AUSTRALIAN ENERGY REGULATOR

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Contact Officer: Ali Hassan
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10 May 2019

Rainer Korte
Group Executive Asset Management
ElectraNet
52-55 East Terrace, Adelaide
Adelaide SA 5000

Sent by email on: 09.05.2019

Dear Mr Korte,

Re: Follow-up Information Request- SAET RIT-T Dispute

Thank you for meeting with AER staff on 8 May 2019 (the meeting) to discuss the South Australian Energy Transformation (SAET) regulatory investment test for transmission (RIT-T) dispute.

As you are aware, SACOSS contend that ElectraNet's Project Assessment Conclusions Report (PACR) for the SAET RIT-T provides little detail about the operation of a Special Protection Scheme (SPS) proposed to detect and manage system security risks associated with the loss of Heywood and/or the proposed interconnector. SACOSS is concerned that the modelled market benefits of the preferred option are based on combined interconnector capacities that are not achievable if the SPS does not work as intended.

As discussed at the meeting, ElectraNet's 10 April 2019 response to AER's 1 April 2019 information request provides limited details about the feasibility and design studies undertaken to date. Accordingly, the AER seeks information on the following:

(a) Please provide details on the processes and feasibility studies undertaken to date by ElectraNet and/or jointly with ElectraNet to assess the feasibility of the proposed SPS for the proposed new interconnector.

As noted by ElectraNet during our meeting we are seeking further details on any in-house feasibility studies (including power system simulation studies) and consultation undertaken with AEMO, TransGrid, SA Power Networks and the Office of the Technical Regulator (OTR) South Australia.

(b) Page 4 of your 10 April 2019 response states that: "*It is expected that a significant amount of work and learnings from the WAPS will be leveraged in developing the SPS for the new interconnector.*"

Please provide further details on the implementation of the System Integrity Protection (SIPS) and Wide Area Protection (WAP) schemes. This should include the

details of timing, and the stages involved such as operation of grid scale batteries, the shedding of transmission connected substations, the locations and assumed loading levels for each stage and the voltage levels that shedding occurs at. Please also advise how work and learnings from these schemes would assist in developing and implementing the proposed SPS for the new interconnector.

(c) We understand that the SPS would need to operate within very tight time limits to avoid system security risks and maintain connection to the rest of the NEM.

Please provide further details on what are these time limits and how these times are achievable. In particular, please provide the basis for the view that staged tripping of this required maximum quantity of load in the timeframes required are achievable.

(d) In the event of the loss of either interconnector and based on AEMO's power system modelling, please provide further details in support of the assumed maximum load shedding requirement.

We also understand from the meeting and your 10 April response that the proposed SPS would be operated in stages for operating grid scale batteries and shedding levels of load. Please provide further details on the battery operation requirements and how and what loads would be shed up to the maximum load shedding requirement. We understand that the design is at a preliminary stage and subject to change, however we seek details on:

i. possible method of detection

ii. the design considerations around ensuring high probability of accurate detection

iii. the required timing for load shedding, the stages involved, such as operation of grid scale batteries

iv. the shedding of transmission connected substations

v. the locations and assumed loading levels for each stage and the voltage levels that shedding occurs at. Please also provide the basis of the selection of the load shedding selection – for example we understand one factor is related to the ability to readily restore load after the event.

(e) We understand from your 10 April response and the meeting that detailed design studies including implementation of the proposed SPS would be undertaken following the regulatory processes.

Please provide further details on the time required to design and implement a fully functional SPS. We are also interested in understanding alternative plans if the SPS does not function as proposed and whether this would affect the transfer limits proposed for the new interconnector in the SAET RIT-T.

We request you provide this information **by COB 17 May 2019.**

If you have any questions regarding this matter, please contact Ali Hassan on 02 9230 9106.

Yours sincerely

Sebastian Roberts
General Manager
Transmission and Gas Branch