.⁴¹⁷

1013. Without the dead-band around targets for service standards, the incentive rates proposed by Western Power, applied under the service standard adjustment mechanism to be required by the Authority, would correspond to amounts of penalties or rewards of approximately 0.26 per cent of Western Power's proposed target reference service revenue (and about 0.39 per cent of the target reference service revenue determined by the Authority under this Draft Decision), if all achieved service standards were at values the same as the limits proposed by

⁴¹² For this reason, the Authority is also unable to determine whether the service standard adjustment mechanism should be symmetrical or asymmetrical in the value of penalties and rewards (implying different values of declines versus improvements in service quality), a matter raised in a submission to the Authority (Alinta Sales Pty Ltd submission of 17 December 2008).

⁴¹³ Western Australia Major Energy Users submission of 16 December 2008, Alinta Sales Pty Ltd submission of 17 December 2008.

⁴¹⁴ National Electricity Rules, Rule 6A.7.4(b)(3).

⁴¹⁵ Australian Energy Regulator, February 2009, Explanatory Statement, proposed Amendment, Service Target Performance Incentive Scheme, Electricity Distribution Network Service Providers, p. 9.

⁴¹⁶ Essential Services Commission of South Australia, April 2005, 2005 – 2010 Electricity Distribution Price Determination Part A – Statement of Reasons, p. 48.

⁴¹⁷ Office of Gas and Electricity Markets, December 2001, Information and Incentives Project Incentives Schemes: Final Proposals, pp. 6, 10.

Western Power (which are approximately at values of plus or minus 20 per cent of the target values for each service standard).

1014. Taking into account the precedents of the National Electricity Rules and decisions of regulators in other jurisdictions, the Authority considers that the incentive rates should provide for approximately one per cent of revenue to be at risk under reasonable worst-case scenarios of Western Power underperforming against all service standard benchmarks. On this basis, and taking into account the value of target reference service revenue determined by the Authority under this Draft Decision, the Authority considers that the incentive rates proposed by Western Power are inadequate and should be increased by a factor of 2.5 for distribution services and 2.5 for transmission services.

Required Amendment 35

The proposed access arrangement revisions should be amended to alter the specification of the service standard adjustment mechanism at clauses 5.24A and 5.24B to:

- (a) remove the dead-bands and limits around target values of service standards; and
- (b) calculate an amount of a difference between target and actual service standards as:

$$SSD_{2009/2010} = (SSB_{2009/10} - SSA_{2009/10})$$

$$SSD_{2010/2011} = (SSB_{2010/11} - SSA_{2010/11}) - (SSB_{2009/10} - SSA_{2009/10})$$

$$SSD_{2011/2012} = (SSB_{2011/12} - SSA_{2011/12}) - (SSB_{2010/11} - SSA_{2010/11})$$

Where:

SSD_t is the service standard difference in year t

SSB_t is the service standard benchmark in year t

SSA_t is the actual service standard in year t .

- (c) increase the value of incentive rates by a factor of 2.5 for distribution services and 2.5 for transmission services.

Deferral of Revenue

1015. Western Power has proposed new provisions to the access arrangement that provide for a deferral of target revenue from the second access arrangement period to the third or subsequent access arrangement periods. Clauses 5.37A and 5.48A of the proposed access arrangement revisions provide for amounts of \$14.6 million of target revenue for the transmission network and \$177.3 million of target revenue for the distribution network (in present value terms and dollar values at 30 June 2009) to be deducted from target revenue for the second access arrangement

period and added to target revenue (at a constant present value) in the third or subsequent access arrangement periods.

1016. Western Power states that the purpose of the proposed deferral of revenue is to reduce proposed increases in reference tariffs in the second access arrangement period that stem from a change in the treatment of capital contributions in the calculation of target revenue (addressed at paragraph 646 and following of this Draft Decision) and forecast increases in costs in the second access arrangement period.⁴¹⁸ The effect of the proposed deferral of revenue is to, in effect, spread the increase in reference tariffs over a period longer than just the second access arrangement period.
1017. Alinta Sales objects to the proposed deferral of revenue, submitting that deferral of revenue may not be permitted under the Access Code, and that the Authority should give attention to whether the proposed target revenue adequately reflects efficient costs.⁴¹⁹
1018. Western Power's proposed deferral of revenue will involve adjustment of target revenue in future access arrangement periods to add amounts in respect of part or all of the deferred revenue from the second access arrangement period. Such adjustments are not contemplated under section 6.4(a) of the Access Code. The Authority considers, however, that a mechanism under the access arrangement to provide for the deferral of revenue to offset an immediate effect on network tariffs of a change in the treatment of capital contributions is reasonably necessary to meet the objective of section 6.4(c) of the Access Code to avoid price shocks for users.
1019. The Authority has given consideration to the provisions of the proposed access arrangement revisions for deferral of revenue noting that the amount of revenue proposed to be deferred is less than the increment to target revenue that arises from the change in treatment of capital contributions,⁴²⁰ and the provisions to not establish a time period for future recovery of this revenue.
1020. The change in treatment of capital contributions is designed to have a neutral commercial effect on Western Power's business in present value terms. In this context, the Authority considers that the price-shock effect of this change on users of the network should be minimised by deferral of the entire amount of the resultant increment to target revenue that would occur in the second access arrangement period.
1021. The Authority also considers that the access arrangement should clearly establish a mechanism for recovery of the deferred revenue, including the time period over which the revenue is to be recovered. Again taking into account the context of the neutral commercial effect of the change in treatment of capital contributions on Western Power and the objective of avoiding price shocks for users, the Authority considers that the access arrangement should, in effect, capitalise the amount of deferred revenue and provide for the recovery of this amount according to a defined schedule. In the absence of other relevant factors, the Authority considers that this

⁴¹⁸ Western Power submission of 17 December 2008.

⁴¹⁹ Alinta Sales Pty Ltd submission of 17 December 2008.

⁴²⁰ Western Power has proposed an amount of deferred revenue of \$191.9 million in present value terms. Under the Authority's determination of target revenue for the purposes of this Draft Decision, the increment to target revenue that arises from the change in treatment of capital contributions is \$407.2 million.

schedule should provide for the recovery of the deferred revenue in a similar manner to the straight-line depreciation of physical network assets with a constant amount of recovery in each year subsequent to the second access arrangement period and over a total recovery period equal to the average life of network assets.

Required Amendment 36

The proposed access arrangement revisions should be amended to provide for the recovery of deferred revenue as a constant amount in each year subsequent to the second access arrangement period and over a total period of recovery equal to the average economic life of network assets.

“D-factor” Scheme

1022. Western Power has proposed new provisions to the access arrangement that provide for an adjustment mechanism, referred to as the “D-factor scheme”, that will apply to the determination of target revenue for the third access arrangement period (clauses 5.54 to 5.57 of the proposed access arrangement revisions).
1023. Under the proposed D-factor scheme, an amount will be added to target revenue in the third access arrangement period in respect of:
- any additional operating expenditure being incurred by Western Power as a result of deferring a capital expenditure project during the second access arrangement period (clause 5.55(a)); and
 - any additional operating or capital expenditure incurred by Western Power in relation to demand management initiatives (clause 5.55(b)).
1024. The proposed D-factor scheme is subject to:
- where an adjustment is made in respect of deferral of capital expenditure, the capital expenditure having been included in the forecast of costs taken into account in determination of target revenue for the access arrangement period; and
 - Western Power making available to the Authority a business case for the relevant operating or capital expenditure.
1025. Submissions to the Authority on the proposed access arrangement revisions indicate general support for the access arrangement to support efficient expenditure on non-network solutions to address network constraints, including demand management initiatives, and indicate that the proposed D-factor scheme should at least be investigated.⁴²¹ Questions are raised, however, as to whether the proposed D-factor scheme is permitted, as it is not one of the adjustments contemplated under Chapter 6 of the Access Code, and whether the D-factor

⁴²¹ Department of Treasury and Finance submission of 17 December 2008; Mr Noel Schubert submission of 16 December 2008.

scheme would provide Western Power with an inappropriate competitive advantage in providing services in demand-side management.⁴²²

1026. The Authority accepts that a scheme such as the proposed D-factor scheme may have efficiency benefits in the provision of network services. The potential efficiency benefits of the proposed D-factor scheme arise due to the limited incentive that a service provider may have to seek efficiency in capital costs where an increase in non-capital costs is necessary to achieve this efficiency. For example, a saving of \$100 in capital expenditure during an access arrangement period relative to the forecast for that period will give rise to a “reward” to the service provider of an amount equal to the rate of return and depreciation allowance on the amount of \$100, say \$10 where the rate of return is 6 per cent and where depreciation of the capital asset is at 4 per cent per annum. However, under a conventional scheme of regulation, any (above-forecast) non-capital costs that would be incurred by the service provider in achieving the efficiency gain in capital costs are not recoverable. So, if additional non-capital costs of \$20 were required to achieve the \$100 saving on capital costs, the service provider would be worse off even though the substitution of non-capital costs for capital costs would have been efficient.
1027. Many non-network alternatives (including demand management programs) involve substituting non-capital costs for capital investment in a network to resolve network constraints. In circumstances where opportunities for non-network alternatives are not identified and addressed in cost forecasts for an access arrangement period, the potentially limited incentive to substitute non-capital costs for capital costs may create a barrier to developing and implementing efficient non-network alternatives. This barrier is heightened by efficiency incentive schemes, as any additional non-capital costs incurred by the service provider may only not be recoverable, but may also reduce incentive payments that may otherwise accrue to the service provider from other, unrelated, efficiency gains.
1028. The potential barrier to efficient use of demand management programs has been recognised in the National Electricity Rules. Under Rule 6.5.8(c), the AER, in developing and implementing an efficiency benefit-sharing scheme for a distribution network, must have regard to the possible effects of the scheme for the implementation of non-network alternatives. The AER proposes to address this requirement by excluding the non-capital costs associated with non-network alternatives from both the forecast and actual amounts of non-capital costs used to calculate carryover gains and losses and efficiency benefit sharing schemes implemented for distribution networks in Victoria.⁴²³
1029. The D-factor scheme proposed by Western Power would address the incentive barriers to implementing non-network alternatives to capital projects in resolving network constraints. While it has been submitted that this would alter the competitive position of Western Power in providing services in demand-side management *vis-à-vis* other providers of such services, the Authority does not accept that this would be the case. Rather, the Authority considers that removing disincentives for Western Power to implement non-network alternatives in resolving

⁴²² Alinta Sales Pty Ltd submission of 17 December 2008.

⁴²³ Australian Energy Regulator, December 2008, Explanatory Statement, Proposed Demand Management Incentive Scheme, Citipower, Powercor, Jemna, SP AusNet and United Energy, Regulatory Control Period Commencing 1 January 2011, p. 8.

network constraints would increase the role of demand-side initiatives in the operation of the electricity market and would generally increase demand for services necessary to implement programs of demand management.

1030. Despite the potential efficiency benefits of the proposed D-factor scheme, the Authority considers that the Access Code does not allow the scheme to be included in the access arrangement. Section 6.4(a) of the Access Code establishes objectives for a price control that include an objective for target revenue to include certain amounts, including a range of adjustments arising from the previous access arrangement period. An amount in respect of the D-factor scheme as proposed by Western Power does not fall within any of the amounts contemplated by section 6.4(a). Nor does the proposed D-factor scheme address any other objectives for the price control under section 6.4 of the Access Code.
1031. The Authority considers, however, that the access arrangement should, where possible, foster incentives for adoption of efficient non-network alternatives. For this reason, the Authority considers that the gain sharing mechanism to be included in the access arrangement for the second access arrangement period should include provision to exclude from actual non-capital costs any amount of non-capital costs that were incurred as a result of implementing a non-network alternative where such costs were not, and could not reasonably have been, included in the forecast of non-capital costs accounted for in target revenue for the access arrangement period. This amendment to the gain sharing mechanism is addressed at paragraph 956 of this Draft Decision.

Required Amendment 37

The proposed access arrangement revisions should be amended to delete the proposed D-factor scheme at clauses 5.54 to 5.57.

TRIGGER EVENTS

Access Code Requirements

1032. Under sections 5.34 of the Access Code, an access arrangement may specify one or more trigger events. A trigger event is defined in the Access Code as a set of one or more circumstances specified in the access arrangement, the occurrence of which requires a service provider to submit proposed revisions to the Authority under section 4.37 of the Access Code.
1033. Under section 5.35 of the Access Code, trigger events may be either proposed by the service provider or included in an access arrangement by the Authority.
1034. Under section 5.36 of the Access Code, before determining whether a trigger event is consistent with the Code objective, the Authority must consider:
- whether the advantages of including the trigger event outweigh the disadvantages of doing so, in particular the disadvantages associated with decreased regulatory certainty; and

- whether the trigger event should be balanced by one or more other trigger events.

Current Access Arrangement

1035. The current access arrangement includes a broad specification of trigger events under clause 8.1:

- 8.1 Any significant unforeseen development which has a materially adverse impact on the service provider and which is:
- (i) outside the control of the service provider; and
 - (ii) not something that the service provider, acting in accordance with good electricity industry practice, should have been able to prevent or overcome; and
 - (iii) an event the impact of which is so substantial that the advantages of making the variation before the end of the access arrangement period outweigh the disadvantages, having regard to the impact of the variation on regulatory certainty.

1036. Clause 8.2 of the current access arrangement requires that Western Power must submit proposed revisions to the Authority within 30 business days after a trigger event has occurred.

Proposed Revisions

1037. The proposed access arrangement revisions include a new clause 8.1A to provide further information on trigger events:

- 8.1A For the avoidance of doubt, a trigger event may include without limitation the introduction of an emissions trading scheme; full retail contestability; and the roll-out of Advanced Interval Meters to the extent that such costs were not included in the calculation of target revenue for the access arrangement period or otherwise addressed through the Unforeseen Event provisions in sections 5.4 to 5.6 of this Access Arrangement.

Submissions

1038. Synergy submits that the events specified by Western Power as trigger events in the proposed clause 8.1A are appropriate trigger events under the access arrangement.⁴²⁴ Synergy also submits that the absence of a definition of advanced interval meters makes it difficult for Synergy to comment on the possible impact that the introduction of these meters might have.

Considerations of the Authority

1039. The specification of trigger events under clause 8.1 of the current access arrangement is designed to shelter Western Power from risks of increases in costs

⁴²⁴ Synergy submission of 17 December 2008 on Applications and Queuing Policy.

beyond forecasts. The potential events that may give rise to such costs are not specified. Rather, the trigger event would only occur if Western Power itself considers that an event (and the associated increase in costs) occurs that warrants a review of the access arrangement.

1040. The Authority accepts that events of the type specified by Western Power under the proposed clause 8.1A are events that could potentially give rise to substantial costs for Western Power. As such, the Authority accepts that the events specified by Western Power potentially fall within the scope of the existing clause 8.1 and are simply declaratory in effect.
1041. The Authority does not accept the implied contention of Synergy that a definition of advanced interval meters should be included in the access arrangement. The Authority considers that the nature of advanced interval meters is sufficiently well established that it would be clear if a requirement to install such meters is imposed on Western Power.

SUPPLEMENTARY MATTERS

Access Code Requirements

1042. Section 5.1(k) of the Access Code requires that an access arrangement include provisions dealing with supplementary matters under sections 5.27 and 5.28.
1043. Section 5.27 indicates that supplementary matters comprise:
- (a) balancing; and
 - (b) line losses; and
 - (c) metering; and
 - (d) ancillary services; and
 - (e) stand-by; and
 - (f) trading; and
 - (g) settlement; and
 - (h) any other matter in respect of which arrangements must exist between a user and a service provider to enable the efficient operation of the covered network and to facilitate access to services, in accordance with the Code objective.
1044. Section 5.28 of the Access Code requires that the supplementary matters be dealt with in the access arrangement in accordance with other relevant regulatory requirements including written laws, the Wholesale Electricity Market Rules and the Technical Rules.

