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14th Jun 2018

To Senéad Mangan

Subject: Draft Decision on Proposed Revisions to the Western Power Network Access Arrangement – AA4

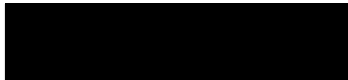
Thank you for the opportunity to comment.

My comments to the Draft Decision are attached to this Submission DD-ONE

The objective of my comments is to minimize the cost of electricity to the large and small consumers, regardless where these cost savings fall. My focus is on elements of the proposed AA4 design, the changes of which would in my opinion, lead to the quickest reduction of the price of electricity to WA consumers and a fairer allocation of costs to causers, decision makers and beneficiaries of these decisions.

Kindly refer to the attachment.

Yours sincerely,



Stephen Davidson



Continued on Attachment

Attachment 1: Stephen Davidson, Submission ONE (General Comments & Comments on Issue 15), 11 December 2017, Introduction, page 2, 5th paragraph:

Stephen Davidson, Submission ONE (General & Comments on Issue 15), 11 December 2017, General Comments, page 2, 5th paragraph:

Page 2, 5th paragraph:

Is the regulation focused too much on the 'big end of the town'?

I was unable to find a clause in the current legislation that expressly binds parties to protect interest of small users, and it seems that it was 'implicitly assumed' that their interests will be automatically protected.

If so, then the remedy would be to expressly qualify obligation of Western Power (and all other regulated entities) to protect the interests of small users (third parties to access contracts) when conducting business, including when exercising own discretion granted to it under the Technical Rules and other regulation/legislation.

Reference is made to paragraph 1089 on page 247 and Required Amendment 28 on page 247 of the Draft Decision.

I would appreciate receiving clarification on whether the Authority shares my understanding that the Code Objectives include (by implication) increasing industry competitiveness and living standards in WA, so that the answer could be used in the future correspondence.

If the answer is affirmative (if the Authority agrees that Western Power have obligation to protect the interests of small users when conducting business, including when exercising own discretion granted to it under the Technical Rules and other regulation/legislation), then paragraph 1089 on page 247 and Required Amendment 28 on page 247 of the Draft Decision should be changed accordingly – to the effect of to expressly qualify that obligation of Western Power in the Revised Access Arrangement.

Justification:

The amended wording, if adopted, would better meet the objectives of the Access Code 2004 (Code Objectives) by resulting in more efficient CAPEX and OPEX, by fairer allocation of costs to causers, decision makers and beneficiaries of these decisions, hence leading to the reduction of price of electricity for small business, commercial and residential WA consumers. This would also promote competition in markets upstream and downstream of the networks, and increase industry competitiveness and living standards in WA.

Attachment 2: Stephen Davidson, Submission TWO (General Comments & Comments on Issue 13), 11 December 2017, General Comments, page 1:

Stephen Davidson, Submission TWO (General Comments & Comments on Issue 13), 11 December 2017, General Comments, page 1, 5th and 7th paragraph:

Page 1, 5th paragraph and 7th paragraph::

The service standard benchmark for distribution system should measure how well it performs its function according to its design. The design requirements are stipulated in the Technical Rules.

The service standard benchmark for transmission system should measure how well it performs its function according to its design. The design requirements are stipulated in the Technical Rules.

Reference is made to paragraph #969 on page 219 of the Draft Decision.

Do you agree with the above statements?

If the answer is affirmative (if the Authority agrees that the respective service standard benchmarks for the distribution and transmission systems should measure how well they perform their respective functions according to their respective designs, which are stipulated in the Technical Rules), then the Draft Decision should be changed accordingly to the effect of to expressly qualify that obligation of Western Power and to request the appropriate changes (a separate service standard benchmark for each planning criterion, for example N-0, N-1, N-1-1, CBD, NCR, 1%, protection clearing time per voltage level, etc.).

If the answer is negative (if the Authority does not agree that the respective service standard benchmarks for the distribution and transmission systems should measure how well they perform their respective functions according to their respective designs, which are stipulated in the Technical Rules), then that would be a contradiction: Western Power would be (effectively) allowed to spend CAPEX and OPEX and not be accountable for part of those expenditures (as is not adequately covered by the service standard benchmarks). Under these circumstances, small users of electricity in WA should not be required to pay for those, effectively, redundant assets (made redundant in part by the inadequate service standard benchmarks, if approved by the Authority).

Please revise accordingly Recommended Amendment 22, page 216 of the Draft Decision.

