Issues Paper

New Facilities Investment Test Application for the Replacement of Overhead Customer Service Connections Submitted by Western Power

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Economic Regulation Authority
WESTERN AUSTRALIA

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Contents

1 Introduction **1**

2 The New Facilities Investment Test **2**

2.1 Purpose 2

2.2 Distinction from the Regulatory Test 2

2.3 Requirements of the Access Code 3

2.4 The Structure of the New Facilities Investment Test 4

3 The Proposed New Facility **5**

3.1 Reasons for the Proposed Investment 5

3.2 Proposed Investment 5

3.3 Forecast Cost 5

4 Western Power's Assessment under the New Facilities Investment Test **6**

4.1 Western Power's Submission 6

4.2 Efficiency Test 6

4.3 Safety and Reliability Test 7

4.4 Net Benefits Test 7

4.5 Incremental Revenue Test 8

Appendix A: The Structure of the New Facilities Investment Test **9**

1 Introduction

On 5 November 2010, the Economic Regulation Authority (**Authority**) received a new facilities investment test application from Western Power submitted under section 6.71(b) of the *Electricity Networks Access Code 2004* (**Access Code**).[1] The application is for the Authority to determine that forecast new facilities investment proposed by Western Power, to replace potentially unsafe overhead customer service (**OCS**) connections[2], meets the new facilities investment test. The proposed investment is estimated to cost $71.1 million and involves the inspection of all OCS connections and the replacement of those connections identified as being potentially unsafe.

Western Power's new facilities investment test application has been published on the Authority's website together with this issues paper.[3]

The new facilities investment test is applied to determine the extent to which the cost of an augmentation of the network (i.e. the amount of new facilities investment) can be financed by adding all, or part of, the new facilities investment to the capital base of Western Power's covered network and hence recovered through regulated tariffs. The test seeks to ensure that only efficient investment which benefits all users of the network is recovered through these regulated tariffs.

In making a determination on Western Power's new facilities investment test application, the Authority is required to consult with the public in accordance with the requirements of Appendix 7 of the Access Code. The Authority has prepared this issues paper to assist interested parties in understanding the new facilities investment test and Western Power's application.

The issues paper addresses the following matters:

- a description and explanation of the new facilities investment test under the Access Code;
- a description of the proposed investment; and
- an overview of Western Power's assessment of the investment in the proposed replacement works against the requirements of the new facilities investment test.

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

[2] An OCS connection incorporates an aerial service cable from the overhead low-voltage distribution system to a connection box on the customer's property for connection to the electricity meter. Western Powers New facilities investment test application, pages 7-9 explains how these connections can become potentially unsafe.

[3] Economic Regulation Authority website: http://www.erawa.com.au/2/537/48/electricity__network_augmentations.pm

2 The New Facilities Investment Test

2.1 Purpose

"New facilities investment" is defined in section 1.3 of the Access Code as:

> [T]he capital costs incurred in developing, constructing and acquiring the new facility, where "new facility" means any capital asset developed, constructed or acquired to enable the service provider to provide covered services, including assets required for the purpose of facilitating competition in retail markets for electricity.

The new facilities investment test is a determination of whether, or to what extent, the new facilities investment associated with a new network asset, or set of assets, can be added to the capital base of the covered network and recovered through regulated network tariffs applied to users of the network. Under the new facilities investment test, the extent to which the cost of an augmentation can be financed through the capital base is determined by tests of the prudence and efficiency of investment, the nature of the benefits of the augmentation, and the distribution of these benefits across users generally. Only that amount of new facilities investment that meets the new facilities investment test can be added to the capital base of the network and recovered through regulated network tariffs.

If all or part of new facilities investment associated with a new network asset does not meet the new facilities investment test, the amount that does not meet the test would need to be financed by some means other than recovery through regulated network tariffs.

