

# Final Determination on the New Facilities Investment Test Application for the Replacement of Overhead Customer Service Connections

Submitted by Western Power

20 May 2011

Economic Regulation Authority

 WESTERN AUSTRALIA

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## FINAL DETERMINATION

1. On 5 November 2010, the Economic Regulation Authority (**Authority**) received a new facilities investment test application from Western Power submitted under section 6.71(b) of the *Electricity Networks Access Code 2004* (**Access Code**).<sup>1</sup> The Authority is required to determine whether the forecast new facilities investment proposed by Western Power, to replace potentially unsafe overhead customer service (**OCS**) connections<sup>2</sup>, meets the new facilities investment test. The proposed investment is estimated to cost \$71.1 million and involves the inspection of all OCS connections and the replacement of those connections identified as being potentially unsafe.
2. Western Power submits that the entire project cost of \$71.1 million meets the test of section 6.51A of the Access Code, by virtue of satisfying the new facilities investment test of section 6.52 of the Access Code.
3. For the new facilities investment test to be satisfied, the new facilities investment must not exceed the amount that would be invested by a service provider efficiently minimising costs and must satisfy at least one of the following conditions:
  - the investment generates enough revenue to cover the investment costs (the “incremental revenue” condition); or
  - the investment provides a net benefit to justify higher network tariffs (the “net benefits” condition); or
  - the investment is necessary to maintain the safety or reliability of the network or its ability to provide network services (the “safety and reliability” condition).
4. In making a determination on a new facilities investment test application, the Authority is required to consult with the public in accordance with the consultation requirements of Appendix 7 of the Access Code. The Authority issued an invitation for submissions on 8 March 2011, with a closing date for submissions of 22 March 2011. As part of this consultation, the Authority prepared an issues paper to assist interested parties in understanding the new facilities investment test and Western Power’s new facilities investment test application.<sup>3</sup> No submissions were received.
5. After consideration of Western Power’s new facilities investment test application and independent advice from the Authority’s technical advisor,<sup>4</sup> the Authority’s Final Determination is to give pre-approval to the forecast new facilities investment included in Western Power’s application. As the application relates to forecast new

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<sup>1</sup> Western Power, 2 November 2010, Submission of Proposed Capital Project for NFIT Pre-approval: Business Case for the Replacement of Overhead Customer Service Connections 2009/10 to 2011/12 (hereafter referred to as “**new facilities investment test application**”).

<sup>2</sup> An OCS connection incorporates an aerial service cable from the overhead low-voltage distribution system to a connection box on the customer’s property for connection to the electricity meter. Western Power’s new facilities investment test application, pages 7-9 explains how these connections can become potentially unsafe.

<sup>3</sup> Economic Regulation Authority, 8 March 2011, Issues Paper: New Facilities Investment Test Application for the Replacement of Overhead Customer Service Connections Submitted by Western Power.

<sup>4</sup> Geoff Brown & Associates Ltd.

facilities investment, the determination only binds the Authority if the new facilities investment has proceeded as proposed. The Authority considers this to include the new facilities investment proceeding as planned and the cost not exceeding the forecast - that is, the replacement of 104,600 unsafe OCS connections at the unit rate set out in Western Power's new facilities investment application. Only actual capital expenditure up to the pre-approved forecast amount will be added to the regulatory capital base at the next access arrangement review.

## REASONS

### Test for Adding New Facilities Investment to the Capital Base

6. Section 6.51A of the Access Code establishes a test that must be satisfied for an amount of new facilities investment to be added to the capital base.

6.51 A 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 [*sic*] 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.

7. Sections 6.71 and 6.72 of the Access Code allow a service provider to seek a determination that either an actual amount, or forecast amount, of new facilities investment meets the test of section 6.51A.

6.71 A service provider may at any time apply to the Authority for the Authority to determine whether:

- (a) actual new facilities investment made by the service provider meets the test in section 6.51A; or
- (b) forecast new facilities investment proposed by the service provider is forecast to meet the test in section 6.51A.

