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EnergyAustralia
LIGHT THE WAY

Congestion Information Resource Guideline Consultation
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Dear Mr Blake

Congestion Information Resource Guidelines – First Stage Consultation – May 2021

EnergyAustralia is one of Australia's largest energy companies with around 2.4 million electricity and gas accounts across eastern Australia. We also own, operate and contract a diversified energy generation portfolio across Australia, including coal, gas, battery storage, demand response, wind and solar assets, with control of over 4,500MW of generation capacity.

As AEMO would be aware, issues of forecasting and dealing with network congestion are being examined by the ESB as part of its Post 2025 reforms. The congestion information resource (CIR) objective under clause 3.7A(a) of the National Electricity Rules refers to enabling market participants to make "projections" of market outcomes however is silent on the horizon(s) that would be relevant. The requirement for information to be provided in a "cost effective manner" appropriately tempers the effort AEMO might spend in generating forecasts of network congestion in the face of uncertainty.

As flagged by the ESB, we see value in AEMO examining how historical information as well as forecast data can be made more accessible to market participants. Beyond this, there is value in AEMO informing market participants of issues arising in the NEM and areas of investigation relevant to congestion that could impact on future constraint formulation.

At present, information contained in the CIR relates mainly to thermal ratings of network elements, whereas there is a significant and growing amount of congestion arising from voltage stability and system strength issues. Some information on these other sources of congestion can be gleaned from AEMO's limits advices however it is not easily digestible. There may also be further value in providing details of sub-regional or zonal limits, noting this level of granularity is also becoming more important for transmission planning and is expected to form part of the 2022 Integrated System Plan.

The recent 'X5' constraint example highlights how AEMO can better assist market participants, namely in being aware of issues arising and how forewarning of constraints can be provided. This is particularly important given how poorly forecast congestion can result in inefficient dispatch outcomes and negative impacts on consumers. Ultimately,

we would encourage AEMO to engage more with TNSPs about limits advice and take a more proactive role in general:

- Given its foresight of connecting generation and storage technologies in specific parts of the network, which may also include under its ISP scenario modelling, AEMO may be able to highlight arising issues in VRE integration and counter-price flows issues for policy discussion.

- This longer-term modelling of trends could be supplemented with leading indicators of network health (e.g. voltages, fault levels etc) and of the relevant thresholds or limits.

- Importantly this can be done well ahead of constraints being put in place (that have immediate, unavoidable market impacts) and so enable participants to modify their behaviour.

Even without such detailed analysis, participants would be assisted by AEMO informing the market of its forward work program of constraint reviews, including in light of projects being commissioned, and by giving forward notice of publishing constraints.

Noting that AEMO considers and ranks proposals around the CIR from a cost-benefit perspective, the incremental costs of adding constraint considerations to the General Power System Risk Review (GPSRR) and Engineering Framework may be small. That is, some form of forecast information on critical network elements will be needed each year because of the new GPSRR.

In regard to specific items AEMO is seeking feedback on as part of the 2021 CIR guidelines consultation, EnergyAustralia fully supports:

- the need and increased transparency requiring all TNSPs to publish limits advice that informs any constraint equation in NEMDE that is affected by such advice – and for this to cover both existing and new equations

- the inclusion of high impact outages for forecast planned outages, except we note that these high impact outages remained undefined in the CIR.

EnergyAustralia also requests:

- AEMO publish a rolling 13-month forward work plan of know changes it intends to make to the constraint library, updated weekly – this is intended to assist participants regarding matters such as the short notice given for the X5 voltage limit

- clearer reporting on the specific constraint equations that are impacting on MT PASA results where the probability of interconnectors binding is greater than 80 per cent

- a transparent view of how constraints are translated into key planning documents such as the ISP and ESOO, and the need for any broad assumptions to reflect their use in such planning documents

- AEMO update its high voltage Network Main System Diagram, as referred to in the CIR whenever new equipment is commissioned – the current version is from April 2019

- AEMO include in its statistical reporting:

    - a summary of all equations that have bound that were associated with planned outages sets not included in the NOS

    - a summary of all equations that have bound that were due to 'forced' or unforeseen circumstances, not reasonably expected have been included in the NOS

    - discussion on the frequency, prevalence and basis of the use of 'discretionary' equations to inform how these are changing over time

    - a summary of DI's where more than 4 energy constraint equations were found to be binding in any single region to inform how multiple equations may be impacting on market outcomes.

- AEMO publish a report in the CIR within two weeks of a new or revised constraint equation binding for the first time covering the following matters:

    - a plain English description of the protective nature of the limit and the drivers of the power system limitation

    - whether the equation was performing as expected

    - the likelihood of the equation becoming more prevalent over time, particularly if it is a system normal limit.

If you would like to discuss this submission, please contact me on 03 9060 0612 or Lawrence.irlam@energyaustralia.com.au.

Regards

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