PUBLICATION

Western Power's Proposed Revised Access Arrangement for the Western Power Network

FINAL DECISION

The Economic Regulation Authority today issued its Final Decision on Western Power's proposed access arrangement revisions for the Western Power Network.

The Authority's Final Decision has not approved Western Power's proposed changes to its network access arrangements.

The Authority's Final Decision sets a cap of $6.7 billion[1] on the revenue Western Power can earn over the next five years. The Authority's cap on the allowed revenue is $3.6 billion (35 per cent) below the amount Western Power initially requested and $2.4 billion (26 per cent) below its revised request following the Authority's Draft Decision.

The Authority's Final Decision results in overall average tariffs remaining broadly constant in real terms for the period from 1 July 2012 to 30 June 2017[2]. In comparison, Western Power initially proposed real increases of 16.4 per cent in 2012/13 followed by real increases of approximately 11 per cent for each of the following four years. Following the Authority's Draft Decision, Western Power submitted a revised proposal, which included average annual real tariff increases of 10.3 per cent.

Network charges make up approximately 40 per cent of current electricity tariffs for residential customers.

The main differences to the cap on revenue between the Authority's Final Decision and Western Power's proposal relate to a reduced weighted average cost of capital (i.e. the rate of return it receives on its assets) and a reduced allowance for capital and operating expenditure.

The detailed reasons for the Authority's decision are outlined in the Final Decision document, together with 58 amendments the Authority requires to enable it to approve Western Power's revisions to the proposed access arrangement for the period from 1 July 2012 to 30 June 2017. An overview of the Final Decision is provided in the attached explanatory memorandum.

Western Power submitted its proposed revisions to the access arrangement to the Authority on 30 September 2011. On 29 March 2012, the Authority issued a Draft Decision to not

[1] The forecast target revenue includes $735.9 million relating to the Tariff Equalisation Contribution (TEC) which is required to be paid by Western Power but does not fall within the Authority's approval process other than to ensure it may be recovered.

[2] Based on Western Power's forecast volumes and excluding any adjustments for under or over recovery of revenue in previous years.

approve the revisions. Western Power submitted revised proposed revisions to the access arrangement to the Authority on 29 May 2012.

Under section 4.19 of the *Electricity Networks Access Code 2004* (**Access Code**), Western Power may submit amended proposed access arrangement revisions to the Authority within 20 business days of the release of the Authority's final decision; that is by 4 October 2012.

Under section 4.19 of the Access Code, the Authority must issue a further final decision to approve or not approve Western Power's amended proposed access arrangement revisions. If the Authority's further final decision is to not approve Western Power's revisions, or if Western Power does not submit amended proposed access arrangement revisions, the Authority is required to draft and approve its own revised access arrangement.

The Final Decision and related documents, including notices, consultant reports and public submissions are available from the ERA's website.

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LYNDON ROWE
CHAIRMAN
05 September 2012

EXPLANATORY MEMORANDUM

The purpose of the explanatory memorandum is to provide interested parties with a summary of the Authority's Final Decision on proposed revisions to the access arrangement for Western Power's Network. This explanatory memorandum does not form part of the Authority's Final Decision or the reasons for the Final Decision.

Background and summary

1. On 30 September 2011, Western Power submitted proposed revisions to its access arrangement for the Western Power Network (**proposed revisions**)[3] to the Economic Regulation Authority (**Authority**). The proposed revised access arrangement relates to the third access arrangement period, the five year period from 1 July 2012 to 30 June 2017. The proposed revisions were 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.[4]

2. The Final Decision of the Authority is to not approve the revised proposed revisions to the access arrangement.

3. The role of the Authority is to determine whether Western Power's proposed revisions:

- meet the Access Code objective of promoting economically efficient investment in, and operation and use of, electricity networks and services of networks in Western Australia, in order to promote competition in markets upstream and downstream of the networks; and
- comply with the requirements of the Access Code.

4. On 29 March 2012, the Authority issued a Draft Decision in accordance with the requirements of sections 4.52 and 4.12 of the Access Code.[5] The Draft Decision of the Authority was to not approve the proposed revisions on the grounds that they did not satisfy the requirements of the Access Code. In its reasons for the Draft Decision, the Authority provided details of 80 amendments required to the proposed revisions before the Authority would approve them.

5. At the time of issuing its Draft Decision, the Authority invited submissions from interested parties on the Draft Decision, with a requirement to lodge submissions by 1 May 2012. On 27 April 2012, the Authority issued a notice extending the deadline for submissions to 29 May 2012.

