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As Agent for NewGen Power Kwinana Partnership

11 December 2017

Ms Elizabeth Walters
Assistant Director Electricity
Economic Regulation Authority
Level 4, Albert Facey House
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Dear Ms Walters

RESPONSE TO ISSUES PAPER ON PROPOSED REVISIONS TO THE WESTERN POWER NETWORK ACCESS ARRANGEMENT (2017/18 TO 2021/22 - AA4)

NewGen Power Kwinana (NPK) welcomes the opportunity to provide comments on the issues paper entitled "Proposed Revisions to the Western Power Network Access Arrangement (2017/18 to 2021/22 - AA4)" (Issues Paper), published by the Economic Regulation Authority (Authority) on 31 October 2017.

Western Power's approach for developing its network plan for AA4 (Issue 1)

NPK notes that the electricity industry is currently undergoing rapid changes. These changes may have profound impacts on the businesses operating in the Western Australian South West Interconnected System (SWIS), requiring them to rethink their business models to adapt to the changing needs of the market.

Western Power is no exception. Rethinking of Western Power's business model would also require a rethinking of the regulatory approach by the Authority to facilitate Western Power's transition into the new operating environment. That is, rather than making incremental changes from AA3 to AA4 determinations, the Authority may need to make some major unprecedented decisions for this AA4 determination – to the extent allowed by the Network Access Code.

Some of the forces that have been impacting the Western Power business, hence requiring a rethink of its business model, include:

- technological changes including the emergence of the behind-the-meter (BTM) generation and energy efficiency technologies;
- electricity market reforms including the proposed introduction of the constrained network access model in the SWIS; and
- economic conditions in the SWIS part of Western Australia.

These three factors challenge the traditional common assumption that the network capacity will always need to grow. In reality, demand for network capacity is likely to experience limited growth, plateau or even contracts.

NPK questions whether this change in assumption has been given the due consideration in Western Power's network investment plan and its proposed cost recovery mechanism. In

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particular, NPK considers the following aspects of the Access Arrangement proposal require further consideration:

- review of the Regulated Asset Base (RAB); and
- design of the tariff structure.

RAB and Capital Expenditures (Issue 8)

Western Power's RAB is reflective of its past and proposed future capital expenditures. NPK notes that the RAB is a major contributor to the building block revenue requirement.

Given the significance of capital expenditures in setting the network tariff, NPK recommends that the Authority's AA4 determination extracts the maximum possible efficiency from Western Power's capital investment.

To ensure that such maximum efficiency can be ascertained, NPK recommends that the Authority conduct a thorough investigation of Western Power's capital spend. To achieve this, NPK recommends that the Authority, as part of its draft determination:

a) conduct a detailed analysis of Western Power's past and proposed future capital expenditures;
b) set out and explain the analysis in a report;
c) based on the result of the analysis, make an evaluation as to whether the capital expenditures reflect efficient capital investment by Western Power; and
d) conduct consultation specific to the report and evaluation.

In accordance with sections 6.48 and 6.51A of the Network Access Code, inefficient capital expenditures should not be included in the RAB.

For ease of stakeholders' reviews, NPK requests that separate analyses and reports be made for the transmission and distribution investments.

NPK notes that the extracted efficiency is expected to give reduction in network tariff, and ultimately resulting in saving to end consumers. This would also promote the Wholesale Market Objectives[1].

Redundant assets

The lack of growth in network services demand may result in some of Western Power's assets to become redundant during or before the AA4 period. NPK recommends that this be taken into account in determining Western Power's efficient past capital investment, and reflect this capital investment level in the opening balance of the AA4 RAB. NPK notes that any redundant capital may be subtracted from the RAB under section 6.61 of the Network Access Code.

NPK considers the value associated with the written off asset should not be passed on to the network users. This is because the asset write-off is a response to changes in market conditions

[1] Meeting section 5.28 of the Network Access Code.

and the WACC has already reflected a market risk premium to compensate Western Power for this market risk (discussed further below).

NPK notes that, despite expected limited growth in network capacity demand, Western Power is still allocating capital expenditures for the purpose of capacity expansion in its AA4 proposal. This is contrary to NPK's expectation and recommends that the Authority investigate such proposed capital expenditure.

Non-network solutions

NPK also recommends that the Authority consider non-network solutions (for example demand response arrangement) to defer or mitigate any unnecessary network capital investment.

Western Power's proposed tariff (Issue 12)

BTM cost recovery

NPK notes that one of the contributory factors for the expected lack of growth in Western Power network capacity demand is the emergence of BTM technologies. NPK also notes that, under the proposed Western Power tariff structure, there is no transmission network cost recovery from these BTM facilities. This is despite the fact that these BTM facilities require access to the transmission networks (mostly via the distribution network) due to the intermittent nature of these generation facilities.

NPK considers this creates an inequitable situation where BTM facilities get free access to the transmission network at the expense of the non-BTM facilities. NPK considers this to be an inefficient allocation of costs and can potentially distort the investment signal in the SWIS. NPK also notes that the rapid growth of BTM facilities will only magnify this problem.

Distortion in investment signal can compromise the adequacy of generation mix in the SWIS, in turn gives rise to various economics and technical issues (inertia and intermittency problems, for example). This can compromise the reliability and security of the power system.

NPK considers, to the extent which Western Power's network is required to support the efficient generation investment signal discussed above, cost recovery of the network assets from the BTM generation should be reflected in the principles underpinning the pricing method in the Access Arrangement. NPK also recommends that such cost recovery be in turn reflected in the Western Power's tariff structure.