2.2 Distinction from the Regulatory Test

The new facilities investment test is one of two tests under the Access Code that service providers may need to apply to capital investment. The other test is the "regulatory test", which is set out in Chapter 9 of the Access Code.

The purpose of the regulatory test is to ensure that the service provider of a covered network has identified the optimal solution to a constraint in electricity supply (either as a network solution or other solution) before committing to the augmentation, whereas the purpose of the new facilities investment test is to determine the extent to which investment in a network solution may be financed through network tariffs applying to all network users, or must be financed by some other means (such as capital contributions from specific network users).

Under the regulatory test, a service provider is required to demonstrate that a major augmentation[4] of a covered network meets the regulatory test before the service provider can commit to the augmentation. In general terms, the purpose of the regulatory test is to determine whether a proposed augmentation to an electricity transmission and/or distribution network is the best way of overcoming constraints in the wider electricity system, taking into account alternative means of overcoming the constraints, such as,

[4] The Access Code defines a major augmentation to be an augmentation for which the new facilities investment for the shared assets exceeds $17.8 million (2010 CPI adjusted amount) where the augmentation is to be part of a distribution system and exceeds $35.6 million (2010 CPI adjusted amount) where the augmentation is to be part of a transmission system or part of both a distribution and transmission system.

alternative network investments, investment in generation, or management of electricity demand.

The regulatory test is used to identify the best network, generation or demand-management option, which is the option that would maximise the net economic benefits to those who generate, transport and consume electricity. The regulatory test is used only to determine whether a proposed investment in the network is the best option for overcoming constraints in the electricity system. The test is not concerned with demonstrating the efficiency of forecast costs for the proposed network investment, or the extent to which the network investment will be financed by increasing the general level of network tariffs. Both of these matters are addressed by the new facilities investment test.

A determination by the Authority that an augmentation of a covered network meets the regulatory test does not mean that the new facilities investment associated with the augmentation meets the new facilities investment test, and vice versa.

2.3 Requirements of the Access Code

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

> 6.52 New facilities investment may be added to the capital base if:
>
> (a) the new facilities investment does not exceed the amount that would be invested by a service provider efficiently minimising costs, having regard, without limitation, to:
>
> (i) whether the new facility exhibits economies of scale or scope and the increments in which capacity can be added; and
>
> (ii) whether the lowest sustainable cost of providing the covered services forecast to be sold over a reasonable period may require the installation of a new facility with capacity sufficient to meet the forecast sales;
>
> and
>
> (b) one or more of the following conditions is satisfied:
>
> (i) either:
>
> A. the anticipated incremental revenue for the new facility is expected to at least recover the new facilities investment; or
>
> B. if a modified test has been approved under section 6.53 and the new facilities investment is below the test application threshold - the modified test is satisfied;
>
> or
>
> (ii) the new facility provides a net benefit in the covered network over a reasonable period of time that justifies the approval of higher reference tariffs; or
>
> (iii) the new facility is necessary to maintain the safety or reliability of the covered network or its ability to provide contracted covered services.

New facilities investment may be assessed against the requirements of the new facilities investment test either as part of an access arrangement review process or outside an access arrangement review process.

During an access arrangement review process, the Authority undertakes an assessment of whether an actual amount of new facilities investment satisfies the new facilities

investment test (under section 6.52 of the Access Code). In addition, a forecast of new facilities investment may be taken into account when determining reference tariffs for the access arrangement period (under section 6.51 of the Access Code). In this instance, the Authority makes and publishes a determination, in respect of the new facilities investment, in accordance with the access arrangement review process that is set out in Chapter 4 of the Access Code.

Outside an access arrangement review process, under section 6.71 of the Access Code, a service provider may at any time apply to the Authority for it to determine whether actual (or forecast) new facilities investment made (or proposed) by the service provider meets (or will meet) the new facilities investment test. In this instance, the Authority must make and publish its determination within a reasonable time. While the Access Code does not specify what a reasonable time period is, the Authority must before making its determination consult with the public in accordance with Appendix 7 of the Access Code and is hence confined to the time limits specified in Appendix 7.

