REVISED NETWORKS CAPITAL CONTRIBUTIONS POLICY - SUBMISSION BY POWER NETWORKS

This report contains 9 pages

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1. Introduction

Background

1.1 In accordance with the Electricity Networks (Third Party Access) Code (the Code), the network service provider may require a network user to make a capital contribution (in the form of assets or a financial payment) where:

- The provision of network access services to the network user requires new or upgraded connection assets or network system assets (involving asset augmentation or extension of connection equipment); and
- The cost of these assets (including design, construction, installation and commissioning) cannot be fully recovered by Networks through future tariff revenue.

1.2 Prior to commencement of each regulatory control period, the Code requires the network service provider to submit to the Utilities Commission (UC) a draft statement providing details of principles and methods for establishing capital contributions under the Code. The UC must approve the statement unless, in its opinion, it does not comply with the Code's requirements.

Definition

1.3 Power Networks means the Power Networks business unit of Power and Water Corporation, which holds a licence from the UC authorising the distribution and transmission of electricity under section 22 of the *Electricity Reform Act*.

Current Situation

1.4 Capital contributions are currently applied by Power Networks under two separate policies:

- Distribution System Extension Policy (DSEP); and
- Networks Capital Contributions Policy (NCCP).

1.5 Both policies have been approved by the UC for use by Power Networks, however the approval of DSEP is subject to certain conditions.

1.6 Power Networks has identified a number of issues with the current framework, and is seeking the UC's approval to replace the existing policies with a revised NCCP. Power Networks requests that the UC consider approving its revised NCCP for the reasons outlined in this submission.

Limitations with current framework

1.7 DSEP covers extensions to unserviced areas and the development of serviced lots. Another element of DSEP has been the option for customers to repay the required contributions over time through loan repayments without interest.

1.8 DSEP was last updated in 2006, however the associated charges have not been amended since 1987. Since 2006, it has become evident that the current charges under DSEP are inadequate to cover the actual costs of network extensions and augmentations.

1.9 The major issue with the current capital contributions framework is that the application of DSEP results in non-commercial outcomes for Power Networks and inequitable outcomes for customers.

1.10 Also, from a practical perspective there does not appear to be any persuasive rationale to maintain two separate policies.

Features of the revised NCCP

1.11 The revised NCCP is based on the existing NCCP that was approved by the UC as part of Power Networks' Revised Regulatory Proposal for the 2009 Regulatory Reset, with revisions made to incorporate network users currently charged under DSEP. This will address the limitations of the current framework and ensure more equitable outcomes for both new and existing network users.

1.12 The objectives of the revised NCCP are:

- To provide appropriate economic pricing signals to Network Users that reflect the true cost of connection to Power Networks' electricity networks or any new or upgraded Network Access Services;
- To ensure the commercial viability of connections made to Power Networks' electricity networks, in order to provide a return to the shareholders commensurate with the required investment; and
- To ensure more equitable outcomes for both new and existing Network Users.

1.13 This is consistent with the network pricing objectives laid down in clause 74 of the Code, the capital contributions principles outlined in clause 80 of the Code, and the high level pricing objectives outlined in the Networks Pricing Principles and Methods Statement (1 July 2009 to 30 June 2014) of cost reflective pricing signals, simplicity, stability, and equity.

1.14 To ensure greater transparency in relation to the application of the policy, the revised NCCP groups Network Users into four classes of network connection, as follows:

- Developer;
- Large Individual Network User;
- Small Individual Network User; and
- Generator User.

Comparison between Revised NCCP and Current Framework

1.15 The key differences between the revised NCCP and the current capital contributions framework are that in the future:

- Capital Contributions will apply to all new connections based on full cost recovery principles, including extensions to unserviced areas (under the revised NCCP, these customers will be classified as Small Individual Network Users);
- Capital Contributions will be required to be paid in full prior to connection. The option to repay the capital contribution over time through loan repayments without interest will no longer be available. Existing DSEP loans will continue to be administered until all outstanding loans have been finalised;
- A cost sharing scheme will apply, in order to address equity considerations;
- The Capital Contribution calculation has been modified to allow for projected future tariff revenues earned from the connection to be offset by shared network costs, in recognition of the attribution of incremental network tariff revenue to the costs of the existing network; and
- One policy will apply to all network users.

