

Issues Paper

Allowable Revenue and Forecast Capital Expenditure for System Management 2016/17 – 2018/19

March 2016

Economic Regulation Authority

WESTERN AUSTRALIA

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Invitation to make submissions

Interested parties are invited to make submissions on the Authority's Issues Paper by **4:00 pm (WST) Friday, 29 April 2016** via the submission [portal](#) located on the Authority's website, or:

Postal address: PO Box 8469, PERTH BC WA 6849

Office address: Level 4, Albert Facey House, 469 Wellington Street, Perth WA 6000

CONFIDENTIALITY

In general, all submissions from interested parties will be treated as being in the public domain and placed on the Authority's website. Where an interested party wishes to make a submission in confidence, it should clearly indicate the parts of the submission for which confidentiality is claimed, and specify in reasonable detail the basis for the claim. Any claim of confidentiality will be considered in accordance with the provisions of 55 of the *Economic Regulation Authority Act 2003*.

The publication of a submission on the Authority's website shall not be taken as indicating that the Authority has knowledge either actual or constructive of the contents of a particular submission and, in particular, whether the submission in whole or part contains information of a confidential nature and no duty of confidence will arise for the Authority.

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1 Introduction

1.1 Background and Scope of this Issues Paper

Under clauses 1.14.3 (b) and 2.23.2, System Management is required to submit its proposal for Allowable Revenue for the fourth review period to the Economic Regulation Authority (**Authority**) by 29 February 2016 for approval. Under clause 2.23.3, the Authority is required to determine allowable revenue and forecast capital expenditure for System Management for each review period.

Allowable revenue is the revenue that may be recovered through fees to meet the costs of the services provided by System Management to the market. The allowable revenue determined by the Authority forms the basis of annual budgets for System Management. The budgets must be consistent with the determination of allowable revenue, but include adjustments to account for surpluses or shortfalls in revenues from market fees and system operation fees for the year prior to the budget.

Since the commencement of the Wholesale Electricity Market (**WEM**) in WA in September 2006, the Authority has determined allowable revenue for System Management for three review periods.

System Management has submitted to the Authority a proposal for allowable revenue and forecast capital expenditure for the fourth review period, from 1 July 2016 to 30 June 2019. This proposal is available on the Authority's [website](#).

Sub clauses 2.23.3(b) of the Electricity Market Rules (**Market Rules**) require the Authority, in determining allowable revenue and forecast capital expenditure for System Management, to undertake a public consultation process which must include publishing an issues paper and issuing an invitation for public submissions.

The Authority has prepared this Issues Paper to assist interested parties in understanding the assessment process and making submissions on System Management's proposal. Interested parties are invited to comment on any aspect of System Management's proposal.

1.2 Transfer of functions to Australian Energy Market Operator

Currently, System Management operates as a segregated business unit within Western Power. On 30 September 2015, the Minister for Energy announced the transfer of System Management from Western Power to the Australian Energy Market Operator (**AEMO**). The transfer of the System Management function is scheduled to take place on 1 July 2016, with the transfer of staff and assets to take place in November 2016.

System Management considers that the transfer of its functions to AEMO will result in step changes to its resourcing requirements to ensure that System Management's functions continue to both operate independently of Western Power, and to improve compliance with Market Rule obligations. System Management has incorporated these additional revenue considerations into its proposal for the fourth review period. System Management has also incorporated reductions in operational expenditure in its proposal, which it has anticipated

will occur in the second and third year of the fourth review period, as a result of the efficiencies realised from the transfer of System Management functions to AEMO.¹

1.3 Requirements of the Wholesale Electricity Market Rules

Clause 2.23.3 of the Market Rules requires the Authority to determine the allowable revenue and forecast capital expenditure for System Management for the services it provides under the Market Rules.

Services provided by System Management under clause 2.2.2 include:

- ensuring the secure and reliable operation of the South West Interconnected System (**SWIS**) and the operation of the Wholesale Electricity Market (**WEM**);
- procuring adequate ancillary services where Synergy cannot meet the Ancillary Service demands;
- developing market procedures and amendments and replacements for them where required by these market rules;
- releasing information as required by the Market Rules;
- monitoring Rule Participants' compliance with Market Rules relating to dispatch and Power System Security and Power System Reliability; and
- carrying out any other functions or responsibilities conferred, and performing any obligations imposed on it under the Market Rules.