Current Access Arrangement

1045. Supplementary matters are dealt with in clauses 10.1 to 10.9 of the current access arrangement, addressing the particular matters listed under section 5.27 of the Access Code. These matters are dealt with by reference to the Wholesale Electricity Market Rules and Metering Code.

Proposed Revisions

1046. Western Power has not proposed any revisions to provisions of the access arrangement dealing with supplementary matters.

Submissions

1047. None of the submissions made to the Authority on the proposed access arrangement revisions address the supplementary matters.

Considerations of the Authority

1048. Taking into account the absence of proposed revisions to the section of the access arrangement dealing with supplementary matters and the absence of submissions addressing this element of the access arrangement, the Authority considers that the proposed access arrangement revisions are consistent with the requirements of sections 5.1(k), 5.27 and 5.28 of the Access Code.

APPLICATIONS AND QUEUING POLICY

Access Code Requirements

1049. Section 5.1(g) of the Access Code requires that an access arrangement include an applications and queuing policy. Sections 5.7 to 5.11 of the Access Code set out the requirements that must be met by the applications and queuing policy.

5.7 An applications and queuing policy must:

- (a) to the extent reasonably practicable, accommodate the interests of the service provider and of users and applicants; and
- (b) be sufficiently detailed to enable users and applicants to understand in advance how the applications and queuing policy will operate; and
- (c) set out a reasonable timeline for the commencement, progressing and finalisation of access contract negotiations between the service provider and an applicant, and oblige the service provider and applicants to use reasonable endeavours to adhere to the timeline; and
- (d) oblige the service provider, subject to any reasonable confidentiality requirements in respect of competing applications, to provide to an applicant all commercial and technical information reasonably requested by the applicant to enable the applicant to apply for, and engage in effective negotiation with the service provider regarding, the terms for an access contract for a covered service including:
 - (i) information in respect of the availability of covered services on the covered network; and
 - (ii) if there is any required work:
 - A. operational and technical details of the required work; and
 - B. commercial information regarding the likely cost of the required work;

and

- (e) set out the procedure for determining the priority that an applicant has, as against another applicant, to obtain access to covered services, where the applicants' access applications are competing applications; and
 - (f) to the extent that contestable consumers are connected at exit points on the covered network, contain provisions dealing with the transfer of capacity associated with a contestable consumer from the user currently supplying the contestable consumer ("outgoing user") to another user or an applicant ("incoming user") which, to the extent that it is applicable, are consistent with and facilitate the operation of any customer transfer code; and
 - (g) establish arrangements to enable a user who is:
 - (i) a 'supplier of last resort' as defined in section 67 of the Act to comply with its obligations under Part 5 of the Act; and
 - (ii) a 'default supplier' under regulations made in respect of section 59 of the Act to comply with its obligations under section 59 of the Act and the regulations; and
 - (h) facilitate the operation of Part 9 of the Act, any enactment under Part 9 of the Act and the 'market rules' as defined in section 121(1) of the Act; and
 - (i) if applicable, contain provisions setting out how access applications (or other requests for access to the covered network) lodged before the start of the relevant access arrangement period are to be dealt with.
- 5.8 The paragraphs of section 5.7 do not limit each other.
- 5.9 Under section 5.7(e), the applications and queuing policy may:
- (a) provide that if there are competing applications, then priority between the access applications is to be determined by reference to the time at which the access applications were lodged with the service provider, but if so the applications and queuing policy must:
 - (i) provide for departures from that principle where necessary to achieve the Code objective; and
 - (ii) contain provisions entitling an applicant, subject to compliance with any reasonable conditions, to:
 - A. current information regarding its position in the queue; and
 - B. information in reasonable detail regarding the aggregated capacity requirements sought in competing applications ahead of its access application in the queue; and
 - C. information in reasonable detail regarding the likely time at which the access application will be satisfied;
- and
- (b) oblige the service provider, if it is of the opinion that an access application relates to a particular project or development:
 - (i) which is the subject of an invitation to tender; and
 - (ii) in respect of which other access applications have been lodged with the service provider,

("project applications") to, treat the project applications, for the purposes of determining their priority, as if each of them had been lodged on the date that the service provider becomes aware that the invitation to tender was announced.
- 5.9A If:
- (a) an access application (the "first application") seeks modifications to a contract for services; and

- (b) the modifications, if implemented, would not materially impede the service provider's ability to provide a covered service sought in one or more other access applications (each an "other application") compared with what the position would be if the modifications were not implemented,

then the first application is not, by reason only of seeking the modifications, a competing application with the other applications.

5.10 An applications and queuing policy may:

- (a) be based in whole or in part upon the model applications and queuing policy, in which case, to the extent that it is based on the model applications and queuing policy, any matter which in the model applications and queuing policy is left to be completed in the access arrangement, must be completed in a manner consistent with:
 - (i) any instructions in relation to the matter contained in the model applications and queuing policy; and
 - (ii) sections 5.7 to 5.9;
 - (iii) the Code objective;
 and
- (b) be formulated without any reference to the model applications and queuing policy and is not required to reproduce, in whole or in part, the model applications and queuing policy.

5.11 The Authority:

- (a) must determine that an applications and queuing policy is consistent with sections 5.7 to 5.9 and the Code objective to the extent that it reproduces without material omission or variation the model applications and queuing policy; and
- (b) otherwise must have regard to the model applications and queuing policy in determining whether the applications and queuing policy is consistent with sections 5.7 to 5.9 and the Code objective.

Current Access Arrangement

1050. The current access arrangement includes, at Appendix 1, an applications and queuing policy describing the process that an applicant (i.e. a person who seeks to obtain or modify a covered service) must undertake with Western Power to form, or to modify, an access contract.

Proposed Revisions

1051. Western Power has proposed several revisions to the applications and queuing policy, some of which serve to clarify existing provisions and others of which are substantive changes to the policy. The substantive revisions are described as follows.

1052. Clause 3.2 of the applications and queuing policy deals with the commencement of the application process on submission of an application to Western Power. Under the current applications and queuing policy, the applicant is required to use reasonable endeavours to provide all information required in the application form. Western Power has proposed revisions to clause 3.2 to require the application to Western Power to be "complete", where complete is defined as:

“complete”, in relation to an application or notice, means where the applicant or controller (as applicable) has:

- (a) used reasonable endeavours to accurately and completely address each item in the applicable application form (including by the provision of any supporting information required by the application form); and
- (b) with respect to an electricity transfer application, provided all of the information required under clauses 3.5 and 3.6 for the application; and
- (c) with respect to a connection application, provided all of the information required under clauses 3.5 and 3.7 for the application,

to Western Power’s satisfaction, acting as a reasonable and prudent person.

1053. Clause 4.9 of the applications and queuing policy deals with requirements for the applicant to provide security to Western Power in respect of liabilities under an access contract. Under the current applications and queuing policy, Western Power is not entitled to require security where the applicant has a credit rating at or above a specified threshold. Western Power has proposed revisions to clause 4.9 to:

- introduce a new clause 4.9(c) to provide Western Power with discretion to require security in respect of a contribution regardless of the credit rating of the applicant; and
- revise the now clause 4.9(d) to provide that Western Power may perform a security assessment prior to making an access offer, rather than providing that Western Power must perform a security assessment within 30 days of receiving an application.

1054. Clause 10 of the applications and queuing policy comprises provisions for a change in the covered service applying to a connection point and change in capacity at a connection point. Western Power has proposed changes to clause 10, as follows.

- Clause 10 of the current applications and queuing policy applies to a change in the covered service at a connection point or an increase in contracted capacity at a connection point. Western Power proposes revisions to clause 10 so that the clause applies also to decreases in contracted capacity at a connection point.
- Under clause 10.1(d) of the current applications and queuing policy, a connection application submitted for a required increase in contracted capacity is afforded priority in the queue according to the date at which Western Power received the electricity transfer application that gave rise to the need for a connection application. Western Power proposes revisions to clause 10.1(d) to indicate that the priority of the connection application is determined according to the date of submission of the electricity transfer application, if the connection application is received within 20 business days of notice that the connection application is required, or otherwise at the date at which the complete connection application is received.
- Under the current applications and queuing policy, clause 10.1(f) provides for Western Power to refuse multiple applications in any 12-month period for a change in the covered service where the change is sought by reason of a seasonal nature of the business or operation at the connection point. Western Power proposes revisions to clause 10 that move the provisions of clause 10.1(f) to a new clause 10.3 and apply this power to refuse an

application applicable not only to a change in covered service at a connection point, but also to an increase or decrease in capacity at a connection point.

- Under the current applications and queuing policy, clause 10.2(c) provides for Western Power to notify an applicant for an increase in capacity of the acceptance or rejection of the application within five business days of receipt of the application. Western Power has proposed revisions to clause 10.2(c) so that this clause applies also to an application for a decrease in capacity and to indicate that the period of five business days is subject to extension for “such further time as a prudent service provider would reasonably require to consider [the] application”.

1055. Three clauses of the applications and queuing policy (clauses 10.1(f), 11.2(f) and 14.3(f)), contain provisions dealing with determining the priority assigned to a connection application in circumstances where Western Power provides notice to the applicant that a connection application is required in respect of a notice or application from the applicant for an increase in capacity of a connection point, a re-energisation of a connection point, or combining or separating of connection points. Under the current applications and queuing policy, the priority of the connection application is determined from the date of the original application or notice from the applicant. Under the proposed applications and queuing policy, the priority of the connection application is determined as the date of the original application if the connection application is received within 20 days of the notice from Western Power, or otherwise as the date on which the connection application is received.

1056. Clause 13 of the applications and queuing policy relates to the status of an exit point that is subject to an application as a contestable or non-contestable exit point in terms of contestability in the retail sale of electricity. Western Power has proposed a new clause 13.3 of the applications and queuing policy to indicate that “[w]here Western Power is not authorised under the *Electricity Industry Act 2004* or other written law to make an access offer for an application relating to an exit point that is not contestable, Western Power must reject the application”.

1057. Clause 19 of the applications and queuing policy relates to reporting during the processing by Western Power of a connection application. Under clause 19.1 of the current access arrangement, Western Power is required to provide an applicant with an initial response within 20 business days of the application. The initial response is required to include a “preliminary assessment” of the application, an indication of the time by which Western Power expects to make an access offer, and whether the application has caused Western Power to give notice to any person that another application will be “bypassed” in the queue. Western Power proposes revisions to clause 19.1 to relax the content requirements for the initial response, including:

- requiring only that the initial response indicate a time by which Western Power will provide a preliminary assessment and indicating that a preliminary assessment will only be provided “if requested”; and
- providing for the initial response to only indicate the time by which Western Power expects that it will be in a position to give notice to any person that another application will be bypassed in the queue.

1058. Clause 24 of the applications and queuing policy establishes queuing rules for connection applications. Western Power has proposed changes to the queuing rules as follows.

- A new clause 24.3 is proposed indicating that a transition application is not subject to the queue, where a transition application is defined as an application for modifications to an access contract or any other contract for services that would not materially impede Western Power's ability to provide a covered service sought in one or more other applications.
- A change to clause 24.6(a) (currently clause 24.5(a)) is proposed that allows an application of another applicant to be bypassed where that other applicant has not obtained environmental or other approvals that it requires in order to proceed, whereas under the current access arrangement this provision for bypass only has effect where the other applicant has requested the application to be suspended.
- A change to clause 24.17 (currently clause 24.16) is proposed that requires Western Power to provide information on the queuing status of a "competing connection application" as part of a preliminary assessment, whereas under the current access arrangement this clause requires provision of this information in the initial response to the application.

Submissions

1059. Submissions made to the Authority on the proposed access arrangement revisions raise concerns with the general operation of the first-come first-served queue of connection applications, practical implementation of the current applications and queuing policy, and particular revisions proposed by Western Power.
1060. On the general operation of the queue, three parties with interests in generation submit that the first-come first-served operation of the queue is inconsistent with efficient investment in the network and in generation capacity.⁴²⁵
1061. Synergy⁴²⁶ expresses concerns over several provisions of the current applications and queuing policy that are proposed to be maintained, including:⁴²⁷
- delays in processing applications and a failure of Western Power to have adequate policies and processes for dealing with applications;
 - inconsistency of the re-energisation process of clause 11.2 of the applications and queuing policy with the Metering Code and Model Service Level Agreement under the Metering Code, and the obligations of Synergy under section 8.1 of the Code of Conduct for the Supply of Electricity to Small Use Customers; and
 - confusing rules and processes under the electricity transfer access contract and applications and queuing policy for a change in capacity.
1062. Several parties express concerns about particular revisions that Western Power proposes for the applications and queuing policy, including:

⁴²⁵ Griffin Energy Development Pty Ltd submission of 17 December 2008; Aviva Corporation submission of 16 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008.

⁴²⁶ Synergy submission of 17 December 2008 on the Applications and Queuing Policy.

⁴²⁷ Synergy submission of 17 December 2008 on the Applications and Queuing Policy.

- the stronger requirements for “completeness” of an application (clause 3.2 of the proposed revised applications and queuing policy);⁴²⁸
- the discretion for Western Power to require security in respect of unpaid contributions (clause 4.9 of the proposed revised applications and queuing policy);⁴²⁹
- the proposal for Western Power to be able to bypass an application in the queue where that application is affected by delays in obtaining environmental or other approvals (clause 24.6 of the proposed revised applications and queuing policy);⁴³⁰
- an absence of transparency in Western Power classifying an application as a transition application (clause 24.3 of the proposed revised applications and queuing policy);⁴³¹ and
- Western Power’s assessment of contestability of an exit point exceeding the rights of Western Power to determine contestability.⁴³²

1063. These submissions are addressed in more detail in the following section of this Draft Decision.

Considerations of the Authority

1064. In considering the proposed applications and queuing policy, the Authority has given attention to the revisions proposed by Western Power as well as to whether, in view of practical experience, the provisions of the applications and queuing policy under the current access arrangement are consistent with the requirements of the Access Code. In doing so, the Authority has had regard to submissions made on the proposed access arrangement revisions. The considerations of the Authority are set out below under the following headings:

- effects on investment and the wholesale electricity market;
- current provisions of the applications and queuing policy; and
- proposed revisions to the applications and queuing policy.

Effects on Investment and the Wholesale Electricity Market

1065. Synergy and Griffin Energy both submit that substantial delays occur in Western Power processing connection applications.⁴³³

1066. Two parties with interests in generation submit that the first-come first-served operation of the queue for connection applications is inconsistent with efficient

⁴²⁸ Alinta Sales Pty Ltd submission of 17 December 2008.

⁴²⁹ Alinta Sales Pty Ltd submission of 17 December 2008, Synergy submission of 17 December 2008 on the Applications and Queuing Policy.

⁴³⁰ Pacific Hydro submission of 2 December 2008.

⁴³¹ Pacific Hydro submission of 2 December 2008.

⁴³² Pacific Hydro submission of 2 December 2008.

⁴³³ Synergy submission of 17 December 2008 on the Applications and Queuing Policy, Griffin Energy Development Pty Ltd submission of 17 December 2008.

investment in the network and in generation capacity.⁴³⁴ Aviva Corporation submits that the allocation of network capacity and augmentation of the network according to a time-order of generation and load proposals is inconsistent with efficient planning and use of the network and with efficient decisions for investment in new generation capacity. Aviva Corporation cites an example of allocation of capacity rights on the network to intermittent generators ahead of its own coal-fired generation, by virtue of position in the queue, whereas a more coordinated allocation of capacity could achieve more efficient use of network infrastructure. Alinta Sales similarly submits that the existing queuing rules may inhibit the efficient entry of generators into the wholesale electricity market.