Where the Authority makes a determination outside an access arrangement review process, the determination binds the Authority, when it next approves proposed revisions to the service provider's access arrangement, to allow the addition of the new facilities investment that is determined to satisfy the new facilities investment test. In the case of forecast new facilities investment, the determination only binds the Authority if the investment proceeded as proposed. The Authority considers this to include the investment proceeding as planned and the cost not exceeding the forecast. Should the cost exceed the forecast, then a further application would be necessary for this amount under the new facilities investment test provisions of the Access Code.

Western Power's new facilities investment test application that is the subject of this issues paper is made under section 6.71 of the Access Code (i.e. outside the access arrangement review process) and involves a forecast of new facilities investment.

2.4 The Structure of the New Facilities Investment Test

The new facilities investment test has several elements. These elements and the general structure of the test are discussed in detail at Appendix A of this issues paper.

3 The Proposed New Facility

3.1 Reasons for the Proposed Investment

Western Power indicates that the primary driver for the proposed investment is to reduce the risk to public safety from electric shock incidents that can occur with OCS connections. Western Power is responsible for maintaining OCS connections as the utility retains ownership of the connection assets (up to the customer's point of attachment for connection to the electricity meter).

3.2 Proposed Investment

Western Power's proposed investment involves the identification and replacement of potentially unsafe OCS connections. As at 30 June 2009, Western Power has identified 240,000 OCS connections as having the potential to cause electric shock. Western Power indicates that the majority of OCS connections use performed steel wire helical terminations, referred to as "twisties", and that it is these connections that will be given replacement priority.

Western Power submits that its investment program will encompass three main tasks, which are detailed in section 4 of the new facilities investment test application:

- inspecting all overhead service connections not previously inspected in 2003[5] or where available inspection data is not sufficient to assess condition and safety;
- replacing potentially unsafe or defective OCS connections, including supporting equipment, over the second access arrangement period of 2009/10 to 2011/12; and
- updating connection and replacement records in Western Power's *Distributed Facilities Information System*.

Taking into account key constraints, such as the availability of resources/materials, and experienced labour, Western Power estimates that it will be able to replace 104,600 connections by June 2012 (leaving a balance of 135,400 potentially unsafe connections needing replacement).

3.3 Forecast Cost

Western Power indicates a forecast capital cost for the proposed investment of $71.1 million, comprising $5.0 million for the inspection of OCS connections and $66.1 million for the replacement of identified OCS connections.

[5] Western Power undertook an inspection program of OCS connections in 2003 following investigations into two incidents that were found to be the result of service wire insulation and/or insulator failure.

4 Western Power's Assessment under the New Facilities Investment Test

4.1 Western Power's Submission

Western Power submits that the entire estimated total capital cost for the proposed investment (i.e. $71.1 million) satisfies the new facilities investment test. In particular, Western Power submits that its proposed investment program, to replace 104,300 unsafe OCS connections, satisfies two elements of the new facilities investment test:

- the "efficiency test" under section 6.52(a) of the Access Code; and
- the "safety and reliability test" under section 6.52(b)(iii) of the Access Code.

Western Power's assessment against the efficiency test and safety and reliability test are outlined in the remaining sections of this issues paper. In summary:

- Western Power has considered a range of investment options, with the proposed (recommended) option being the option that best balances the utility's commitment to replace unsafe connections with the utility's available resources. Western Power considers that the combination of option selection and efficient project delivery mechanisms demonstrates compliance with section 6.52(a) of the Access Code.
- Western Power submits that the investment is necessary to maintain network safety and therefore should satisfy the requirements of section 6.52(b)(iii) of the Access Code.

4.2 Efficiency Test

The efficiency test refers to the test under section 6.52(a) of the Access Code of whether the "new facilities investment does not exceed the amount that would be invested by a service provider efficiently minimising costs". For the new facilities investment test to be satisfied, the requirements of the efficiency test must be met.