6. Submissions on the Draft Decision were received from the following parties:

- Alinta Energy
- Citelum Australia

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[3] Western Power, 30 September 2011, *Proposed revisions to the Access Arrangement for the Western Power network*; hereafter cited as ("Proposed Revised Access Arrangement").

Western Power, 30 September 2011, *Access Arrangement Information for 1 July 2012 to 30 June 2017*; hereafter cited as ("Revised Access Arrangement Information").

[4] The revisions submission date is specified under the current access arrangement as 1 October 2011 (Western Power, 24 December 2009. *Amended Proposed Revisions to the Access Arrangement for the South West Network owned by Western Power*, clause 1.5, p. 1).

[5] Economic Regulation Authority, 29 March 2012, Draft Decision on Proposed Revisions to the Access Arrangement for the Western Power Network.

- Department of Finance
- Energy Made Clean
- Energy Networks Association
- ERM Power Limited
- Grid Australia
- Griffin Power Pty Ltd
- Horizon Power
- Landfill Gas and Power
- Main Roads Western Australia
- Shire of Ravensthorpe
- Synergy
- Urban Development Institute of Australia
- WACOSS
- WA Major Energy Users
- Western Australian Farmers Federation
- Western Power.

7. Western Power's submission in response to the Draft Decision included revised proposed revisions to the access arrangement as permitted under section 4.16 of the Access Code. Western Power also submitted amended access arrangement information.

8. Under sections 4.52 and 4.17 of the Access Code, the Authority is required to consider any submissions made on the draft decision and to issue a final decision that either:

   - approves the proposed access arrangement revisions; or
   - does not approve the proposed access arrangement revisions, in which case the Authority must provide details of the amendments required before the Authority will approve the revisions.

9. Western Power's current access arrangement applies until a revised access arrangement is approved by the Authority.

Western Power's Revised Proposal

10. In its reasons for the Draft Decision, the Authority provided details of 80 amendments required to the proposed revisions before the Authority would approve them.

11. In its submission to the Draft Decision, Western Power indicated that it had accepted 35 of the Authority's revisions exactly as required and had modified its proposed revisions to the access arrangement to address a further 15 required amendments.

12. Western Power did not accept the remaining 30 required amendments on the grounds that it considered that accepting these amendments would not promote efficient investment in, maintenance, operation and use of the network. Western Power has

provided further information that it considers demonstrates that its proposed revisions satisfy the relevant provisions of the Access Code for the Authority's consideration.

13. Western Power's initial proposed revisions to the access arrangement included substantial real increases in average network charges in the first year of the third access arrangement period of 16.4 per cent followed by increases of approximately 11 per cent for the following years.

14. In response to the Authority's Draft Decision (which would result in annual real reductions in average electricity network charges of 0.4 per cent), Western Power's revised proposal includes annual real increases in reference tariffs of 10.3 per cent.

15. Western Power's proposed increases in reference tariffs result mainly from the following factors.

- Accelerated recovery of revenue that was deferred in the second access arrangement period, due to a change in the treatment of capital contributions, to minimise price shocks. Western Power initially sought to recover the full amount $967 million (dollars at 30 June 2012) during the third access arrangement period. Western Power has modified its proposal in response to the Draft Decision and is now proposing to recover the full amount over two access arrangement periods, which has reduced the amount recovered in the third access arrangement period to $517 million (dollars at 30 June 2012).
- A substantial increase in operating expenditure in real terms over the third access arrangement period. Initially Western Power sought to increase the forecast level of operating expenditure in 2016/17 (the final year of the third access arrangement period) by around 39 per cent compared to the actual level in 2010/11. Following the Draft Decision, Western Power has revised this to an increase of 33 per cent.
- An expanded capital expenditure program. Initially Western Power proposed a capital expenditure program of $5.8 billion compared with $4.3 billion of expenditure incurred during the preceding five year period. Following the draft decision, Western Power has increased its proposed program to $6 billion.
- Initially Western Power proposed to include $244.4 million (dollars at 30 June 2012) of capital investment into the capital base that the Authority had previously disallowed as inefficient expenditure. Following the Draft Decision, Western Power has reduced its claim to $111.5 million (dollars at 30 June 2012).
- An increase in the rate of return. Initially Western Power sought a real pre-tax rate of return of 8.82 per cent compared with the current access arrangement real pre-tax return of 7.98 per cent. Following the Draft Decision, Western Power has proposed a real post-tax return of 6.39 per cent. This is equivalent to a real pre-tax return of 7.65 per cent.