1067. These submissions are consistent with observations of the Authority in its review of the wholesale electricity market, where the Authority observed that Western Power can take six to 12 months to commence processing a connection application and up to a further 18 months to provide an access offer.⁴³⁵
1068. The AEMC has reflected these observations of the Authority in an unrelated study that examined, *inter alia*, the Western Australian electricity market. The AEMC attributes the long periods for assessment of connection applications to the structure of the wholesale electricity market, in particular the requirement for generators to have unconstrained access to the network:⁴³⁶

The “unconstrained” planning approach employed in the SWIS has led Western Power to connect only new generators where and when the network can accommodate the full output of the connected generator(s). ... [B]y linking the provision of the “local” generation connection to the deeper reinforcement required to allow for unconstrained access to the shared network, the complexity, and therefore time required, for both the assessment of the application and the construction of the resulting network augmentation is greatly increased.

Under this unconstrained approach, Western Power undertakes a number of modelling steps, a cost assessment and, potentially, an approvals process before potentially making a network access offer. This can take up to 18 months. The unconstrained planning approach can also affect the cost of the new connection, and therefore potentially also the generator’s locational decision, through the “deep” connection costs charged.

1069. Consistent with the contentions of Aviva Corporation in its submission on the proposed access arrangement revisions,⁴³⁷ the AEMC has also found that time periods and delays in processing connection applications are exacerbated by a high volume of connection applications, particularly by wind farms, and that this results in Western Power informing applicants for connection that the processing of applications will only commence six to 12 months after submission of the applications.⁴³⁸

⁴³⁴ Aviva Corporation submission of 16 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008.

⁴³⁵ Economic Regulation Authority, 5 November 2008, Annual Wholesale Electricity Market Report for the Minister for Energy, p. 71

⁴³⁶ Australian Energy Market Commission, 23 December 2008, Review of Energy Market Frameworks in Light of Climate Change Policies, 1st Interim Report, p. 80.

⁴³⁷ Aviva Corporation submission of 16 December 2008.

⁴³⁸ Australian Energy Market Commission, 23 December 2008, Review of Energy Market Frameworks in Light of Climate Change Policies, 1st Interim Report, p. 80.

1070. Furthermore, and consistent with contentions of Aviva Corporation and Griffin Energy, the AEMC has found that the time periods for the processing of connection applications for the SWIN are lengthened by influences of the reserve capacity mechanism of the wholesale electricity market. Current rules of the wholesale electricity market require a generator to have an access offer before the generator can benefit from the reserve capacity mechanism. This, in combination with the first-come first-served queue for access requests, encourages developers to apply for connection of generation projects in the very early stages of development, resulting in incentives for developers to submit applications for projects that are only prospective, rather than certain, and to submit many connection applications to secure places in the queue, rather than limiting applications to projects with reasonable certainty of proceeding.⁴³⁹
1071. The Authority recognises the concerns with operation of the queue, but is required to determine that the first-come first-served queuing principle of the applications and queuing policy meets the requirements of the Access Code. The queuing rules of clause 24 of the applications and queuing policy are materially the same as the queuing rules under clauses A2.45 to A2.50 of the model applications and queuing policy under the Access Code. Accordingly, section 5.11 of the Access Code requires that the Authority determine that the first-come first-served queuing principle of the applications and queuing policy is consistent with the Code objective.
1072. Notwithstanding that the Authority is required to determine that the first-come-first-served queuing rules meet the requirements of the Access Code, the Authority considers that the first-come first-served queuing rules under the applications and queuing policy, in combination with the structure of the wholesale electricity market and reserve capacity mechanism, do not serve to promote efficient investment in the electricity network. The Authority considers that this deficiency of the wholesale electricity market and the queuing policy cannot be resolved through the queuing rules in the applications and queuing policy. Rather, this requires consideration in a broader review of regulatory arrangements for the electricity market that considers network planning processes, the functioning of the wholesale electricity market, the treatment of new investment under the Access Code, and the queuing rules. The Authority has recommended that this issue be addressed by the Office of Energy as the key policy-making body in the wholesale electricity market with a view to development of a “road map” laying out a strategy for future development of the wholesale electricity market.⁴⁴⁰

Current Provisions of the Applications and Queuing Policy

1073. Synergy submits that there are practical difficulties with two provisions of the applications and queuing policy that are proposed to be maintained in the access arrangement for the second access arrangement period:
- confusing rules and processes under clause 10 of the applications and queuing policy and the electricity transfer access contract in the process for a change in capacity at a connection point; and

⁴³⁹ Australian Energy Market Commission, 23 December 2008, Review of Energy Market Frameworks in Light of Climate Change Policies, 1st Interim Report, p. 81.

⁴⁴⁰ Economic Regulation Authority, 5 November 2008, Annual Wholesale Electricity Market Report for the Minister for Energy, p. ix.

- inconsistency of the re-energisation process of clause 11.2 of the applications and queuing policy with the Metering Code and Model Service Level Agreement under the Metering Code, and the obligations of Synergy and Western Power under the Code of Conduct for the Supply of Electricity to Small Use Customers and under the *Electricity Industry (Obligation to Connect) Regulations 2005*.⁴⁴¹

1074. These two matters are addressed in turn below.

1075. Clause 10 of the applications and queuing policy comprises a process for electricity transfer applications to modify an existing covered service. Under the proposed applications and queuing policy, clause 10 includes provisions for applications to increase or decrease contracted capacity (clause 10.2) and limitations on the ability of a user to change a covered service more than once in any 12-month period (clause 10.3).

1076. Synergy submits that there are inconsistencies between clause 10 of the applications and queuing policy and provisions of the electricity transfer access contract that deal with increases or decreases in contracted capacity. Synergy provides the following examples of these inconsistencies.

- Clause 10.2 of the applications and queuing policy specifies that an electricity transfer application must be completed to increase contracted capacity, but clause 3.4(b) of the electricity transfer access contract provides that a user may make application for an increase in contracted capacity under the applications and queuing policy, the Customer Transfer Code or the electricity transfer access contract.
- Clause 10.2(c) of the applications and queuing policy indicates that for an increase or decrease of contracted capacity, Western Power must within five business days notify the applicant whether or not it accepts the change in contracted capacity, but clause 3.5(b) of the electricity transfer access contract provides that Western Power must notify the user within 10 business days whether or not it accepts the application for a decrease in contracted capacity. There is no corresponding clause in the electricity transfer access contract dealing with requirements for notification associated with an increase in contracted capacity.
- Clause 10.3 of the applications and queuing policy sets out limitations on multiple changes in contracted capacity in any 12-month period. These limitations are inconsistently reproduced in clause 3.5(c)(i) of the electricity transfer access contract.

1077. Under clause 2.6 of the Access Code, the applications and queuing policy of the access arrangement prevails over a contract for services. Given this, the Authority accepts the contention of Synergy that inconsistencies between clause 10 of the applications and queuing policy and clause 3.5 of the electricity transfer access contract may cause confusion over the operation of both instruments. The Authority considers that the prospect for such confusion causes the applications and queuing policy and the electricity transfer access contract to be inconsistent with requirements of sections 5.7 and 5.3 of the Access Code.

⁴⁴¹ Synergy submission of 24 October 2008 and submission of 17 December 2008 on the Applications and Queuing Policy.

Required Amendment 38

The proposed access arrangement revisions should be amended to resolve inconsistencies between clause 10 of the applications and queuing policy and clauses 3.4 and 3.5 of the electricity transfer access contract in relation to changes to covered services, including increases or decreases in contracted capacity at a connection point.

1078. Clause 11.2 of the applications and queuing policy establishes an application process for re-energisation of an existing de-energised connection point:

11.2 Re-energisation

- (a) An applicant who seeks to re-energise an existing de-energised connection point must submit an electricity transfer application on the application form that is applicable for the type of facilities and equipment connected or to be connected at the connection point.
- (b) If the applicant does not have an electricity transfer access contract, then the lodgement fee for a new access contract applies to the application, plus costs associated with the re-energisation under the Metering Code.
- (c) If the de-energised connection point is not on the applicant's electricity transfer access contract, then the lodgement fee for a new connection point applies to the application, plus costs associated with the re-energisation under the Metering Code.
- (d) If the de-energised connection point is on the applicant's electricity transfer access contract, then only the costs associated with the re-energisation under the Metering Code apply to the application.
- (e) Western Power must determine, as a reasonable and prudent person, within 5 business days whether it will accept the request for re-energising.
- (f) If Western Power determines that it cannot accept the request for re-energising under clause 11.2(e), then:
 - (i) Western Power must notify the applicant that it must submit, or procure that its controller submits, a connection application; and
 - (ii) the priority of such connection application shall be determined:
 - (A) if a complete connection application is received by Western Power within 20 business days of the notice sent to the applicant under clause 11.2(f)(i), from the date Western Power received the electricity transfer application under clause 11.2(a); and
 - (B) otherwise, from the date Western Power received the complete connection application.

1079. Synergy submits that the application process of clause 11.2 is not currently adhered to, but rather Synergy submits re-energisation requests to Western Power in accordance with requirements under the Model Service Level Agreement and Communications Rules under the Metering Code. Synergy submits that the process for re-energisation of a connection point should remain under the Model Service Level Agreement and be removed from the applications and queuing policy.

1080. Synergy further submits that it is impractical to submit an application under clause 11.2 for all connection points that require re-energisation and that the process

established under clause 11.2 would be inconsistent with Synergy meeting its requirements for timely reconnection of customers under the Code of Conduct for the Supply of Electricity to Small Use Customers.

1081. The Authority observes that Model Service Level Agreement (at clause 3.3) provides for requests for metering services. A request for metering services does not necessarily address re-energisation of a connection point. While requests for metering services under the Model Service Level Agreement may have incorporated requests for re-energisation of connection points (as claimed by Synergy), this would appear to be a practice adopted by Synergy and Western Power outside of provisions of either the Model Service Level Agreement or the applications and queuing policy. Western Power has advised that there is a single process for effecting a re-energisation of a connection point, which is the re-energisation service request under the applications and queuing policy. The Authority does not accept Synergy's contention that there is overlap between the Model Service Level Agreement and clause 11.2 of the applications and queuing policy.
1082. On the matter of consistency of clause 11.2 with the Code of Conduct for the Supply of Electricity to Small Use Customers, Part 8 of this Code establishes requirements for reconnection of an electricity supply to a customer after disconnection for a range of specified reasons, including the failure of the customer to pay an electricity bill. Part 8 includes requirements for reconnection of the customer by the distributor within certain specified periods after request by the retailer. The specified periods range between one business day and six business days, depending upon whether the customer is in the metropolitan area or a regional area and the day and time of the request by the retailer for reconnection.
1083. Western Power has advised the Authority that reconnection of a customer connection point under Part 8 of the Code of Conduct for the Supply of Electricity to Small Use Customers constitutes a re-energisation of a connection point within the meaning of clause 11.2 of the applications and queuing policy. It follows that the time frames for Western Power to accept a request for re-energisation of a connection point under clause 11.2 (at clause 11.2(e), which allows for up to five days for processing of an application for re-energisation of a connection point) are inconsistent with the obligations of Western Power under the Code of Conduct to reconnect a customer, as contended by Synergy.
1084. Under regulations 7 and 8 of the *Electricity Industry (Obligation to Connect) Regulations 2005*, Western Power is obliged to energise or re-energise a connection point within certain specified periods after request by the retailer. The specified periods are consistent with the periods established under Part 8 of the Code of Conduct for the Supply of Electricity to Small Use Customers. The time frames for Western Power to accept a request for re-energisation of a connection point under clause 11.2 are, therefore, also inconsistent with the obligations of Western Power under these regulations, as contended by Synergy.
1085. The Authority concurs with Synergy that there are inconsistencies and incompatibilities between clause 11.2 of the applications and queuing policy, the Code of Conduct for the Supply of Electricity to Small Use Customers and the *Electricity Industry (Obligation to Connect) Regulations 2005*. The Authority considers that these incompatibilities and inconsistencies cause clause 11.2 of the applications and queuing policy to be inconsistent with the requirements of clause 5.7 of the Access Code.

Required Amendment 39

The proposed access arrangement revisions should be amended such that clause 11.2 of the applications and queuing policy is amended to indicate that nothing in clause 11.2 provides Western Power with a derogation of obligations to energise connection points within the timeframes specified under clause 8.2 of the Code of Conduct for the Supply of Electricity to Small Use Customers or regulations 7 and 8 the *Electricity Industry (Obligation to Connect) Regulations 2005*.

1086. In addition to the practical difficulties in operation of the applications and queuing policy, Synergy submits that the Authority should give consideration to two matters that are not currently addressed in the policy:

- the circumstances of a “supplier of last resort” and a “default supplier”; and
- the transfer of capacity between users associated with the transfer of a contestable customer between electricity retailers.

1087. On the matter of a supplier of last resort and a default supplier, Synergy submits that the Authority should consider requiring that the access arrangement include a trigger mechanism to enable the access arrangement to be reviewed at such time as regulations for suppliers of last resort and default suppliers come into being, so that any such regulations are reflected in the applications and queuing policy.

1088. The Authority observes that clause 24.5 of the proposed applications and queuing policy (currently clause 25.4) provides for a connection application to be bypassed:

- to the extent necessary to allow a supplier of last resort (as defined in section 67 of the *Electricity Industry Act 2004*) to comply with its obligations under Part 5 of the Act; and
- to the extent necessary to allow a default supplier (as defined in section 59 of the *Electricity Industry Act 2004*) to comply with its obligations under section 59 of the Act.

1089. The Authority is of the view that the provisions of clause 24.5 adequately address the potential requirements of a supplier of last resort and a default supplier at the current time and in the absence of specific regulations dealing with either.

1090. On the matter of transfer of capacity between users associated with the transfer of a contestable customer between electricity retailers, Synergy submits that the applications and queuing policy does not comply with the requirements of section 5.7(f) of the Access Code. Section 5.7(f) requires the applications and queuing policy to contain provisions dealing with the transfer of capacity associated with a contestable consumer from the user (outgoing user) currently supplying the contestable consumer to another user (incoming user) or an applicant which, to the extent that it is applicable, are consistent with and facilitate the operation of any

customer transfer code. Synergy submits that the applications and queuing policy should include a mechanism to comply with section 5.7(f) of the Access Code.⁴⁴²

1091. Synergy also submits that a mechanism under the applications and queuing policy to comply with section 5.7(f) of the Access Code should provide for the incoming user to have access to the contracted maximum demand of the outgoing user for the connection points relevant to the transfer of capacity. According to Synergy, this would enable the incoming user to make an informed determination of whether it can nominate a customer's requested change for contracted capacity without incurring costs under the contributions policy of the access arrangement.
1092. The Authority considers that the particular concerns of Synergy, in respect of customer transfers, are adequately dealt with by provisions of the Customer Transfer Code and clause 9.1 of the applications and queuing policy. In coming to this view, the Authority has taken into account the following matters.
- The transfer of capacity between users that is associated with a transfer of a contestable customer is dealt with under Part 4 of the Customer Transfer Code. Part 3 of the Customer Transfer Code establishes processes for an incoming user to seek information on standing data and historical consumption data for connection points relevant to a customer transfer.
 - Clause 9.1 of the applications and queuing policy deals with customer transfers under the Customer Transfer Code and indicates that, where no new exit point is to be created or no new generation plant is to be connected, the applications and queuing policy does not apply to a customer transfer request under this Code.

Proposed Revisions to the Applications and Queuing Policy

1093. Western Power has proposed several revisions to the applications and queuing policy, some of which serve to clarify existing provisions and others of which are substantive changes to the policy. The Authority's considerations on substantive revisions are set out as follows.

Requirement for an Application to be Complete

1094. Clause 3.2 of the applications and queuing policy deals with the commencement of the application process on submission of an application to Western Power. Under the current applications and queuing policy, the applicant is required to use reasonable endeavours to provide all information required in the application form. Western Power has proposed revisions to clause 3.2 to require the application to Western Power to be "complete", where complete is defined as follows.

"complete", in relation to an application or notice, means where the applicant or controller (as applicable) has:

- (a) used reasonable endeavours to accurately and completely address each item in the applicable application form (including by the provision of any supporting information required by the application form); and
- (b) with respect to an electricity transfer application, provided all of the information required under clauses 3.5 and 3.6 for the application; and

⁴⁴² Synergy submission of 17 December 2008 on the Applications and Queuing Policy.