The Authority must take the following into account when determining System Management's allowable revenue and approving its forecast capital expenditure:

- a) The allowable revenue must be sufficient to cover the forward looking costs of providing the relevant services in accordance with the following principles:
 - recurring expenditure requirements and payments are recovered in the year of expenditure;
 - capital expenditures are to be recovered through the depreciation and amortisation of the assets acquired by the capital expenditure in a manner that is consistent with good accounting principles;
 - costs incurred that are related to market establishment, as designated by the Minister, are to be recovered over a period determined by the Minister from "energy market commencement"; and
 - notwithstanding the above, expenditure incurred and depreciation and amortisation charged, in relation to any "declared market project" are to be recovered over the period determined for that declared market project.
- b) The allowable revenue and forecast capital expenditure must include only those costs that would be incurred by a prudent provider of the services, acting efficiently, seeking to achieve the lowest practically sustainable cost of delivering the services in accordance with the Market Rules, while effectively promoting the wholesale market objectives.

¹ Western Power, *System Management Allowable Revenue and Forecast Capital Expenditure Information*, 1 July 2016 – 30 June 2019, February 2016.

- c) Where possible, the Authority should benchmark the allowable revenue and forecast capital expenditure against the costs of providing similar services in other jurisdictions.

2 System Management Proposal

2.1 Allowable Revenue and Forecast Capital Expenditure

System Management's proposed allowable revenue and forecast capital expenditure for the fourth review period is outlined in Table 1 below.

Table 1 Proposed Allowable Revenue and Forecast Capital Expenditure for the Fourth Review Period

\$'000 nominal	2016/17	2017/18	2018/19	Total
Allowable Revenue	15,854	15,246	14,602	45,702
Forecast Capital Expenditure	4,126	2,075	431	6,631

2.2 Building Block Method

System Management's allowable revenue proposal has been arrived at via the application of a modified 'building block'² method. System Management first proposed using the building block method in its third allowable revenue proposal.³

In its final determination for System Management's allowable revenue over the third review period, the Authority did not approve System Management's building block method. In particular, the Authority's approved allowable revenue did not include the use of real dollars indexed against the CPI, a return on assets other than borrowing costs in relation to undepreciated capital expenditure, revenue smoothing or adjustment factors in relation to variations between forecast and actual expenditure.⁴

System Management's proposal for the fourth review period is based on a modified building block model, taking account of the Authority's determination at the last review. This includes:

- all costs have been calculated in nominal terms;
- the revenue profile is based on actual costs in each year;
- borrowing costs have been calculated on the basis that System Management is 100 per cent debt funded. The resultant pre-tax WACC is therefore assumed

² The 'Building Block' method is a means of aggregating a recurrent cost from components including operating cost, depreciation expense and return on investment.

³ System Managements allowable revenue proposals for the first and second review period utilised a direct cost approach for the purpose of estimating total revenue. Economic Regulation Authority, Determination: Allowable Revenue and Forecast Capital Expenditure for System Management – 2013/14 to 2015/16, March 2013.

⁴ Economic Regulation Authority, *Determination: Allowable Revenue and Forecast Capital Expenditure for System Management – 2013/14 to 2015/16*, March 2013.

to be equal to the cost of debt.⁵ System Management considers that this is consistent with the ERA's determination for the third review period.⁶

System Management has also proposed to use a cost of debt that is consistent with the cost of debt approved for Western Power's third access arrangement, which is 5.35 per cent. System Management has proposed that when its functions have been transferred to AEMO, then AEMO's cost of debt should be used in the calculation of the WACC. System Management has applied Western Power's approved cost of debt in calculating annual (recurrent) capital costs for each year of the fourth review period in its proposal for allowable revenue.⁷

Issue 1

Interested parties are invited to make submissions on the proposed use of Western Power's cost of debt in estimating System Management's allowable revenue for the fourth review period.

2.3 Allowable Revenue

System Management's forecast revenue for the fourth review period is \$45.702 million, which is 15.98 per cent higher than the amount approved in the Authority's determination for the third review period. Table 2 below shows System Management's proposed allowable revenue for the fourth review period.

