GEOFF BROWN & ASSOCIATES LTD

REVIEW OF NEW FACILITIES INVESTMENT TEST COMPLIANCE

WESTERN POWER AA1 PROJECTS

Prepared for

ECONOMIC REGULATION AUTHORITY

FINAL – PUBLIC VERSION

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TABLE OF CONTENTS

SECTIONS

APPENDICES:

1. INTRODUCTION

The Economic Regulation Authority (Authority) is in the process of reviewing Western Power's proposed revised access arrangement for the regulatory period from 1 July 2009 to 30 June 2012 (AA2). In accordance with the requirements of the *Electricity Networks Access Code 2004* (Code), the access arrangement details the terms and conditions, including prices, which apply to parties seeking to use Western Power's regulated south west interconnected network (SWIN). The revised access arrangement will replace Western Power's existing access arrangement for the SWIN, which became effective from 1 July 2007.

As part of this review the Authority must assess whether the proposed value of the regulated asset base (RAB) at the beginning of the AA2 regulatory period includes new facilities investment that reasonably meets the requirements of the Code, as this will determine the level of investment on which Western Power is able to earn a return. In order to assist it with this assessment the Authority has engaged Geoff Brown and Associates to review the new facilities investment undertaken by Western Power during the AA1 regulatory period (which started on 1 July 2006 and ends on 30 June 2009 – although the access arrangement was only effective from 1 July 2007) in order to assess its level of compliance with the new facilities investment test (NFIT). New facilities investment is the capital cost incurred in developing, constructing and acquiring a new facility, where "new facility" means any capital asset developed, constructed or acquired to enable Western Power to provide regulated network services.

New facilities investment may only be added to the RAB in accordance with the requirements of clause 6.51A of the Code. This requires either that the new facilities investment meets the requirements of the NFIT or that the new facilities are acquired through a capital contribution, in which case they must meet the efficiency test component of the NFIT and there must also be a mechanism in place to ensure there is no double recovery of investment costs.

Under the scope of work for this assignment, Geoff Brown and Associates was required to:

- Give consideration to, and comment on, the adequacy of the information and documents provided from a technical perspective, taking into account the requirements of the NFIT. The scope of work noted that the onus was on Western Power to demonstrate that these requirements have been met.

- Provide advice in relation to the costs associated with the actual new facilities investment (i.e. project or programme). The NFIT requires that the investment does not exceed the amount that would be invested by a service provider efficiently minimising costs.

- Assess the variance, if any, between the actual new facilities investment undertaken and what was originally forecast. This assessment will need to take into consideration the explanations and/or reasons given for any variance(s) by Western Power. Where explanations and/or reasons are given, the consultant will be required to comment on the validity of these explanations and/or reasons from a technical perspective.

- Provide advice in relation to the amount claimed by Western Power to satisfy the NFIT. In formulating any advice the consultant will need to have regard to the justification and rationale of Western Power in support of its claims.

This report presents the results of this review.

2. BACKGROUND

2.1 NEW FACILITIES INVESTMENT TEST

The requirements of the NFIT are set out in Section 6.52 of the Code. In order to meet the requirements of the NFIT an investment must pass:

- an *efficiency test* as set out in clause 6.52(a) of the Code and one or more of the following tests;
- an *incremental revenue test* as set out in clause 6.52(b)(i)A of the Code; or
- a *net benefits test* as set out in clause 6.52(b)(ii) of the Code; or
- a *reliability test* as set out in clause 6.52(b)(iii) of the Code[1].

These tests are described in more detail in the following sections.

2.1.1 Efficiency Test

The efficiency test requires that the new facilities investment does not exceed the amount that would be invested by a service provider efficiently minimising costs having regard to:

- whether the new facility exhibits economies of scale or scope and the increments in which capacity can be added; and
- whether the lowest sustainable cost of providing the regulated network services forecast to be sold over a reasonable period may require the installation of a new facility with capacity to meet the forecast sales.

The application of the efficiency test is discussed in section 2.5.5.

2.1.2 Incremental Revenue Test

A new facility investment will pass the incremental revenue test if the anticipated incremental revenue derived from the new facility is higher than the cost of the facility. The test is used to assess an investment in a shared network augmentation that is constructed specifically to allow a new user to connect to the network. For the purposes of this test, incremental revenue is defined in the Code as the net present value of the anticipated additional revenues to Western Power from the new customer less the net present value of the costs associated with servicing the new facility (principally maintenance costs).