- (c) with respect to a connection application, provided all of the information required under clauses 3.5 and 3.7 for the application,

to Western Power's satisfaction, acting as a reasonable and prudent person.

1095. Western Power states that the purpose of this revision to the applications and queuing policy is to prevent incomplete and ill-considered applications gaining priority in the queue, sometimes for strategic purposes. Western Power indicates that where applications have been accepted on the basis that an applicant wishes to connect, but does not have complete details of connection date, plant, equipment and the like, this has caused prolonged study times and adversely affected other applicants that have entered the queue with later priority.⁴⁴³

1096. The requirements for an application to be complete are opposed by some users of the network.

1097. Griffin Energy submits the requirement for an application to be complete does not address the problems of large numbers of applications and delays in processing of applicants and granting of access:⁴⁴⁴

The Applications and Queuing Policy has been problematic since its inception. The 'first come first served' principle encourages proponents to lodge as many applications as early in the development cycle as possible in order to gain a favourable queue position. This then creates a significant administrative burden for Western Power, resulting in serious network access applications being delayed by fanciful (or spurious) applications. Western Power has sought to rectify this through increasing the information threshold required to successfully lodge an application. The proposed Access Arrangement includes the definition of the new term 'complete', which appears aimed at achieving this. While acknowledging the inadequacy of the current Applications and Queuing Policy, Griffin has concerns with this method of attempting to reduce the number of applications. Obtaining network access for a new generation facility is one of the longest lead time items of the development timeline. Often, at the stage when a proponent needs to begin the application process, the final configuration of the actual project is not known. A proponent may be trying to maintain a degree of competitive tension on rival suppliers – or the commercial environment may change such that a revised operating duty requires a revised technical configuration. All this leads to difficulties for developers that are required to specify very specific data relating to their proposed facility at such an early stage of its development cycle. Increasing this data requirement in order to secure a proponents place in the access queue may have the effect of locking in a sub-optimal configuration for a specific development – or at least lead to costly changes to scope at a later stage (where such changes may trigger the loss of queue position).

1098. The proposed revision is also opposed by Alinta Sales and by Synergy for reason that the completeness of an application is subject to determination by Western Power and the criteria and processes of determination of whether an application is complete have not been specified and the requirement therefore introduces uncertainty into the applications process.⁴⁴⁵

⁴⁴³ Revised access arrangement information, Appendix 10: p. 6.

⁴⁴⁴ Griffin Energy Development Pty Ltd submission of 17 December 2008.

⁴⁴⁵ Alinta Sales Pty Ltd submission of 17 December 2008; Synergy submission of 17 December 2008 on the Applications and Queuing Policy.

1099. The Authority has reviewed the requirements of the proposed clause 3.2 of the applications and queuing policy and the associated definition of “complete” and observes that the proposed clause 3.2 maintains the requirement for the applicant to use “best endeavours” to provide the required information. The Authority also observes that the information required under clauses 3.5 to 3.7 of the applications and queuing policy is limited to forecast information for use of the connection point that may reasonably be expected to be necessary for Western Power to process the application. As such, the Authority considers that the proposed clause 3.2 is consistent with the orderly function of the applications process and the queue, and ensures that any applications made to Western Power are able to be processed in accordance with the applications and queuing policy.
1100. The Authority accepts that there are deficiencies in the operation of the queue in combination with other structural factors of the wholesale electricity market that cause delays in network investment (as addressed above at paragraph 1065 and following). However, the Authority considers that the proposed clause 3.2 and requirements for information in an application should assist in reducing these deficiencies by limiting the prospect of applications being made for services where there has not been sufficient information provided on service requirements for Western Power to be able to assess the application.
1101. Taking these matters into account, the Authority considers the proposed clause 3.2 to be consistent with the requirements of section 5.7 of the Access Code.

Requirements for Security

1102. Clause 4.9 of the applications and queuing policy deals with requirements for the applicant to provide security to Western Power in respect of liabilities under an access contract. Under the current applications and queuing policy, Western Power is not entitled to require security where the applicant has a credit rating at or above a specified threshold. Western Power has proposed revisions to clause 4.9 to:
- introduce a new clause 4.9(c) to provide Western Power with a discretion to require security in respect of a contribution, regardless of the credit rating of the applicant; and
 - revise the now clause 4.9(d) to provide that Western Power may undertake a security assessment prior to making an access offer, rather than providing that Western Power must perform a security assessment within 30 days of receiving an application.
1103. Western Power indicates that the purpose of the proposed clause 4.9(c) of the applications and queuing policy is to align the security requirements under the applications and queuing policy with those of clause 10 of the electricity transfer access contract.
1104. Alinta Sales opposes the proposed clause 4.9(c) on the basis that this clause would be inconsistent with the intent of the limits under clause 4.9(b) on the ability of Western Power to require security where the user has a credit rating at or above specified threshold levels.⁴⁴⁶

⁴⁴⁶ Alinta Sales Pty Ltd submission of 17 December 2008.

1105. Synergy submits that the Authority should ensure that the requirements for security under clause 4.9(c) of the applications and queuing policy are consistent with requirements for security under the electricity transfer access contract, and the Authority should require amendment of the applications and queuing policy to ensure that clause 4.9(c) cannot be applied to require additional security under an existing access contract.⁴⁴⁷
1106. The Authority has considered the security requirements under clause 10 of the electricity transfer access contract and determined that these requirements are reasonable, subject to amendment of the relevant provisions to ensure that the user cannot be required to provide security in respect of a contribution owed to Western Power by a customer that is not the user (see paragraph 222 and following of this Draft Decision).
1107. The Authority observes that the proposed clause 4.9(c) of the applications and queuing policy relates to security in respect of contributions payable by the applicant and not to other liabilities under an access contract, which remain subject to the limits on the ability of Western Power to require security based on the credit rating of the user (under clause 9 of the electricity transfer access contract and clause 4.9(b) of the applications and queuing policy). Accordingly, the Authority is satisfied that the requirements for security under the applications and queuing policy are consistent with the requirements under the electricity transfer access contract.
1108. Taking the above matters into account, the Authority is satisfied that the proposed clause 4.9(c) is consistent with the requirements of section 5.7 of the Access Code.
1109. Clause 4.9(d) of the proposed applications and queuing policy incorporates a change to the required timing of any security assessment by Western Power. Under the proposed clause, Western Power may perform a security assessment prior to making an access offer, rather than being required to perform a security assessment within 30 days of receiving an application.
1110. None of the submissions made to the Authority on the proposed access arrangement revisions addressed the proposed change included in clause 4.9(d).
1111. The Authority considers that a security assessment undertaken by Western Power would reasonably take into account terms of an access offer and, as such, it would be reasonable for the timing of the security assessment to coincide with the timing of an access offer rather than the timing of the application. Given this, and taking into account the absence of submissions on the proposed change to the timing of the security assessment, the Authority considers that the proposed change to clause 4.9(d) is consistent with the requirements of section 5.7 of the Access Code.

Changes to a Covered Service

1112. Clause 10 of the applications and queuing policy comprises provisions for a change in the covered service applying to a connection point and change in capacity at a connection point. Western Power has proposed changes to clause 10, as follows.

⁴⁴⁷ Synergy submission of 17 December 2008 on the Applications and Queuing Policy.

- Clause 10 of the current applications and queuing policy applies to a change in the covered service at a connection point or an increase in contracted capacity at a connection point. Western Power proposes revisions to clause 10 so that the clause applies also to decreases in contracted capacity at a connection point.
 - Under clause 10.1(d) of the current applications and queuing policy, a connection application submitted for a required increase in contracted capacity is afforded priority in the queue according to the date at which Western Power received the electricity transfer application that gave rise to the need for a connection application. Western Power proposes revisions to clause 10.1(d) to indicate that the priority of the connection application is determined according to the date of submission of the electricity transfer application, if the connection application is received within 20 business days of notice that the connection application is required, or otherwise at the date at which the complete connection application is received.
 - Under the current applications and queuing policy, clause 10.1(f) provides for Western Power to refuse multiple applications in any 12-month period for a change in the covered service where the change is sought by reason of a seasonal nature of the business or operation at the connection point. Western Power proposes revisions to clause 10 that move the provisions of clause 10.1(f) to a new clause 10.3 and apply these provisions not only to a change in covered service at a connection point but also to an increase or decrease in capacity at a connection point.
 - Under the current applications and queuing policy, clause 10.2(c) provides for Western Power to notify an applicant for an increase in capacity of the acceptance or rejection of the application within five business days of receipt of the application. Western Power has proposed revisions to clause 10.2(c) so that this clause applies also to an application for a decrease in capacity and to indicate that the period of five business days is subject to extension for “such further time as a prudent service provider would reasonably require to consider [the] application”.
1113. Western Power indicates that the proposed revisions to clause 10 of the applications and queuing policy that extend the clause to apply to decreases in contracted capacity are for reason that the same procedures should apply for decreases in capacity and indication of this in the applications and queuing policy allows applicants to understand in advance how these types of applications will proceed.⁴⁴⁸
1114. No submissions made to the Authority addressed the proposed changes to clause 10 of the applications and queuing policy.
1115. The Authority has reviewed the proposed revisions to clause 10 and considers that, by setting out the process for applications for a decrease in contracted capacity, the proposed revisions are consistent with section 5.7 of the Access Code. The Authority considers the other proposed revisions to clause 10 to be procedural in nature and do not materially alter or affect the interests of the service provider, users and applicants. Notwithstanding this, the Authority notes the requirement in this Draft Decision for amendment of the proposed access arrangement revisions to

⁴⁴⁸ Revised access arrangement information, Appendix 10: pp. 6, 7.

ensure consistency of clause 10 of the applications and queuing policy and the electricity transfer access contract (paragraphs 1075 to 1077 of this Draft Decision).

Priority of Connection Applications

1116. Three clauses of the applications and queuing policy (clauses 10.1(f), 11.2(f) and 14.3(f)) contain provisions dealing with determination of the priority assigned to a connection application in circumstances where Western Power provides notice to the applicant that a connection application is required in respect of a notice or application from the applicant for any of:

- an increase in capacity of a connection point;
- a re-energisation of a connection point; or
- a combining or separating of connection points.

1117. Under the current applications and queuing policy, the priority of the connection application is determined from the date of the original application or notice from the applicant. Under the proposed applications and queuing policy, the priority of the connection application is determined as the date of the original application, if the connection application is received within 20 days of the notice from Western Power, or otherwise as the date on which the connection application is received.

1118. No parties that made submissions to the Authority have addressed these proposed changes.

1119. The Authority considers that the proposed changes to provisions for determining the priority for connection applications are reasonable, taking into account the interests of the applicant, Western Power and other applicants. The proposed changes place an onus on an applicant to respond within a reasonable time to a requirement for a connection application if the priority of the application is to be maintained. Accordingly, the Authority considers that the proposed changes are consistent with section 5.7 of the Access Code.

Assessment of Contestability of a Connection Point

1120. Clause 13 of the applications and queuing policy relates to the status of an exit point as a “contestable” or “non-contestable” exit point in terms of contestability in the retail sale of electricity. Clause 13 provides for Western Power to determine whether or not an exit point is contestable.

1121. Western Power has proposed a new clause 13.3 of the applications and queuing policy to indicate that “[w]here Western Power is not authorised under the [Electricity Industry] Act or other written law to make an access offer for an application relating to an exit point that is not contestable, Western Power must reject the application”. A note is included under the proposed clause 13.3 to indicate that, under section 54 of the *Electricity Corporations Act 2005*, Western Power is prohibited from making an access offer to an applicant to provide covered services to that applicant at or for an exit point that is not contestable, except where the applicant is the ‘Electricity Retail Corporation’ (as defined in section 3 of the *Electricity Corporations Act 2005*) or a subsidiary of the Electricity Retail Corporation.

1122. Western Power indicates that the proposed clause 13.3 is declaratory in nature and is included in the applications and queuing policy to assist applicants to understand how the applications and queuing policy will operate.
1123. Synergy submits that clause 13 in its entirety should be deleted from the applications and queuing policy for reason that the Access Code does not contemplate Western Power assessing the contestability of a connection point or Western Power determining criteria by which the contestability of a connection point is determined.
1124. As claimed by Western Power, section 54 of the *Electricity Corporations Act 2005*, prohibits Western Power from making an access offer to an applicant to provide covered services to that applicant at or for an exit point that is not contestable, except where the applicant is the 'Electricity Retail Corporation' (as defined in section 3 of the *Electricity Corporations Act 2005*) or a subsidiary of the Electricity Retail Corporation. Contestability is determined by the Minister for Energy according to criteria of the demand for energy at a connection point.
1125. In order to ensure compliance with section 54 of the *Electricity Corporations Act 2005*, Western Power must make an assessment of the contestability of connection points before making an access offer. As demand for energy at a connection point may vary from time to time around thresholds of contestability, it is reasonable that practical rules for determination of contestability are applied, rather than adhering strictly to the thresholds of contestability established by Order of the Minister.
1126. Taking these matters into account, the Authority considers that the indication at clause 13.2 of the applications and queuing policy of the manner in which Western Power will assess the contestability of a connection point is necessary for users and applicants to understand in advance how the applications and queuing policy will operate. The Authority is therefore satisfied that clause 13 of the applications and queuing policy, including the proposed clause 13.3, is consistent with the requirements of section 5.7 of the Access Code.

Responses to a Connection Application

1127. Clause 19 of the applications and queuing policy provides for Western Power to report to an applicant during the processing by Western Power of a connection application. Under clause 19.1 of the current access arrangement, Western Power is required to provide an applicant with an "initial response" within 20 business days of the application. The initial response is required to include a "preliminary assessment" of the application, an indication of the time by which Western Power expects to make an access offer, and whether the application has caused Western Power to give notice to any person that another application will be "bypassed" in the queue. Western Power proposes revisions to clause 19.1 to relax the content requirements for the initial response, including:
- requiring only that the initial response indicate a time by which Western Power will provide a preliminary assessment and indicating that a preliminary assessment will only be provided "if requested"; and
 - providing for the initial response to only indicate the time by which Western Power expects that it will be in a position to give notice to any person that the application will result in another application being bypassed in the queue.
1128. None of the submissions made to the Authority addressed the proposed changes to clause 19.1 of the applications and queuing policy.

1129. Taking into account the absence of submissions, the Authority considers that the proposed changes to clause 19.1 are procedural in nature and do not materially affect the rights of applicants or other parties.

Queuing Rules

1130. Clause 24 of the applications and queuing policy establishes queuing rules for connection applications. Western Power has proposed changes to the queuing rules as follows.

- A new clause 24.3 is proposed indicating that a “transition application” is not subject to the queue, where a transition application is defined as an application for modifications to an access contract or any other contract for services that would not materially impede Western Power’s ability to provide a covered service sought in one or more other applications.
- A change to clause 24.6 (currently clause 24.5) is proposed that allows an application of another applicant to be bypassed where that other applicant has not obtained environmental or other approvals that it requires in order to proceed, whereas under the current access arrangement this provision for bypass only has effect where the other applicant has requested the application to be suspended.
- A change to clause 24.17(a) (currently clause 24.16(a)) is proposed that requires Western Power to provide information on the queuing status of a competing connection application as part of a preliminary assessment, whereas under the current access arrangement this clause requires provision of this information in the initial response to the application.