Summary of Key Points

16. In making its assessment of Western Power's forecast target revenue requirement, the Authority has had regard to:

- Western Power's performance during the first access arrangement (2006/07 to 2008/09) and second access arrangement (2009/10 to 2011/12) periods:

- significant under expenditure during the second access arrangement period compared with the forecast costs approved by the Authority in its final decision in relation to the second access arrangement period;
- good service standard performance during the second access arrangement period; and
- notwithstanding the improvements that have been made during the second access arrangement period, the ongoing deficiencies in relation to Western Power's management and governance processes for undertaking operating and capital activities.

- Significant increases in Western Power's expenditure forecast for the third access arrangement period compared with actual expenditure during the second access arrangement period.
- Western Power's management of its wood poles:
  - an outstanding Energy Safety Order in relation to the condition of Western Power's wood poles;
  - the 2011 Asset System Review[6], which identified issues with Western Power's asset information; and
  - a recent Parliamentary inquiry into Western Power's management of wood poles, which highlighted serious weaknesses in Western Power's asset management procedures including its management of asset data.
- Efficiency of operating expenditure:
  - a comparison of Western Power's costs with other network service providers.
- Proposed methodological changes by Western Power compared with previous access arrangements all resulting in an increase to forecast target revenue.

Western Power's performance

17. Western Power's total capital expenditure during the second access arrangement period is estimated to be 39 per cent ($1.2 billion) lower than the $3.1 billion approved by the Authority. The major areas of under expenditure have been capacity expansion and customer driven capital expenditure, particularly on the transmission network. Notwithstanding this, Western Power has met or exceeded 50 of the 57 service level benchmarks during the second access arrangement period which has earned it a service incentive reward of $30 million and, over this time, network service levels have shown an improvement from earlier years.

18. While there are a number of reasons for this underspend, including the impact of the global financial crisis on electricity demand and reduced new customer connections, the fact that Western Power still exceeded its service level targets in spite of substantial capital expenditure reductions indicates there was some inefficiency in its approved capital expenditure forecast for the second access arrangement period.

19. In previous access arrangement reviews the Authority has identified serious weaknesses in relation to Western Power's planning, design and governance of investment expenditure and inefficiencies in cost estimation processes. These

[6] GHD Asset Management System Review Final Report, October 2011.

findings led to the Authority excluding $261 million ($ real as at 30 June 2009) of capital expenditure incurred in the first access arrangement period from Western Power's capital base.

20. Western Power notes in its proposed revised access arrangement that, in response to the criticism by the Authority and the Authority's technical adviser, it "sharpened" its focus on initiatives to improve strategic planning, delivery and compliance processes.[7] As a result, a number of capital projects included in the forecasts for the second access arrangement period were deferred or cancelled, confirming the Authority's view that Western Power needed to improve its planning processes.

21. The Authority's technical consultant has observed that processes for managing the development and implementation of capital expenditure and operating expenditure projects and programs have improved since the second access arrangement review. However, the Authority's technical consultant notes:

> … some risk management processes are in place (as we would expect) but they are relatively unstructured, and tend to be qualitative and subjective. While risk assessments are required for all capital projects and programs, they appear to be used primarily to support business cases rather than as an integral part of the planning and prioritisation process. We think risk assessments could be better structured and used more effectively as a tool for prioritising expenditure.[8]
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> …
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> Western Power recognises the deficiencies in its current risk assessment and prioritisation processes and is taking steps to address them. Good industry practice is for asset maintenance and replacement activities to be prioritised across asset classes using a condition based risk management approach. Each asset is given a "health index" based on its condition weighted by a quantitative assessment of the risk to the business should the asset fail. Assets are prioritised for maintenance on the basis of their health indices. Western Power does this for some individual asset classes but has still to extend this approach to directly compare the risk of asset failure across different asset classes.[9]
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> …
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> … further improvements are possible particularly in relation to the development and assessment of alternative options for expenditure projects and programs. In addition, Western Power still lacks a quantitative risk assessment tool and the application of risk management techniques to the prioritisation of expenditure appears unstructured and subjective. Western Power is planning to improve its risk management processes and is purchasing new asset management software. However, the extent to which it is planning to further integrate risk assessment into its expenditure planning processes and to implement a maintenance management system based on condition based risk management principles consistent with industry best practice remains unclear.[10]
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> …
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> Management of data on the existence and condition of assets is a problem for Western Power and this continues to adversely impact the efficiency with which programs and projects are implemented. While some stakeholders appear to see this as a problem of data accuracy, the timeliness with which existing databases are updated and the availability of current asset information to staff managing and implementing field work appears to be a more significant issue. The ongoing reliance on legacy asset information

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[7] Western Power Access Arrangement Information p. 62.