Justification:

Small users of electricity should not pay for the redundant assets by excess capacity. Small users of electricity should not pay for the assets not fully utilized, because of the inadequate system standard performance measure: if the asset performance is not measured against the asset design standard, which is stipulated in the Technical Rules.

The amended wording, if adopted, would better meet the objectives of the Access Code 2004 (Code Objectives) by resulting in more efficient CAPEX and OPEX, by fairer allocation of costs to causers, decision makers and beneficiaries of these decisions, hence leading to the reduction of price of electricity for small WA consumers.

Attachment 3: Stephen Davidson, Submission TWO (General Comments & Comments on Issue 13), 11 December 2017, General Comments, page 1, last three paragraphs:

Stephen Davidson, Submission TWO (General Comments & Comments on Issue 13), 11 December 2017, General Comments, page 1, last three paragraphs:

Page 1, last three paragraphs:

Namely, the purpose of the transmission system is to provide power injection points into the distribution system. The injection points are zone substations. The distribution system emanates from the perimeter fence of zone substations.

The distribution system does not and should not include zone substation equipment, and, certainly not equipment designed to withstand transmission voltages during normal operation, for example zone substation power transformers.

A transmission circuit should encompass all primary (high current) equipment that injects power into the distribution system, including the zone substation transformer.

Reference is made to Figure 1 – Transmission System Assets, on page 24, Appendix F.4 2018/19 Price List Information (EDM#41756595) of the Proposed Access Arrangement, which is unclear as to the boundary between the transmission and distribution assets it purports to show.

Do you agree with the classification of assets in the transmission and distribution RAB, as described in the box above?¹

Is the current classification of assets in the RAB for the transmission and distribution systems as the above, and is it publicly available and where?

Are the RABs for the SWIN transmission and distribution systems publicly available and where?

If the answer is affirmative (if the Authority agrees that the transmission system should provide power injection points into the distribution system; the injection points are zone substations; the distribution system should emanate from the perimeter fence of zone substations), then could the Authority confirm that this is how the assets are classified in the Western Power's Regulated Asset Base (RAB) and, if necessary, request the appropriate changes.

If the answer is negative (if the Authority does not agree that the transmission system should provide power injection points into the distribution system; the injection points are zone substations; the distribution system should emanate from the perimeter fence of zone substations), then that could be controversial: Western Power would be (effectively) allowed to spend CAPEX and OPEX and not be accountable for part of those expenditures (if their full design capability and performance is not (or is inadequately) required by the service standard benchmarks). As is explained in more detail in Attachment 2 here.

¹ This was classification in the 'old Western Power', before it was segregated into four entities.

Under these circumstances, small users of electricity in WA should not be required to pay for those, effectively, redundant assets (made redundant in part by the inadequate service standard benchmarks, if approved by the Authority).

Justification:

Asset classification into transmission and distribution assets has large effect on the price of electricity. The RAB data should be available to public, as, otherwise, erroneous classification of the transmission assets into the distribution RAB would have large detrimental effects on the price of electricity for small consumers in WA.

The amended wording, if adopted, would better meet the objectives of the Access Code 2004 (Code Objectives) by resulting in more efficient CAPEX and OPEX, by fairer allocation of costs to causers, decision makers and beneficiaries of these decisions, hence leading to the reduction of price of electricity for small business, commercial and residential WA consumers.

Attachment 4: Stephen Davidson, Submission THREE (Comments on Issue 16 and Issue 19), 11 December 2017, General Comments, page 2, last three paragraphs:

Stephen Davidson, Submission THREE (Comments on Issue 16 and Issue 19), 11 December 2017, Comments on Issue 16, page 2:

Page 2, Comments on Issue 16:

7.3.7(e) Metering Installations

I strongly object to metering installations that cannot measure reactive consumption: reactive energy kVArh and reactive demand kVAr.

The availability of these functions in the electronic meters would enable better to achieve the objectives of the Access Code 2004 and reduce the cost of electricity to those consumers which comply with the Technical Rules.

Namely, the implementation of this suggestion would enable (SD: ongoing verification of compliance with the Technical Rules power factor requirements, as well as) reactive consumption to be measured and charged to consumers who excessively use it.

Reference is made to Paragraph 709 on page 165 of the Draft Decision, which says, among other things, that metering must be dealt with in the Access Arrangement in accordance with other relevant regulatory requirements, including the Technical Rules.

Western Power Proposed Access Arrangement was found to be apparently inconsistent with the requirements of clause 3.4.7 of the Technical Rules in respect of the (lack of mandatory) measurement of the reactive power and energy, which initiated the comment and suggestion above.

