ABN 70 250 995 390
180 Thomas Street, Sydney
PO Box A1000 Sydney South
NSW 1235 Australia
T (02) 9284 3000
F (02) 9284 3456

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Ms Anna Collyer
Chair
Australian Energy Market Commission

Lodged online: www.aemc.gov.au

Project Ref: ERC0386

Dear Anna,

AEMC's IRSR arrangement for transmission loops

Transgrid welcomes the opportunity to respond to the Australian Energy Market Commission's (**AEMC**) draft decision on Inter-regional settlements residue (**IRSR**) arrangements for transmission loops. The AEMC's draft decision creates a new method for allocating negative IRSR in transmission loops.

Transgrid understands that the draft decision has the following elements:

- All negative IRSR would be allocated to transmission network service providers (**TNSP**) in proportion to regional demand, and then recovered from customers via transmission charges. This is regardless of if the net loop residue is negative or positive.
- Maintains the settlements residue auctions (**SRA**) framework.
- Will not impose additional clamping requirements, and supporting Australian Energy Market Operator's (**AEMO**) intended approach to clamping in the loop.

The draft rule will impose a high and unnecessary risk on consumers and TNSPs.

- Consumers in NSW, SA and Vic will experience a step-change increase in Transmission Use of System (**TUOS**) prices (and energy bills) as a result of the increased frequency, value and volatility of negative IRSR that will arise in the transmission loop. Market modelling indicates this could amount to an extra $50 million added to bills in 2030 under normal conditions, but it could foreseeably add tens- or hundreds- of millions of dollars more to consumer bills under atypical market conditions. Transgrid does not consider that these costs or volatility should be allocated to consumers.
- TNSPs will be exposed to large and volatile cashflow risk. The introduction of unclamped loop flows within the NEM increases the value and volatility of negative IRSR that may arise, and the related cashflows and week-to-week variability have the potential to become very large relative to TNSP revenues. This will impact the affected TNSP's cashflows, credit metrics and financeability. TNSPs should not be materially exposed to wholesale market outcomes, as the inherent volatility and

unpredictability is inconsistent with the stable and predictable cashflows required by a regulated network business.

The draft rule does not propose to net positive and negative IRSR that arise around the loop. Negative IRSR on one part of the loop will frequently arise in support of greater positive IRSR on another part of the loop, creating an overall net positive residue (and facilitating market efficiency). The draft rule would see consumers fully exposed to the associated negatives while market participants and traders benefit from the opportunity created in SRA from higher and more volatile positive IRSR. Transgrid considers that it would be more reasonable to net off the negative IRSR from positive IRSR (particularly when they occur in the same trading interval as they are inextricably linked to one another) because this would allocate upside and downside exposures more equitably and would reduce direct costs allocated to consumers by an estimated $40 million in 2030 (approximately 80% reduction).

We strongly encourage the AEMC to make a reasonable rule that addresses key concerns. This will ensure that a suboptimal decision is not made and that the industry is not left with a rule that will need to be revisited to address negative consequences that will arise. It will be difficult to unpick precedent set now and the flow-on impacts to SRA once they begin for the loop that will be formed once Project Energy Connect (**PEC**) is commissioned. loop.

Key concerns

The AEMC has stated that in a transmission loop, negative IRSR is expected to occur more often and may be large and unpredictable. This poses financial risks to consumers and TNSPs. Given this prediction, our key concerns are outlined below.

- The draft rule would increase consumer bills, by allocating additional costs to TNSPs to be recovered from consumers via TUOS. Consumers are already experiencing cost-of-living pressures and very high energy bills, so alternative approaches that would minimise bill impacts for consumers should be prioritised.

- The proposal allocates risks and benefits asymmetrically, whereby consumers (via TNSPs) are fully exposed to all negative IRSR that accrue from loop flows but are only partially benefiting from positive IRSR (via the proceeds of SRA). Consumers currently only realise approximately 50% of the value of positive IRSR that arise in the market returned in SRA proceeds. Given this history, it is unlikely that the theoretical and indirect benefits that may flow to consumers from higher positive IRSR (such as the potential for higher SRA proceeds or greater market competition from inter-regional hedging) will outweigh the actual costs associated with negative IRSR that will be directly added to consumer bills under the draft rule.

- The proposed changes will expose TNSPs to greater cashflow uncertainty. Market Modelling by Acil Allen indicates that total negative IRSR accruing to TNSP in the transmission loop could be $50m in 2030 with annual variability of up to 300%[1]. In extreme market conditions, tens of millions of dollars in negative IRSR may accrue in the space of a few hours, and if these events are

[1] https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/pec-market-integration-paper/directions-paper-for-consultation/modelling-the-settlement-effects-of-pec---final-report.pdf?la=en

clustered, it is possible that the negative IRSR that actually arise over a year may be an order of magnitude higher than forecasted. TNSP would require substantial working capital facilities to draw upon at short notice to manage this exposure for up to two years until overs and unders can be fully recovered in TUOS.

- Recent demands and trends, when considered collectively, have the potential to impose significant cashflow risk on TNSPs. These include:
    - TNSPs are responsible for enablement payments for system strength services that are linked to wholesale market outcomes,
    - recent volatility in the variance between budgeted and actual intra-regional and inter-regional residues, and
    - the large financial investment required to build out transmission to meet net zero targets.