Table 2 Proposed Allowable Revenue for the Fourth Review Period

\$000 nominal	2016/17	2017/18	2018/19	Total
Operating expenditure	12,451	12,228	12,632	37,311
Plus depreciation	3,083	2,643	1,625	7,351
Plus borrowing Costs	320	376	345	1,041
Plus Tax Payable	0	0	0	0
Total	15,854	15,246	14,602	45,702

2.3.1.1 Operating Expenditure

System Management's proposed total operating expenditure for the fourth review period is \$37.311 million, compared to actual/forecast⁸ expenditure over the third review period of \$25.639 million. In comparison, the operating expenditure approved by the Authority for the third review period was \$26.585 million (nominal).⁹ The operating expenditure proposed

⁵ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 52.

⁶ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 52.

⁷ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 52.

⁸ The figure for the third period is a combination of actuals for 2013/14, 2014/15, the year-to-date outcome for 2015/16 and the forecast for the remainder of 2015/16.

⁹ The approved operational expenditure is not identifiable in the Authority's published determination, however System Management has identified the approved amount in the supporting information accompanying its

by System Management therefore appears to equate to an increase of 45.5 per cent from the approved amount in the third review period.

System Management attributes the increase in projected operating expenditure to the additional costs that it foresees as a result of the transfer of its functions from Western Power to AEMO. This additional expenditure is largely comprised of the requirement for additional Full Time Equivalent staff (FTE) as a result of certain System Management functions no longer being absorbed by or delegated to, other functional areas within Western Power as provided for under clause 2.2.3 of the Market Rules.¹⁰

System Management considers that the transfer of System Management's functions to AEMO will require a clear separation of System Management from Western Power, and therefore an end to the current system of delegation. System Management considers that in order to fulfil its obligations as an independent system operator, AEMO will require an additional 13 FTE to support its functions during the first year of the fourth review period, reduced to 9.3 FTE in the second and third years of the review period.¹¹

System Management notes that it has rolled over the actual operating expenditure for the year 2014/15 into the operational expenditure for the fourth review period, as the operational expenditure for the 2015/16 financial year has not yet been audited.¹² System Management also notes that it has used actual 2014/15 costs as the efficient base year from which to develop its forecasts for the fourth review period, and notes that the year 2015/16 is not appropriate for use as a base year for the purposes of estimating operational costs.

System Management has indicated that in forecasting operating expenditure, it has applied forecasting methods that reflect the different cost drivers for recurrent costs (including business support costs) and non-recurrent costs. Costs have been adjusted for step changes as a result of known future changes to practices, functions, obligations and operating environment that impact the scope for recurrent works as identified by the transition to AEMO. System Management has advised that it has incorporated expected changes in FTEs over the fourth review period as a result of the probable absorption of some of the existing System Management duties into roles currently located within AEMO.¹³

In its own analysis of changes in costs (measured by comparing costs incurred in 2014/15 with those expected to be incurred over the fourth review period), System Management has identified step change increases (nominal) of about \$3.58 million in annual costs in the first year, \$3.08 million in the second year and \$3.18 million in the third year of the review period. System Management has indicated that the dominant step change is in labour operating costs, amounting to \$7.34 million, followed by changes in IT support cost (\$2.5 million) in total over the review period.¹⁴

proposal for the fourth review period, Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 25, Table 5.

¹⁰ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 38. The "certain" functions are not identified in System Management's proposal.

¹¹ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 38.

¹² Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 37.

¹³ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 37.

¹⁴ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 38.

System Management has provided a breakdown of its proposed operating expenditure for the fourth review period by category, as shown in Table 3 below.

Table 3 Forecast Operating Expenditure by Cost Category for the Fourth Review Period

\$'000 nominal	2016/17	2017/18	2018/19	Total
Labour Costs	9,747	9,454	9,785	28,986
Functional Costs	368	380	394	1,142
Legal Costs	83	85	87	254
Insurance Costs	425	436	447	1,308
Business Support	643	660	676	1,979
IT Support	1,184	1,214	1,244	3,642
Total	12,451	12,228	12,632	37,311

System Management has based its projected labour costs on the 2015/16 State Budget Paper¹⁵, and has applied the relevant escalation cost to each year of the review period. For all non-labour costs, System Management has applied a CPI adjustment of 2.5 per cent per annum for each year of the review period.¹⁶

System Management also notes that its estimate of IT operational costs includes cost recovery by Western Power of certain costs incurred for System Management that had not been correctly recovered. These costs have been treated as a step change in System Management's proposal for the fourth review period.¹⁷

Issue 2

Interested parties are invited to make submissions on the extent of the additional FTEs proposed by System Management in 2016/17 (and subsequent reduction in following years) contingent on the transfer to AEMO.

