perthenergy

Western Power AA4 Proposed Amendments submitted to the ERA

Submission to the Economic Regulation Authority regarding Western Power's Proposed Revisions to the Access Arrangement for the Western Power Network (2018-2022)

November 17

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Executive Summary

Perth Energy welcomes the opportunity to provide comment in relation to Western Power's Proposed Access Arrangement submission to the ERA for the period 2018-2022 (AA4). Perth Energy supports several initiatives set out in Western Powers Proposed Access Arrangement Submission (AA4), namely the investment regarding improved metering infrastructure as well as the introduction of 'dormant' applications with respect to the Applications and Queuing policy (AQP).

Perth Energy is primarily concerned with the Access Arrangement proposal set out by Western Power as there are material increases in the allowable revenue when compared to the AA3 period without corresponding material increases in service qualities or costs to service the network. Perth Energy is concerned that the increases over AA4 are largely driven by the recovery of depreciation over an inflating asset base, regulated returns on the same asset base and large payoffs to 'efficiency' based reward mechanisms. Perth Energy is of the view Western Power's AA4 submission does not sufficiently meet the objective of the Network Access code, in relation to:

- Efficient investment in the network
- The promotion of competition upstream of the network
- The promotion of competition downstream of the network

Perth Energy has summarised its concerns with Western Power's AA4 proposal to the ERA within the same topical framework published by the ERA in their issues paper.

Investment in the network

i) Perth Energy questions the validity of growing the Western Power's Regulated Asset Base (RAB) year on year by CPI. This is not consistent with the way in which Western Power report its financial statements. Perth Energy is of the view that a more accurate way to measure the asset base would be by using the effective value of replacement.

ii) Clarification is sought as to whether the investment plan over AA4 considers expected reductions in investment caused by the transition to a constrained network access model.

iii) The recovery of a higher than previous return to shareholders via the increased WACC (compared to AA3) and depreciation from a growing asset base is being borne primarily by transmission connected customers, without the same concentration of benefits apparent to these customers. The increased cost to transmission customers without associated benefits, will lower the competitiveness of the SWIS with regards to private investment upstream of the network.

iv) Perth Energy would like to see substantiation as to the validity of recovery of depreciation as a revenue item over the AA4 period. This recovery has the potential to create a 'cash glut' within Western Power, and may give rise to a situation where the value of Western Power is not diminished in line with the depreciation of its asset base. Cash received from depreciation will provide the shortfall between the true (depreciated) value of Western Power's assets, and the value of Western Power over the course of the AA4 period.

Operating Cost and Service Standards

i) Perth Energy is concerned with the process that has resulted in the development of GSM targets for distribution and transmission independently of one another. Allowing a respective business unit (Transmission or Distribution) to only meet the criteria set out for their business unit, may create an incentive for business units to operate in a way to benefit their business unit but be of the detriment to the broader Western Power organisation, and for the customers in that network.

Ability for Customers to Access the network

i) Perth Energy is concerned the requirement under clause 3.7 (e) of the proposed Applications and Queuing Policy (AQP) is not feasible to implement and places unnecessary restrictions on potential applicants.

ii) Perth Energy is concerned that existing holders of capacity appear to be able to move access from one location to another and from one generation type to another without going through the depth of analysis that a new connection would have to undertake.

Network Charges and Metering

i) Perth Energy supports the implementation of the advanced meters program by Western Power over the AA4 period.

ii) Perth Energy is concerned that the "new" tariff's proposed by Western Power will not yield efficiencies, as it is not clear what the reduction in target revenue will be as a result of the implementation of new time of use tariffs.

iii) Perth Energy is concerned that the tariff structures proposed by Western Power do not accommodate any technological development in the network and do not go far enough in providing customers of the network efficient price signals to manage their use when the system benefits most from demand management.

Perth Energy considers the matters above to be the most material concerns of Western Powers Access Arrangement Proposal from 2017- 2022. The following sections of this paper highlight the aforementioned issues in more detail.