1131. Western Power indicates that the intent of the proposed clause 24.3 (that provides for an application to be treated as a “transition application”) is to allow customers on existing connection contracts to migrate to an electricity transfer access contract without having to be subject to the queue, if the migration meets the requirements to be considered as a transition application. The proposed clause is intended to apply particularly to customers on network access contracts under the previous access regime established by the *Electricity Transmission Regulations 1996*. Western Power further indicates that the new clause 24.3 is intended to allow for the processing of applications that meet the criteria of transition applications without utilising the bypass provisions of the queue with the associated notice and negotiation requirements.⁴⁴⁹

1132. Pacific Hydro has raised concerns with the proposed clause 24.3, indicating that there should be mechanisms to make the processing of transition applications transparent to ensure that the transition application is not promoted for the benefit of Western Power’s network augmentation at the expense of current and future applicants.⁴⁵⁰

1133. The intent of the treatment of transition applications under the proposed clause 24.3 appears to the Authority to allow a change in terms and conditions for an access contract without the application for the change in access contract being subject to the queue, with this clause applying where the modifications to the access contract

⁴⁴⁹ Revised access arrangement information, Appendix 10: p. 9.

⁴⁵⁰ Pacific Hydro submission of 2 December 2008.

would not materially impede Western Power's ability to provide a covered service sought in one or more other applications.

1134. The Authority considers that the proposed clause 24.3 is expressly permitted by clause 5.9A of the Access Code, which specifically allows for such an application in the nature of Western Power's transition application to not be a "competing application" and therefore to be not subject to the queue. Accordingly, the Authority considers that the proposed clause 24.3 is consistent with the requirements of the Access Code.
1135. Pacific Hydro opposes the proposed change to clause 24.6(a) (currently clause 24.5(a)) that allows an application of another applicant to be bypassed where that other applicant has not obtained environmental or other approvals that it requires in order to proceed, whereas under the current access arrangement this provision for bypass only has effect where the other applicant has requested the application to be suspended. Pacific Hydro indicates that this provision is inconsistent with the first-come first-served principle as environment and planning approvals are often beyond the direct control of the applicant and the applicant may have used reasonable endeavours to progress the approvals.⁴⁵¹
1136. The Authority observes that the overarching provision of clause 24.6(a) of the proposed applications and queuing policy actually provides that a connection application in a queue may be bypassed where that applicant is unable to proceed to a signed access contract or otherwise progress through the applications process. The circumstance of the applicant not having obtained environmental or other approvals is indicated as an example of where clause 24.6(a) may apply. Furthermore, both this overarching provision and the example are consistent with clause A2.52 of the model applications and queuing policy under the Access Code. As such, the Authority is required to determine that clause 24.6(a) is consistent with the requirements of the Access Code.
1137. None of the submissions made to the Authority addressed the proposed change to clause 24.17(a) of the applications and queuing policy. The proposed clause 24.17(a) requires Western Power to provide information on the queuing status of a competing connection application as part of a preliminary assessment, whereas under the current access arrangement this clause requires provision of this information in the initial response to the application.
1138. The proposed change to clause 24.17(a) is contrary to the model applications and queuing policy, which (at clause A.2.69) requires the service provider to provide an applicant with information on the queuing status of an application upon initial lodgement of the application. Under the proposed change to clause 24.17(a) of the applications and queuing policy, Western Power would not be required to provide this information until the preliminary assessment, which may not be until some substantial time after the application is lodged. Western Power has not provided explanation or reasons for the proposed change.
1139. The Authority considers that such a delay in providing information to the applicant on the queuing status of an application does not adequately accommodate the interests of the applicant, for whom the information may be of substantial

⁴⁵¹ Pacific Hydro submission of 2 December 2008.

commercial significance, and is therefore inconsistent with section 5.7 of the Access Code.

Required Amendment 40

The proposed access arrangement revisions should be amended such that the proposed change to clause 24.17(a) of the applications and queuing policy is deleted and the obligation is maintained for Western Power to provide queue information in the initial response to an application.

CONTRIBUTIONS POLICY

Access Code Requirements

1140. The contributions policy sets out the principles and processes for determining when a contribution will be required from a user, including for a network augmentation, and for determining the amount of the contribution. A “contribution” is defined in section 1.3 of the Access Code as a capital contribution, a non-capital contribution or a headworks charge.

1141. Section 5.1(h) of the Access Code requires that an access arrangement include a “contributions policy”, defined in section 1.3 of the Access Code as a policy in an access arrangement under section 5.1(h) dealing with contributions by users.

1142. The particular requirements for a contributions policy are set out in sections 5.12 to 5.17D of the Access Code:

5.12 The objectives for a contributions policy must be that:

- (a) it strikes a balance between the interests of:
 - (i) contributing users; and
 - (ii) other users; and
 - (iii) consumers; and
- (b) it does not constitute an inappropriate barrier to entry.

5.13 A contributions policy must facilitate the operation of this Code, including:

- (a) sections 2.10 to 2.12; and
- (b) the test in section 6.51A; and
- (ba) sections 5.14 and 5.17D; and
- (c) the regulatory test.

5.14 Subject to section 5.17A and a headworks scheme, a contributions policy:

- (a) must not require a user to make a contribution in respect of any part of new facilities investment which meets the new facilities investment test; and
- (b) must not require a user to make a contribution in respect of any part of non-capital costs which would not be incurred by a service provider efficiently minimising costs; and

- (c) may only require a user to make a contribution in respect of required work; and
 - (d) without limiting sections 5.14(a) and 5.14(b), must contain a mechanism designed to ensure that there is no double recovery of new facilities investment or non-capital costs.
- 5.15 A contributions policy must set out:
 - (a) the circumstances in which a contributing user may be required to make a contribution; and
 - (b) the method for calculating any contribution a contributing user may be required to make; and
 - (c) for any contribution:
 - (i) the terms on which a contributing user must make the contribution; or
 - (ii) a description of how the terms on which a contributing user must make the contribution are to be determined.
- 5.16 A contributions policy may:
 - (a) be based in whole or in part upon the model contributions policy, in which case, to the extent that it is based on the model contributions policy, any matter which in the model contributions policy is left to be completed in the access arrangement, must be completed in a manner consistent with:
 - (i) any instructions in relation to the matter contained in the model contributions policy; and
 - (ii) sections 5.12 to 5.15; and
 - (iii) the Code objective;
 and
 - (b) be formulated without any reference to the model contributions policy and is not required to reproduce, in whole or in part, the model contributions policy.
- 5.17 The Authority:
 - (a) must determine that a contributions policy is consistent with sections 5.12 to 5.15 and the Code objective to the extent that it reproduces without material omission or variation the model contributions policy; and
 - (b) otherwise must have regard to the model contributions policy in determining whether the contributions policy is consistent with sections 5.12 to 5.15 and the Code objective.
- 5.17A Despite section 5.14, Electricity Networks Corporation may require a contribution for Appendix 8 work of up to the maximum amount determined under Appendix 8 for the relevant type of Appendix 8 work.
- 5.17B From 1 July 2007 until the first revisions commencement date for the Western Power Network access arrangement, section 5.17A prevails over any inconsistent provisions of the Western Power Network access arrangement.
- 5.17C Despite section 5.14, the Authority may approve a contributions policy that includes a "headworks scheme" which requires a user to make a payment to the service provider in respect of the user's capacity at a connection point on a distribution system because the user is a member of a class, whether or not there is any required work in respect of the user.
- 5.17D A headworks scheme must:
 - (a) identify the class of works in respect of which the scheme applies, which must not include any works on a transmission system or any works which effect a geographic extension of a network; and

- (b) not seek to recover headworks charges in an access arrangement period which in aggregate exceed 1% of the distribution system target revenue for the access arrangement period; and
- (c) identify the class of users who must make a payment under the scheme; and
- (d) set out the method for calculating the headworks charge, which method:
 - (i) must have the objective that headworks charges under the headworks scheme will, in the long term, and when applied across all users in the class referred to in section 5.17D(c), recover no more than the service provider's costs (such as would be incurred by a service provider efficiently minimising costs) of any headworks; and
 - (ii) must have the objective that the headworks charge payable by one user will differ from that payable by another user as a result of material differences in the users' capacities and the locations of their connection points, unless the Authority considers that a different approach would better achieve the Code objective; and
 - (iii) may use estimates and forecasts (including long term estimates and forecasts) of loads and costs; and
 - (iv) must contain a mechanism designed to ensure that there is no double recovery of costs in all the circumstances, including the manner of calculation of other contributions and tariffs; and
 - (v) may exclude a rebate mechanism (of the type contemplated by clauses A4.13(d) or A4.14(c)(ii) of Appendix 4) and may exclude a mechanism for retrospective adjustments to account for the difference between forecast and actual values.

Current Access Arrangement

1143. A capital contributions policy is contained in Appendix 3 of the current access arrangement.

Proposed Revisions

1144. Western Power has proposed several changes to the capital contributions policy.

1145. The capital contributions policy has been re-titled as the "contributions policy" that allows for contributions to be required from users in respect of amounts of costs of either a "capital" or "non-capital" nature. This is consistent with amendments made to the Access Code on 22 October 2008.⁴⁵²

1146. Where contributions are required in respect of costs of a capital nature, the proposed contributions policy retains provisions of the current capital contributions policy that enable Western Power to require a contribution where:

- the costs do not satisfy the new facilities investment test under section 6.52 of the Access Code (clause 2(c)(i) of the proposed contributions policy); or

⁴⁵² Western Australian Government Gazette, 22 October 2008, No. 160 pp. 4631 – 4665.

- the costs relate to certain types of works listed in Appendix 8 of the Access Code that include works for subdivisions; pole-to-pillar connections; development of existing buildings; “supply extensions schemes”; augmentations in excess of standard requirements; temporary connections; streetlights; unmetered connections; asset relocations; and “undergrounding” of assets (clause 2(b)).
1147. Western Power has proposed revisions in the contributions policy to also allow contributions to be required in respect of costs of works in circumstances where the works form part of a “distribution headworks scheme” (clause 2(c)(iv) and clause 6). Such contributions are intended to comprise “headworks charges” in accordance with Western Power’s “Distribution Headworks Scheme” for upgrading network infrastructure in locations at the edge of the SWIN.⁴⁵³
1148. For contributions required in respect of costs of a non-capital nature, the proposed contributions policy includes new provisions that enable Western Power to require a contribution where:
- the costs are incurred in works undertaken in providing an “alternative option” to investment in augmentation of the network (clause 2(c)(ii) of the proposed contributions policy); and
 - the costs are incurred in “non-capital works” required in response to a connection application, where the non-capital costs associated with such works are costs that would not be incurred by a service provider efficiently minimising costs (clause 2(c)(iii)).
1149. Where a contribution is made in respect of works that enable several new users to obtain network services over a period of time, the current capital contributions policy allows for contributions to be apportioned over multiple new users within a period of 10 years. Western Power proposes changes in the contributions policy to enable a longer period to be taken into account in apportioning contributions (clause 2.4(c)).
1150. On the matter of the terms under which contributions are made, Western Power has proposed two substantive changes to provisions of the contributions policy:
- an extended ability of Western Power to require security from an applicant in respect of the amount of revenue from charges for services to be provided to the applicant that were forecast in planning an augmentation and that were taken into account in calculating the amount of a contribution (clause 1.3); and
 - provision for contributions to be adjusted to reflect actual costs of works where the value of contributions is in excess of \$1 million.

Submissions

1151. Several parties submit that there are practical difficulties with broad principles and particular provisions of the current capital contributions policy that are proposed to

⁴⁵³ Further information on this scheme is available on Western Power’s web site:
http://www.westernpower.com.au/mainContent/projects/EdgeGrid/Edge_of_grid.html

be maintained in the contributions policy for the second access arrangement period. The particular matters of concern are:

- the charging of contributions in respect of costs of “deep” augmentations of the network;⁴⁵⁴
- the determination of contributions by applying the new facilities investment test is being undertaken too rigidly and with too little attention being given to the net benefits of various options for generation and network investments, resulting in large contributions being unnecessary and inefficiently being required from new generators;⁴⁵⁵
- an absence of transparency in Western Power’s determination of contributions;⁴⁵⁶
- an absence of guidance and transparency in the apportionment of contributions amongst multiple users;⁴⁵⁷ and
- an absence of an explicit obligation for Western Power to undertake works financed by contributions.⁴⁵⁸

1152. On the proposed headworks scheme under the contributions policy, Mr Noel Schubert submits that the headworks scheme does not provide appropriate incentives for efficient use of network services and investment in the network, and that better options for network pricing and energy pricing are available to achieve efficient outcomes.⁴⁵⁹

1153. On the terms of contributions, Alinta Sales submits that the extended provisions for Western Power to require security in respect of forecasts of tariff revenue from a user required to pay a contribution impose an additional cost on users that may constitute a barrier to entry to the electricity market.⁴⁶⁰

1154. These submissions are addressed in more detail below.

Considerations of the Authority

1155. In considering the proposed contributions policy, the Authority has given attention to the revisions proposed by Western Power as well as to whether, in view of practical experience, the provisions of the capital contributions policy under the current access arrangement are consistent with the requirements of the Access Code. In doing so, the Authority has had regard to submissions made on the proposed access arrangement revisions. The considerations of the Authority are set out below under the following headings:

- current provisions of the capital contributions policy; and

⁴⁵⁴ Pacific Hydro submission of 2 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008.

⁴⁵⁵ Griffin Energy Developments Pty Ltd submission of 17 December 2008.

⁴⁵⁶ Pacific Hydro submission of 2 December 2008; Alinta Sales Pty Ltd submission of 17 December 2008; Synergy submission of 17 December 2008 on Contributions Policy and ENAC Amendments.

⁴⁵⁷ Synergy submission of 17 December 2008 on Contributions Policy and ENAC Amendments.

⁴⁵⁸ Synergy submission of 17 December 2008 on Contributions Policy and ENAC Amendments.

⁴⁵⁹ Mr Noel Schubert submission of 16 December 2008.

⁴⁶⁰ Alinta Sales Pty Ltd submission of 17 December 2008.

- proposed revisions to be incorporated into the contributions policy.

Current Provisions of the Capital Contributions Policy

1156. Several parties that made submissions to the Authority on the proposed access arrangement revisions indicate that there are practical difficulties with broad principles and particular provisions of the current capital contributions policy that are proposed to be maintained in the contributions policy for the second access arrangement period. The particular matters of concern to parties that made submissions are:

- the charging of contributions in respect of costs of “deep” augmentations of the network, which may create barriers to entry for new generators and loads, result in inefficient market entry in generation and reduce competition in electricity markets;
- an absence of transparency in Western Power’s determination of contributions which limits the ability of network users to scrutinise the determination of contributions and ensure that contributions have been determined in accordance with the contributions policy and Access Code;
- an absence of guidance and transparency in the apportionment of contributions amongst multiple users, including expected future users; and
- an absence of an explicit obligation for Western Power to undertake works financed by contributions.

1157. These matters are interrelated and are addressed by the Authority as follows.

1158. The primary determinant of the amount of a contribution that can be required in respect of new facilities investment to augment a network is the amount of the new facilities investment that does not satisfy the new facilities investment test under section 6.52 of the Access Code. Under section 5.14 of the Access Code, a contributions policy must not require a user to make a contribution in respect of any new facilities investment that meets the new facilities investment test, with the exception of contributions required under a “headworks scheme” or new facilities investment for works of certain types specified in Appendix 8 of the Access Code.

1159. Where the provision of a service to a user will require works for “deep” augmentation of a network, the amount of a contribution to be required in respect of the new facilities investment for these works will depend upon how much of the new facilities investment is determined as meeting the new facilities investment test.

1160. The current capital contributions policy and the proposed contributions policy are consistent with this requirement by indicating, at clause 2(c)(i), that a contribution in respect of new facilities investment may only be required in respect of an amount that does not meet the new facilities investment test.

1161. In determining the amount of a contribution to be required in respect of new facilities investment, other than for exceptions provided for under Appendix 8 of the Access Code and under a headworks scheme, Western Power must necessarily determine the amount of the new facilities investment that meets the new facilities investment test. The new facilities investment test is the mechanism that prevents double recovery of the costs of the new facilities investment as Western Power may only require contributions in respect of new facilities investment that does not satisfy the test.