In its new facilities investment test application, Western Power submits that the total cost of the proposed investment meets the efficiency test of section 6.52(a) on the basis that:

- a range of investment options were considered, with the recommended option (option 2) being the option that meets Western Power's objectives to provide a safe and reliable supply to customers taking into account identified delivery constraints; and
- the investment will be delivered using Western Power's balanced portfolio delivery strategy.

With respect to investment options, a total of six options were considered. Details of each option are provided in section 6 of Western Power's new facilities investment test application. Western Power submits that option 2 is the preferred option in terms of the total cost, level of replacement, deliverability and risk mitigation. Option 2 involves the

inspection of all overhead service connections and the replacement of 104,600 OCS connections between July 2009 and June 2012 at an estimated total cost of $71.1 million.[6]

With respect to program delivery, Western Power submits that its balanced portfolio delivery strategy allows the utility to make use of three resource pools: the internal workforce; strategic alliance; and distribution delivery partner arrangements.[7] Western Power provides further details on its procurement strategy in section 7.4 of its application.

Submissions are invited from interested parties on whether Western Power has adequately established that the forecast of new facilities investment, for the proposed investment, does not exceed the amount that would be invested by a service provider efficiently minimising costs.

4.3 Safety and Reliability Test

The safety and reliability test is the test under section 6.52(b)(iii) of the Access Code of whether "the new facility is necessary to maintain the safety or reliability of the covered network or its ability to provide contracted covered services".

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

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

Submissions are invited from interested parties on Western Power's position that the proposed investment is necessary to maintain network safety and therefore should satisfy the requirements of the safety and reliability test.

4.4 Net Benefits Test

The net benefits test refers to the test under section 6.52(b)(ii) of the Access Code of whether the "new facility provides a net benefit in the covered network over a reasonable period of time that justifies the approval of higher reference tariffs". Under the Access Code, "net benefit" is limited to those who generate, transport and consume electricity in, as the case may be, the covered network and/or any interconnected system.

[6] Western Power, New facilities investment test application, section 6.7.

[7] Western Power, New facilities investment test application, section 7.4.

[8] Western Power, New facilities investment test application, section 7.6.

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

4.5 Incremental Revenue Test

The incremental revenue test refers to the test under section 6.52(b)(i)A of the Access Code to determine whether the "anticipated incremental revenue for the new facility is expected to at least recover the new facilities investment".

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

[9] Western Power, New facilities investment test application, section 4.2.

Appendix A: The Structure of the New Facilities Investment Test

The new facilities investment test has several elements. These elements and the general structure of the test are set out in Figure 1 and described below.

The first step in applying the new facilities investment test is defining the "new facility" to which the test is being applied. The Access Code contemplates the test being applied to new facilities investment associated with a discrete new facility. However, for many types of new facility there may be a need to aggregate investment projects and associated new facilities investment for the purpose of applying the new facilities investment test.

The second step in applying the new facilities investment test is the determination of the amount of new facilities investment (relating to the particular new facility or aggregate of facilities). This amount is shown as "Value A" in Figure 1.