6.72 If an application is made to the Authority under section 6.71, then subject to section 6.75 the Authority must make and publish a determination (subject to conditions as the Authority may consider appropriate) within a reasonable time.<sup>5</sup>

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<sup>5</sup> Section 6.75 of the Access Code indicates that the Authority must make a determination if the actual or forecast amount of new facilities investment is equal to or greater than \$15 million (CPI adjusted); otherwise the Authority may make a determination. The 2010 CPI adjusted threshold is \$17.8 million as stated in the Economic Regulation Authority's Notice on 2010 Consumer Price Index Adjustments, 1 July 2010.

## The New Facilities Investment Test

8. Section 6.52 of the Access Code sets out the new facilities investment test.

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.

9. For convenience, the elements of the new facilities investment test are referred to below as the “efficiency test” (section 6.52(a) of the Access Code), “incremental revenue test” (section 6.52(b)(i)A of the Access Code), “net benefits test” (section 6.52(b)(ii) of the Access Code) and “safety and reliability test” (section 6.52(b)(iii) of the Access Code).

10. For the new facilities investment test to be satisfied, the new facilities investment must satisfy the efficiency test and one or more of the incremental revenue test, net benefits test, or safety and reliability test.

## Western Power’s Pre-Approval Application

11. Western Power has submitted a new facilities and investment test application for its proposed investment program to replace 104,600 unsafe OCS connections (aerial cable connecting a customer’s premise to the distribution network) over the period from 2009-10 to 2011-12.

12. Western Power submits that the entire estimated total capital cost for the proposed investment of \$71.1 million satisfies the new facilities investment test. In particular, Western Power considers that the investment meets the “efficiency test” under section 6.52(a) of the Access Code and the “safety and reliability test” under section 6.52(b)(iii) of the Access Code.
13. Western Power’s justification against the efficiency test and safety and reliability test are outlined in the remaining sections of this final determination.
14. Western Power has considered a range of investment options, with the proposed (recommended) option being the option that Western Power considers to best balance the utility’s commitment to replace unsafe connections with the utility’s available resources. Western Power considers that the combination of option selection and efficient project delivery mechanisms demonstrates compliance with section 6.52(a) of the Access Code.
15. Western Power submits that the investment is necessary to maintain network safety and therefore should satisfy the requirements of section 6.52(b)(iii) of the Access Code.

## Assessment against the New Facilities Investment Test

16. The Authority considered Western Power’s application under each part of the new facilities investment test as set out below.

### Efficiency Test

#### Western Power’s Application

17. In its new facilities investment test application, Western Power submits that the total cost of the proposed investment meets the efficiency test of section 6.52(a) on the basis that:
  - a range of investment options were considered, with the recommended option (option 2) being the option that meets Western Power’s objectives to provide a safe and reliable supply to customers taking into account identified delivery constraints; and
  - the investment will be delivered using Western Power’s balanced portfolio delivery strategy.
18. With respect to investment options, a total of six options were considered. Details of each option are provided in section 6 of Western Power’s new facilities investment test application. Western Power submits that option 2 is the preferred option in terms of the total cost, level of replacement, deliverability and risk mitigation. Option 2 involves the inspection of all overhead service connections and the replacement of 104,600 OCS connections between July 2009 and June 2012 at an estimated total cost of \$71.1 million.<sup>6</sup>

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<sup>6</sup> Western Power, New facilities investment test application, section 6.7.

19. With respect to program delivery, Western Power submits that its balanced portfolio delivery strategy allows the utility to make use of three resource pools: the internal workforce; strategic alliance; and distribution delivery partner arrangements. Western Power provides further details on its procurement strategy in section 7.4 of its application.

