5 September 2024

Anna Collyer
Chair
AEMC

Lodged online: https://www.aemc.gov.au

Dear Ms Collyer,

Inter-regional settlements residue arrangements for transmission loops – Consultation Paper

Origin Energy Limited (Origin) welcomes the opportunity to provide feedback on the AEMC's Consultation Paper on inter-regional settlements residue (IRSR) arrangements for transmission loops.

Financial markets, including trading in settlement residue distribution (SRD) units, are integral to the risk management practices that facilitate inter-regional trading. This allows market participants to hedge against differences in prices across regions, which in turn shields end consumers from high prices. These hedging strategies ultimately benefit consumers through more competitively-priced offers.

SRD units have historically been non-firm but remain critical to promoting inter-regional trade through interconnectors such as EnergyConnect. Any IRSR arrangement that further reduces the firmness of these instruments will have adverse effects on liquidity and trading across interconnectors. We therefore consider that a key assessment criterion in deliberating on this rule change should be to preserve the value of SRD units consistent with good consumer outcomes. In practice, this means:

- Continuing to recover negative IRSR from transmission network service providers (TNSPs); and
- If re-allocating negative IRSR would lead to better distributional outcomes for consumers, ensuring that positive residues remain unchanged. Specifically, we do not support any netting of positive and negative residues.

We expand on these points below. We also provide preliminary feedback on the alternative options set out in the Consultation Paper, noting that we continue to agree with AEMO's proposal to re-allocate negative residues only, consistent with the principles above.

Financial markets are integral to inter-regional trading and good consumer outcomes

Inter-regional trade is a key feature of the National Electricity Market (NEM) and has delivered significant benefits over the years. These include enhancing competition, sharing system security services, diversifying loads, enabling power transfers from low-cost to high-cost regions, and providing investment signals for generation and transmission.[1] Market participants operate sophisticated multi-regional portfolios to deliver these benefits, encouraging efficient market outcomes supported by interconnectors such as EnergyConnect.

However, engaging in inter-regional trade introduces participants to basis risk, which arises when exposed to potential price differences between regions. To manage this risk, entities utilise the financial contract market, employing risk management strategies that involve a combination of swaps, options

[1] ERIG, Energy Reform: The way forward for Australia (p229), https://www.environment.gov.au/system/files/energy/files/erig_main_report20070413181231.pdf

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and SRD units. These units, therefore, are a critical component of risk management practices that facilitate inter-regional trading across the NEM.[2]

Analysis by the Energy Reform Implementation Group (ERIG), which was convened by the Australian Government, has shown that inter-regional hedging strategies incorporating SRD units can result in lower net purchase costs compared to purely intra-regional hedging strategies. This finding highlights the value of SRD units in maintaining an efficient market where the cost of risks is ultimately borne by consumers.[3]

The value of SRD units should also be considered within the context of the broader financial contract market due to their role in enhancing liquidity and firming trade across regions. For example, in low-liquidity environments such as South Australia, VICSA and SAVIC SRD units enable effective replication of Victorian swap positions into South Australian swaps.[4] This helps to foster competition in regions that might otherwise suffer from a lack of market participants.

The benefits of risk management practices also accrue to consumers. Retail customers typically buy electricity from energy retailers at contract prices rather than being exposed to regional spot prices. As such, by hedging risks through SRD units, market participants can significantly reduce their – and in turn, their customers' – exposure to high price events.[5] By firming future wholesale revenue and costs through such risk management strategies, risk premiums within consumer profiles and contracts are lowered.[6]

SRD units remain critical to the management of inter-regional trading risks

The Consultation Paper notes that auction proceeds are often lower than the positive IRSR accrued and finds this surprising given the risk management benefits that SRD units provide to market participants.

While historically the residues distributed have exceeded auction proceeds, this outcome is attributable to the non-firm nature of the SRD unit, where participants receive the right to uncertain future cash flows. The residues that are distributed to SRD unit holders are dependent on actual interconnector flows and the magnitude of regional price differences, which are often highly variable. The shortfall in auction proceeds relative to residues, therefore, reflects the financial market's pricing of the lack of firmness in SRD units, rather than a limitation of the auction process itself.[7]

Past AEMC reports have also observed that the extent of the residue excess over auction proceeds is correlated with the firmness level of an interconnector. For example, previous AEMC analysis has shown that the average excess on the Victoria-South Australia interconnector was smaller than on the less firm Queensland-NSW interconnector.[8] Importantly, the non-firm nature of SRD units does not mean they

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[2] ERIG, Review of Energy Related Financial Markets (p57), https://www.environment.gov.au/system/files/energy/files/financial_markets_review_kpmg20070413120316.pdf
[3] ERIG, Review of Energy Related Financial Markets (Appendix C), https://www.environment.gov.au/system/files/energy/files/financial_markets_review_kpmg20070413120316.pdf
[4] Ibid. (p59)
[5] AEMC, Spot and contract markets, https://www.aemc.gov.au/energy-system/electricity/electricity-market/spot-and-contract-markets
[6] AEMC, Final Stage 1 Report, Reporting on drivers of change that impact transmission frameworks (p19) https://www.aemc.gov.au/sites/default/files/content/324ccd88-527c-4c2c-8711-c3f21c4e5eed/Final-stage-1-report.PDF
[7] Ibid. (p53)
[8] AEMC, Congestion Management Review – Directions Paper (p24-25), https://www.aemc.gov.au/sites/default/files/content/5fe3e9de-c0cd-4d4a-95e7-2ba19db3ab96/Directions-Paper-12-March-2007.pdf

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are not valuable. As set out above, they form a critical part of market participants' risk management strategies.