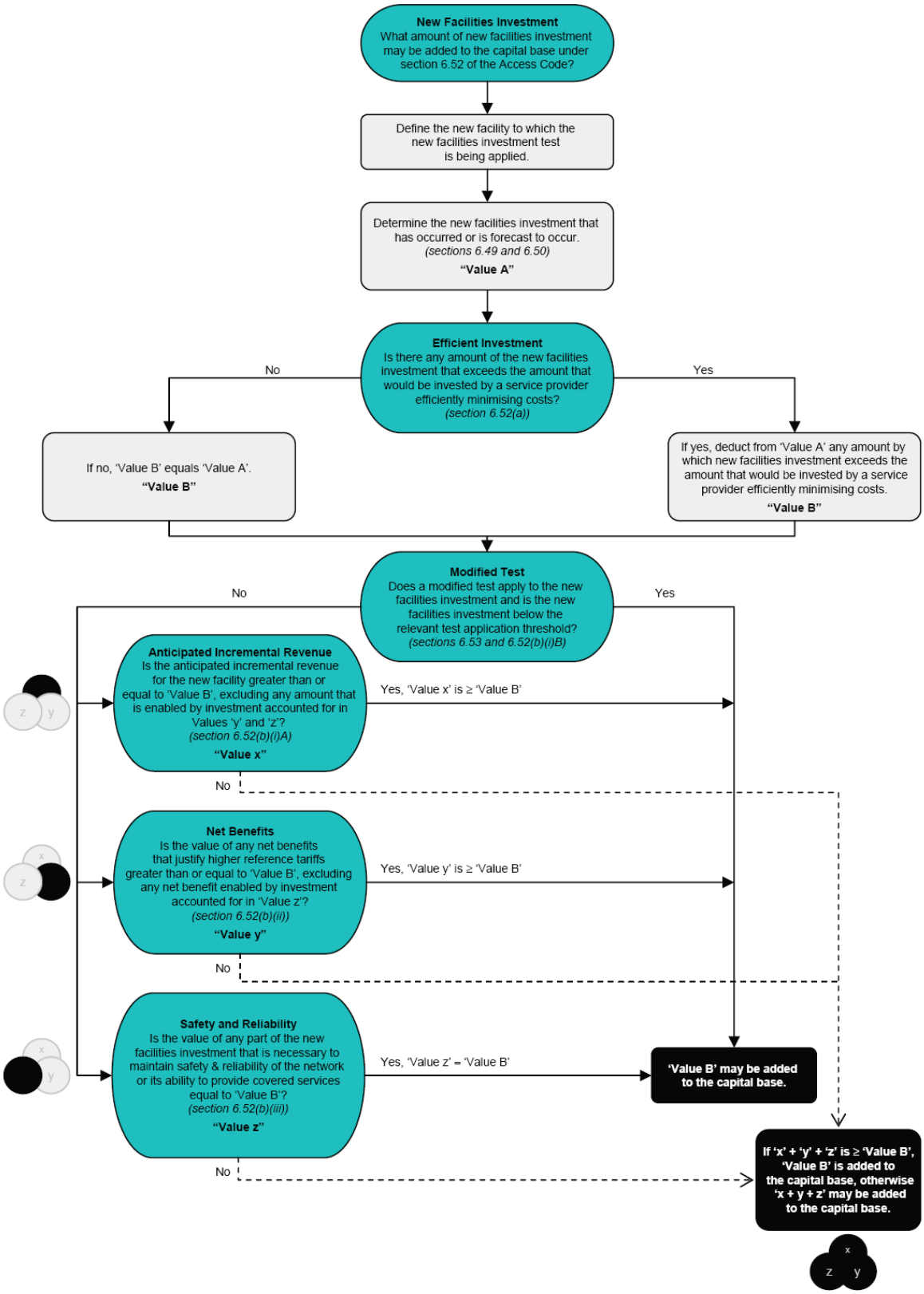
Section 6.52(a) of the Access Code requires that any new facilities investment, that is to be added to the capital base, does not exceed the amount that would be invested by a service provider efficiently minimising costs. The third step in the new facilities investment test is therefore, to determine whether the amount of new facilities investment for a facility meets the requirement of section 6.52(a).

In order to assess the new facilities investment amount ("Value A") against the efficiency test (i.e. section 6.52(a)), a determination needs to be made of the amount that would be invested by a service provider efficiently minimising costs (efficient investment). Such a determination would need to take into consideration the definitions and guidance provided within the Access Code (for example, the meaning of "efficiently minimising costs"). Once a determination is made of the amount that would be invested by a service provider efficiently minimising costs, the amount of the new facilities investment that exceeds the amount of efficient investment is deducted from "Value A". It is this residual amount that is henceforth considered under the new facilities investment test ("Value B" in Figure 1).