1.16 Power Networks considers that the revised NCCP is consistent with the Code, and complies with the capital contributions requirements in chapter 8 of the Code.

Consultation

1.17 Power Networks held consultation sessions regarding the revised NCCP in Darwin on 18 October 2011 and in Alice Springs on 19 October 2011.

1.18 Throughout the consultation sessions, Power Networks encouraged stakeholders to give formal feedback either through Power and Water's internet page or by submitting a hard copy of the feedback form by 4 November 2011. Following the consultation sessions, print advertisements in the local media continued to alert stakeholders to the intended Policy change and pointed them to the Power and Water website for more information and feedback options.

1.19 Formal feedback closed on 4 November 2011. Power Networks did not receive any electronic or hardcopy feedback from those that attended the sessions or from any other members of the public.

1.20 Power and Water submitted its revised NCCP to the UC in February 2012, following this public consultation process. In January 2013, the UC queried some aspects of the Revised NCCP submitted, and as consequence, Power and Water resubmitted the Policy in March 2013 with some amendments. Power and Water resubmitted its revised NCCP as part of its 2014 Networks Price Determination Initial Regulatory Proposal in September 2013.

Implementation

1.21 Subject to the UC's approval, the proposed implementation date for the revised NCCP is 1 July 2014.

2. Revised Networks Capital Contributions Policy

2.1 Consultants were engaged to develop the revised NCCP in consultation with Power Networks. The consultants also undertook interstate comparisons of capital contribution frameworks, to ensure that the revised NCCP is consistent with generally accepted regulatory practice.

2.2 The objectives of the revised NCCP are:

- To provide appropriate economic pricing signals to Network Users that reflect the true cost of connection to Power Networks' electricity networks or any new or upgraded Network Access Services;
- To ensure the commercial viability of connections made to Power Networks' electricity networks, in order to provide a return to the shareholders commensurate with the required investment; and
- To ensure more equitable outcomes for both new and existing Network Users.

2.3 This is consistent with the network pricing objectives laid down in clause 74 of the Code, the capital contributions principles outlined in clause 80 of the Code, and the high level pricing objectives outlined in the Networks Pricing Principles and Methods Statement (1 July 2009 to 30 June 2014) of cost reflective pricing signals, simplicity, stability, and equity.

2.4 In accordance with the requirements of clause 80(4) of the Code, the amount of any Capital Contribution under the revised NCCP is limited to that required to make a new or upgraded connection commercially viable. The general test of commercial viability is whether the cost of the connection assets plus a proportionate share of the cost of augmenting upstream shared assets can be recovered through the regulated network tariffs (ie. the shortfall between capital costs and future tariff revenue, or the 'shortfall approach').

Application of Capital Contributions

2.5 For the purpose of application of the revised NCCP, Network Users are grouped into four classes of network connection:

- Developer;
- Large Individual Network User;
- Small Individual Network User; and
- Generator User.

2.6 The arrangements for calculating capital contributions for each class of connection follow the same principles but differ in detail according to the class of connection to the network, as summarised in Table 1 below.

Table 1: Application of Capital Contributions in the Revised NCCP

<table>
<tr><th>Class of network connection</th><th>Funding of Dedicated Connection Assets</th><th>Funding of augmentation of Upstream Shared Assets</th></tr>
<tr><td>1. Developer</td><td>Developer to contribute all costs associated with assets downstream of the connection point to the shared network</td><td>Funded by Power Networks, subject to section 7.2 of the revised NCCP.
A prudential guarantee may be sought</td></tr>
<tr><td>2. Large Individual Network User</td><td colspan="2" rowspan="2">Network User to contribute:
PV (Dedicated Connection Asset cost) plus PV (proportion of cost to augment Upstream Shared Assets) less PV (expected revenue) less shared network costs
A prudential guarantee may be sought</td></tr>
<tr><td>3. Small Individual Network User</td></tr>
<tr><td>4. Generator User</td><td>Network User to contribute the full cost of Dedicated Connection Assets</td><td>Network User to contribute cost of augmenting Upstream Shared Assets (may be proportionately funded by Power Networks)</td></tr>
</table>