[8] March 2012, Geoff Brown & Associates, *Technical Review of Western Power's Proposed Access Arrangement for 2012-2017*, p. 23.

[9] March 2012, Geoff Brown & Associates, *Technical Review of Western Power's Proposed Access Arrangement for 2012-2017*, p. 23.

[10] March 2012, Geoff Brown & Associates, *Technical Review of Western Power's Proposed Access Arrangement for 2012-2017*, p. 1.

databases with limited functionality and accessibility is part of the problem; these systems are currently being replaced. However, we think insufficient resources are being applied to the updating of asset data and consider that, unless this problem is addressed effectively, Western Power will not fully capture the benefits of its substantial investment in replacement asset information systems and databases. We have also seen little evidence of how Western Power plans to leverage these new information technology (IT) systems to improve the efficiency of its service delivery. We note, in particular, that such efficiency gains have not been allowed for in Western Power's expenditure forecasts.[11]

22. Whilst the Authority notes the improvements in processes identified by its technical consultant, it is concerned there are still areas of weakness, particularly in relation to risk management and asset information. Potentially these weaknesses may lead to inefficient investment decisions.

Capital Expenditure

Capacity Expansion and Customer Driven Expenditure

23. In its advice for the Draft Decision, the Authority's technical adviser identified $465 million in Western Power's initial forecasts for capacity expansion and customer driven expenditure that it considered was potentially overstated. The reasons for this included:
    - specific projects which could be deferred;
    - inefficiencies in specific projects;
    - forecast increases compared to historical levels which were not adequately supported; and
    - reductions in the demand forecast since the expenditure forecasts were prepared which would enable capacity expansion projects to be deferred.

24. Capacity expansion and customer driven capital expenditure, are subject to an investment adjustment mechanism, which ensures that Western Power's target revenue is adjusted at the next access arrangement review for any forecasting error in relation to such expenditure. Expenditure higher than forecast can only be recovered to the extent that it is demonstrated to be efficient expenditure.

25. Given that any capacity expansion or customer driven capital expenditure overspend that meets efficiency requirements can be recovered in the fourth access arrangement period on a net present value (**NPV**) neutral basis[12], and given the significant capital underspend compared to that forecast during the second access arrangement period, the Authority considers it prudent for the approved capital expenditure for the third access arrangement to be conservative. There will therefore be less likelihood that customers will be asked to pay more during the third access arrangement period than needed to fund the actual capital expenditure requirement, and the incentive on Western Power to deliver only an efficient level of capital expenditure is likely to be greater as actual capital expenditure will be subject to more intense ex post scrutiny if it is higher than the forecast approved by the Authority.

11 March 2012, Geoff Brown & Associates, *Technical Review of Western Power's Proposed Access Arrangement for 2012-2017*, p. 1.

12 NPV neutral means Western Power will be compensated as if it had foreseen the additional expenditure and the approved revenue included full provision for that investment from the date the expenditure is incurred.

26. Consequently, in the Draft Decision, the Authority accepted all the recommendations of its technical consultant and reduced Western Power's capital expenditure forecasts accordingly by $465 million.

27. Following the Draft Decision, Western Power revised its forecasts and provided further information to the Authority. Taking account of this new information and advice from its technical adviser, the Authority has increased forecast investment as follows:

- increased investment for load growth by $5 million;
- included $108 million for Western Power's proposed CBD (Central Business District) substation; and
- included $42.6 million for environmental and planning costs.

28. In the Draft Decision, based on advice from its technical adviser, the Authority did not allow Western Power's proposed expenditure for the CBD substation on the basis that it was not satisfied that the construction of a new substation in the CBD during the third access arrangement period was consistent with the least cost approach to addressing emerging supply issues within the CBD.

29. In response to the Draft Decision, Western Power completely revised its proposal so that it now forms part of a longer term strategy to address emerging issues with the CBD and in particular the ageing 66 kV infrastructure and the operating and capacity problems that would eventually arise if these assets were to be replaced on a like for like basis. The Authority's technical adviser has reviewed the revised proposal and recommends that it be accepted by the Authority. However, the Authority's technical adviser noted that:

> *"We suggested in our Technical Report that the CBD development plan in the Original AAI was sub-optimal and not well developed, and the radically different plan now proposed on the basis of the SKM study confirms this."*[13]

30. Taking account of the advice from its technical adviser, the Authority has increased forecast expenditure by $108 million to include the project. However, the Authority is concerned that Western Power's current planning processes would have allowed it to continue to develop the original inefficient investment plan if the Authority had not rejected it in the Draft Decision.