### *Final Determination of the Authority*

20. In making its final determination on whether the proposed investment meets the efficiency test of section 6.52(a) of the Access Code, the Authority has considered Western Power's submission and advice from the Authority's technical advisor.
21. In assessing Western Power's proposed revisions to its access arrangement for the second period, the Authority considered and approved Western Power's proposed expenditure to replace OCS connections of \$71.1 million to be spent between July 2009 and June 2012. Advice from the Authority's technical advisor who reviewed Western Power's expenditures for the second access arrangement did note that the scope of the work was ambitious.<sup>7</sup> However, the Authority was satisfied that Western Power's expenditure was efficient. In any event, only actual efficient expenditure will be added to the capital base.
22. In reviewing Western Power's new facilities investment test application, the Authority is satisfied that Western Power has considered all relevant options to replace potentially unsafe OCS connections, from not doing any proactive replacement of OCS connections to replacing the cable with an underground cable (the most expensive option). Western Power conducted a risk, cost and deliverability assessment of each option. In reviewing this assessment, the Authority is also of the view that the appropriate option (option 2) was selected.
23. Having regard to technical advice, the Authority considers that the new facilities investment of \$71.1 million does not exceed the amount that would be invested by a service provider efficiently minimising costs. The Authority's technical advisor has noted that the actual efficiency of delivering the project will depend on the unit cost of replacement, not the total amount spent. As Western Power's application relates to forecast new facilities investment, this determination only binds the Authority if the new facilities investment has proceeded as proposed – that is, the replacement of 104,600 unsafe OCS connections at the unit rate set out in Western Power's new facilities investment application.

### *Safety and Reliability Test*

#### *Western Power's Application*

24. Western Power considers that because the investment to identify and replace potentially unsafe OCS connections is necessary to maintain network safety the total cost of the investment should therefore satisfy the requirements of the safety and reliability test.<sup>8</sup> To substantiate this position, Western Power has included in its new facilities investment test application information:

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<sup>7</sup> Wilson Cook & Co, May 2009, Final Report: Review of Western Power's Expenditures for Second Access Arrangement, page 59.

<sup>8</sup> Western Power, New facilities investment test application, section 7.6.



- substantiating that the primary driver for the investment is to reduce the risk of electric shock incidents and is related to the outcomes of the investigation of two incidents in 2003; and
- demonstrating the extent and impact of the problem.

### *Final Determination of the Authority*

25. The Authority shares Western Power's concerns about the risk to the public of unsafe OCS connections and that a proactive replacement of OCS connections is required. The Authority notes that the main reason for this replacement program is to reduce the risk to public safety from electric shock incidents.
26. As Western Power owns the overhead service up to the point of connection at the meter, it is Western Power's responsibility to ensure that the line is safe and properly maintained.
27. The Authority is satisfied that the entire capital expenditure proposed of \$71.1 million meets the safety and reliability test.

### *Incremental Revenue Test*

#### *Western Power's Application*

28. Western Power has not given consideration to the incremental revenue test in its assessment of whether the proposed investment satisfies the new facilities investment test.

### *Final Determination of the Authority*

29. As Western Power does not rely on the incremental revenue test to demonstrate that an amount of the total forecast cost of the proposed transmission works satisfies section 6.52(b) of the new facilities investment test, and in light of no public submissions, the Authority has not given consideration to this matter.

### *Net Benefits Test*

#### *Western Power's Application*

30. Western Power has not given consideration to the net benefits test in its assessment of whether the proposed investment satisfies the new facilities investment test. Nevertheless, Western Power indicates that the investment to replace unsafe OCS connections is expected to reduce the incidence of electric shocks to the public. Furthermore, the investment in replacement should reduce operation and maintenance costs, although these savings have not been quantified.<sup>9</sup>

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<sup>9</sup> Western Power, New facilities investment test application, section 4.2.

### *Final Determination of the Authority*

31. As Western Power does not rely on the net benefits test to demonstrate that an amount of the total forecast cost of the proposed transmission works satisfies section 6.52(b) of the new facilities investment test, and in light of no public submissions, the Authority has not given consideration to this matter.

### ***Total Satisfying the New Facilities Investment Test***

32. For the new facilities investment test to be satisfied, the new facilities investment must satisfy the efficiency test (section 6.52(a) of the Access Code) and one or more of the other tests specified in section 6.52(b) of the Access Code (i.e. the incremental revenue test, net benefits test or safety and reliability test).
33. On the basis of the above considerations, the Authority has determined that an amount of up to \$71.1 million may satisfy the new facilities investment test. The Authority will assess the actual spending of this new facilities investment when considering proposed revisions to Western Power's access arrangement.