Perth Energy's Submission to the ERA

1.0 Investment in the Network

The Network Access code requires Western Power through their Access arrangement submissions to the ERA to **promote economically efficient investment in the network** amongst other things. The ERA defines **economic efficient investment** as any investment that passes the "new facilities investment test". The new facilities test sets out minimum criteria that investment in the network needs to exhibit prior to be including the regulated asset base (RAB) and thus earn a regulated return on that investment.

Perth Energy has provided commentary on:

i) The applicability of the formation of the RAB over the AA3 period, and
ii) The forecast investment to be included in the RAB over the AA4 period

1.1 Formation of the RAB that over the AA3 period

Perth Energy notes the RAB is revalued by CPI annually throughout all Access Arrangement periods (2006 through to 2022). Perth Energy would question the treatment of applying CPI to the RAB as it is inconsistent with the Western Power Financial Statements. The treatment of Property, Plant and Equipment, which forms a significant proportion of Western Power's Asset base in their financial statements is measured in accordance with AASB 116. In accordance with AASB 116 all assets are recorded at historical cost less accumulated depreciation. By inflating the RAB by CPI, the AA3 closing balance is increased by $657.4 million that is required to be recovered by customers. The increase due to inflation corresponds to a 10.26% increase in the asset base with no real benefit provided to the customers of the network. Perth Energy considers the decision for this treatment of CPI is material and needs further justification that:

i) Inflating the regulated asset base by CPI every year is the most appropriate revaluation method of assets.
ii) It is necessary for customers of the network to pay increasing costs over time as a result of a CPI inflated RAB.

Perth Energy would request the ERA to validate the RAB submitted by Western Power at the start of the AA4 period. Perth Energy is of the view that the effective value of assets in the RAB, should be valued by their cost of replacement. Assets that are redundant or would not need to be replaced today, should have a value of zero in the RAB. Perth Energy also notes, no account is made of any additional write downs of asset values in the RAB due to revaluation.

Perth Energy also does not agree with Western Power's AA4 submission that depreciation in real terms is deemed a recoverable cost. The revenue allowed for depreciation in real terms has the potential to create a cash 'glut' within Western Power, and a situation where the value of Western Power is not diminished as its assets diminish in value over time, as the loss of value in physical assets is replaced with cash, creating value 'neutrality' in real terms within Western Power. Perth Energy would argue no commercial

organisation is afforded such treatment with respect to recovery of depreciation, and would argue that Western Power should not be afforded this benefit either.

1.2 Forecast Investment to be included over the AA4 period

In response to the forecast investment included over the AA4 period, Perth Energy has focused its comments in relation to the Investment plan achieving the objectives as set out in the Access Code.

The objective of the Access Code is:

"To promote the economically efficient:

a) Investment in; and
b) 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."