The Code includes a provision for an access arrangement to include a modified test that would be applied in place of the incremental revenue test where the proposed new facilities investment is below a prescribed test application threshold. Western Power's access arrangement for the AA1 regulatory period does not include such a test.

Where the required new facilities investment to permit a new user to connect is greater than the anticipated revenue Western Power can request the user to pay a capital contribution to make up the difference. It currently uses a standard capital contributions spreadsheet model to calculate the amount of any contribution required. The model estimates the net present value of forecast revenues and maintenance costs over a

[1] The test in clause 6.52(b)(iii) of the Code may include an assessment of safety or the ability of the network to provide contracted covered services as alternatives to reliability. However, for convenience, this test is referred to as the *reliability test* throughout this report.

project life that is normally assumed to be 15 years in order to determine the value of the investment that the new connection will support.

The incremental revenue test is not applied to connection assets used to supply a single user and it is also not applied to distribution infrastructure for the reticulation of new subdivisions or to other works covered by Appendix 8 of the Code. The user or developer must pay the full cost of these new assets and in the case of subdivisions, where the assets will eventually from part of the shared network, they must be gifted to Western Power after completion[2].

New facilities are not subject to the NFIT if they are funded through a capital contribution but may be included in the RAB in accordance with clause 6.51A(b) of the Code, which states that an investment may be included in the capital base if:

- the addition to the capital base is approved by the Authority; and
- it has been, or is expected to be the subject of a contribution; and
- it satisfies the efficiency test described in section 2.2.1 of this report; and
- the access arrangement contains a mechanism designed to ensure that there is no double recovery of costs as a result of the addition.

As capital contributions are not subject to the NFIT, they are outside the scope of this review. However, in assessing whether a particular new facilities investment complies with the requirements of the NFIT we have assessed, and where appropriate commented on, the extent to which the investment has been funded through a capital contribution. This assessment is necessary to determine the value of the investment to which an incremental revenue test must be applied.

2.1.3 Net Benefits Test

A new facilities investment will pass the net benefits test if the new facility provides a net benefit in a covered network over a reasonable period of time that justifies the approval of higher reference tariffs. The Code defines a net benefit as applying to those who generate, transport and consume electricity (which includes both users and also Western Power as the network operator), and it also requires that it be measured in present value terms to the extent that it is possible to do so.

The net benefits test is used for growth driven investments that cannot be attributed to a single network user. It is a standard test applied within the industry and recognises that higher costs (and therefore tariffs) in the short term may be appropriate if incurring these short term costs minimises total costs when measured over a longer period. It is a particularly useful test when it is necessary to find the optimal investment stream from a number of alternative options that each require costs to be incurred at different times.

2.1.4 Reliability Test

A new facilities investment will pass the reliability test if the new facility is necessary to maintain the safety or reliability of the SWIN or its ability to provide contracted covered services. We have difficulty with the broadness of the wording …*or its ability to provide contracted covered services,* since all new facilities investment should meet this criterion. However, we think the reliability test was primarily intended to be applied to non-growth driven new facilities investment and for this review we have made this assumption.

[2] Historically, subdividers could elect to participate in a cost sharing arrangement where Western Power would install the electricity distribution network in new subdivisions for a fixed charge per section. We understand the charge was set to fully recover Western Power's design and installation costs when averaged across all subdivisions. However Western Power has withdrawn from the installation of subdivision distribution systems for designs submitted after 1 July 2007, and these subdividers must organise their own installation in accordance with Western Power's design standards

Hence a growth driven new facilities investment will not meet the requirements of the NFIT simply because Western Power would be unable to meet is contracted level of network provision if nothing was done. For our assessment such an investment would need to meet the requirements of either the incremental revenue or net benefits test depending on whether or not the investment was for the benefit of a single customer.

2.2 INFORMATION USED FOR THIS REVIEW

2.2.1 Analysis Spreadsheet

As a starting point for this review, Western Power provided a spreadsheet analysing all new facilities investment projects on which expenditure was incurred during the three year AA1 regulatory period. Throughout this report this spreadsheet is referred to as the *analysis spreadsheet.* For each project or program the analysis spreadsheet included the following key information:

- the amount of any provision included in the approved capital expenditure forecast on which the AA1 access arrangement was based;
- the expected actual expenditure in the AA1 regulatory period[3];
- the actual capital contributions received during the AA1 regulatory period[4]; and
- the total project expenditure that Western Power considers satisfies the NFIT, escalated to real dollars as of 30 June 2009.