31. In relation to the planning and environmental costs, the Authority did not include these in its Draft Decision as they were not reasonably expected to meet the Access Code requirement for these costs to be included in the capital base (new facilities investment test). Western Power subsequently revised its forecast to remove strategic early planning costs. The Authority has also adjusted Western Power's forecast costs to make them consistent with the load forecasts assumed in the Final Decision.

32. The Authority notes that if Western Power needs to spend more than the approved forecast then, provided it can be demonstrated to be efficient, the additional capital expenditure will be allowed for at the time of the fourth access arrangement review and, in the case of capacity expansion and customer driven expenditure, will leave Western Power NPV neutral. Alternatively, the provisions of the Access Code enable Western Power to apply to the Authority at any time for explicit pre-determination of

[13] Geoff Brown & Associates, Technical Review of Western Power's Comments on the Economic Regulation Authority's AA3 Draft Decision, September 2012, p. 46.

whether proposed capital expenditure meets the efficiency requirements of the Access Code.

Wood Poles

33. The poor condition of its wood pole population poses a high risk for Western Power because of the risk to public safety from unassisted wood pole failures and the potential for such failures to start bush fires that cause extensive property damage. Western Power's wood pole failure rate is significantly higher than other Australian distribution network service providers.

34. In September 2009 Western Power was issued with an Order by EnergySafety which required, amongst other things, that all unsupported rural wood poles that do not comply with required standards be replaced or reinforced by 2015. This Order followed EnergySafety audits into Western Power's management of its distribution wood pole population that were undertaken in 2007 and 2009.

35. Western Power initially proposed forecast capital expenditure of $748 million to enable it to increase its wood pole replacement and reinforcement rates. Based on its assessment of the condition of the wood pole population, Western Power considered it would take 20 years of elevated investment before it can reach a sustainable rate of replacement. Western Power stated it had considered more aggressive timescales but decided the 20 year management plan was the most achievable approach.

36. At the time of the Draft Decision, the Authority understood that EnergySafety considered Western Power's proposed wood pole management program was inadequate and that Western Power's preferred investment approach did not fully meet the EnergySafety Order requirements.

37. Western Power's unassisted wood pole failure rate has also been the subject of a recent inquiry by the Standing Committee on Public Administration of the Legislative Council of the Western Australian Parliament.[14] The report of the Legislative Council's Standing Committee on Public Administration and the asset management review[15] undertaken for the Authority by GHD were both critical of aspects of Western Power's management of its wood pole replacement program.

38. In the Draft Decision, the Authority noted that the level of wood pole renewal and replacement required in order to comply with the Safety Order was a matter for Western Power to resolve with the technical regulator, EnergySafety and was not for the Authority to determine.

39. The Authority's technical adviser considered that improvements in the efficiency with which wood pole inspections are undertaken and wood pole replacements are implemented were available, particularly if Western Power successfully addressed issues related to records management. However, the Authority considered any efficiency improvements should drive an increase in the rate of pole replacement and reinforcement rather than a reduction in the actual expenditure.

40. Following the Draft Decision, Western Power has proposed to increase its wood pole investment to what it considers is the greatest extent possible under current delivery constraints. Western Power proposes to reinforce an additional 204,820 wood poles

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[14] Unassisted Failure: Report 14, Standing Committee on Public Administration, Report 14, Legislative Council, Parliament of Western Australia, January 2012.

[15] GHD Asset Management System Review Final Report October 2011.

at a cost of $332.5 million and is investigating options to further increase wood pole reinforcements during the third access arrangement period by securing the services of a second service provider. This could result in up to an additional 75,000 reinforcements.

41. In the Draft Decision the Authority recognised that potentially the investment needs for wood pole management may change as Western Power further develops its understanding of what is required. To ensure that Western Power is incentivised to do this in an efficient manner, the Authority decided that, for the third access arrangement period, expenditure relating to wood pole management should be subject to the investment adjustment mechanism. This will then enable expenditure higher than forecast to be recovered, to the extent that it is demonstrated to be efficient expenditure, and will provide Western Power with a return on that investment from the date it is incurred. Alternatively, the provisions of the Access Code enable Western Power to apply to the Authority at any time for pre-approval of capital expenditure forecasts. All of these provisions ensure Western Power is not constrained to only spend what is allowed in the current forecast.

