16 May 2017

Sebastien Henry
Project Leader
Australian Energy Market Commission
Submitted via website
AEMC reference - EPR0053

Dear Sebastien

Re: System Security Market Frameworks Review - Directions Paper

Thank you for the opportunity to provide comment on the Australian Energy Market Commission's (AEMC) System Security Market Frameworks Review Directions Paper (directions paper). Stanwell notes that the AEMC has proposed an immediate package of System Security reforms followed by a subsequent package of reforms to be implemented in three+ years.

Stanwell understands the importance of the AEMC's role in designing electricity market rules to ensure a stable and reliable electricity system. The electricity market frameworks must ensure the continued security of the power system while at the same time facilitating the uptake of all forms of generation. Stanwell congratulates the AEMC for its detailed study of this important issue.

Stanwell supports the majority of the AEMC's proposals, in particular the AEMC's view that Transmission Network Service Providers (TNSPs) are best placed to manage the provision of inertia. Although Stanwell would have preferred a market based approach, the technical requirements of inertia - being required continuously and at specific locations - make a market solution problematic. The ability for synchronous generators to contract with a TNSP to provide inertia through a "non-network solution" as part of the RIT-T should prevent unnecessary build of new network assets and provide a signal that these services are valued.

Required inertia operating level

The AEMC has recommended that there be a requirement on TNSPs to provide and maintain a defined operating level of inertia at all times. The required operating level of inertia would be determined by the Australian Energy Market Operator (AEMO). Cost recovery would be as a prescribed service.

AEMO's modelling must be reviewed by an independent expert

Determining the required operating level of inertia is likely to be complex and possibly controversial. AEMO will need to define a range of scenarios with different assumptions of local demand, individual generator output and network availability. Experience of AEMO's modelling through the System Restart Ancillary Services process shows that even the definition of sub-networks is controversial. Because the output of AEMO's modelling feeds directly into network expenditure and therefore customer costs, it is important that AEMO's work is peer reviewed by an independent expert.

In addition, it is worth considering whether the definition of sub-networks in this modelling should be consistent with the definition of sub-networks in AEMO's modelling for SRAS.

The TNSP solution is efficient only if the RIT-T and ring-fencing rules are robust.
While Stanwell supports the AEMC's decision to make TNSP's responsible for the required operating level of inertia, we note the solution will only be efficient if the Regulatory Investment Test - Transmission (RIT-T) and ring-fencing rules are robust. Specifically, the search for non-network solutions in the RIT-T must be conducted in a transparent manner and the network's tender requirements must be set in a way that does not pre-determine a network-only solution. Similarly, if energy is to be provided through a network's inertia investment, this must be done in a completely separate ring-fenced entity[1].

Cost recovery should be on a "causer pays" basis.
Stanwell supports cost recovery for the inertia being obtained from non-synchronous and low inertia generators on a "causer pays" basis. The "causer pays" principle aligns the cost imposition of inertia with those best placed to manage the problem. As opposed to customers, low inertia generators have the option to install inertia devices and avoid the network charge for inertia.

"Market benefit" inertia
TNSP incentive framework for "market benefit" inertia should begin as soon as possible
The AEMC has proposed that, after a delay of three years, TNSPs be provided with an incentive framework to increase the provision of inertia beyond the required operating level to the most efficient level. Stanwell supports the initiative of TNSPs being provided with an incentive framework for the provision of extra inertia but does not support the three year delay.

It appears that the delay is only in place to enable the contracting of Fast Frequency Response (FFR). A delay in optimising the level of inertia may mean that certain generators or network elements are constrained by AEMO to manage system strength or security. The delay appears to be "picking winners" (FFR) at the expense of greater market efficiency and system security.

If there were no delay and a TNSP could prove a "market benefit" case for the provision of more inertia, then it would have to, through the RIT-T process, investigate non-network solutions. This could include FFR which, if approved by AEMO, could substitute for the inertia requirement. This implies that even without a three year delay FFR would have the opportunity to enter into contracts with networks.

TNSP procurement of Fast Frequency Response
A special contracting regime for Fast Frequency Response is "picking winners"
The AEMC has proposed that TNSPs would be allowed to contract with third party providers of FFR services that could substitute for inertia in meeting the required operating level of inertia. The period of time during which contracts could be entered into would be limited to three years in order to provide a means for the deployment and trialling of FFR technologies. Stanwell does not support this proposal.

[1] On page 55 of the Directions Paper the AEMC says "Ring fencing issues do not arise in relation to the provision of inertia services (it not being the provision of energy)". This is not true in all circumstances, many assets that provide inertia could also provide energy. Stanwell also considers that ring fencing principles should apply to any investment by a regulated monopoly which has the potential to compete with or preclude the same investment by unrelated firms.

As previously discussed, it appears that through the RIT-T process TNSPs can already contract with FFR technologies as a “non-network” alternative to inertia. The idea that the market would be sub-optimally managed while these technologies are given a chance to prove their capabilities and contract with TNSPs does not appear to be an efficient and technology neutral approach. These technologies are already in development and supported by groups such as the Australian Renewable Energy Agency (ARENA).

If the proposal proceeds, Stanwell suggests limiting the term of the FFR contracts in order to maximise the availability of FFR services for the start of AEMO’s FFR market. If the term of TNSP FFR contracts overlaps with the start of the AEMO’s market, liquidity is likely to suffer leading to higher prices and sub-optimal outcomes for consumers.

Market sourcing approach for FFR

Market sourcing of FFR should begin as soon as possible

The AEMC has proposed that a market for FFR would be established to optimise the FFR quantity consistent with system security requirements, the level of inertia and other Frequency Control Ancillary Services (FCAS) markets. The AEMC has proposed that this should be implemented as a subsequent package of work. Stanwell supports the market based approach for the procurement of inertia and does not support the delay in its implementation. Although considerable work is involved in setting up the new market and understanding its interaction with the other markets, Stanwell believes work on this proposal should begin immediately with a view to initialising the market as soon as possible.

System Strength

Support for the AEMC’s System Strength proposals

The AEMC has recommended that TNSPs maintain the short circuit ratios at generator connection points. Also, that new generators which reduce the short circuit ratios at other generator connection points must pay to have this rectified by the TNSP. The AEMC also proposes that TNSP upgrades required due to a synchronous generator retiring must be paid for as a prescribed service. Stanwell supports all of these proposals.

Generator obligations for FFR capability

Support for new generator obligations to provide FFR capability

The AEMC has proposed that new, non-synchronous generators be required to provide FFR capability. This is believed to be relatively cheap to install initially (less than 1% of the build cost) but expensive to retrofit later. This appears to be a sensible initiative given the potential need for these services to maintain system security.

Other system security issues

Support further investigation of other system security issues

The AEMC has mentioned broader issues affecting system security which it intends to catalogue and prioritise in order to determine an appropriate mechanism for resolving them, where this is warranted. Stanwell supports this approach and is a member of AEMO’s Ancillary Services Technical Advisory Group which we expect will inform the AEMC’s work.

Thank you for your consideration of Stanwell's response to the directions paper. If you would like to discuss any aspect of this submission, please contact Jennifer Tarr on 07 3228 4546.

Yours sincerely

Luke Van Boeckel
Manager Regulatory Strategy
Energy Trading and Commercial Strategy