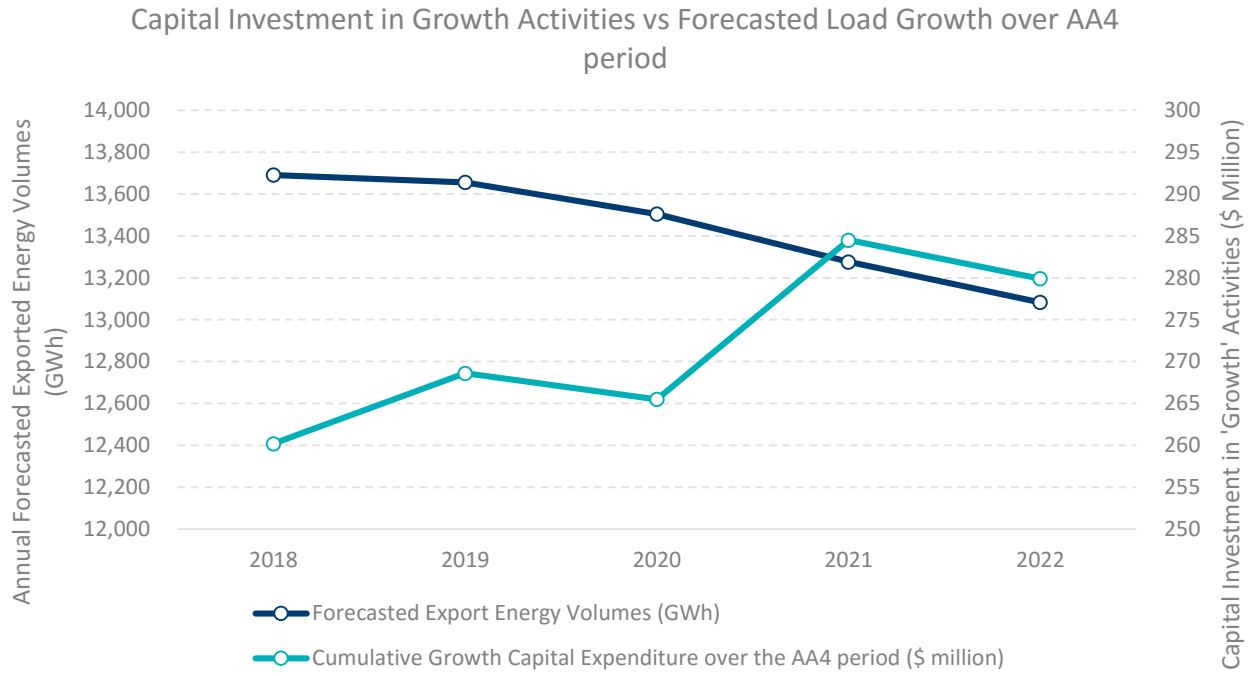
In response to the approach Western Power has taken to develop its network investment plan over AA4, Perth Energy is concerned:

1) The investment over AA4, in particular investment regarding 'growth activities' may be excessive and not economically efficient.
2) The scale of investment over AA4 does not promote competition in markets upstream of the network.
3) The scale of investment over AA4 does not promote competition in markets downstream of the network.
4) Perth Energy supports the investment in improved metering infrastructure over the period.

1.2.1 Investment in 'Growth' activities over the AA4 period

Citing Table 1.2 of Attachment 8.1, capital expenditure related to growth activities is expected to reach $1,358.7 million over the AA4 period and account for 36.4% of total Capital Expenditure. Similarly from Attachment 7.3.5 forecasted energy use is reducing over the AA4 period from 17,698 GWh in 2018 to 17,309 GWh in 2022. New connections are expected to grow by 1.7% per annum over the AA4 period, and will primarily be in the distribution network. Figure 1 highlights the inconsistency with investment in growth activities as growth in volume and connections is falling or stagnating over the AA4 period.

Figure 1: Comparison of Energy Volume Growth to Capital expenditure in Growth activities



Perth Energy would question the validity of the high amount of capital investment in 'growth activities' as it does not align with the expected market conditions over the AA4 period.

Furthermore, Perth Energy would seek clarification that the investment plan over the AA4 period has considered the benefits of moving to a constrained network access model. Even though the constrained network model has not yet been approved, it is proposed to be implemented by mid-way through the AA4 period. The movement to a constrained network access model should lessen the investment burden required to the network, and may indeed bring investment savings. Perth Energy would seek clarification these savings have been taken into account in the formation of Western Power's AA4 investment plan.

1.2.2 Investment over AA4 does not promote competition in markets upstream of the network

The significant investment in the network over the AA4 period will increase the RAB from $8,965 million to $10,413 million. The subsequent depreciation and regulated return of this $1,448 million investment needs to be recovered by customers over the AA4 period. From the AA4 proposal it appears that the majority of the cost recovery is being concentrated to transmission network connected customers. As per table 1.4 from attachment 10.8 – Transmission Price Path it is clear the concentration of costs is recovered from transmission connected customers.

Table 1: Transmission and Distribution Price Path over AA4

	2017/18	2018/19	2019/20	2020/21	2021/22
Distribution tariffs	0%	4.2%	4.2%	4.2%	4.2%
Transmission tariffs	0.0%	10.00%	10.00%	10.00%	10.00%
Bundled tariffs	0%	5.1%	5.2%	5.2%	5.2%

The majority of transmission connected customers are power generators and large industrial sites. The proposed increase in network costs of over 50% nominally during AA4 for power generators will make WA a less competitive region for prospective generation assets. This lack of investment attractiveness will lower competition among prospective generators in the SWIS and further entrench the dominance of existing market participants.