1162. Applying the new facilities investment test for the purposes of determining the amount of a contribution involves addressing the individual components of the test:

- ensuring that the forecast amount of the new facilities investment does not exceed the amount that would be invested by a service provider efficiently minimising costs;
- determining the amount of anticipated incremental revenue that would be gained or enabled by the works, which would include incremental revenue from both the user potentially liable for the contribution and from other users of the network;
- determining whether all or part of the new facilities investment falls under a “modified test” under sections 6.52(b)(i)B and 6.53 of the Access Code;⁴⁶¹
- determining the nature and value of any net benefits arising from the new facilities investment, which might be diverse in nature and include such benefits as, for example, increased reliability of network services and improved outcomes in electricity markets; and
- determining the extent to which any part of the new facilities investment is necessary to maintain the safety and reliability of the network or its ability to provide contracted covered services.

1163. While not indicated to this level of detail in the proposed contributions policy, the Authority is satisfied that these requirements are implicit in the provisions of clause 5.2 of the proposed contributions policy that sets out the calculation of a contribution and that indicates that a contribution in respect of new facilities investment excludes any amount that meets the new facilities investment test.

1164. Whether or not contributions should be charged in respect of new facilities investment for deep augmentations of the network is a matter to be determined according to a determination of the amount of the new facilities investment that satisfies the new facilities investment test. Western Power necessarily undertakes this determination in the first instance, although any determination is ultimately subject to approval by the Authority.⁴⁶² As part of an approval, the Authority will assess whether Western Power has appropriately applied the new facilities investment test, including whether Western Power has appropriately taken into account any benefits of deep augmentations of the network to those who generate, transport and consume electricity in the network.

1165. In applying the new facilities investment test and determining the amount of a contribution, Western Power is likely to take into account its expectations of the Authority’s ultimate assessment and approval. However, it is not a role of the Authority to decide whether Western Power has determined an amount of a contribution in accordance with the contributions policy. A dispute over the amount of a contribution is a matter to be resolved by negotiation between Western Power

⁴⁶¹ Neither the current access arrangement nor the proposed access arrangement include a modified test and, hence, this element of the new facilities investment test is not relevant to calculation of the amount of a contribution.

⁴⁶² The Authority must ultimately approve an amount of new facilities investment for any given capital project or program that satisfies the new facilities investment test, for the purposes of determining an amount that may be added to the capital base of the network under section 6.51A of the Access Code. The Authority may not, however, make this approval until some time after the investment has occurred and the amount of a contribution has been agreed.

and the user, or by the dispute resolution mechanisms of Chapter 10 of the Access Code.

1166. Pacific Hydro, Alinta Sales and Synergy have all indicated concern over an absence of transparency in Western Power's determination of contributions. Synergy further submits that the current capital contributions policy and proposed contributions policy provide insufficient guidance and transparency as to how any contribution is apportioned.
1167. Discipline on Western Power to determine contributions in accordance with the contributions policy is afforded primarily by a user negotiating an amount of a contribution with potential resort to dispute resolution. Given this, the Authority considers that availability to a user of the details of Western Power's calculation of a contribution payable by the user is necessary to ensure that the contributions policy is applied correctly and thereby facilitates operation of the Access Code. Accordingly, the Authority considers that an obligation on Western Power to provide this information is necessary for the policy to meet the requirements of section 5.13 of the Access Code.
1168. The Authority considers that the requirement for transparency in the application of the contributions policy should extend to all elements of the determination of the amount of a contribution payable by a user, including determination of contributions with respect to non-capital costs, determination of contributions under a headworks scheme and apportioning contributions amongst multiple users.

Required Amendment 41

The proposed access arrangement revisions should be amended such that the contributions policy includes an obligation on Western Power to provide an applicant or user with details of the calculation of any contribution to be required from the applicant or user including:

- where the contribution is in respect of new facilities investment, details of assessment of the new facilities investment against the requirements of the new facilities investment test and details of the calculation of the amount that does not meet the new facilities investment test;
- where the contribution is made in respect of non-capital costs related to alternative options, details of assessment of the non-capital costs against the alternative options test and details of the calculation of the amount that does not satisfy the alternative options test;
- details of assumptions and calculations applied in the apportionment of any forecast cost of works between the user or applicant and other users or applicants or Western Power under clause 5.4 of the contributions policy; and
- details of the calculation of a headworks contribution under clause 6 of the contributions policy.

1169. Where a contribution is provided in respect of any required work, Western Power is obliged to undertake the required work. This obligation arises under sections 2.10 and 2.11 of the Access Code.
1170. Synergy submits that the contributions policy should be amended to require that Western Power must undertake required works if the applicant enters into a contract with Western Power for the provision of a contribution, in accordance with the obligation under sections 2.10 and 2.11 of the Access Code.
1171. The obligation under sections 2.10 and 2.11 of the Access Code for Western Power to undertake works applies regardless of whether or not there is a provision to the same effect under the contributions policy. The Authority considers that it is not necessary to re-state this obligation in the contributions policy.

Proposed Revisions to the Contributions Policy

1172. Western Power has proposed several revisions to the contributions policy, some of which serve to clarify existing provisions and others of which are substantive changes to the policy. The Authority's considerations on substantive revisions are set out as follows.

Headworks Contributions

1173. Western Power has proposed revisions in the contributions policy to allow "headworks contributions" to be required in respect of costs of works where the works form part of a "headworks scheme" (clause 2(c)(iv) and clause 6).
1174. Sections 5.17C and 5.17D of the Access Code make explicit provision for a contributions policy to include a headworks scheme, with particular requirements for a headworks scheme set out in section 5.17D. These particular requirements and the manner in which they are addressed in the headworks scheme of the proposed contributions policy are examined as follows.
1175. Section 5.17D(a) of the Access Code requires that a headworks scheme must identify the class of works in respect of which the scheme applies, which must not include any works on a transmission system or any works that result in a geographic extension of a network.
1176. Western Power identifies the class of works in clause 6.1(a) of the proposed contributions policy as the class of works falling within the definition of headworks. "Headworks" is defined in the proposed contributions policy as meaning enhancements required to the existing high-voltage three-phase distribution system that provides for an increase in capacity of that system.
1177. The Authority is satisfied that this definition of headworks adequately excludes works on a transmission system and works that result in a geographic extension of a network. The Authority therefore considers that the headworks scheme meets the requirements of section 5.17D(a) of the Access Code for an identification of the class of works to which the headworks scheme applies.
1178. Section 5.17D(b) of the Access Code requires that a headworks scheme not seek to recover headworks charges in an access arrangement period that in aggregate exceed one per cent of the distribution system target revenue for the access arrangement period.

1179. Western Power has provided a forecast of revenue from headworks contributions of \$2 million in each year of the second access arrangement period.⁴⁶³ This equates to 0.25 per cent of the target reference service revenue for the distribution network proposed by Western Power, and 0.4 per cent of target reference service revenue for the distribution network determined by the Authority. Based on this forecast, the headworks scheme therefore meets the requirements of section 5.17D(b) of the Access Code.
1180. Section 5.17D(c) of the Access Code requires that a headworks scheme identify the class of users who must make a payment under the scheme.
1181. Clause 6.1(b) of the proposed contributions policy indicates that the headworks scheme applies to “the class of users who make a connection application in relation to the distribution system within a relevant area”. A relevant area is defined in the proposed contributions policy to mean “any area where the relevant connection point is located at a distance along the line feeder route equal to or greater than 25 km from the relevant zone substation within the network in the rural zone or mixed zone”. The proposed contributions policy indicates that “rural zone” and “mixed zone” are defined in section 4.3 of the price list information in the proposed access arrangement revisions, although no such definitions exist.
1182. The Authority is satisfied that the class of users to whom the headworks scheme would apply is adequately defined by the indication of the zone of the network within which the connection point will be located and the criterion of the distance of the connection point from the relevant zone substation. However, the Authority requires that the proposed access arrangement revisions be amended to include definitions of “rural zone” and “mixed zone” as appears to be intended in the proposed contributions policy.

Required Amendment 42

The proposed access arrangement revisions should be amended to include definitions of “rural zone” and “mixed zone” as these terms are used in the proposed contributions policy to define a class of user who must make a payment under the headworks scheme.

1183. Section 5.17D(d) of the Access Code requires that a headworks scheme set out a method for calculating the headworks charge, including that this method:
- (i) must have the objective that headworks charges under the headworks scheme will, in the long term, and when applied across all users in the class referred to in section 5.17D(c), recover no more than the service provider’s costs (such as would be incurred by a service provider efficiently minimising costs) of any headworks; and
 - (ii) must have the objective that the headworks charge payable by one user will differ from that payable by another user as a result of material differences in the users’ capacities and the locations of their connection points, unless the Authority considers that a different approach would better achieve the Code objective; and

⁴⁶³ Email correspondence from Western Power of 23 April 2009.

- (iii) may use estimates and forecasts (including long term estimates and forecasts) of loads and costs; and
- (iv) must contain a mechanism designed to ensure that there is no double recovery of costs in all the circumstances, including the manner of calculation of other contributions and tariffs; and
- (v) may exclude a rebate mechanism (of the type contemplated by clauses A4.13(d) or A4.14(c)(ii) of Appendix 4) and may exclude a mechanism for retrospective adjustments to account for the difference between forecast and actual values.

1184. Clauses 6.3 to 6.8 of the proposed contributions policy indicate that the amount of a headworks contribution is to be determined on the basis of the capacity requirement at the connection point, the distance of the connection point to the relevant zone substation and the relevant voltage for the connection point, which are together used to derive two “price components” being indicated in clause 6.8(a) to be:

- a price based on capacity sought, in terms of dollars per kVA; and
- a price based on the capacity sought and the distance from the relevant zone substation to the relevant connection point, less 25 km, in terms of dollars per kVA.km.

1185. Clause 6.8(b) indicates that separate prices will be determined for 22 kV connections and 33 kV connections.

1186. The provisions of the proposed contributions policy dealing with determination of the headworks contribution are general in nature and indicate the parameters of a connection point that are to be applied to determine the headworks contributions, and the general structure of the headworks charges. Absent from the provisions are:

- any indication of the manner in which the amount of costs to be recovered from the headworks contributions are determined and how the magnitude of headworks contributions are determined;
- a method of ensuring that headworks contributions will, in the long term, recover no more than Western Power’s costs of the headworks; and
- mechanisms to ensure that any amount of the costs of headworks recovered by headworks contributions are not also recovered, or sought to be recovered, through other contributions or through tariffs for services.

1187. The Authority considers that these matters are important in ensuring the transparency of contributions required as part of a headworks scheme. Under a headworks scheme, Western Power is charging contributions that are not necessarily directly related to particular capital projects. As such, the amount of a headworks contribution is not tied directly to either a forecast cost for particular works or an assessment of the extent to which the new facilities investment for a particular network augmentation satisfies the new facilities investment test. Inclusion in the contributions policy of transparent mechanisms for the calculation and recording of headworks contributions is necessary to ensure that the magnitude of a headworks contribution reasonably reflects a forecast cost of related network augmentations and that Western Power does not recover revenue in excess of the capital costs of network augmentations by both collecting headworks contributions and adding related new facilities investment to the capital base of the network.

1188. For reason of these deficiencies, the Authority considers that the headworks scheme under the proposed contributions policy does not satisfy the requirements of section 5.17D(d) of the Access Code.

Required Amendment 43

The proposed access arrangement revisions should be amended such that clause 6 of the contributions policy sets out:

- the method or calculation and assumptions applied in determining the amount of costs to be recovered by headworks contributions;
- the method or calculation and assumptions applied in determining the allocation of costs across a forecast of connections to the network and determining the magnitude of headworks contributions;
- the procedures or methods applied by Western Power to ensure that headworks contributions will, in the long term, recover no more than Western Power's costs of the headworks; and
- a mechanism, which may involve a system of accounting records, to ensure that any amount of the costs of headworks recovered by headworks contributions are not also recovered, or sought to be recovered, through other contributions or through tariffs for services.

1189. Mr Noel Schubert submits that the proposed structure of headworks contributions does not promote efficiency of use of network capacity and efficient investment in the network.⁴⁶⁴ Mr Schubert submits that the headworks contributions as proposed by Western Power provide poor signals for efficient investment in the network as:

- the headworks contributions are levied per kVA of user demand irrespective of whether that demand occurs at the actual time of the peak demand for the local network, which drives the need for network reinforcement, or at some other time; and
- the headworks contributions apply only to new connection points regardless of whether the electricity customer at a new connection point contributes to peak demand, and regardless of the decisions of customers and existing connection points that affect peak demand.

1190. Mr Schubert submits that efficient investment in network capacity would be better achieved by a headworks contribution levied on all electricity customers as a charge for use of energy at times of peak energy demand.

1191. The Authority recognises that a headworks scheme as provided for in the Access Code is a very “blunt” instrument in creating incentives for efficient investment in network capacity. At best, a headworks scheme may create incentives for development at locations where the network is least constrained. However, even this incentive is weak as the proposed headworks scheme does not allow for the

⁴⁶⁴ Mr Noel Schubert submission of 19 December 2008.

value of contributions to vary according to the need for investment to meet energy demands at particular locations or for particular feeders of the distribution network.

1192. The Authority concurs with Mr Schubert's proposition that time-of-use pricing of electricity, with prices at peak time reflecting local network constraints, would provide better incentives for efficient investment in the network. However, such a scheme of prices cannot readily be achieved solely through the setting of network charges and headworks contributions. Rather, reforms would be required to retail pricing of electricity and in conjunction with installation of time-of-use meters at connection points. The Authority is aware that these are matters being studied by the Office of Energy.⁴⁶⁵ At the current time, they are matters that fall outside of relevant considerations for the Authority's consideration of the headworks scheme.

Contributions in Respect of Non-Capital Costs

1193. The Access Code allows for Western Power to require contributions in respect of non-capital costs subject to the general objectives for a contributions policy under sections 5.12 and 5.13, and subject to the particular requirements of section 5.14 that:

- a contributions policy must not require a user to make a contribution in respect of any part of non-capital costs that would not be incurred by a service provider efficiently minimising costs (section 5.14(b));
- contributions may only be required in respect of required work (section 5.14(c)); and
- the contributions policy must contain a mechanism designed to ensure that there is no "double recovery" of non-capital costs (section 5.14(d)).

1194. The proposed contributions policy includes provisions that enable Western Power to require a contribution in respect of non-capital costs where:

- the costs are incurred in works undertaken in providing an "alternative option", but the costs do not satisfy the "alternative options test" under section 6.41 of the Access Code that would otherwise enable recovery of these costs as part of the target revenue recovered from reference tariffs (clause 2(c)(ii) of the proposed contributions policy); and
- the costs are incurred in "non-capital works" required in response to a connection application where the non-capital costs associated with such works are costs that would not be incurred by a service provider efficiently minimising costs (clause 2(c)(iii)).

1195. The second of these provisions for requiring contributions in respect of non-capital costs is in direct contravention of section 5.14(b) of the Access Code that prohibits a contributions policy requiring a user to make a contribution in respect of any part of non-capital costs that would not be incurred by a service provider efficiently minimising costs. Whatever Western Power's intention in providing for contributions to be required in these circumstances, such contributions are expressly not permitted under the Access Code.

⁴⁶⁵ Office of Energy web site: http://www.energy.wa.gov.au/2/3240/64/electricity_ret.pm (17 March 2009)

Required Amendment 44

The proposed access arrangement revisions should be amended to delete the proposed clause 2(c)(iii) of the contributions policy that seeks to allow Western Power to require a contribution in respect of non-capital costs required in response to a connection application, where the non-capital costs associated with such works are costs which would not be incurred by a service provider efficiently minimising costs.

