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FROM THE OFFICE OF THE
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Ms Merryn York
Chair (Acting)
Australian Energy Market Commission
Sydney South NSW 1235

Via online submission
AEMC code: ERP0073

Dear Ms York

Interim Report Transmission Access Reform – AEMO Submission

AEMO welcomes the opportunity to provide a submission to the AEMC's Interim Report Transmission access reform: Updated technical specifications and cost-benefit analysis. AEMO appreciates the extensive process the AEMC has undertaken to consult on this reform and incorporate stakeholder feedback in the evolving design.

In our submission AEMO has provided commentary on the current market design and other elements required, should it go ahead. If energy ministers endorse this reform, we look forward to working with the AEMC, AER and ESB to complete the market design and move into a more detailed market design, costing and system requirements process.

AEMO has provided an indicative preliminary cost for transmission access reform of $300m +/- 30%. We expect participant costs will be significant as well.

Should you wish to discuss any of the matters raised in this submission, please contact Kevin Ly, Group Manager Regulation at kevin.ly@aemo.com.au.

Yours sincerely

Audrey Zibelman
Managing Director and Chief Executive Officer

Attachment: Interim Report Transmission Access Reform - AEMO Submission

ATTACHMENT 1:

INTERIM REPORT TRANSMISSION ACCESS REFORM (ERP0073) – AEMO SUBMISSION

AEMO welcomes the opportunity to comment on the AEMC's interim report on transmission access reform. In this submission we:

1. Provide comments on the latest transmission access reform design.
2. Provide information on AEMO's estimated costs to implement and operate COGATI.

1. Comments on the latest transmission access model

The latest transmission access design

The latest design incorporates important elements of a locational marginal price and financial transmission rights design. Many of the recent design decisions, such as including losses in the nodal price and reconfiguring the RRP to a volume weighted load price, are design elements we have supported in previous submissions and technical working groups. Further:

- a dispatch price which prices congestion and losses has greater potential to improve power system management;
- changing RRP to a volume weighted average price (VWAP) calculation allows for a workable settlement process;
- VWAP requires development of a nodal load price which points to a future in which additional categories of load could also face a nodal price, which would assist with two-sided-markets.

In terms of FTRs, AEMO welcomes the inclusion of financial intermediaries and the option to form FTR hubs. These additions will allow for flexibility in FTR market operation and may make for a more competitive FTR auction.

AEMO notes that once the full business requirements of transmission access reform are known, there may be other non-functional requirements such as achieving acceptable dispatch solve time to manage as part of design and implementation.

Further potential developments to the design

1.1.1. Loss hedge

As a broader comment on regulatory frameworks, AEMO considers this round of consultation will provide information on industry preferences between the continuation of the MLF framework or a change to dynamic losses with an associated hedging instrument. AEMO looks forward to reviewing industry feedback which will implicitly or explicitly comment on the pros and cons of:

- remaining with the current MLF framework in which AEMO effectively provides an annual hedge for participant loss risk; or

- a framework in which participants directly face the marginal value of losses in the dispatch price and then manage this risk through a separate risk product.

If dynamic losses are chosen, then a loss hedge may need to be developed. This is something that AEMO could develop and operate if required. On a preliminary basis, AEMO would favour a separate loss hedge that auctions unit rights to loss settlement residue. This is because there is no unique way to allocate loss rents across the system, because the losses which occur due to one particular user of the grid depend upon the net injections and net withdrawals at every other point on the grid. As such, the loss revenues are not uniquely divisible between users of a network. It is also likely to be easier for participants to determine what financial protection they need than it is for a third party to set levels of protection.

1.1.2. Auction Revenue Rights

Auction revenue rights are a key market design element of FTR markets in other jurisdictions with multiple TNSPs and therefore would be applicable to the NEM.

When there are multiple TNSPs, a single FTR may cross the territory of a number of TNSPs, meaning that it is important to specifically define the paths and capacity from which each TNSP will derive revenue rights. Recognising that an auction of hedge will be held, these rights are usually called Auction Revenue Rights (ARRs). Such rights are implicit in the transmission access proposals but are not specifically defined in the AEMC's transmission access model.

In the context of the AEMC's model for transmission access, ARRs would assist in returning auction revenue to the relevant customers according to TNSP region and managing FTR paths that traverse multiple TNSP areas.

1.1.3. TNSP incentives

It follows from the ARR discussion that the transmission access model may require further consideration so that there are appropriate incentives on TNSPs to:

- provide accurate information on the size of the network that can be auctioned as FTRs; and

- to maintain this size of network throughout the tenor of FTR products to ensure outages do not create disproportionately large calls on settlement reside.