If, on the other hand, the investment amount ("Value A") is less than or equal to the amount invested by an efficient service provider, then this amount is the amount that is henceforth considered under the new facilities investment test (i.e. "Value A" becomes "Value B" in Figure 1).

Section 6.52(b) of the Access Code sets out three further conditions, one or more of which must be satisfied, in addition to meeting the requirement of section 6.52(a), for the new facilities investment to be added to the capital base.

Figure 1: The structure of the new facilities investment test



The first condition (section 6.52(b)(i)) comprises two sub-conditions:

- the anticipated incremental revenue for the new facility is expected to at least recover the new facilities investment (section 6.52(b)(i)A); or
- a modified test applies to the new facilities investment and the amount of the new facilities investment is below the value of the test application threshold (section 6.52(b)(i)B).

The modified test referred to in section 6.52(b)(i)B refers to one or more modified tests that may be set out in an access arrangement under section 6.53 of the Access Code and provides a mechanism whereby new facilities investment may pass the new facilities investment test, without assessment against the other conditions of section 6.52(b). Any modified test must have an associated "test application threshold", which will be the maximum value of new facilities investment that may be considered under the modified test.

The terms of section 6.52(b)(i) indicate that only one of the two sub-conditions is applied to the consideration of new facilities investment. That is, if a modified test applies to the new facilities investment under section 6.53 and the relevant amount of new facilities investment (either the total amount or the amount passing the test of section 6.52(a)) is below the relevant test application threshold, then the amount of the new facilities investment that satisfies the condition of section 6.52(b)(i) is the relevant amount of new facilities investment.

In effect, this means that if a modified test applies and the relevant amount of new facilities investment is below the test application threshold, then the relevant amount of new facilities investment satisfies the conditions of 6.52(b) of the Access Code and none of the other conditions of section 6.52(b) need to be considered. As such, a logical construction of the tests in section 6.52(b) is that the first consideration under 6.52(b) is whether the new facilities investment satisfies a modified test, and it is only if a modified test is not satisfied that consideration is given to the other conditions of 6.52(b).

If no modified test applies or the amount of new facilities investment is greater than the test application threshold, then consideration is given to the other conditions of section 6.52(b).

The first of these other conditions is that the value of anticipated incremental revenue for the new facility is expected to at least recover the cost of the new facilities investment. The value of incremental revenue expected to be generated as a result of the new facility is shown as "Value x" in Figure 1.

The second condition of section 6.52(b) is that the new facility provides a net benefit in the covered network over a reasonable period of time that justifies the approval of higher reference tariffs (section 6.52(b)(ii)). The "net benefits" referred to in this section do not necessarily include benefits of all types, but rather a subset of benefits that are considered to justify the approval of higher reference tariffs. The amount of new facilities investment that meets this condition is indicated as "Value y" in Figure 1.

The third condition of section 6.52(b) is that the new facility is necessary to maintain the safety or reliability of the covered network, or its ability to provide contracted covered services (section 6.52(b)(iii)). The consideration of this condition would, in the first instance, require an assessment of the purpose of the new facility. If the sole purpose of the new facility is one or other of the purposes within the scope of section 6.52(b)(iii), then the entire amount of the relevant new facilities investment ("Value B" in Figure 1) would meet the new facilities investment test.

It is also possible that a new facility may serve multiple purposes and only part of the purpose is one or other of those within the scope of section 6.52(b)(iii). In this case, it may be necessary to ascribe a value to an amount of new facilities investment that would be required to meet the relevant purposes under section 6.52(b)(iii). The amount of new facilities investment attributed to one or other of the purposes of section 6.52(b)(iii) by either of these two approaches is indicated as "Value z" in Figure 1.