It is not clear from Western Power's proposal that the benefits from the investments carried out under AA4 are weighted towards transmission connected customers in the same way the cost recovery has been allocated to transmission connected customers. The apparent inequality between costs to transmission customers and associated benefits will reduce competitiveness within the SWIS for participants upstream of the network.

1.2.3 Investment over AA4 does not promote competition in markets downstream of the network

It should be noted that downstream of the network Western Power is no longer a monopoly. Western Power now competes with behind the meter energy solutions, as a way to energise customer's facilities. Increasing investment by Western Power over the AA4 period is being paid for by distribution customers as per Table 1 above. The increasing costs faced by customers downstream of the network, coupled with the declining costs of behind the meter energy solutions such as solar and batteries will displace reliance on the electricity network.

The ratio of fixed and variable charges specifically for customers of the network on reference tariffs 5 to 8 is hampering competition as these tariffs are not providing appropriate price signals to end users to better manage their energy usage. The situation where customers are paying higher distributed network costs and do not have the necessary levers or price signals to manage that cost over the course of a year, will create a barrier for innovative products such as peer to peer trading and demand side management. This barrier will limit competitive behaviour downstream of the network.

Western Power has acknowledged through their extensive customer engagement program that price signalling is an important concern to customers. Perth Energy is of the view the tariff structure proposed by Western Power does not provide enough price signalling to customers and will inhibit the true value of innovative services such as peer to peer trading and demand side management as appropriate payoffs from the benefit of these services will not be available to customers.

1.2.4 Investment in Metering infrastructure over the AA4 Period

Perth Energy notes and supports the proposed changes in AA4 with regards to meter replacement. Perth Energy is supportive of the transition to advanced meters, as this infrastructure helps accommodate further competition downstream of the network. Increasing the quality of metering over the AA4 period will reduce one of the barriers to the market lowering its contestability threshold and allow residential customers further choice and instigate more competitive behaviour.

2.0 Operating Costs and Service Standards

2.1 The effectiveness of the Gain Sharing Mechanism (GSM)

Perth Energy supports the principle that gain sharing can exist provided that the efficiencies gained by Western Power do not come at the expense of lower service to customers. Under the gain sharing mechanism, Western Power will share in the rewards of any cost savings provided that minimum service requirements are met. As part of the AA4 proposal Western Power is proposing splitting the calculation of the gain sharing mechanism into Transmission and Distribution specific standards and efficiencies. The basis of this change is Western Power's organisation is structured such that its transmission business is separate in an operational sense from its distribution business.

Perth Energy notes that this methodology proposed by Western Power has benefits as noted in the AA4 submission such as:

- Increased accountability for each workforce
- Equal incentive to achieve efficiencies in both workforces
- Remove the ambiguity in the allocation of GSM rewards

However, it is also important to note that the change has potential risks that the benefits above need to be weighed against. Perth Energy is concerned that by developing GSM benefits in independently within the respective business units of Western Power, there is an incentive for one business unit to act in a manner that maximises their GSM benefits to the detriment of the interests of customers of other business units, and to the Western Power organisation.

If Western Power want to calculate and report GSM benefits by business unit, Perth Energy would propose that it must pass a test that ensures the benefits achieved by the business unit also provided net incremental benefits to the entire organisation prior to it being approved by the ERA. This would stop business units gaining efficiencies at the expense of the other business and potentially at the expense of Western Power as a whole.

2.2 The effectiveness of the Service Standard Adjustment Mechanism (SSAM)

Western Power has proposed using a similar methodology for setting its Standard Service Targets (SST's) for AA4 that it used for AA3. The only changes to SST's for AA4 are increases in the Rural Long SAIDI and SAIFI, which reflects improved performance in these areas over AA3. Figure 2 below demonstrates the increase in the SSAM between AA3 and AA4 by Transmission and Distribution. Perth Energy notes these are cap values, however still has difficulty reconciling an increase of 30% for distribution related SSAM when the "proposed SSTs for the AA4 period are the same or more stringent than during the AA3 period".