A high level overview of the total new facilities investment included in the analysis spreadsheet is given in Table 2.1 below:

Table 2.1: Overview of Total New Facilities Investment during AA1 Regulatory Period ($ million, nominal)

	AA1 Forecast Expenditure (nominal)	Expected Actual Expenditure (nominal)	Capital Contributions (nominal)	NFIT (nominal)[1]	NFIT (real)
Transmission	646	1,037	95	942	968
Distribution	940	1,467	383	1,083	1,112
Total	1,586	2,504	478	2,025	2,080

Note 1: Derived using spreadsheet methodology. All other figures were calculated by directly summing individual project numbers.

2.2.2 Project Specific Information

Before this review commenced, the Authority selected 30 projects or programs for specific assessment and requested Western Power to provide relevant information on each one. For each project or program Western Power provided a pro-forma NFIT compliance summary (referred to in this report as a *compliance summary)*, and a business case. For many projects supplementary business cases were also provided and for some projects additional documents such as change requests or program tracking spreadsheets were also included.

An overview of the total new facilities investment included in the project and program specific assessments is shown in Table 2.2. Projects assessed for this review represented almost 55% of Western Power's expected actual capital expenditure over the AA1 regulatory period, and includes over 35% of expected actual transmission capital expenditure and over 68% of expected actual distribution capital expenditure.

[3] The spreadsheet was prepared in April 2009, before the end of the AA1 regulatory period. Hence expected actual expenditures include actual expenditures for 2006/07 and 2007/08 and forecast expenditures for 2008/09.

[4] Only capital contributions received up until February 2009 were included.

Table 2.2: Overview of Project Specific New Facilities Investment Assessed for this Review ($ million, nominal)

	AA1 Forecast Expenditure (nominal)	Expected Actual Expenditure (nominal)	Actual Capital Contributions (nominal)	NFIT (nominal)[1]	NFIT (real)
Transmission	228	373	50	323	344
Distribution	530	1,004	353	651	668
Total	758	1,377	403	974	1,032

Note 1: Derived using spreadsheet methodology. All other figures were calculated by directly summing individual project numbers.

Some of the projects and programs specifically assessed for this review were also included in the governance review recently undertaken for the Authority[5]. Western Power provided additional information on the relevant projects for the governance review, which was also used in making this assessment.

The information provided in the compliance summary for each project included the following:

Information	Comment
Need	The primary need for the project was identified. The supporting business case generally provided the required in service date and a very high level reason for the selected date. For growth projects a load forecast presented in graphical form was often included in the business case.
Options analysis	The business case usually included a high level summary of the different options considered and the reason the preferred option was selected. The individual costs of the different options was rarely provided and for growth driven network augmentations there was no quantitative comparison of the net benefits of the different alternatives.
Scope of work	The compliance summary included a very brief description of the scope of work and this was generally described in more detail in the business case.
New facilities investment.	This compared the forecast and actual costs. There were often differences in reported costs between the analysis spreadsheet and the compliance summary. While the compliance summary included document management system (DMS) references to the source of the reported actual costs, these source documents, which were not requested following discussion with the Authority on time and budget issues, were often not provided for the review.
Basis of cost estimate	For all projects and programs, the compliance summary included a pro-forma statement that the cost estimate was based on Western Power's standard cost estimating system.
Implementation Timing	Proposed and anticipated implementation timings were included. Where large projects experienced an implementation delay, a revised business case, or completed change control request, usually provided an explanation.

5 *Review of Expenditure Governance, Western Power:* Geoff Brown & Associates Ltd, June 2009.