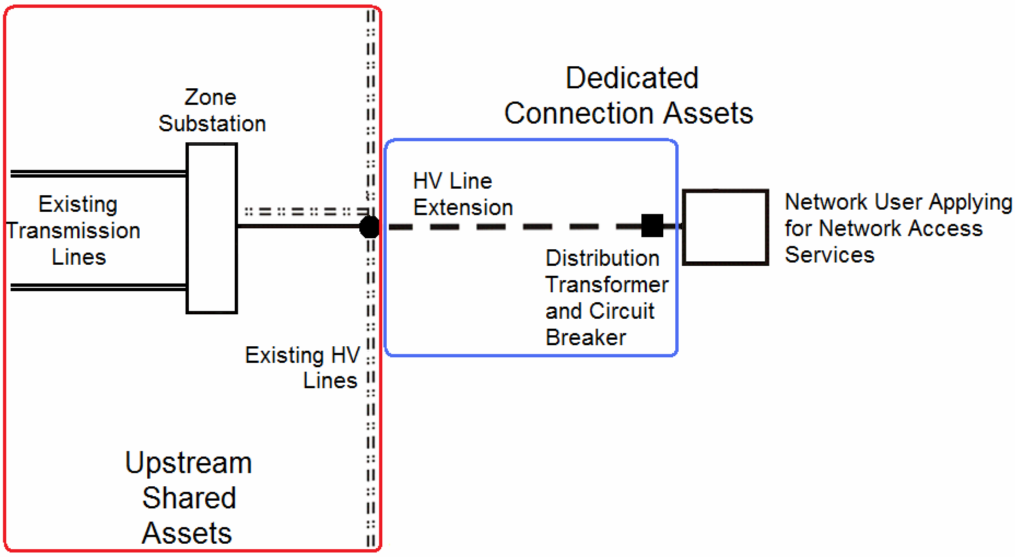
Dedicated and Upstream Shared Assets

2.7 Dedicated Connection Asset means a Connection Asset for a single Network User.

2.8 Upstream Shared Asset means a Network System Asset that is used in the conveyance of electricity to more than one Network User.

2.9 The following diagram is an example of Dedicated Connection Assets and Upstream Shared Assets.

Diagram 1: Example of Dedicated Connection Assets and Upstream Shared Assets



2.10 Network Users are expected to contribute the full cost of Dedicated Connection Assets as these costs are directly attributable to the Network User. However, the funding of augmentation to Upstream Shared Assets differs depending on the class of network connection.

Capital Contribution Calculation

2.11 In accordance with the requirements of clause 80(4) of the Code, the maximum amount of a Capital Contribution will be the shortfall in the viability of the required works, based on the present value of the costs associated with the connection, less the present value of the projected future tariff revenues earned from the connection offset by the shared network costs ie.

Capital Contribution = PV (attributed costs of connection) –
[PV (expected revenue) less shared network costs]

2.12 The "attributed costs of connection" is calculated as:

- The full capital cost of the (optimal) Connection Assets and the Network System Assets dedicated to an individual Network User; and
- An apportionment of the incremental costs of any new shared (optimal) Connection Assets and Upstream Shared Assets that are designated to that particular connection and would not have been incurred within Power Networks ordinary planning horizon but for that connection having occurred.

2.13 At Power Networks' discretion, where projected operating and maintenance expenses attributed to the connection:

- are significant; and
- have not been allowed for within the current regulatory control period,

an "operating and maintenance expense" may be included in the Capital Contribution calculation, based on the projected efficient operating and maintenance expense of the Connection Assets and Network System Assets dedicated to the Network User.

2.14 If an operating and maintenance expense is included in the Capital Contribution calculation, this expense will be specifically excluded from the required revenue calculation as part of the networks regulatory reset for the relevant regulatory control periods.