Issue 3

Interested parties are invited to make submissions on the proposed additional revenue requirement to accommodate costs incurred by Western Power that have been incorrectly or insufficiently recovered.

Issue 4

Interested parties are invited to make submissions on the appropriateness of the application of the escalation factor outlined in the 2015/16 State Budget Paper as its basis for labour costs over the fourth review period.

¹⁵ The Government of Western Australia, *2015-16 Budget Paper No 3: Economic and Fiscal Outlook*, 14 May 2015.

¹⁶ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 40.

¹⁷ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 38. The nature of the "incorrect recovery" is not identified, although it is noted that the 'correction' involves incurring additional costs.

2.3.1.2 Opening and Closing Capital Base

System Management has established its capital base value as at 30 June 2016 using the roll-forward method, and has rolled forward its capital base value over the fourth review period on the basis of its forecast of capital expenditure.¹⁸ System Management also notes that it has:

- adopted the straight line depreciation method over the fourth review period;
- included all new capital investment incurred or forecast over the fourth review period;
- based depreciation on a five year economic life for depreciable assets;¹⁹
- applied the segregation procedures set out by Western Power;²⁰
- applied inflation to the base value as at 30 June 2016 and for each year of the fourth review period.²¹

The application of straight line depreciation to the capital base is consistent with the Authority's allowable revenue determination for the third review period,²² however, the indexation of capital costs by CPI was considered by the Authority at that time to be a duplication of the process already covered by the annual budget process. The Authority further determined that the 15 per cent tolerance factor for allowable revenue as set out in the Market Rules²³ was adequate for the purpose of covering any potential variance in expenditure as a result of changes to CPI.²⁴

Table 4 below shows System Management's proposed projected capital base over the fourth review period.

Table 4 Projected Capital Base over the Fourth Review Period

\$'000 nominal	2016/17	2017/18	2018/19
Opening Capital base Value	5,978	7,021	6,453
Plus Capital Expenditure	4,126	2,075	431
Less Depreciation	(3,083)	(2,643)	(1,625)
Closing Capital Base Value	7,021	6,453	5,259

¹⁸ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 48.

¹⁹ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 48.

²⁰ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, Appendix B – *System Management Segregation Procedure*, February 2016, pp. 63-64.

²¹ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 49.

²² Economic Regulation Authority, *Determination: Allowable Revenue and Forecast Capital Expenditure for System Management – 2013/14 to 2015/16*, March 2013, p. 29.

²³ Wholesale Electricity Market Rules, *Determination of System Management's Budget*, Clause 2.23.8, 30 November 2015, p. 88.

²⁴ Economic Regulation Authority, *Determination: Allowable Revenue and Forecast Capital Expenditure for System Management – 2013/14 to 2015/16*, March 2013, p. 14.

Issue 5

Interested parties are invited to make submissions on the proposed application of Western Power's segregation arrangements to the calculation of the capital base, taking into consideration the imminent transfer of System Management's functions to AEMO.

2.3.1.3 Forecast Average Price Path

System Management has calculated an indicative price path for its market fees on the basis of its proposed allowable revenue. These indicative market fee rates have been calculated with the method utilised by the IMO/AEMO, whereby:

- the sent-out energy forecasts in the IMO's June 2015 Electricity Statement Of Opportunities (ESOO) report have been adopted;
- an average (generation) loss factor of 1.0068089 (average for the 2013/14 Reserve Capacity Year) to loss-adjust the ESOO sent-out figure to the Muja reference node has been calculated; and
- the resultant loss adjusted energy forecast has been doubled as the fees apply equally across Market Generators and Market Customers.

Table 5 shows System Management's projected market fee rate over the fourth review period.

Table 5 Forecast System Management Market Fee Rate over the Fourth Review Period

	2016/17	2017/18	2018/19
Forecast fee rate (\$/MWh)	0.4141	0.3912	0.3710
% change	11.31	(5.51)	(5.18)

Issue 6

Interested parties are invited to make submissions on the indicated price path calculated by System Management for its portion of the Market Fees during the fourth review period.