Variation Justification	A very brief reason for the variations between forecast and actual costs were provided. The increase in equipment and labour costs since the original cost estimate was invariably noted. More detail was available for projects where a revised business case was provided and also for projects that formed part of the governance review
Efficiency test compliance	Without exception, the compliance summary assessed the full amount of new facilities investment to meet the requirements of the efficiency test on the basis that it was the *necessary minimum cost investment.* In most cases no further information was provided. However, the business cases for very large projects sometimes discussed major procurement contracts and information on the processes used to control costs was generally available for those projects that formed part of the governance review.
Other NFIT tests	Both the compliance summary and the analysis spreadsheet noted which of the other three tests the project complied with and the "recoverable portion" of project costs that satisfied the NFIT. In many cases we did not agree with Western Power on which of the three tests was appropriate. For example, the compliance summary often assessed augmentations of the shared network as passing the reliability test, whereas we consider the net benefit test to be more appropriate for this type of project.
NFIT Amount	The amount that was considered to satisfy the NFIT test was stated in both the analysis spreadsheet and the compliance summary. In both cases the NFIT amount was the expected actual project cost less any capital contribution, but the NFIT amounts provided in the two documents were not always the same.
Code section 6.51A(b) amount.	This was included in the compliance summary but was not explicitly stated in the analysis spreadsheet. It was generally equal to any capital contribution received.

2.3 METHODOLOGY

We attempted to assess each of the 30 projects and programs included in the review against the efficiency test and either the incremental revenue, net benefits or reliability test, depending upon the nature of the project or program.

However, for most projects and programs we found it very difficult to make a meaningful assessment of the investment against the requirements of the efficiency test. This was because very little information on cost breakdowns was provided (except for projects included in the governance review) and also because over the AA1 period Western Power was operating in an environment where equipment and labour costs were rising very rapidly and where it also faced an unprecedented demand for its services. Hence an efficient project cost that was incurred at the end of the regulatory period would have been inefficient had the same cost been incurred on the same project at the beginning of the period.

The efficiency test requires an assessment of whether Western Power minimised its costs for a specific project. This requires a detailed review of project delivery approaches and an assessment of equipment procurement practices as they applied to that project. Information was generally not provided to the detail required except possibly for projects included in the governance review. Hence, for this review, the efficiency test assessment was generally limited to a high level assessment as to whether the scope of work for the preferred option, as described in the business case, seemed reasonable (in that there

was no obvious "gold plating") and whether the costs were within an expected range. A high level assessment of this nature may identify major inefficiencies but is unlikely to identify less serious, but nonetheless material inefficiencies particularly if these are systemic[6].

Sufficient information was generally available to assess an investment against the requirements of the incremental revenue test (where the capital contribution model was often provided and where the involvement of the user provides some restraint on Western Power's costs) and also for the reliability test (where the need for the project was generally self evident). However, the assessment of investments against the net benefits test was generally high level and qualitative and did not approach the rigour of a regulatory test.

For some project augmentation projects it was appropriate to apply both the incremental revenue and net benefits test, where the net benefits test would be applied to that part of a project that did not meet the requirements of the incremental revenue test.

[6] Appendix 5 of Western Power's AA2 Access Arrangement Information included a report by Parsons Brinckerhoff (PB) that provided a high level overview of the systems and processes that Western Power has in place to control expenditure on capital projects and programs. As the terms of reference for the assignment covered by this report required project specific assessments, we were unable to rely on the PB report to conclude that a particular project met the efficiency requirements of the NFIT.

3. INDIVIDUAL PROJECT REVIEWS

In this section we summarise the results of our individual project reviews. The summary is provided on an exceptions basis in that only points of concern are highlighted. Details of the individual project reviews are provided in Appendix A and Appendix B. The key financial details of the different projects reviewed are summarised in Tables 3.1 and 3.2.

3.1 TRANSMISSION PROJECTS

3.1.1 Alinta Gas Fired Generation

[Not published as it includes confidential and commercially sensitive information]

3.1.2 Boddington Gold Mine Connection

[Not published as it includes confidential and commercially sensitive information]

3.1.3 Joel Terrace 132 kV Conversion

The project involved a 132 kV conversion instead of a lower cost 66 kV option that would have met the immediate need. The option was selected on the basis that is was consistent with a least cost long term development plan that would result in three zone substations adjacent to the East Perth terminal station being upgraded to 132 kV over a twenty year period. However, as we have not seen this development plan and have not had the opportunity to assess the reasonableness of the assumptions on which it is based, we are unable to assess whether this project meets the requirements of the NFIT.

3.1.4 Margaret River 132 kV Upgrade

This project has recently been suspended and is unlikely to be reactivated until 2018. Western Power is proposing to capitalise $2.2 million of the $12 million spent or committed project expenditure. However, we think all costs should be written off as the costs incurred to date are unlikely to materially reduce the total cost of the project after it has been reactivated.

The analysis spreadsheet shows expected actual expenditure of $25.5 million over the AA1 regulatory period. However, this is based on the planned expenditure before suspension rather than what Western Power is currently proposing to capitalise (i.e. $2.2m).