A situation relevant to describing the assessment of new facilities investment against the conditions of section 6.52(b) of the Access Code is that where the total relevant amount of new facilities investment ("Value B" in Figure 1) does not fully satisfy any one of the conditions, but may fully or partly satisfy two or more of the conditions. A practical application in this situation is that the assessment against the conditions of section 6.52(b) is an 'aggregation' process but, so as to avoid double counting, excluding the extent to which the values of "x", "y" and "z" overlap. That is, independent assessments can be made of the amounts of new facilities investment that meet the individual conditions of sections 6.52(b)(i)A, 6.52(b)(ii) and 6.52(b)(iii) of the Access Code, and these amounts can be aggregated, excluding any overlaps, to determine the total amount of new facilities investment that satisfies the conditions of section 6.52(b). For example, this is indicated in Figure 1 as the sum total of the relevant parts of values "x", "y" and "z", where:

- "value z" is an amount that satisfies section 6.52(b)(iii);
- "value y" is an amount that satisfies section 6.52(b)(ii), but excludes any net benefit enabled by investment accounted for in "value z"; and
- "value x" is an amount that satisfies section 6.52(b)(i)A, but excludes any incremental revenue that is enabled by investment accounted for in values "y" and "z".

Furthermore, there is no need to assess new facilities investment against the conditions of section 6.52(b) in any particular order, except to first consider whether a modified test is satisfied (as addressed above). The order in which the conditions are addressed could be determined with a view to the primary purpose of the new facility. For example, if the primary purpose of a new facility was to maintain reliability of the network, then consideration could first be given to whether the condition of section 6.52(b)(iii) is satisfied, and consideration given to the other conditions only if the total relevant amount of new facilities investment does not satisfy section 6.52(b)(iii).

Elements of the New Facilities Investment Test

For convenience, the components (or elements) of the new facilities investment test are referred to below as the "efficiency test", "incremental revenue test", "net benefits test" and "safety and reliability test". For the new facilities investment test to be satisfied, the new facilities investment must satisfy the efficiency test and one or more of the other three tests.

The efficiency test

The efficiency test refers to the test under section 6.52(a) of the Access Code of whether the "new facilities investment does not exceed the amount that would be invested by a service provider efficiently minimising costs".

A demonstration of the efficiency of new facilities investment could include:

- demonstration of the optimal design and construction of the new facility, taking into account forecast demand for covered services, and economies of scale and scope;
- demonstration of consistency of unit rates of construction with historical unit rates for the covered network and unit rates of similar works in other networks, taking into account trends in productivity improvements and underlying costs; and
- demonstration that the procedures of construction planning, contracting and cost control are consistent with best practice in minimising costs.

The incremental revenue test

The incremental revenue test refers to the test under section 6.52(b)(i)A of the Access Code of whether the "anticipated incremental revenue for the new facility is expected to at least recover the new facilities investment".

"Anticipated incremental revenue" is defined in the Access Code as:

> "anticipated incremental revenue" for a new facility means:
>
> (a) the present value (calculated at the rate of return over a reasonable period) of the increased income from charges (excluding any capital contributions) reasonably anticipated to arise from the increased sale of covered services on the network to one or more users (where "increased sale of covered services" means sale of covered services which would not have occurred had the new facility not been commissioned),
>
> minus
>
> (b) the present value (calculated at the rate of return over the same period) of the best reasonable forecast of the increase in non-capital costs directly attributable to the increased sale of the covered services (being the covered services referred to in the expression "increased sale of covered services" in paragraph (a) of this definition),
>
> where the "rate of return" is a rate of return determined by the Authority in accordance with the Code objective and in a manner consistent with Chapter 6, which may (but does not have to) be the rate of return most recently approved by the Authority for use in the price control for the covered network under Chapter 6.

The incremental revenue test has application to new facilities investment that is undertaken to extend the network or to expand the capacity of a network in order to provide a service to one or more new users.