42. For the purposes of the Final Decision, the Authority recognises the need for increased investment to improve Western Power's wood pole management and has increased the capital expenditure forecast for the distribution network approved in the Draft Decision by $364.9 million primarily to incorporate Western Power's proposed increase in wood pole reinforcements. This is in addition to the $748 million previously requested by Western Power in relation to wood pole management which was accepted by the Authority in the Draft Decision. As noted above, efficient investment will be rolled into the capital base at the next access arrangement review.

IT Expenditure

43. Contrary to the overall underspend in capital expenditure during the second access arrangement period, expenditure in relation to information technology was significantly higher than forecast and Western Power proposed further substantial increases in the third access arrangement period. Based on advice from its technical adviser, the Authority does not consider the increases in expenditure have been adequately justified and has reduced the forecast expenditure for the third access arrangement period to be in line with actual expenditure during the second access arrangement period.

Operating expenditure

44. As is the case with capital expenditure, Western Power's operating expenditure during the second access arrangement period has been significantly lower than the forecasts approved by the Authority. Western Power's forecasts (both initial and revised following the Draft Decision) for the third access arrangement period include significant increases above the actual expenditure during the second access arrangement period.

45. The Authority has paid particular attention, with the assistance of its technical advisor, to ensuring an efficient level of base operating expenditure and only legitimate increases above that are included in the forecast for the third access arrangement period. The Authority remains of the view that a reduction of $5.8 million from the base year expenditure is required based on a line item review for reasonableness.

46. In the draft decision, the Authority's review of operating expenditure, which was assisted by its technical adviser, identified $170.7 million of inefficient forecast expenditure relating to specific items of network costs, indirect costs and corporate costs, which have been removed from the operating expenditure forecasts. The Authority has not altered its view in the Final Decision on these costs that it removed from the operating expenditure forecasts. However, small adjustments were made to Western Power's operating expenditure to reflect new items it proposed and were accepted by the Authority, which results in an increase of around $45 million in operating expenditure from the draft decision. Most of these costs relate to Western Power's revised wood pole management plan and streetlight switch wire program to address public safety issues.

47. Benchmarking by the Authority's technical consultant in both its reports pre and post the draft decision has shown that Western Power's operating expenditure performance is relatively poor compared with its Eastern State counterparts. At a high level this would suggest there is significant opportunity for Western Power to make further efficiency gains. The Authority notes that Western Power's business case for its proposed strategic program of works, which is expected to cost more than $132 million over a period of five years, was justified on the basis that it would lead to efficiency gains. The Authority's technical consultant reviewed Western Power's expected benefits from its proposed strategic program of works and considered that the expected annual operating expenditure efficiency gain will be nearly $37 million in 2016/17 (the last year of the third access arrangement period).

48. As a result, the Authority considers that this gain should be accounted for and has applied an annual compound 2 per cent efficiency factor beginning in 2013/14 to reflect that around $37 million per annum in efficiency gains will be achieved by 2016/17.

Return on Regulated Capital Base

49. Western Power initially proposed a rate of return or weighted average cost of capital (**WACC**) for its regulated capital base of 8.82 per cent (real, pre-tax). This WACC was higher than the real pre-tax WACC of 7.98 per cent approved for the second access arrangement period. In its draft decision, the Authority did not consider the proposed WACC to be consistent with the Code objective, or with prevailing rates for a business of its type, and adjusted the rate of return accordingly.

50. The Authority based its rate of return on an estimate derived utilising the Capital Asset Pricing Model (**CAPM**).

51. The Authority in the draft decision also adopted a real post-tax revenue model (**PTRM**), recognising that this approach meets the objectives of the Access Code and is consistent with the practice of nearly all other regulators in Australia. The PTRM estimates the revenue required to cover tax liabilities separately from the revenue required to provide a return on capital.

52. Together, the adoption of the PTRM and the Authority's CAPM estimates resulted in a real *post-tax* WACC of 3.87 per cent in the draft decision.[16]

53. In its response to the draft decision, Western Power accepted the use of the post-tax approach, but not the Authority's estimates of the CAPM parameters. Western Power

[16] A real *post-tax* WACC of 3.87 per cent is equivalent to a real *pre-tax* WACC of 4.73 per cent.

proposed a revised real *post-tax* WACC of 6.39 per cent. The difference between Western Power's estimate and the Authority's estimate derived from different approaches to estimating the cost debt and the cost of equity.