3.1.5 Mid-West 330kV Augmentation

We consider that expenditure on this project should not be capitalised at this time as the project has not been committed for construction. We also consider the $39.3 million that both the analysis spreadsheet and the compliance propose be included in the opening asset base for the AA2 regulatory period to be excessive in that it appears to be based on planned rather than currently expected actual expenditure. We note that this project is under review by the Government and that there was no firm commitment for this project to proceed in the recent State budget.

3.1.6 Newgen Neerabup Power Station Connection

[Not published as it includes confidential and commercially sensitive information]

3.1.7 Perth-Mandurah Rail Connections

[Not published as it includes confidential and commercially sensitive information]

3.1.8 Southern Terminal Station SVC

[Not published as it includes confidential and commercially sensitive information]

3.2 DISTRIBUTION PROJECTS

3.2.1 Rural Power Improvement Program

The program is subsidised by an annual $6 million equity contribution through the Office of Energy, which we think should be accounted for as a capital contribution to this program. However, Western Power treats the whole program as self funded and considers the full cost of the program meets the requirements of the NFIT. This is different from the accounting treatment applied to other capital contributions. However, since an equity contribution is a special type of subsidy, we have not at this stage proposed that any portion of the program cost be not approved as meeting the requirements of the NFIT.

3.2.2 State Underground Power Program

There appears to be an error in the analysis spreadsheet, which does not record any expected actual expenditure for 2008/09. We therefore consider the expected actual expenditure figures given in the compliance summary to be more reliable.

However, the information in the analysis spreadsheet is incomplete and, as the program is 75% subsidised, the Authority should ensure that the Western Power expenditure that is included in the asset base through the NFIT provisions does not exceed 25% of the total cost of the program.

3.2.3 Subdivisions

Section 3 of the Underground Distribution Scheme Manual deals with the charges payable by subdividers and requires subdividers to bear the full cost of subdivision work, irrespective of whether the installation work was undertaken by Western Power or by other contractors. If Western Power's costs exceed the revenues received from developers, the difference should be written off. We therefore see no reason why any program costs should be subjected to the NFIT.

3.2.4 Vested Assets

We believe that all gifted subdivision assets should be added to the opening asset base in accordance with clause 6.51A(b) of the Code rather than be subject to the NFIT. The total value of $54.4 million up to the time that the analysis spreadsheet was prepared in April 2009 is likely to be accurate.

Table 3.1: Summary of Transmission Project Assessments ($ million, nominal)

No	Title	Analysis Spreadsheet			Compliance Summary			Suggested Adjustment	Comment
		AA1 Forecast	Expected Actual Cost	NFIT Amount	Forecast	Expected Actual Cost	NFIT Amount		
A1	Alinta Gas Fired Generation	[Not published as it includes confidential and commercially sensitive information]							
A2	Bibra Lake Zone Substation	5.41	7.90	7.90	8.5	7.9	7.9		
A3	Boddington Gold Mine Connection	[Not published as it includes confidential and commercially sensitive information]							
A4	Information Technology	51.75	45.23	45.23	-	28.6	28.6		
A5	Joel Terrace Conversion	6.95	9.87	9.87	11.1	9.9	9.9		
A6	Margaret River 132 kV Upgrade	-	25.49	25.49	35.0	13.9	2.2	(2.2)	Project has been suspended. All costs should be written off as costs spent to date are unlikely to materially reduce the costs of the project when it is reactivated around 2018. NFIT costs shown in compliance summary represent the projected expenditure prior to suspension rather than the capitalisation currently proposed by Western Power.
A7	Mid-west 330kV Augmentation	-	39.3	39.3	343.0	39.3	39.3	(39.3)	We think the amount proposed as meeting NFIT requirements is based on planned rather than actual expenditure. However, we consider that no expenditure on this project currently meets NFIT requirements as the project has not been committed for construction.
A8	Neerabup Terminal Station	39.45	50.06	50.06	40.1	63.5	63.5		
A9	Newgen Neerabup Power Station Connection	[Not published as it includes confidential and commercially sensitive information]							
A10	Perth-Mandurah Rail Connections	[Not published as it includes confidential and commercially sensitive information]							
A11	Pinjar Waneroo Transmission Line	16.12	31.66	31.66	22.1	31.6	31.6		