The incremental revenue test may be applied by:

- discounted cash-flow analysis, with the necessary condition for roll-in of new facilities investment into the capital base being that the present value of revenues from current tariffs, that would be paid from time to time by the users of the new facility (with roll-in of the new facilities investment), is equal to or greater than the present value of new facilities investment and additional non-capital costs of the new facility; or
- a discounted weighted average tariff (**DWAT**) analysis, with the necessary condition for roll-in of new facilities investment being that the roll-in of the new facilities investment results in a reduction in the DWAT for the covered network.

For either of these forms of analysis, the incremental revenue test should be applied such that:

- the analysis should be undertaken over a period of no longer than the expected economic life of the principal assets of the new facility; and
- the discount rate applied in the analysis may be the rate of return applied in the determination of reference tariffs in either the current access arrangement or proposed revisions to the access arrangement, or may be a rate of return otherwise determined by the Authority to be in accordance with the Code objective and in a manner consistent with Chapter 6 of the Access Code.

The net benefits test

The net benefits test is the test under section 6.52(b)(ii) of the Access Code of whether "the new facility provides a net benefit in the covered network over a reasonable period of time that justifies the approval of higher reference tariffs".

"Net benefits" is defined in the Access Code as:

> "net benefit" means a net benefit (measured in present value terms to the extent that it is possible to do so) to those who generate, transport and consume electricity in (as the case may be):
>
> (a) the covered network; or
>
> (b) the covered network and any interconnected system.

The net benefits test applies to new facilities investment that gives rise to some benefits to all, or a large proportion of, network users, other than through providing economies of scale in the network and reductions in tariffs to existing network users. These latter benefits would be captured under the incremental revenue test of section 6.52(b)(i)A of the Access Code and, as such, would not sensibly also be considered under section 6.52(b)(ii).

Application of the net benefits test should take into account the following principles.

- Benefits considered under the net benefits test should be limited to benefits to those parties who produce, transport and consume electricity in the capacities of these parties as producers, transporters or consumers of electricity.
- Benefits considered under the net benefits test should not include any benefits to users that fall within the scope of consideration under the incremental revenue test.
- Benefits considered under the net benefits test should generally accrue to the same parties that would bear the costs of the higher reference tariffs.
- Benefits considered under the net benefits test should not include benefits that are simply transfer payments between producers of electricity, the network owner, network users and/or consumers of electricity; that is, where the benefit to one party is offset by a corresponding and associated cost to another party.
- Any claimed benefit must be explicitly identified with clear demonstration of how the new facility will provide the claimed benefit.

- There should be persuasive evidence that the particular investment would provide the claimed benefit.
- Where reasonably practical, benefits should be quantified using engineering and economic models.

For the net benefits test to be satisfied, the present value of the benefits should exceed the present value of the sum of the new facilities investment associated with the new facility, and of the best reasonable forecast of the change in non-capital costs directly attributable to the new facility.

The safety and reliability test

The safety and reliability test is the test under section 6.52(b)(iii) of the Access Code of whether "the new facility is necessary to maintain the safety or reliability of the covered network, or its ability to provide contracted covered services".

The safety and reliability test would have application to new facilities investment that is undertaken to maintain the network to a particular level of service capability, or to meet particular requirements for safety in operation or reliability of services. The test relates to the purpose of the new facility and the necessity of the new facility to achieve the purpose. There is no suggestion under section 6.52(b)(iii) of an assessment of the benefits and costs of the new facility.

The Access Code does not provide any guidance on the meaning of safety or reliability of the covered network. The scope of new facilities that may be considered under the safety and reliability test is therefore a matter of interpretation and could potentially include, for example:

- investment required to meet best-practice standards or statutory requirements for safety in the operation of the network; or
- investment required to achieve or maintain reliability of services or capacity of the network sufficient to meet contractual obligations to users or mandatory requirements.