  These factors have the potential to place TNSPs in an undesirable financial position that will increase financing costs and cashflow risks and ultimately affect financeability and credit metrics.

- Given the AEMC is proposing to allocate settlement residue in proportion to regional energy demand, NSW (and by extension Transgrid) will be allocated over half of all negative IRSR arising in the transmission loop. Given the underlying quantum to be shared is highly variable and unpredictable, this proposal for cost-sharing does not alleviate Transgrid's concerns about cashflow risk.

Transgrid commissioned modelling

Transgrid commissioned its own indicative market modelling of loop flow settlement residues, and the results are as follows[2]:

- The draft determination would result in significant costs being allocated to consumers (and TNSPs) in NSW, Vic and SA. In the period to 2040 this could be as high as $63 million per annum.
- These exposures would fluctuate dramatically from year to year. In some years negative IRSR may be relatively low (less than $5 million), and the following may be an order of magnitude higher. This highlights the inherent unpredictability and volatility of costs, and the related consequences for TUOS stability and TNSP cash flows. It is likely that the actual volatility of IRSR in practice will be even greater than forecast, given that market modelling tends to represent the electricity market in an idealised and steady state way, and does not often predict periods of market stress (and extreme pricing) which occur periodically.
- Negative IRSR from loop flows are more concentrated during certain months of the year and fluctuate significantly on a week-to-week basis. For example, the results suggest that as much as $24m in negative IRSR could accrue on a single day in early July (representing 86% of the total

[2] Results reflect AEMO 'Step Change' scenario assumptions

negative IRSR for that financial year). This intra-period cashflow volatility is also challenging for TNSPs to manage (even if annual forecasts are accurate) because large and unexpected payment obligations are not matched to stable revenue collection throughout the year.

- There is potential for large and variable negative IRSR to arise under circumstances when the loop has overall net positive and net negative residues. AEMO clamping procedures would be important in managing net negative exposures.

- Negative IRSR that arise in the loop flows would generally be very small compared to the substantial positive IRSR that arise (typically less than 5%), which range from approximately $150 million to over $1 billion per annum to 2040. This suggests that negative IRSR could be netted off from positive IRSR without materially reducing the value of SRA or the liquidity of inter-regional hedging. It also suggests that market participants would be better placed to manage negative IRSR because they could use SRA to moderate risk exposure (while consumers and TNSPs have no equivalent risk management tools available to them).

Alternate considerations

If the AEMC is minded in continuing to pursue a final rule in relation to this issue, we urge the AEMC to consider the following alternate solutions.

1. **Netting off positive IRSR and negative IRSR, particularly where they occur as part of related loop flows in the same trading interval.**

   We understand the draft decision proposes to allocate all negative IRSRs to TNSPs. We would encourage the AEMC to consider allocating only net negative settlement residues to TNSPs and consumers. Transgrid considers that it is not reasonable that energy consumers should ultimately bear full exposure to negative IRSR but only partial and indirect receipt of the benefits of the corresponding positive IRSR (via SRA proceeds). Netting off positive and negative IRSR would limit the frequency, quantum and volatility of IRSR to be allocated to TNSPs (and consumers), and the associated financing costs and cashflow risks.

   AEMO's market modelling suggests that this approach would reduce negative IRSR allocated to TNSPs/consumers by at least 80% in 2030 (compared to the Draft Determination) and would result in a marginal decrease of less than 10% in positive IRSR to be auctioned. SRA would still be liquid and competitive, and given the existing variability in SRA proceeds, the impact on auction proceeds and outcomes would likely be negligible.

2. **Establishing a working capital facility managed by AEMO to manage intra-period year cashflow volatility.**

   The establishment of a facility managed by AEMO that would fully recover negative IRSR costs from TNSPs, but would align recovery with TUOS revenue receipts, and manage cashflow exposures in the interim.

   A similar facility was recently established by the UK NESO (power system operator) to manage the cashflow risk arising from the difference in forecast and actual real time balancing charges

(**BSUoS**) which can be volatile and unpredictable, and which are ultimately recovered from consumers in regulated tariffs.

3. **Setting an upper limit on the level of negative IRSR that can accumulate in each monthly or annual period to create an exposure threshold for impacted parties.**

   This could be achieved in several ways, for example:

   - Administered pricing arrangements,
   - interconnector clamping, or
   - reallocating further negative IRSR that accumulate.

We would encourage the AEMC to consider the above-mentioned solutions.

Conclusion

We urge the AEMC to make a reasonable rule that minimise impacts on both consumers and TNSPs rather than making a final rule that is consistent with the draft decision as this would be a suboptimal decision. We believe it will be very difficult to amend a precedent that is set now and the flow-on impacts to SRA once they begin for the PEC loop.

We acknowledge that the AEMC has stated that it will undertake a review that will examine whether SRA arrangements are providing the best outcomes for consumers and market participants more broadly in 2025-26. We welcome this review given the latest trends that we are experiencing as outlined above. We believe this is an important step to mitigate risks for both consumers and TNSPs.

We look forward to working with the AEMC to finalise the final rule. If you or your staff require any further information or clarification on this submission, please contact Zainab Dirani, Policy and Advocacy Manager at zainab.dirani@transgrid.com.au.

Yours faithfully

Monika Moutos

General Manager of Regulation, Policy and Governance