20 February 2017

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Mr Pierce

Emergency frequency control schemes: Draft Rule Determination

Energy Queensland Limited (Energy Queensland) supports the introduction of additional energy network system security mechanisms. Our submission highlights some key aspects to the proposed new operating frameworks that could be improved; to ensure all market participants have a clear understanding of their roles, responsibilities and costs in maintaining system security under the new measures.

Should you require additional information or wish to discuss any aspect of this submission, please do not hesitate to contact either myself on (07) 3851 6416 or Trudy Fraser on (07) 3851 6787.

Yours Sincerely

Jenny Doyle
General Manager Regulation and Pricing

Encl: Energy Queensland's submission

Energy Queensland

Emergency frequency control schemes

Submission to the Australian Energy Market Commission's Draft Rule Determination

Energy Queensland Limited

20 February 2017

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1 Structural Market reform

Energy Queensland Limited (Energy Queensland) is broadly supportive of the Draft Determination. There is a clear need for a governance framework to develop new Emergency Frequency Control Schemes (EFCS), and for the implementation of a 'Protected Event' category to more pro-actively manage non-credible contingency events that may impact system security on a 'reasonably plausible' basis. To ensure these new measures are implemented in the most efficient manner that will benefit the customer base as a whole, Energy Queensland recommends the following is taken into consideration by the Australian Energy Market Commission (AEMC).

The EFCS rule change is part of the AEMC's program of works which includes the *Distribution Market Model: Approach Paper* and *System Security Market Frameworks Review*. As detailed in our response to the *Distribution Market Model* paper the Distribution System Operator (DSO) role will naturally fall on Distribution Network Service Providers (DNSPs), while as shown in this rule change the overarching system security role will naturally remain with AEMO. However, in the medium to long term the two roles will be closely integrated. The complexity of managing any EFCS or Protected Events will increase by an order of magnitude as tens and then likely hundreds of thousands of distributed energy resources (DER) are connected to distribution networks across the National Energy Market (NEM). With the management scale of such DER beyond the capability of any single system operator, the DSO and AMEO will be required to work in close collaboration as the DSO manages the impacts of DER and aggregated DER alongside traditional network requirements (from a network perspective), and AEMO issues whole-of-system security instructions. As such, in finalising these reforms it is imperative the AEMC clearly delineate the responsibilities of each market participant.

2 Emergency Frequency Control Schemes

2.1 Efficient Service Delivery

The framework proposed in the development of EFCS is to capture a technology neutral approach and Energy Queensland strongly supports this principle[1]. In this regard, it must be considered that over the medium to long term as the *Power of Choice* reforms are integrated into the NEM the level of load DNSPs will have under direct control will likely diminish; as the Metering Coordinator / Aggregator / Retailer provide new services to customers made possible due to the widespread roll

[1] Draft Rule Determination, pg. 36

out of digital meters. As such, the development of an EFCS in the most efficient manner could necessitate capturing the remote capabilities of digital meters / load under control of third parties. In protecting the security of the NEM for the entire customer base in the most efficient manner and using all available technical solutions, the EFCS framework will need to consider whether, under the emergency circumstances proposed, access to such load is a mandatory function or one that must be purchased.

2.2 Reliability Panel

Under the proposed EFCS development framework the Reliability Panel will undertake a cost benefit analysis (CBA) of any EFCS proposal developed by AEMO (with input from energy sector participants). The CBA should consider:

- The nature of the load (variable, constant etc.)
- Network configuration (radial, meshed)
- Solar penetration
- Sensitivity of load (critical infrastructure such as hospitals)
- Percentage of load that can be shed for any particular network or region

2.3 Responsibility

The Draft Determination states that when a Generator agrees to install EFCS equipment or change its settings to enable an EFCS function, final responsibility for the EFCS' performance and any associated liability will remain with the network service provider (NSP)[2]. Energy Queensland strongly considers this to be an inappropriate allocation of responsibility as the NSP has no control over the capability, management or maintenance of the Generator's equipment and as such cannot be held responsible for its performance.

[2] Draft Rule Determination, pg. 36.