AEMO considers that this area would benefit from further investigation and subsequent consultation by the AEMC.

A sound TNSP incentive scheme will safeguard auction revenue being returned to customers. However, an overly punitive regime would be funded by consumers through the TNSP regulatory framework. Therefore, close examination of appropriate incentive regimes is required along with an appropriate level of consultation.

1.1.4. FTR product suitability for variable renewable energy

The latest AEMC design document outlines two FTR product options: continuous rights and time of use rights. If stakeholder feedback suggests these are not satisfactory to manage financial risk, further design work and consultation by the AEMC should be undertaken to determine appropriate product definitions. For example, if wind farm operators do not consider that FTR products suit their business model, AEMO may find itself publishing procedures that are unworkable for a large and emerging part of the NEM.

Legal and licencing requirements for a workable design

1.1.5. Market and financial licences

Prior to establishing an FTR market, AEMO will need a level of confidence that it will be able to obtain the necessary market and financial service licences or an exemption. If AEMO were to operate a financial derivatives market there are three licences it may be required to hold, namely: an Australian Financial Services Licence; an Australian Market Licence; and an Australian Clearing and Settlement Facility Licence. In the absence of legal exemptions, the Australian Securities and Investment Commission would determine what level of regulation would apply to an AEMO-operated FTR market.

AEMO asks the AEMC to provide support to the process by jointly approaching the National Cabinet of Energy Ministers to consider potential options for an exemption to operate the FTR market. Alternatively, the Rules could include a sunset clause, should AEMO be unable to obtain a licence or exemption within a reasonable timeframe.

1.1.6. National Electricity Law

Similarly, AEMO is aware that changes to the National Electricity Law NEL 49(1) could be required for AEMO to establish and operate an FTR market. The FTR market may be considered a separate function to AEMO's role in 'operating and administering the wholesale exchange'. Therefore, a NEL change may be required to extend this role. If this is the case, the relevant NEL changes should be included in the package that goes to Energy Ministers at the end of this year. AEMO raises this as an issue for clarification by the AEMC.

2. AEMO cost and implementation

AEMO has undertaken a very high-level indicative and preliminary costing exercise to assist the AEMC in considering costs as well as benefits. AEMO cautions that the costing process it would normally go through has not occurred due to limited time and limited design detail. AEMO also considers that substantial detailed design work needs to be carried out and consulted on prior to any Rule drafting taking place.

To assist market bodies, government and participants understand the possible order of magnitude and the breadth of systems affected, a high-level estimate is provided, indications of which AEMO systems would need to change to accommodate COGATI reform.

AEMO undertook a cost exercise and drew on internal and externally available resources to determine and benchmark our estimate. For example, vendor costs for new IT platforms for NEMDE and the FTR auction were taken from the HARDSoftware estimate undertaken for the

AEMC[1] and we were able to benchmark against other jurisdictions using NERA's jurisdictional review for the AEMC[2].

The key high-level assumptions used in our costing process include:

1. The estimate is based on AEMC high level design as at September 2020. As such this estimate is based on what AEMO considers to be high level market design.
2. AEMO assumes implementation begins Q4 2021 and goes for 3 years.
3. Other possible NEM2025 reform were considered out of scope for this costing project.

AEMO cost estimate – transmission access reform	
10-year total cost of ownership (TOC) (indicative, preliminary estimate)	$300m +/-30%

The high-level breakdown of this total cost is shown in the table below.

Element	**10-year TOC ($m)**
IT (vendor costs, AEMO IT systems)	177
Market Design, Rules, Financial Licensing	15
Program Management	14
FTR function	28
Business Change (markets, operations, planning)	57
Readiness	10
	$300
Contingency:	± 30%

To arrive at this cost estimate, we also undertook internal estimates for IT integration for directly impacted and adjacent systems; market design, rules and financial licencing; program management; the FTR function; business change and procedures; and training and readiness. A range is provided because there is upside and downside risk mainly related to vendor negotiation; availability and cost of FTR and NEMDE experts and actuaries; complexity in managing a multi-streamed project; and the need to run concurrent wholesale market systems during the training and testing period.

[1] https://www.aemc.gov.au/sites/default/files/2020-09/IT%20costs%20of%20implementing%20NEM%20locational%20_ng%20-%20Hard%20Software%20-%20Information%20Technology%20costs%20of%20nodal%20pricing%20-%202020_09_07.PDF

[2] https://www.aemc.gov.au/sites/default/files/documents/nera_benchmarking_consultant_report_-_aemc_transmission_access_reform_-_march_update.pdf