Figure 2: AA3 and AA4 Comparison of SSAM Amounts by Transmission and Distribution

	AA3	AA4 proposed	Change
Transmission	$3,180,400	$3,374,849	6%
Distribution	$41,381,000	$53,802,089	30%

3.0 Ability for Customers to Access the network

3.1 Access and Queuing Policy (AQP)

Perth Energy has reviewed the proposed AQP under Western Power's AA4 and is broadly supportive of the proposed changes. Perth Energy notes there is a significant issue regarding section 3.7 of the proposed AQP. The current clause 3.7 (e) requires any proponent wishing to submit an access application to:

"3.7 (e) provide information regarding the facilities and equipment at the connection point to the extent required by:

i) The technical rules
ii) Western Power acting as a reasonable and prudent person"

Perth Energy notes the requirement to provide information as per the technical rules may not be possible to achieve in practice. Information required in the technical rules can only be provided once a proponent has made a commitment to the specific type and model of generating unit to be installed; which requires the proponent to place an order for the chosen machine. Perth Energy is of the view that placing this obligation on the proponent prior to the negotiation of network connection is excessive.

Rather, Perth Energy would recommend it to be sufficient that the proponent describes the proposed type of plant and provide generic or typical data. Given the long lead times associated with network connection and associated fast rates of technological change in power generation systems, committing to a manufacturer and make of a model early on the application stage will constrain the best investment decisions being made.

If there is a situation where Western Power really does require all of the information required by the technical rules then it is adequately covered by clause (ii). It can rightly advise that, acting as a reasonable and prudent person, in this situation it needs the information set out in the technical rules.

Perth Energy suggests that deletion of 3.7 (e)(i) removes an unnecessary obligation on proponents and that Western Power is adequately protected by 3.7 (e)(ii).

Perth Energy supports clause 3.8 of the AQP extending to allow multiple trading relationships at a connection point subject to necessary legal approvals. However, Perth Energy would question whether the ramifications of this change, which would include the ability to trade energy peer to peer, have been extended to the development of tariffs and the wider AA4 submission.

Perth Energy supports the clarification of the 'contestable' definition and supports the alignment of the definition with the *Electricity Corporations (Prescribed Customers) Order 2007.* Removing the ambiguity surrounding contestability is a good outcome.

Perth Energy also supports the move to remove '*dormant applications'* as this will facilitate competition if the amount of unused capacity can be maximised and made available to the market for investment in. Perth Energy also notes, that the notion of *dormant applications* should be extended to sites that have contracted capacity but have either been shut or not used for a period of time. Holding onto unused network access should be actively discouraged as it is an effective way to stifle competition upstream of the network and would be in direct contravention of the access code objectives.

3.2 Transfer and Relocation Policy

In response to the proposed Transfer and Relocations Policy, Perth Energy is concerned that existing holders of capacity appear to be able to move access from one location to another and from one generation type to another without going through the depth of analysis that a new connection would have to undertake. The transfer and relocation policy should apply the same rigour to increasing capacity as a result of a relocation when compared to a new connection.

Perth Energy is of the view that in absence of a constrained network model, the transfer and relocation policy is fundamentally unfair, as it treats the transfer of generation capacity around network as like for like. Perth Energy believes this provides too much power to the incumbent capacity holder and may stifle competition upstream of the network. Perth Energy would prefer to see the Transfer and Relocation Policy abolished in its entirety.

4.0 Network Charges and Metering

4.1 Western Power's Proposal to install Advanced Meters

Perth Energy supports the initiative by Western Power to replace old end of life meters with advanced meters and would like to see this process accelerated. Western Power proposes to have their standard meter replacement over the AA4 period to be an advanced meter. Perth Energy views the introduction of widespread advanced meters in the SWIS as a positive move. This will enable innovative products from retailers and further reduce the physical barriers needed to facilitate greater choice for consumers in the WEM. Perth Energy supports the use of advanced meters and agrees it will support the success of time of use tariffs and allow customers cost to accurately reflect their use of the network at a more granular level than was possible before. Over the longer term, customers will be able to better manage their use of the network and receive the benefits through more dynamic tariff arrangements as a result.