54. The Authority reviewed and updated its decision in light of Western Power's and other stakeholders' submissions.

55. Giving effect to its reasoning, and updating its estimates for the most recent data for the 20 day trading period until 15 June 2012, the Authority has determined a post-tax WACC to apply for this final decision of 3.60 per cent.

Methodological changes for assessing target revenue

56. In its initial proposal, Western Power included a number of new modelling methodologies and assumptions. In the Draft Decision, the Authority noted that all of these changes proposed by Western Power resulted in an increase to target revenue. In response to the Draft Decision, Western Power has removed the majority of these changes from its proposal.

Capital expenditure previously disallowed as inefficient

57. As indicated in paragraph 19 the Authority excluded $261 million ($ as at 30 June 2009) of capital expenditure incurred in the first access arrangement period from Western Power's opening capital base for the second access arrangement period. This was as a result of weaknesses the Authority identified in relation to Western Power's planning, design and governance of investment expenditure and inefficiencies in cost estimation processes.

58. Despite the fact that Western Power acknowledged that improvements needed to be made and has since embarked on a process of doing so (see paragraph 20 above), it initially proposed that the majority of the expenditure disallowed by the Authority should now be included in its capital base. As stated in the Draft Decision, the Authority's view is that any improvements made by Western Power to its processes since the last access arrangement review will not change the findings of the Authority in relation to past expenditure. Consequently, in the Draft Decision the Authority did not agree that this expenditure should be added to Western Power's opening capital base. However, $5 million relating to planning costs for the Mid West Energy Project were taken into account when adjusting Western Power's forecast expenditure to make it consistent with the amount determined to be efficient by the Authority in its final decision on the Mid West Energy Project (Southern Section) new facilities investment test application published in January 2012.

59. In response to the Draft Decision, Western Power reduced its claim to $111.5 million. The Authority has reviewed Western Power's revised claim and maintains its view, as expressed in the draft decision, to not allow this expenditure to be rolled into the capital base, other than the amount included for the Mid West Energy Project (Southern Section).

Tariff Equalisation Contributions

60. The Authority considers the tariff equalisation contribution (TEC) is not a cost related to the provision of electricity network services to Western Power's customers. However, the Access Code requires that Western Power be able to recover these

costs. At the time of the Draft Decision, Western Power had not been required, by a notice made under section 129D(2) of the *Electricity Industry Act 2004* (Act), to pay a TEC into the Tariff Equalisation Fund during the third access arrangement period, so Western Power proposed an estimate of the amount, which was $906.9 million over the five years. A TEC was gazetted by the Treasurer on 7 August 2012. The gazetted amount is $735.9 million over the five years, which is less than the amount assumed in the Draft Decision. The Authority has estimated the distribution network reference tariffs on the basis of the approved target revenue plus an allowance for the gazetted TEC amount.

Deferred Revenue

61. Western Power initially proposed that the revenue deferred during the second access arrangement period[17] should all be recovered during the third access arrangement period. In the Draft Decision, the Authority determined that the deferred revenue should be recovered over a ten year period to avoid price shock to customers. Western Power has accepted this amendment in its revised proposed revisions to the access arrangement.

Incentives

62. Incentive mechanisms to encourage Western Power to provide services to customers at an efficient cost form an important part of the regulatory regime. The incentive framework contained in the Final Decision is designed to ensure Western Power provides services at an efficient cost. The incentive framework includes:

- a Gain Sharing Mechanism – a mechanism to provide a reward for any out-performance of operating expenditure forecasts included in the final decision;
- a Service Standard Adjustment Mechanism – a mechanism designed to reward (or penalise) Western Power for out-performing (or under-performing) on its service performance against benchmarks;
- a D-Factor scheme – a mechanism designed to incentivise demand management or network control services where these are more efficient than a network augmentation;
- an assessment of actual capital expenditure incurred at the next access arrangement review to ensure only efficient capital expenditure is included in the capital base; and
- an assessment of the efficient base operating expenditure during the third access arrangement period, and the inclusion of a 2 per cent annual efficiency adjustment in operating expenditure during the third access arrangement period.