1196. Turning to the first of the above-mentioned provisions for contributions in respect of non-capital costs, Western Power proposes that contributions in respect of non-capital costs be charged where the relevant costs do not satisfy a test contained in section 6.41 of the Access Code.
1197. The “alternative options test” under section 6.41 of the Access Code is a test to determine whether certain non-capital costs may be included in the amount of total costs taken into account under section 6.2(a) of the Access Code in determining an amount of target revenue for recovery under the price control applying to the network.
1198. Under section 6.41 of the Access Code, an “alternative option” is defined in relation to a major augmentation of the network and means an alternative to part or all of a major augmentation, including demand-side management and generation solutions (such as distributed generation), either instead of or in combination with network augmentation. Under section 6.41, non-capital costs associated with an alternative option may be included in the amount of total costs calculated for the network if:
- under section 6.41(a), the relevant non-capital costs do not exceed the amount of alternative option non-capital costs that would be incurred by a service provider efficiently minimising costs; and
 - under section 6.41(b), at least one of the following conditions is satisfied:
 - the additional revenue for the alternative option is expected to at least recover the alternative option non-capital costs; or
 - the alternative option provides a net benefit in the covered network over a reasonable period of time that justifies higher reference tariffs; or
 - the alternative option is necessary to maintain the safety or reliability of the covered network or its ability to provide contracted covered services.
1199. For the purposes of the proposed contributions policy, Western Power modifies the test of section 6.41 of the Access Code by applying a broader definition of alternative options as “alternatives to part or all of a network enhancement, including demand-side management and generation solutions (such as distributed generation) either instead of or in combination with a network enhancement”. Under the proposed contributions policy, an alternative option may exist for any enhancement of the network and not just for a major augmentation of the network.

1200. The Authority accepts that Western Power may incur non-capital costs in implementing alternative options as defined under the contributions policy such as, for example, establishing and managing a demand-side management scheme, and the leasing and operating of generation plant for the purposes of using generation for network support as an alternative to augmentation of the network. In modifying and applying the test under section 6.41 to these non-capital costs, Western Power seeks to ensure that it is able to recover non-capital costs arising in the implementation of an alternative option where these costs may not otherwise be recoverable.
1201. The Authority considers that this provision for requiring contributions facilitates operation of the Access Code and is consistent with the Code objective for reason that it negates any possible disincentive for Western Power to implement alternative options where those alternative options cause Western Power to incur non-capital costs, rather than costs of new facilities investment.
1202. Furthermore, the Authority considers that applying the test of section 6.41 of the Access Code in determining an amount of a contribution in respect of non-capital costs provides a mechanism for ensuring that contributions in respect of non-capital costs are limited to costs that may not be recoverable under the price control applying to covered network services, thus not allowing the double recovery of costs and ensuring consistency with section 5.14(d) of the Access Code.
1203. However, the Authority considers that provision under the contributions policy for contributions in respect of non-capital costs incurred in the implementation of an alternative option is unnecessary to allow Western Power to recover the relevant non-capital costs, at least to the extent that the costs are able to be forecast and allowed to be recovered under the price control applying for the relevant access arrangement period.
1204. Under section 6.40 of the Access Code, the total costs able to be recovered under a price control may include non-capital costs that would be incurred by a service provider efficiently minimising costs. "Efficiently minimising costs" is defined in the Access Code as meaning "the service provider incurring no more costs than would be incurred by a prudent service provider, acting efficiently, in accordance with good electricity industry practice, seeking to achieve the lowest sustainable cost of delivering covered services and without reducing service standards below the service standard benchmarks set for each covered service in the access arrangement or contract for services".
1205. There is nothing under section 6.40 that would prevent Western Power from recovering, as part of total costs recoverable under the price control, any non-capital costs arising in implementation of an alternative option and that are forecast prior to the price control being established for an access arrangement period. Moreover, to the extent that these costs are able to be included in forecasts applied in setting the price control, the Code objective would be better served by allowing for recovery of the costs through the price control, rather than through contributions, as recovery through the price control would carry desirable incentives for achieving cost efficiencies.
1206. The only non-capital costs that might be incurred by Western Power in implementing an alternative option (and acting as a service provider efficiently minimising costs), but that may not be recovered under the price control would be those costs that were not included in the forecasts of costs applied in setting the price control. A mechanism to allow recovery of these non-capital costs through

contributions would facilitate the operation of the Access Code and be consistent with the Code objective by ensuring that there is no disincentive for Western Power to implement alternative options of a non-capital nature in preference to new facilities investment in network augmentation. The Authority therefore considers that consistency with section 5.13 of the Access Code and the Code objective requires that contributions in respect of non-capital costs be allowed for only in these circumstances. In any case, the Authority considers that the test of section 6.41 of the Access Code should apply to ensure that the non-capital costs recovered by contributions are limited to that part of the costs of works that benefits only the user paying the contribution, rather than users of the network more generally.

Required Amendment 45

The proposed access arrangement revisions should be amended such that the contributions policy only allows for contributions in respect of non-capital costs incurred in the implementation of an alternative option where:

- the alternative option is being implemented in response to a connection application; and
- the costs are costs that would be incurred by a service provider efficiently minimising costs; and
- Western Power is able to clearly demonstrate that the costs were not included, and could not reasonably have been included, in forecasts of non-capital costs taken into account in setting the price control; and
- the conditions of section 6.41(b) of the Access Code are not satisfied.

Requirements for Security

1207. Western Power has proposed new provisions in the contributions policy relating to the ability of Western Power to require security from an applicant in respect of the amount of revenue from charges for services to be provided to the applicant that were forecast in planning an augmentation and that were taken into account in calculating the amount of a contribution.

1208. Under clause 4.3 of the current capital contributions policy, Western Power is able to require security in respect of forecast revenue from the applicant where the forecast costs with respect to the connection application are greater than \$50,000. Western Power is able to require the security to be maintained for an initial period of 12 months and a maximum period of 24 months. After this period, the amount of any contribution may be reassessed.

1209. Western Power has proposed changes to clause 4.3 to distinguish between circumstances where the forecast costs in respect of a connection application are between \$50,000 and \$1 million, and greater than \$1 million, and to allow Western Power to extend the periods for which security is to be maintained:

- where the forecast costs are greater than \$50,000 and less than \$1 million, security may be required for an initial period of 24 months and a maximum

period of 36 months, or other such periods as reasonably determined by Western Power acting as a reasonable and prudent operator; and

- where the forecast costs are equal to or greater than \$1 million, Western Power may require the applicant to provide security on terms acceptable to Western Power acting as a reasonable and prudent person.

1210. Western Power has not provided information on the reasons for the proposed changes to the requirements for security.

1211. Alinta Sales submits that the potentially open-ended requirement for security has the potential to impose material and unquantifiable costs on applicants, creating barriers to entry to the electricity market and reduce competition in the electricity market.⁴⁶⁶

1212. The Authority considers that the requirements for security in respect of the amount of revenue from charges for services to be provided to the applicant should be assessed in the context of the purpose of capital contributions.

1213. Under the regulatory scheme of the Access Code, the new facilities investment test and provisions for contributions are intended to promote efficiency of new facilities investment. Under this scheme, any new facilities investment that is not to the general benefit of all network users is financed by contributions from the party that obtains a private benefit from the investment (i.e. the applicant for connection). In determining whether or not to pay the amount of the contribution, the applicant will assess whether the private benefits of the investment exceed the amount of the contribution. If so, the new facilities investment is efficient, the applicant has an incentive to pay the contribution, and the efficient investment will proceed.

1214. Part of the determination of the amount of new facilities investment that satisfies the new facilities investment test is an assessment of the amount of anticipated (or forecast) incremental revenue enabled by the investment. A forecast of revenue from the charges to be paid by the applicant may form a significant part of the incremental revenue.

1215. Within this context, the function of security against the forecast of revenue from the charges to be paid by the applicant is to motivate the applicant to make a reasonable forecast, as the applicant may otherwise have an incentive to overstate a forecast of its use of network services and so reduce the contribution payable.

1216. In the absence of any justifying information from Western Power, the Authority considers that the existing requirements for security under the current capital contributions policy are likely to be sufficient to fulfil this function. The Authority considers that expanded requirements for security may impose a significant additional cost on applicants for connection to the network without any commensurate benefit in efficiency of investment.

⁴⁶⁶ Alinta Sales Pty Ltd submission of 17 December 2008.

Required Amendment 46

The proposed access arrangement revisions should be amended to delete the expanded requirements for security proposed under clause 4.3 of the contributions policy.

Apportioning Contributions Across Users

1217. Clause 2.4(c) of the current capital contributions policy provides for Western Power to apportion contributions across users that connect to the network at different times within a 10-year time period from the date of the first applicant's connection application.
1218. Western Power proposes changes to clause 2.4(c) to allow the period taken into account for the apportioning of contributions to be longer than 10 years, if so determined by Western Power acting as a reasonable and prudent person.
1219. Western Power has not provided information on the reasons for the proposed changes.
1220. None of the parties making submissions to the Authority addressed these proposed changes.
1221. Taking into account the absence of submissions, the Authority considers that allowing flexibility in the time period over which apportioning of contributions may occur is consistent with the requirements of section 5.12 of the Access Code for a balance between the interests of contributing users and other users.

Adjustment of Contributions to Reflect Actual Costs

1222. Clause 8 of the current capital contributions policy and the proposed contributions policy deals with the manner in which a contribution may be paid.
1223. Western Power has proposed a new provision under clause 8.1 of the proposed contributions policy that allows Western Power and an applicant, in circumstances where the amount of a contribution is greater than \$1 million, to negotiate for the amount of a contribution to be adjusted to reflect the actual costs of the required works.
1224. Synergy submits that allowing for adjustment of contributions to reflect actual costs only where contributions are in excess of \$1 million is inconsistent with ensuring, for all contributions, that there is no double recovery of costs.⁴⁶⁷
1225. Under both the current capital contributions policy and the proposed contributions policy, contributions are determined on the basis of forecasts of costs. A mechanism of the policy to ensure that there is no double recovery of costs

⁴⁶⁷ Synergy submission of 17 December 2008 on Contribution Policy and Approved [Access Code] Amendments.

operates by determining the amount of the forecast costs that may be recovered by contributions as distinct from the amounts that may be recovered by other means.

1226. The Authority considers that the determination of contributions on the basis of cost forecasts is consistent with the requirements of the Access Code for a contributions policy and facilitates the operation of the Access Code by ensuring that Western Power has incentives to seek cost efficiencies in undertaking the relevant works by virtue of Western Power bearing risks of cost overruns.

1227. The proposed provision of the contributions policy to allow Western Power and an applicant to negotiate to adjust the amount of a contribution to reflect actual costs provides an opportunity for Western Power and the applicant to enter into alternative arrangements for the sharing of cost risk. As there is no obligation on either Western Power or the applicant to enter into such negotiations, or to agree to an *ex post* adjustment of contributions the Authority considers that the proposed provision can only result in improved outcomes for Western Power and the applicant. As such, the Authority considers that the proposed provision is consistent with the Code objective.

TRANSFER AND RELOCATION POLICY

Access Code Requirements

1228. Section 5.1(i) of the Access Code requires that an access arrangement include a transfer and relocation policy. The particular requirements for a transfer and relocation policy are set out in sections 5.18 to 5.24 of the Access Code:

5.18 A transfer and relocation policy:

- (a) must permit a user to make a bare transfer without the service provider's consent; and
- (b) may require that a transferee under a bare transfer notify the service provider of the nature of the transferred access rights before using them, but must not otherwise require notification or disclosure in respect of a bare transfer.

5.19 For a transfer other than a bare transfer, a transfer and relocation policy:

- (a) must oblige the service provider to permit a user to transfer its access rights and, subject to section 5.20, may make a transfer subject to the service provider's prior consent and such conditions as the service provider may impose; and
- (b) subject to section 5.20, may specify circumstances in which consent will or will not be given, and conditions which will be imposed, under section 5.19(a).

5.20 Under a transfer and relocation policy, for a transfer other than a bare transfer, a service provider:

- (a) may withhold its consent to a transfer only on reasonable commercial or technical grounds; and
- (b) may impose conditions in respect of a transfer only to the extent that they are reasonable on commercial and technical grounds.

5.21 A transfer and relocation policy:

- (a) must permit a user to relocate capacity at a connection point in its access contract to another connection point in its access contract, (a 'relocation') and, subject to section 5.22, may make a relocation subject to the service

- provider's prior consent and such conditions as the service provider may impose; and
- (b) subject to section 5.22, may specify in advance circumstances in which consent will or will not be given, and conditions which will be imposed, under section 5.21(a).
- 5.22 Under a transfer and relocation policy, for a relocation a service provider:
- (a) must withhold its consent where consenting to a relocation would impede the ability of the service provider to provide a covered service that is sought in an access application; and
- (b) may withhold its consent to a relocation only on reasonable commercial or technical grounds; and
- (c) may impose conditions in respect of a relocation only to the extent that they are reasonable on commercial and technical grounds.
- 5.23 An example of a thing that would be reasonable for the purposes of sections 5.20 and 5.22 is the service provider specifying that, as a condition of its agreement to a transfer or relocation, the service provider must receive at least the same amount of revenue as it would have received before the transfer or relocation, or more revenue if tariffs at the destination point are higher.
- 5.24 Section 5.23 does not limit the things that would be reasonable for the purposes of sections 5.20 and 5.22.

1229. The Access Code does not provide a model transfer and relocation policy.

Current Access Arrangement

1230. The current access arrangement includes a transfer and relocation policy at Appendix 2.

1231. The transfer and relocation policy of the current access arrangement is indicated at clause 2.1 to apply to any access contract unless otherwise explicitly stated in the access contract, and includes:

- definitions of terms and rules of interpretation (clause 1);
- indication that the transfer and relocation policy applies to any access contract unless otherwise explicitly stated in the access contract (clause 2) and prohibition of any transfer of rights under an access contract except as allowed for under the transfer and relocation policy (clause 3);
- provision for bare transfers of rights under an access contract (clause 4);
- provision for assignments of rights under an access contract other than a bare transfer, subject to consent of Western Power (clause 5); and
- provision for a relocation by a user of contracted capacity at one connection point to another connection point, where the user has an access contract for both connection points (clause 6).

Proposed Revisions

1232. Western Power has proposed revisions to the provisions of clause 1 of the transfer and relocation policy dealing with definitions and interpretation. No revisions have been proposed for the substantive provisions of the policy.

1233. Material changes proposed to definitions of terms at clause 1.1 of the transfer and relocation policy comprise only a change in the definition of contracted capacity:

~~“contracted capacity”, at a connection point, means the maximum rate a user is permitted to transfer electricity at that connection point under the user’s access contract~~ for a connection point, means the maximum rate at which a user is permitted to transfer electricity to or from the network at the connection point, being either:

- (a) the rate specified in the user’s access contract from time to time; or
- (b) if no rate is specified in the user’s access contract, the maximum rate of electricity permitted to be transferred under the reference service eligibility criteria for the reference service for that connection point in the user’s electricity transfer access contract; or
- (c) if no rate is specified in the user’s access contract or in the reference service eligibility criteria, the maximum rate of electricity permitted to be transferred through the connection assets under the technical rules,

as applicable, and is measured in Watts or Volt-Amps.

1234. Proposed changes to clause 1.2, dealing with interpretation, comprise deletion of several provisions dealing with interpretation of common terms and replacement with a general provision to indicate that a term with a defined meaning in the Access Code has the same meaning in the transfer and relocation policy, unless the contrary intention is apparent or the term has been redefined in clause 1.1 of the transfer and relocation policy.

Submissions

1235. None of the submissions made to the Authority on the proposed access arrangement revisions address the transfer and relocation policy.

Considerations of the Authority

1236. The Authority has reviewed the proposed revisions to the transfer and relocation policy and considers that the proposed revisions do not affect the operation of the substantive provisions of the policy.

1237. Taking into account the absence of submissions on the transfer and relocation policy, the Authority considers that the transfer and relocation policy of the proposed access arrangement revisions are consistent with the requirements of the Access Code.

APPENDICES

APPENDIX A: TARGET REVENUE CALCULATION (REVENUE MODEL)

The target revenue calculation (revenue model) sets out the Authority's determination and, in the event of inconsistency, the numbers in the calculation prevail over any other statement of these values in this decision.