3 Forecast Capital Expenditure

System Management has proposed a total of \$6.631 million (nominal) in capital expenditure over the fourth review period in order to facilitate the delivery of system operation services. This capital investment will be made across two areas, as follows:

- Improving internal processes and systems; and
- IT upgrades and asset replacement.

Table 6 provides a breakdown of the proposed individual capital projects within each category, and their associated costs.²⁵

Table 6 Proposed Capital Expenditure over the Fourth Review Period

\$'000 nominal	2016/17	2017/18	2018/19	Total
Improving internal systems and processes				
Security enhancements	974	998	0	1,972
DTS enhancements	999	341	0	1,341
Test environment enhancements	1,845	0	0	1,845
IT upgrades and asset replacement				
SMARTS asset replacement	0	420	431	851
SOCCUI enhancements	308	315	0	623
Total Forecast Capital Expenditure	4,126	2,075	431	6,631

System Management indicated that for depreciation purposes, it has assumed an economic life of five years for the SMARTS asset replacement on a straight line basis, per the Authority's determination for the third review period.²⁶

Based on actual expenditure in 2013/14 and 2014/15, and forecast expenditure in 2015/16, System Management's capital expenditure over the third review period was restricted to \$1.82 million (nominal). System Management advises that it did not incur expected capital expenditure over this period due to the deferral of a number of capital projects as a result of the Electricity Market Review.^{27 28}

Issue 7

Interested parties are invited to make submissions on the capital expenditure proposed by System Management over the fourth review period.

4 Process to be followed by the Authority

The Authority considers that it is appropriate to review System Management's proposal in light of the transfer of its WEM functions to AEMO. The Authority will therefore conduct an analysis of the System Management's projected revenue and capital expenditure on the basis of cost per function, as well as cost per FTE. The Authority also intends to compare System Management's projected revenue with costs incurred by System Management during the previous review period.

²⁵ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, pp. 42-43.

²⁶ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 44.

²⁷ Western Power, *System Management Allowable Revenue Information 1 July 2016 – 30 June 2019*, February 2016, p. 27.

²⁸ Department of Finance, [Electricity Market Review](#): Discussion Paper, 25 July 2014.

The Authority considers that as AEMO is well established in the Eastern States, it would be appropriate to benchmark System Management's actual and projected costs for providing WEM services against the actual and projected costs incurred by AEMO for the provision of similar services in the Eastern States, provided relevant information can be obtained.

The Authority will test with AEMO whether reliable cost indicators are available for the provision of these services in parts of the interconnected National Electricity Market (**NEM**). The Authority may also benchmark costs against similar functions in the Northern Territory and New Zealand Markets.

The Authority notes that the West Australian Electricity Market is unique in its size and isolation, and will take into account that efficiencies of scale that might apply to the operation of the NEM services in the Eastern States may not be applicable in Western Australia.

The process that the Authority intends to apply in its determination is to:

- Assess the proposal against likely changes to the revenue requirements associated with the provision of the WEM services as a result of the transfer of these functions from the System Management to AEMO.
- Benchmark costs against similar services provided by AEMO in the Eastern States, where possible.²⁹
- Seek further supporting information for the proposed Allowable Revenue and Forecast Capital Expenditure sufficient to demonstrate that it is consistent with costs that would be incurred by a prudent provider of services, acting efficiently and seeking to achieve the lowest sustainable cost of delivering these services in Western Australia.
- Identify and assess whether recurring expenditure requirements and payments are recovered in the year of the expenditure.
- Identify and assess differences in costs that are reflective of "trend changes", due to cost drivers such as an increasing scale of operations and inflation of unit costs.
- Identify changes in costs that are reflective of changes in the nature of activities being undertaken or changes in the manner in which activities are undertaken (such as transfers of certain activities from being undertaken in-house to being undertaken by contractors).
- Assess whether amounts of depreciation and amortisation included in the Allowable Revenue have been appropriately determined from Capital Expenditure.
- Assess capital expenditure amounts deferred as a result of the Energy Market Review, and the planning for transfer of responsibilities, and compare the proposal for capital expenditures with capital values associated with the provision of these services in other jurisdictions by AEMO.

Issue 8

Interested parties are invited to make submissions on the process that the Authority intends to follow in assessing System Management's allowable revenue and forecast capital expenditure.

²⁹ The Authority notes that in some instances it may not be practical to undertake such benchmarking as there are no entities of comparable scale to System Management in other jurisdictions.