63. In the Draft Decision the Authority included a service standard benchmark measuring Western Power's compliance with its Customer Charter with the intention being that such a service standard would address concerns regarding the conduct of Western Power staff and contractors when entering and conducting work on farm land. In making its final decision, the Authority recognises a number of practical barriers to this approach. In light of these practical barriers, the Authority encourages Western Power to work with farming bodies to resolve this problem, and notes the dialogue that

17 A revenue adjustment which resulted from a change in the treatment of both contributed payments and gifted assets that are given to Western Power for the calculation of the allowed regulatory revenue.

has been opened, particularly the undertaking to develop a database of land owners that wish to be contacted prior to Western Power entering their land.

64. In the meantime, the Authority will also evaluate a licence condition that requires reporting by Western Power of the number of complaints in relation to land access. Should improvement to acceptable levels of complaint not be forthcoming through voluntary action by Western Power, then the Authority will consider establishing a licence condition, which could be subject to penalties for non-compliance.

Final Decision and indicative price impacts

65. The Authority's Final Decision results in a forecast target revenue of $6.7 billion for the third access arrangement period which is $3.6 billion (35 per cent) below Western Power's initial proposed forecast and $2.4 billion (26 per cent) below its revised proposed forecast. This target revenue results in overall average charges remaining broadly constant in real terms over the third access arrangement period, compared with Western Power's proposed real increases of 10.3 per cent per year.[18]

66. Network charges make up approximately 40 per cent of current electricity tariffs for residential customers.

67. Total forecast revenue has decreased from the Draft Decision reflecting a reduction in the return on assets due to changes in market conditions since the Draft Decision and a reduction in the TEC, offset by higher expenditure forecasts as discussed above. The Final Decision forecast change in prices is based on updated load information submitted by Western Power in its revised proposal in May 2012 in relation to volumes. For the purposes of the Final Decision it is assumed that the revised tariffs will first come into effect on 1 January 2013 which also affects the forecast change in prices.

68. The main differences between the Authority's Final Decision and Western Power's revised proposal relate to a reduced rate of return/WACC and a lower allowance for capital and operating expenditure. These differences are summarised in Table 1 below.

[18] Based on Western Power's forecast volumes and excluding any adjustments for under or over recovery of revenue in previous years.

Table 1 Comparison of Western Power proposal and Authority's Decision

	Western Power Proposal	ERA Draft Decision	Western Power Revised Proposal	ERA Final Decision
Target reference service revenue (real)	$10.3 billion	$6.9 billion	$9.1 billion	$6.7 billion
Capital Expenditure previously disallowed as inefficient (real)	$244 million	$0 million	$111.5 million	$5.1 million[19]
WACC (real post-tax)	8.82%[20]	3.87%	6.39%	3.60%
Opening Capital Base for AA3 (real)	$7.1billion	$6.5 billion	$6.6 billion	$6.4 billion
Forecast Capital Base for AA4 (real)	$10.4 billion	$9.0 billion	$10.1 billion	$9.4 billion
Capital Expenditure (real)	$5.1 billion	$4.1 billion	$5.2 billion	$4.7 billion
Operating Expenditure (real)	$2.7 billion	$2.2 billion	$2.7 billion	$2.3 billion
Deferred revenue recovered (real)	$967.2 million	$463.1 million	$516.7 million	$451 million
Forecast average network tariff change on 1 July 2012[21]	CPI + 16.4%	CPI - 1.0%	CPI + 8.2%	CPI – 0.7%
Forecast average network tariff change on 1 July 2013	CPI + 11.1%	CPI - 0.7%	CPI + 10%	CPI – 0.3%
Forecast average network tariff change on 1 July 2014	CPI + 11.2%	CPI - 0.4%	CPI + 11%	CPI + 0.1%
Forecast average network tariff change on 1 July 2015	CPI + 11.4%	CPI - 0.1%	CPI + 11.1%	CPI + 0.5%
Forecast average network tariff change on 1 July 2016	CPI + 11.5%	CPI + 0.2%	CPI + 11.1%	CPI + 0.8%

69. The Authority also requires a number of amendments to be made to the access arrangement including:

- revisions to the proposed service standard benchmarks and service standard adjustment mechanism to include a number of existing measures Western Power was proposing to remove and to ensure the proposed benchmarks reflect current levels of service; and
- revisions to the proposed revised applications and queuing policy to take account of issues raised by interested parties, particularly in relation to the operation of the competing applications groups.

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19 This relates to planning costs incurred on the Mid West Energy Project incurred in the first access arrangement period. These costs were included in the Authority's Draft Decision but were treated as an adjustment to the opening capital base and not shown separately.

20 Western Power's initial proposal was a pre-tax WACC of 8.82 per cent.

21 Final Decision forecast average changes assumes new tariffs take effect from 1 January 2013.