Code Objectives and Access Arrangement Objectives will be better served if the Proposed Access Arrangement is amended to mandate all future metering installations to measure flows of the reactive power.

In respect of clause 7.3.7, the retrofit and/or re-programming of existing metering installations to measure flows of the reactive power should not be included in the list of allowable categories of clause 7.3.7, as it results from Western Power failure to comply with own existing compliance obligations.

Justification:

Appropriate control of reactive power flows, including compliance with the power factor requirements, has a major impact on the CAPEX and OPEX, particularly in the distribution system.

My recent FOI request to Western Power indicates that Western Power has no procedures in place that ensure compliance with their own obligations under the Technical Rules, including with those concerning reactive power. That response was disappointing, leading to the conclusion that, over the years, this indifference has probably resulted in, otherwise avoidable, increased CAPEX and OPEX expenditures caused by Western Power's apparent lack of interest in the reactive power considerations and own compliance obligations under the Technical Rules. Hence more transparency is needed.

Attachment 5: Stephen Davidson, Submission THREE (Comments on Issue 16 and Issue 19), 11 December 2017, General Comments, page 2, last three paragraphs:

Stephen Davidson, Submission THREE (Comments on Issue 16 and Issue 19), 11 December 2017, Comments on Issue 16, page 2:

Page 2, Comments on Issue 19:

Submission on choosing between capital and non-capital solutions

9.2.1 Western Power's obligation to minimize the cost of capital investment

This clause is incomplete, as it does not include Western Power's explicit obligation to first determine the minimum capital cost solution (regardless where the cost falls, and on which side of the connection point the equipment (needed to ensure compliance with the Technical Rules) will be located (on the customer's side or on the Western Power's side), before comparing it against a non-capital solution.

I suggest that wording to the above effect be inserted in the AA4, something like:

"It should be mandatory that Western Power chooses the overall least cost option for each capital investment before considering alternative non-capital solutions".

Reference is made to clause 7.4 Costs Related to Technical Rules Compliance, Appendix C.1 Contributions Policy (see page 17 of EDM#41911684).

Clause 7.4 is central for achieving Code Objectives and Access Arrangement Objectives, including for minimizing the cost of electricity to small consumers.

The current wording of clause 7.4 is silent on small consumers. Its wording refers to only large users (Access Applicants) and the Network Service Providers (Western Power).

Of concern is that these two parties to the access contract often agree to (effectively) shift the Cost of Technical Rules Compliance to small users, as the current wording of clause 7.4 does not expressly prevent them from doing so. Namely, the Costs Related to Technical Rules Compliance are much higher on the 'Western Power's side of the connection point' than those on the 'Applicants side of the connection point'. Anecdotal evidence suggests during the process of access negotiation more and more 'new assets get transferred on the Western Power's side of the connection point' and less and less 'new assets initially considered remain on the Applicant's side of the connection point'. The newly required assets to accommodate connection of the access applicant end up being physically located on the Western Power's side of the connection point; Western Power declares them to be 'Shared Assets', so they become included in the Regulated Asset Base (RAB). Consequently, the risk and Cost of Technical Rules Compliance shifts away from the Access Applicant and to small users of electricity, because of the currently inadequate wording of clause 7.4.

That behaviour is inconsistent with the Code Objectives, Access Code Objectives and is detrimental to the competitiveness of the WA industry and living standards in WA,

because decision makers and beneficiaries of these decisions unfairly allocate the risk and cost away from causers and beneficiaries of these decisions to other consumers of electricity in WA.

Revised wording of clause 7.4 is therefore required, that obliges Western Power to implement the least cost technical solution that ensures compliance with the Technical Rules, and to explore if the equipment can be located on the applicant's side of the connection point.

Western Power and the Access Applicant may subsequently agree that the Access Applicant gifts the assets to Western Power and hence relocate the location of the connection point on the Applicant/Customer side of the new assets. Since the gifted assets cannot be included in the RAB, the transfer of risks and Cost of Technical Rules Compliance to small consumers cannot occur.

In summary, the Code Objectives, Access Arrangement Objectives and hence fairer cost of electricity to small consumers will be better achieved by expanding clause 7.4 to include express obligation of Western Power, to the effect of, to:

- 1) always proceed with the least cost technical solution that ensures Technical Rules compliance;
- 2) any new assets must be gifted to Western Power, before any capital contribution can be considered/calculated/accepted.
- 3) the reference is the existing Western Power's network, including any previously published development plans, at the time of the Access Query/Application.

Due to the limited time to prepare this submission, we have no choice but to leave to the Authority to decide the best location for the above requested amendments.