A12	Southern Terminal Station SVC	[Not published as it includes confidential and commercially sensitive information]							
A13	Wembley Downs Substation Upgrade	-	4.67	4.67	6.6	4.7	4.7		

Table 3.2: Summary of Distribution Project Assessments ($ million, nominal)

No	Title	Analysis Spreadsheet			Compliance Summary			Suggested Adjustment	Comment
		AA1 Forecast	Expected Actual Cost	NFIT Amount	Forecast	Expected Actual Cost	NFIT Amount		
B1	Advanced Metering Infrastructure Pilot	-	6.06	6.06	5.84	-	-		No funding available for this project during the AA1 regulatory period.
B2	Cottesloe Distribution Network Upgrade	3.06	3.83	3.83	3.1	3.9	3.9		
B3	Dalwallinu Feeder Rebuild	-	4.54	4.54	4.5	0.1	0.1		
B4	Distribution Pole Replacement	48.40	85.62	85.53	48.4	85.6	85.6		
B5	Meter Asset Replacement	9.23	8.21	8.21	10.6	8.2	8.2		
B6	New Connections – Commercial and Industrial Customers	68.43	228.89	97.76	68.4	274.0	143.0		
B7	New Connections - Meters	13.27	35.73	35.42	13.3	35.7	35.7		
B8	New Connections – Small Customers	37.40	75.35	34.51	37.6	75.3	34.6		
B9	Overhead Customer Service Replacements	33.79	34.28	34.28	33.8	35.1	35.1		
B10	Overloaded Distribution Transformer Replacements	7.22	29.15	29.15	17.9	29.1	29.1		

B11	Power Quality Reinforcement	18.40	29.24	29.24	32.1	52.2	52.2		We suspect differences in the number of individual projects explain the difference between the analysis spreadsheet and the compliance summary.
B12	Rural Power Improvement Program	32.86	55.22	55.22	32.9	55.0	55.0		The Office of Energy provides an annual $6 million equity injection to subsidise the program, but this is not treated as a capital contribution.
B13	State Underground Power Program	46.53	43.14	19.25	50.5	72.4	17.9		The analysis spreadsheet shows no expenditure for 2008/09. As the program is 75% subsidised the Western Power expenditure that is included in the asset base through the NFIT investment should not exceed 25%of the total project cost.
B14	Subdivisions	119.12	171.68	65.08	158.6	308.3	308.3		As subdivisions are fully funded by developers we do not think any Western Power costs should be subjected to an NFIT.
B15	Targeted Reliability Programs	32.12	52.00	52.00	32.1	52.2	52.2		
B16	Vested Assets	58.81	136.61	82.1	59.8	53.4	-		All investment under this program should be treated as a capital contribution. No expenditure should therefore be added to the capital base as a result of applying the NFIT.
B17	Waikiki Feeders	1.25	4.00	4.00	1.3	4.0	4.0		

4. GENERAL FINDINGS AND CONCLUSIONS

4.1 ACCURACY OF INFORMATION PROVIDED

We do not believe either the analysis spreadsheet or the compliance summaries can be relied on to provide accurate information on the expected actual expenditure that should be subjected to an NFIT assessment for any particular project.

The analysis spreadsheet appears to accurately report expenditure at a project level for the first two years of the regulatory period (2006/07 and 2007/08). However, for the final year of the period it relies on the figures in the approved work program and has not been updated to reflect changes since the work program was issued. For example, it reports an expected actual capital expenditure in 2009/09 of $38 million on the mid-west 330 kV augmentation even though this project is not yet committed for construction and expenditure is unlikely to reach this level until construction or equipment procurement actually begins. It further reports an expected actual expenditure on the Margaret River upgrade of $25.49 million in 2008/09 even though this project was suspended after an expenditure of only $12.9 million.

We note that the analysis spreadsheets[7] were formally submitted to the Authority to provide an indication of the investment claimed by Western Power to satisfy the requirements of the NFIT. We therefore believe that much more care should have been taken to ensure that the claimed expected actual expenditures were as accurate as possible.

The expected actual project costs provided in the compliance summaries are taken from a variety of sources and for many projects, such as Margaret River, they reflect the changes that have occurred since the 2008/09 approved work plan was issued. However, in many cases the expected actual costs are taken from business case information and this may not reflect actual project outcomes.

Therefore, we do not believe that the expected actual cost information in either document is sufficiently accurate to be used as a starting point for determining the approved opening RAB for the AA2 regulatory period.