Perth Energy would propose the take up of installing advanced meters be made as soon as practicable, as the benefits to the SWIS are clear. Perth Energy notes the implementation of advanced metering increases the ability for retailers and service providers to offer innovative products such as peer to peer trading, and short term energy management. It is unclear that the ramifications from this change have flowed through to the development of network tariffs and investment plans of the AA4 submission, as these technologies have the ability to drive network customers to act in a way they may not have acted in the past.

4.2 Proposed New Time of Use Tariffs

Perth Energy believes that Western Power Tariffs should be variable driven and offer better price signals to customers in order for them to optimise their use of the network. Perth Energy believes the new time of use tariffs proposed do not go far enough in offering efficient price signals to customers. It is important to note, without changing all the tariffs to time of use it is hard to establish longer term benefits to Western Power. Customers that contribute to high system peaks will not migrate to the new time of use tariffs as they will view this tariff as financial penalty when compared to the existing tariffs. However, customers who do not contribute to the peak demand will migrate to the time of use tariff as they will see cost savings.

The tariffs proposed do not support change in consumer usage patterns, rather they will entrench behaviours that are not in the best interests of the market as a whole. The dichotomy that exists within the proposed tariff structure is that those customers Western Power want to target with the new tariffs will be most resistant to adoption, whereas those customers who do not materially contribute to system peaks may migrate to the new tariff in search of savings. Given this, Perth Energy would question the applicability of the proposed tariff regime.

Perth Energy would propose that Western Power undertake a more holistic tariff reform to develop a structure that will more appropriately provide price signals and incentivise customers to manage their energy consumption more efficiently. Perth Energy is also concerned the new tariffs proposed by Western Power will not yield efficiencies, as it is not clear what the reduction in target revenue is as a result of the implementation of new time of use tariffs.

Perth Energy would like to see an estimate from Western Power on how successful they believe these new tariffs will be and how the new tariff relates to an expected reduction in the amount of revenue it needs to recover over AA4.

4.3 Tariff Structures proposed over AA4

With regards to the tariff reforms noted in Western Powers AA4 submission, Perth Energy is of the view the introduction of a 'shoulder' period does not go far enough. Perth Energy believes the tariff structure should be more dynamic to more accurately represent the cost to the network when the network is under stress compared to when it may not be. For example, the 'peak periods' over summer, may be when system stress is at its highest, however the 'peak periods' over autumn and spring may be less intensive on the network. The current tariff structure does not account for this and simply concludes the rewards/penalties, for adjusting consumption down/up exist for all 'peak' periods, irrespective of the state of the network.

Perth Energy also notes that the current tariff structure is not overly flexible and Western Power's AA4 submission should consider tariff structures like 'thin connection'. Given the prevailing growth in behind the meter energy solutions, it is likely that some parts of the SWIS or even individual customer connections would benefit from a 'thin connection' type tariff arrangement over the AA4 period. A 'thin connection' type tariff would be suitable for customers that will be predominantly sourcing their energy behind the meter and will only utilise the transmission and distribution networks as 'contingencies' or intermittently.

Advanced metering will become an enabler for businesses to innovate their interaction with the network, however the AA4 proposed tariff structure does not accommodate this in any way. For Reference Tariffs 5 to 8; the costs are predominantly fixed on a 12 monthly rolling basis or longer. The lack of accurate and timely price signals for these customers is a concern, and reflects the fact that these customers were not adequately surveyed by Western Power. Western Power is limiting the introduction of innovative energy solutions and products for the Commercial and Industrial sector of the SWIS – the engine room of jobs and economic growth in the state. The full value of products such as peer to peer energy trading or demand side management through the use of batteries will not be achievable, as the price signals proposed in Western Power's proposed tariff structures do not penalise/reward efficient use of the network in a dynamic manner.

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