2.15 The "expected revenue" is determined based on the network tariff that is actually charged or chargeable to the Network User, and the projected incremental future electricity consumption in kWh and demand in kVA (where applicable) by the Network User attributable to the new works.

2.16 An estimate of "Shared network costs" is subtracted from the "expected revenue" in recognition of the attribution of incremental network tariff revenue to the costs of the existing network. This approach is consistent with other network service providers such as Energex and Ergon.

2.17 Further details regarding this calculation can be found in section 5.8.1 of the revised Networks Capital Contributions Policy.

Large and Small Individual Network Users

2.18 Large Individual Network Users are Individual Network Users that satisfy either of the below criteria:

- A high voltage connection and a projected (or actual) demand of 4MVA or greater; or
- Is connected to (or seeking connection to) a dedicated supply that is different or remote or separate from the remainder of the supply network.

2.19 Small Individual Network Users are Individual Network Users that have a low voltage connection and/or a projected (or actual) demand less than 4MVA.

2.20 For both Large and Small Individual Network Users under the revised NCCP, the Capital Contribution required will be determined using the shortfall approach outlined above.

Developers

2.21 The shortfall approach outlined above has not been applied to Developers for the following reasons:

- Network tariffs do not apply to Developers; and
- New developments are normally known sufficiently in advance and with sufficient certainty to be able to be included in Power Networks Planning Horizon.

2.22 Under the revised NCCP, Developers will be responsible for meeting the costs of all connection assets dedicated to the development, from the point of connection to the shared network.

2.23 Where upstream augmentation is required to provide a dedicated connection to the development, if the shared network augmentation has been allowed for within Power Networks Planning Horizon and is during the current regulatory period, Power Networks will fund and construct the works. These works will be included in Power Network's regulated asset base submitted to the UC at the next regulatory reset, and if approved, will be incorporated into the network tariffs over the next regulatory period.

2.24 This approach is consistent with other network service providers such as Ergon Energy.

2.25 If the shared network augmentation is within the Planning Horizon, but outside the commencement date of the next regulatory period, then the Network User will be required to pay the cost of advancement of the works.

2.26 However, if the shared network augmentation is beyond the Planning Horizon, then the Network User will be required to contribute the full cost of the new installed capacity required to service its load.

Generator Users

2.27 The shortfall approach is not applicable to Generators, as Networks do not receive any network tariff revenue from Generators under its current network tariff structure. Under the revised NCCP, Generator Network Users will be required to contribute the full cost of dedicated connection assets and the incremental costs of augmenting upstream shared assets.

Cost Sharing Scheme

2.28 A key feature of the revised NCCP is the introduction of a cost sharing scheme. Capital contributions will be shared amongst subsequent new Network Users that benefit from the works on which the original Network User paid the contribution. The original Network User will be required to pay Power Networks the full Capital Contribution amount for the network extension and will receive rebates from subsequent new Network Users connecting to the extension within five years of the original works completion.

2.29 For the purposes of cost sharing, an original Network User is the first Network User that makes a Capital Contribution towards works associated with a new or upgraded connection service. A subsequent new Network User is any Network User that:

- Seeks a new or upgraded Connection Service at a Connection Point;
- Benefits from the works upon which an original Network User paid a Capital Contribution; and
- Applies within five years of the original Network User making the Capital Contribution.

2.30 The rebate will be based on the proportion of utilisation of the Original Network User's works. For a distribution network extension, this will be calculated based on distribution line lengths and Network Users' loads.

2.31 Cost sharing schemes are a feature of most interstate capital contribution policies. Further details of the proposed capital contributions cost sharing scheme can be found in section 6 of the revised NCCP.

3. Comparison between Revised NCCP and Current Framework

3.1 The key differences between the revised NCCP and the current capital contributions framework are that in the future:

- Capital Contributions will apply to all new connections based on full cost recovery principles, including extensions to unserviced areas (under the revised NCCP, these customers will be classified as Small Individual Network Users);
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- A cost sharing scheme will apply, in order to address equity considerations; and
- One policy will apply to all network users.