The numbers in the revenue model are shown to 3 decimal places.

Due to size and formatting, Appendix A is provided as a separate document to this Draft Decision and is available from the Authority's web site.⁴⁶⁸

⁴⁶⁸ Economic Regulation Authority web site: http://www.era.wa.gov.au/3/719/48/access_arrangem.pm

APPENDIX B: ILLUSTRATIVE EXAMPLES OF ADJUSTMENT MECHANISMS

Gain Sharing Mechanism

At Appendix 8 of the proposed access arrangement revisions, Western Power provides an illustrative example of the out-workings of the proposed gain sharing mechanism. Under this Draft Decision, the Authority is requiring amendment of the proposed revised access arrangement to include a different specification of the gain sharing mechanism.

A comparison of the out-workings of the proposed and required gain sharing mechanisms under the same example of forecast and actual costs is provided as follows.

Western Power's proposed gain sharing mechanism

Access Arrangement Period	Second (2009-2012)				Third (2012-2015)			Fourth (2015-2018)		
Year	1	2	3	Total	4	5	6	7	8	9
Cost forecast	100	100	100	300						
Adjustments	10	12	14	36						
Efficiency and innovation benchmark	110	112	114	336						
Actual costs	103	113	104	320						
Above-benchmark surplus	7	-1	10	16						
Adjustment for penalty under the service standard adjustment mechanism	-2	0	0	-2						
Efficiency gain attributed to management effort	5	-1	10	14						
Average annual efficiency gain				4.7						
Adjustments to target revenue in subsequent access arrangement periods					4.7	4.7	4.7	4.7	4.7	

Authority's required gain sharing mechanism

Access Arrangement Period	Second (2009-2012)			Third (2012-2015)			Fourth (2015-2018)		
Year	1	2	3	4	5	6	7	8	9
Cost forecast	100	100	100						
Adjustments	10	12	14						
Efficiency and innovation benchmark	110	112	114						
Actual costs	103	113	104						
Service standards achieved	No	Yes	Yes						
Above-benchmark surplus (calculated as the incremental change in performance against the forecast, or zero if service standards are not achieved)	0	-8	11						
Adjustments to target revenue in subsequent access arrangement periods (allowing for a five year carryover from the year of the efficiency gain, with a lower bound of zero)				3	3	3	3	11	

Service Standard Adjustment Mechanism

The Authority is requiring amendment of the proposed access arrangement revisions to include a different specification of the service standard adjustment mechanism. A comparison of the out-workings of the proposed and required service standard adjustment mechanisms under the same example of forecast and actual costs is provided as follows.

The comparison is made on the basis of the value of penalties that would apply to Western Power with actual service standards for all service standard parameters representing an under-performance against service standard benchmarks at values equal to the values proposed by Western Power as limits applying under a service standard adjustment mechanism.

Western Power's Proposed Service Standard Adjustment Mechanism

Performance limits and incentive rates proposed to apply under the service standard adjustment mechanism for the transmission network as follows:

Service standard	Year	Dead-band					Incentive rate (\$ real at 30 June 2009 per 0.1% circuit availability and per 0.1 system minutes interrupted)
		Low Limit	Lower bound	Target	Upper bound	High Limit	
Circuit availability (%)	2009/10	97.0	97.5	98	98.5	99.0	165,094
	2010/11	97.0	97.5	98	98.5	99.0	218,215
	2011/12	97.0	97.5	98	98.5	99.0	288,532
System minutes interrupted (meshed network)	2009/10	7.4	8.4	9.3	10.2	11.2	84,322
	2010/11	7.4	8.4	9.3	10.2	11.2	111,474
	2011/12	7.4	8.4	9.3	10.2	11.2	147,369
System minutes interrupted (radial network)	2009/10	1.1	1.3	1.4	1.5	1.7	29,481
	2010/11	1.1	1.3	1.4	1.5	1.7	38,974
	2011/12	1.1	1.3	1.4	1.5	1.7	51,524

Performance limits and incentive rates proposed to apply for SAIDI under the service standard adjustment mechanism for the distribution network are as follows:

Service standard	Year	Dead-band					Incentive rate (\$ real at 30 June 2009 per SAIDI minute)
		Low Limit	Lower bound	Target	Upper bound	High Limit	
SAIDI – CBD (minutes)	2009/10	30	34	38	42	46	89,845
	2010/11	30	34	38	42	46	118,877
	2011/12	30	34	38	42	46	155,200
SAIDI – urban (minutes)	2009/10	129	145	161	177	193	89,845
	2010/11	120	135	150	165	180	118,877
	2011/12	114	128	142	156	170	155,200
SAIDI – rural short (minutes)	2009/10	202	228	253	278	304	3,416
	2010/11	186	210	233	256	280	4,548
	2011/12	178	200	222	244	266	5,906
SAIDI – rural long (minutes)	2009/10	479	539	599	659	719	3,416
	2010/11	454	510	567	624	680	4,548
	2011/12	438	493	548	603	658	5,906

Performance limits and incentive rates proposed to apply for SAIFI under the service standard adjustment mechanism for the distribution network are as follows:

Service standard	Year	Dead-band					Incentive rate (\$ real at 30 June 2009 per SAIFI event ⁴⁶⁹)
		Low Limit	Lower bound	Target	Upper bound	High Limit	
SAIFI – CBD	2009/10	0.19	0.22	0.24	0.26	0.29	4,216,767
	2010/11	0.19	0.22	0.24	0.26	0.29	5,587,216
	2011/12	0.19	0.22	0.24	0.26	0.29	7,313,110
SAIFI – urban	2009/10	1.50	1.69	1.88	2.07	2.26	4,216,767
	2010/11	1.41	1.58	1.76	1.94	2.11	5,587,216
	2011/12	1.34	1.50	1.67	1.84	2.00	7,313,110
SAIFI – rural short	2009/10	2.44	2.75	3.05	3.36	3.66	183,284
	2010/11	2.26	2.55	2.83	3.11	3.40	243,520
	2011/12	2.16	2.43	2.70	2.97	3.24	317,136
SAIFI – rural long	2009/10	3.91	4.40	4.89	5.38	5.87	183,284
	2010/11	3.71	4.18	4.64	5.10	5.57	243,520
	2011/12	3.58	4.02	4.47	4.92	5.36	317,136

The tables below show the maximum value of penalties that would be incurred by Western Power under its proposed service standard adjustment mechanism with under-performance against service standard benchmarks at values equal to the limits of under-performance recognised by the proposed mechanism.

The total value of penalties is also shown as a percentage of the reference service revenue determined by the Authority in this Draft Decision.

⁴⁶⁹ The proposed access arrangement revisions incorrectly state the incentive rate to be in units of dollars per SAIFI minute. The Authority has confirmed with Western Power that this is an error and the correct units are dollars per SAIFI event (email from Western Power to the Authority of 6 April 2009).

Transmission

Service standard parameter	Year	Achieved service standard	Dead-band bound	Difference	Incentive rate (\$ per 0.1% circuit availability and per 0.1 system minutes interrupted)	Penalty
Circuit availability (%)	2009/10	97.0	97.5	-0.5	165,094	825,470
	2010/11	97.0	97.5	-0.5	218,215	1,091,275
	2011/12	97.0	97.5	-0.5	288,532	1,442,660
System minutes interrupted (meshed network)	2009/10	11.2	10.2	-1.0	84,322	843,220
	2010/11	11.2	10.2	-1.0	111,474	1,114,740
	2011/12	11.2	10.2	-1.0	147,369	1,473,690
System minutes interrupted (radial network)	2009/10	1.7	1.5	-0.2	29,481	58,962
	2010/11	1.7	1.5	-0.2	38,974	77,948
	2011/12	1.7	1.5	-0.2	51,524	103,048
Annual penalties	2009/10					1,727,652
	2010/11					2,283,963
	2011/12					3,019,398
Present value of penalties at discount rate of 7.06 per cent						6,066,976
Present value of reference service revenue as determined under this Draft Decision						771,650,880
Penalties as per cent of reference tariff revenue						0.79

Distribution

Service standard parameter	Year	Achieved service standard	Dead-band bound	Difference	Incentive rate (\$ per SAIDI minute or SAIFI event)	Penalty
SAIDI – CBD	2009/10	46	42	-4	89,845	359,380
	2010/11	46	42	-4	118,877	475,508
	2011/12	46	42	-4	155,200	620,800
SAIDI – Urban	2009/10	193	177	-16	89,845	1,437,520
	2010/11	180	165	-15	118,877	1,783,155
	2011/12	170	156	-14	155,200	2,172,800
SAIDI – Rural Short	2009/10	304	278	-26	3,416	88,816
	2010/11	280	256	-24	4,548	109,152
	2011/12	266	244	-22	5,906	129,932
SAIDI – Rural Long	2009/10	719	659	-60	3,416	204,960
	2010/11	680	624	-56	4,548	254,688
	2011/12	658	603	-55	5,906	324,830
SAIFI – CBD	2009/10	0.29	0.26	-0.03	4,216,767	126,503
	2010/11	0.29	0.26	-0.03	5,587,216	167,616
	2011/12	0.29	0.26	-0.03	7,313,110	219,393
SAIFI – Urban	2009/10	2.26	2.07	-0.19	4,216,767	801,186
	2010/11	2.11	1.94	-0.17	5,587,216	949,827
	2011/12	2.00	1.84	-0.16	7,313,110	1,170,098
SAIFI – Rural Short	2009/10	3.66	3.36	-0.30	183,284	54,985
	2010/11	3.40	3.11	-0.29	243,520	70,621
	2011/12	3.24	2.97	-0.27	317,136	85,627
SAIFI – Rural Long	2009/10	5.87	5.38	-0.49	183,284	89,809
	2010/11	5.57	5.10	-0.47	243,520	114,454
	2011/12	5.36	4.92	-0.44	317,136	139,540
Annual penalties	2009/10					3,163,159
	2010/11					3,925,021
	2011/12					4,863,019
Present value of penalties at discount rate of 7.06 per cent						10,341,993
Present value of reference service revenue under this Draft Decision						1,293,448,610
Penalties as per cent of reference tariff revenue						0.80

The following tables show the value of penalties that would be incurred by Western Power under the service standard adjustment mechanism required by the Authority and with under-performance against service standard benchmarks at the same levels as the tables above. Again, the total value of penalties is also shown as a percentage of the reference service revenue determined by the Authority in this Draft Decision.

Transmission

Service standard parameter	Year	Achieved service standard	Target	Difference	Incentive rate (\$ per 0.1% circuit availability and per 0.1 system minutes interrupted)	Penalty
Circuit availability (%)	2009/10	97.0	98.0	-1.0	412,735	4,127,350
	2010/11	97.0	98.0	0	545,538	0
	2011/12	97.0	98.0	0	721,330	0
System minutes interrupted (meshed network)	2009/10	11.2	9.3	-1.9	210,805	4,005,295
	2010/11	11.2	9.3	0	278,685	0
	2011/12	11.2	9.3	0	368,423	0
System minutes interrupted (radial network)	2009/10	1.7	1.4	-0.3	73,703	221,108
	2010/11	1.7	1.4	0	97,435	0
	2011/12	1.7	1.4	0	128,810	0
<hr/>						
Annual penalties	2009/10					8,353,753
	2010/11					0
	2011/12					0
<hr/>						
Present value of penalties at discount rate of 7.06 per cent						7,802,870
<hr/>						
Present value of reference service revenue under this Draft Decision						771,650,880
<hr/>						
Penalties as per cent of reference tariff revenue						1.01
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Distribution

Service standard parameter	Year	Achieved service standard	Target	Difference	Incentive rate (\$ per SAIDI minute or SAIFI event)	Penalty / (Reward)
SAIDI – CBD	2009/10	46	38	-8	224,612	1,796,900
	2010/11	46	38	0	297,192	0
	2011/12	46	38	0	388,000	0
SAIDI – Urban	2009/10	193	161	-32	224,612	7,187,600
	2010/11	180	150	2	297,192	(594,385)
	2011/12	170	142	2	388,000	(776,000)
SAIDI – Rural Short	2009/10	304	253	-51	8,540	435,540
	2010/11	280	233	4	11,370	(45,480)
	2011/12	266	244	3	14,765	(44,295)
SAIDI – Rural Long	2009/10	719	599	-120	8,540	1,024,800
	2010/11	680	567	7	11,370	(79,590)
	2011/12	658	548	3	14,765	(44,295)
SAIFI – CBD	2009/10	0.29	0.24	-0.05	10,541,918	527,096
	2010/11	0.29	0.24	0	13,968,040	0
	2011/12	0.29	0.24	0	18,282,775	0
SAIFI – Urban	2009/10	2.26	1.88	-0.38	10,541,918	4,005,929
	2010/11	2.11	1.76	0.03	13,968,040	(419,041)
	2011/12	2.00	1.67	0.02	18,282,775	(365,655)
SAIFI – Rural Short	2009/10	3.66	3.05	-0.61	458,210	279,508
	2010/11	3.40	2.83	0.04	608,800	(24,352)
	2011/12	3.24	2.70	0.03	792,840	(23,785)
SAIFI Rural Long	2009/10	5.87	4.89	-0.98	458,210	449,046
	2010/11	5.57	4.64	0.05	608,800	(30,440)
	2011/12	5.36	4.47	0.04	792,840	(31,714)
Annual penalties	2009/10					15,706,418
	2010/11					(1,193,288)
	2011/12					(1,285,744)
Present value of penalties at discount rate of 7.06 per cent						12,581,786
Present value of reference service revenue under this Draft Decision						1,293,448,610
Penalties as per cent of reference tariff revenue						0.97

APPENDIX C: CONSULTANT REPORTS COMMISSIONED BY THE AUTHORITY

The following consultant reports were commissioned by the Authority:⁴⁷⁰

- BDO Kendalls, 2 July 2009, Regulatory Financial Audit: Western Power.
- Geoff Brown & Associates Ltd, 14 July 2009, Review of New Facilities Investment Test Compliance: Western Power AA1 Projects.
- Geoff Brown & Associates Ltd, 14 July 2009, Review of Expenditure Governance: Western Power.
- Wilson Cook & Co Limited, May 2009, Review of Western Power's Expenditures for Second Access Arrangement. Final Report.

⁴⁷⁰ Reports are available from the Economic Regulation Authority web site:
http://www.era.wa.gov.au/3/719/48/access_arrangem.pm

APPENDIX D: TERMS / ABBREVIATIONS

Term

Access Code	<i>Electricity Networks Access Code 2004</i>
Act	<i>Electricity Industry Act 2004</i>
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AS	Australian standard
Authority	Economic Regulation Authority
CAPM	capital asset pricing model
CCIWA	Chamber of Commerce and Industry Western Australia
Communication Rules	<i>Electricity Industry Metering Code 2005 Communication Rules</i>
Customer Transfer Code	<i>Electricity Industry Customer Transfer Code 2004</i>
Griffin Energy	Griffin Energy Development Pty Ltd
IMO	Independent Market Operator
MAIFI	momentary average interruption frequency index
Market Rules	<i>Electricity Industry (Wholesale Electricity Market) Regulations 2004</i>
Metering Code	<i>Electricity Industry Metering Code 2005</i>
Model Service Level Agreement	Metering Code Model Service Level Agreement
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SCADA	supervisory control and data acquisition
SCNRRR	Steering Committee on National Regulatory Reporting Requirements
SWIN	South West Interconnected Network
SWIS	South West Interconnected System
Technical Rules	<i>Technical Rules</i> (published by Western Power for the South West Interconnected Network)
WA Electrical Requirements	<i>WA Electricity Requirements, July 2008</i> (published by the Director of Energy Safety of EnergySafety WA under the provisions of the <i>Electricity (Licensing) Regulations 1991</i>)
WACC	weighted average cost of capital
WAMEU	Western Australia Major Energy Users

APPENDIX E: CONFIDENTIAL ANNEXURE

Not Published