NPK also considers, to the extent which Western Power's network is not required to support the efficient generation investment signal discussed above, the relevant extent of Western Power assets should become redundant and not be added to the RAB - under section 6.61 of the Network Access Code.

Price shock mitigation

NPK notes that Western Power is proposing to defer the recovery of $234 million of AA4 transmission target revenue to future access arrangement periods, and bringing forward the recovery of $234 million distribution revenue that was deferred from the AA2 period. In Attachment 10.8 of its proposal, Western Power has demonstrated that this has the impact of minimising price shock for both transmission and distribution customers. NPK considers this to be a pragmatic means for meeting the pricing method objective set out in section 7.4(d) of the Network Access Code (i.e. avoiding price shock). As such, NPK supports the retention of this price shock mitigation measure.

Locational based investment signal

In order to promote efficiency in network capital investment, it is NPK's view that: (a) network investment should be focussed in areas with high utilisation (e.g. urban areas); and (b) areas with lower network utilisation (e.g. the remote areas) should consider using more non-network solutions for meeting their electricity demand (e.g. BTM and demand response).

NPK is of the view that this should be reflected in the pricing principles. NPK also considers the Access Arrangement should promote competition in the provision of the non-network solutions.

Excess Network Usage Charge (ENUC)

NPK recommends that the Authority sets the ENUC pricing principle to promote competition in the generation market. NPK proposes this be achieved by allowing a generator to generate above its Declared Sent Out Capacity (DSOC)[2] without being imposed a heavy penalty – provided that this does not compromise the reliability and security of the power system.

A generator in the SWIS acquires its DSOC from Western Power through its Electricity Transfer Access Contract (ETAC). Typically the amount of DSOC acquired equates to the number of reserve capacity credits the generator seeks from the Australian Energy Market Operator (AEMO). The amount of reserve capacity credits reflects the generator's sent out capacity at 41°C ambient temperature. The actual generating capacity is likely to exceed the DSOC at ambient temperature below 41°C. Availability of the additional capacity is a common occurrence because ambient temperature is likely to stay below 41°C most of the time.

Despite the availability of additional capacity, generators are often not incentivised to generate above their DSOCs. This is because, under the current pricing arrangement, a Western Power network user is heavily penalised for exceeding its DSOC. Additionally, due to the punitive nature of the penalty for exceeding the DSOC, a generator will typically generate slightly below their DSOC levels to manage the possibility of weather forecast inaccuracy inadvertently pushing the generation above the DSOC. The accumulation across market generators results in significant available energy being underutilised and contributing to the requirement for higher cost generation to fulfil the load requirement and pushing up wholesale electricity prices.

[2] This is referred to as the contracted maximum demand (CMD) in Western Power's Price List

The punitive nature of the ENUC unnecessarily inflates the short run marginal costs (SRMCs) of the additional capacities, requiring the generators to offer them at high prices in the Wholesale Electricity Market (WEM). This lessens competition in the generation market. This does not support the Code objective which seeks to promote "the economically efficient" "operation of and use of" "networks and services of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks."

NPK considers an ENUC pricing principle which allows the additional energy to be generated without a heavy penalty is expected to increase competition in the generation market hence promoting the Code objective.

In addition, this ENUC pricing principle would promote the Wholesale Market Objectives.[1] This is because the principle is expected to incentivise behaviour for delivering lower cost electricity price in the WEM.

Gain Sharing Mechanism (Issue 2)

NPK notes that the gain sharing mechanism is designed to meet the objectives in section 6.21 of the Network Access Code. One of these objectives is to give Western Power "an incentive to reduce costs or otherwise improve productivity in a way that is neutral in its effect on the timing of such initiatives".

NPK notes that an outcome of this design is that the network users will not realise the benefit of the saving made by Western Power until five years after the saving is made. NPK also notes that, under the gain sharing mechanism, Western Power will keep 100% of its saving for five years. This may be an expensive option.

For achieving the efficiency gain, NPK questions if there is another way to provide the same incentive to Western Power that: (a) is less expensive; and (b) enables network users to realise the benefits quicker.

A possible alternative is to design a mechanism that: (a) splits the saving on a 50/50 basis between Western Power and network users (b) pays the benefit to network users (in the form of reduced tariff) in financial year following the financial year which the saving was made. NPK notes that this is a substantial change and is willing to work with the Authority to develop this arrangement in further details if necessary.

Weight Average Cost of Capital (WACC) (Issue 9)

NPK notes that the proposed WACC increase is partly driven by the proposed increase in the equity component of the WACC.

NPK notes that the nominal equity component of the WACC has been proposed to be increased by 30% (that is, from 4.23% in AA3 to the proposed 5.51% in AA4). NPK also notes that this increase is predominately driven by increases in the:

- market risk premium (6.0% in AA3 to the proposed 7.5% in AA4); and

- the equity beta (0.65 in AA3 to the proposed 0.70 in AA4).

Note that the increases have also been offset by the decrease in the risk free rate.

NPK notes that the Western Power WACC (for both the approved AA3 and proposed AA4) has already included a component of the market risk premium. This represents a premium already paid (or to be paid) to Western Power for its exposure to changes in the market conditions. As such, NPK considers any value associated with write-off of Western Power assets for responding to changes in market conditions should be absorbed by Western Power and not be passed on to network users.

NPK thanks the Authority for considering this submission. Should you have any questions regarding this submission please contact Ignatius Chin on 08 9261 2890 or ignatius.chin@sscpower.com.au.

Thank you.

Yours sincerely

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