

Sebastien Henry
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Submitted online to:

<http://aemc.gov.au/Markets-Reviews-Advice/System-Security-Market-Frameworks-Review>

20 April 2017

System Security Market Frameworks Review

Reference: EPR0053

The Australian Energy Council (the “**Energy Council**”) welcomes the opportunity to make a submission in response to the Australian Energy Market Commission’s (“**AEMC**”) System Security Market Frameworks Review Directions Paper.

The Energy Council is the industry body representing 21 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

Introduction

Australian energy markets are currently in a state of transition. As conventional generation is replaced by variable, asynchronous plant, new approaches are required to maintain security of supply at an efficient cost. The AEMC’s System Security Market Frameworks Review facilitates this transition by considering two key issues highlighted by the Australian Energy Market Operator (“**AEMO**”) – the management of frequency and the management of system strength in a power system with reduced levels of synchronous generation.

Discussion

The Energy Council supports the specification of a required inertia operating level and the introduction of a fast frequency response (“**FFR**”) service, but believes that the existing market structures within the National Electricity Market (“**NEM**”) should be utilised to establish such services on a commercial, competitive basis. The Energy Council disagrees that these services should be contracted, as an interim measure, by Transmission Network Service Providers (“**TNSPs**”).

The National Electricity Rules charge AEMO with responsibility for power system security. This is accomplished by AEMO dispatching the NEM, operating the ancillary services market and contracting for services such as system restart services. The reliability settings for the NEM, and by association the security of the NEM, are set by the Reliability Panel, which is responsible for monitoring, reviewing and reporting on the safety, security and reliability of the national electricity system, (including such matters as System Standards, Reliability Standard & Settings Guidelines, and Principles & Guidelines for Maintaining Power System Security).

Section 4.3.2 of the AEMC’s Directions Paper suggests that FFR services can be co-optimised with the provision of energy through the existing energy market dispatch process, similar to the existing markets for Frequency Control Ancillary Services (“**FCAS**”). However the paper concludes that such a market cannot be implemented because there is a lack of existing providers of FFR services, technologies for providing such services are in a fledgling state, and there is a lack of experience and understanding as to how the operation of the power system might be impacted. Instead the paper suggests that TNSPs should be used as a stopgap means of acquiring the necessary services. This conclusion overlooks the possibility that existing synchronous

generators may also be able to provide FFR (for example, by making adjustments to governors and control systems) if a new FCAS market such as a 2 second FCAS contingency service market were specified and developed by AEMO. One of the reasons it is currently not provided by existing generators is that, to date, the service has not been specified and requests for provision not issued by AEMO.

The Energy Council considers that using TNSPs to contract for the necessary services rather than relying on AEMO is economically inefficient. By allowing monopoly businesses to both procure the services and be one of the potential suppliers of services, a conflict of interest is created. In such situations, it is unlikely that the services needed will be acquired at the lowest cost to the consumer and businesses, and the transitional nature of the arrangements will either (a) fail to provide industry with the certainty it needs to invest in new or existing technologies to provide the necessary services; or (b) entrench a TNSP-based solution for such services, regardless of whether these represent the best value long term solutions. The conflict of interest is easily avoided by charging AEMO with the responsibility for procurement, and allowing all potential suppliers, including existing generators, TSNPs and new entrants, to compete on a level playing field. Given the Directions Paper proposes that AEMO is involved in determining the level of services to be required, it is only a short step to give it the responsibility of procurement. AEMO already has the necessary experience of running ancillary service procurement processes, for example through its procurement of system restart services.

Despite the headlines of solutions being able to be implemented “within 100 days”, the interaction of all aspects of the electricity supply market needs to be considered, and the transitional arrangements proposed may not provide the improvement in security of supply sought. While it is acknowledged that development of the market rules and the liquidity of a proposed market for FFR services will take some time, the interaction between FFR services, FCAS and the existing energy market is such that these services cannot be contracted for in isolation. The proposed FFR market needs to be developed in consultation with market participants, and with consideration for the existing NEM design, a market which is designed to promote economic efficiency in dispatch and flexibility in adjusting to changing market conditions. Energy Council members stand ready to assist in the development and integration of a fast frequency response service as a new service within the FCAS market, co-optimised with the energy market.

Other Matters

In respect of the proposed obligation that new non-synchronous generators should have the capability to provide fast frequency response services, the Energy Council believes that this is not required. By imposing performance standards on new generators, the efficient market for the provision of such services is distorted, unnecessary costs are imposed on market participants who may never be competitive in providing such services, and cheaper, more efficient solutions are not developed and made available. Instead the market for FFR services should be developed, in association with existing energy and FCAS markets, and this will incentivise both new and existing synchronous and non-synchronous generators to install the necessary equipment to participate in the market, if it is in their economic interests to do so, without mandating such equipment in the National Electricity Rules.

In relation to system strength, the Energy Council considers that there is a stronger case for charging generators a “causer pays;” fee for the impact of their decisions, where there is still locational discretion. Accordingly, it would be reasonable for any new generation, e.g. if the new generation were projected to cause minimum short-circuit ratios to be breached for one or more existing generators, to be charged the cost of the necessary remedial action on a “causer pays” basis by the TNSP, alongside its connection fee.

Once a generator has been established, the locational optionality disappears and there is no economic benefit from charging the generator such a fee, as it has no other options to address the issue. So it is reasonable not to recover any costs caused by a retiring generator, as this will unduly affect its retirement decision-making processes for no economic benefit.

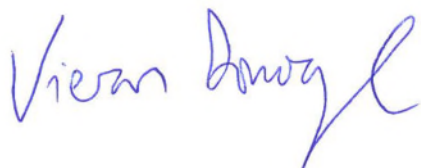
Conclusion

In conclusion, the Energy Council supports the AEMC developing measures to improve system security. It believes that such measures should be implemented via market-based solutions, in consultation with industry and in conjunction with the existing energy market arrangements. However the Energy Council acknowledges

the need for immediate, practical solutions, and recommends that AEMO be engaged, as a transitional measure, to contract the required services.

Any questions about this submission should be addressed to the writer, by e-mail to kieran.donoghue@energycouncil.com.au or by telephone on (03) 9205 3116.

Yours sincerely,



Kieran Donoghue
General Manager, Policy and Regulation
Australian Energy Council