The analysis spreadsheet also records capital contributions received against different projects and programs but Western Power does not appear to have reviewed these for reasonableness or accuracy. This has caused anomalies that Western Power has made no attempt to explain. For example we understand the “Subdivisions” program shows expenditure on subdivision work undertaken by Western Power under contract to developers[8]. The spreadsheet shows a shortfall in cost recovery of $65 million or 38% of total project expenditure, which Western Power believes meets NFIT requirements and should be included in the RAB. It is not clear to us whether this shortfall is due to payments from subdivision developers not being properly credited to the project (and thus treated as a capital contribution) or due to Western Power’s installation costs being higher than the quoted prices. We think capital contributions should be properly accounted for and that any shortfall in contractor recoveries due to under-quoting should be written off rather than passed though to Western Power’s other customers by inclusion in the RAB.

[Information not published as it includes confidential and commercially sensitive information]

[7] There are separate spreadsheets for transmission and distribution projects.
[8] Western Power has withdrawn from subdivision construction for designs submitted after 1 July 2007.

4.2 INDIVIDUAL PROJECT ASSESSMENTS

Given our lack of confidence in the accuracy of reported expected actual project costs for the AA1 regulatory period, and the discrepancies between the costs reported in the analysis spreadsheets and compliance summaries, we are unable to form a view on the exact amount of the expenditure on any project or program that meets the requirements of the NFIT. The exceptions to this were subdivisions and vested assets, which we believe should be fully funded by capital contributions; Margaret River where we believe all project expenditure should be written off; and the mid-west augmentation where we believe the expenditure should not be included in the RAB until after the project is finally committed for construction.

[Information not published as it includes confidential and commercially sensitive information]

For distribution capital works programs, expenditure is of an incremental nature and it was not possible to identify specific expenditure items that did not meet NFIT requirements. Adjustments identified for such programs generally related to the level of actual project expenditure in relation to the levels of capital contribution received. For example, we would expect zero NFIT investment on subdivisions and vested assets, which are fully funded by developers[9]. For the State underground power program we would expect the investment that meets the NFIT requirements not to exceed 25% of the expected actual cost since 75% of the program cost is subsidised. For such programs we are unable to recommend explicit adjustments until the actual investment and capital contributions are confirmed.

We were uncertain how to assess the rural power improvement program, which is subsidised through an annual $6 million equity injection, and note that Western Power is currently including the total cost of the program in the NFIT amount.

4.3 OTHER COMMENTS

Some business case recommendations were supported by demand forecasts based on the extrapolation of historic peak demands. Electricity consumption in Western Australia is now very temperature sensitive, and this is apparent from the historic peak demand trends we saw where, due to very hot summers, the peak demands experienced in 2003 and 2004 were generally significantly higher than in earlier years. The inclusion of these peak demands in an uncorrected trend analysis could indicate a higher growth rate than is likely to actually occur.

We think Western Power could consider applying temperature corrections to historic peak demands before they are trended for forecasting purposes, as is done by some transmission and distribution utilities in eastern states of Australia. This adjustment could reduce the forecast rate of growth of peak demand. We think such an adjustment to the demand forecasting approach will have little impact on the short term requirement for growth related capital expenditure but may defer the need for some expenditure that is currently forecast to be required towards the end of the AA2 regulatory period.

We also understand that Western Power has a policy of undergrounding distribution assets along transmission line routes for safety reasons. We are unsure of the background for this or whether it is required or common practice in other states. It is not routinely done in New Zealand.

We acknowledge the safety benefits of such expenditure, although we believe that the safety risks could be managed in other ways, such as more frequent asset inspections. If this undergrounding is not a mandatory requirement, we think Western Power should consider whether the expenditure is an optimal use of its safety-related budget. For example, the $1.3 million spent undergrounding distribution assets between Landwehr

[9] While not subject to the NFIT, these assets would still be included in the AA2 opening RAB under the provisions of clause 6.51A of the Code.

and Wagerup could have funded the replacement of 250 distribution poles or 2,500 potentially defective overhead service lines. Arguably, this may have been a more effective use of these funds.

APPENDIX A
TRANSMISSION PROJECT ASSESSMENTS

[Appendix not published as it includes confidential and commercially sensitive information]

APPENDIX B
DISTRIBUTION PROJECT ASSESSMENTS

[Appendix not published as it includes confidential and commercially sensitive information]