Introducing netting of positive and negative residues, or any arrangement that affects the positive IRSR pool distributed to SRD unit holders, would further diminish the firmness of the already non-firm financial instrument. This would undermine the usefulness of SRD units in managing risk, which is crucial to participants' willingness to contract between regions. If participants cannot obtain sufficient hedge cover, they may opt to not contract across regions, reducing the potential contracting pool at load centres and limiting competition in the contract market. As recognised by the AEMC when it decided to remove IRSR netting, reduced competition can lead to inefficient market outcomes and negative consequences for consumers.[9]

Any IRSR arrangement should seek to preserve the value of hedging markets

Given the above, Origin considers that any IRSR implementation option for transmission loops should seek to preserve the value of the SRD units to promote participants' ability to manage inter-regional risk, and ultimately, support good consumer outcomes.

The proposed assessment framework appropriately identifies good consumer outcomes as a criterion. To complement this, we suggest adding a criterion that explicitly captures the value of hedging markets (e.g. "preserving the value of SRD units"). Adding this criterion would ensure the AEMC's deliberations balance all aspects of the framework in the long-term interest of consumers.

For the remainder of this submission, we provide feedback on AEMO's proposed solution and the alternative options set out in the Consultation Paper by the AEMC, applying the principles above.

AEMO's proposed solution

Origin previously provided feedback to AEMO on how to integrate EnergyConnect into the market. In our submission to the Directions Paper,[10] we agreed with AEMO's approach to re-allocate negative residues only and to continue to recover these from TNSPs. This is because this approach is consistent with preserving the value of SRD units. Our view on AEMO's proposal in the rule change request, which reflects this position, remains the same.

AEMC notes that a potential drawback of AEMO's proposal is that negative IRSR costs (passed through as network costs to consumers via transmission use of system charges) may be recovered from higher-priced regions in some loop flow configurations. As previously noted, consumers are not directly exposed to spot prices. The wholesale component of retail prices is determined using a risk-adjusted hedged book which is typically built over several years in order to minimise exposure to high spot prices. This means that pricing impacts on end consumers may not easily be observed through pool prices only. This dynamic should be considered when determining the distributional impacts of flows around a transmission loop.

AEMO has previously noted that allocating negative residues to TNSPs could create cashflow issues due to a two-year lag in when the costs are incurred and when businesses can recover them from

[9] AEMC, Final Rule Determination (Arrangements for Managing Risks Associated with Transmission Network Congestion) Rule 2009 (p6-7 & 42), https://www.aemc.gov.au/rule-changes/arrangements-for-managing-risks-associated-with-tr

[10] Origin, Submission to Directions Paper (p1), https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/project-energy-connect-market-integration-paper/submissions-to-directions-paper/origin.pdf?la=en

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consumers. As noted in our submission to AEMO,[11] to the extent it becomes a significant problem, it should be resolved by examining potential changes to the economic regulation framework for transmission network businesses, rather than by making changes to SRD units that would erode the value of inter-regional hedging. This point applies to AEMO's proposal, and any other alternative option contemplated by the AEMC which may have similar implications for TNSPs.

Alternative options

While there is not enough information on each of these options for Origin to form a firm view, we consider any option should seek to preserve the value of SRD units by:

- Continuing to recover negative IRSR from TNSPs; and
- If re-allocating negative IRSR would lead to better distributional outcomes for consumers, ensuring that positive residues remain unchanged. Specifically, we do not support any netting of positive and negative residues.

We provide some comments in Table 1 that reflects this.

If the AEMC proceeds with any alternative solution, we suggest it should set out more detailed information on each option to allow stakeholders to provide more comprehensive feedback. This should include public consultation (e.g. an Options Paper) on each option, how they affect cost recovery and SRD units, and how they compare to the status quo and to AEMO's proposal.

Table 1: Preliminary feedback on alternative options

Alternative options	Origin comments
Option 1: Apply the current IRSR arrangements to transmission loops	We understand that this option would not introduce any re-allocation and would retain the status quo, i.e. allocate/recover negative IRSRs to/from the importing TNSP. This option would likely preserve the value of SRD units, but the distributional impacts with respect to cost recovery from TNSPs compared to AEMO's proposal are not entirely clear. More information should be provided on this aspect.
Option 2a: Reallocate both positive and negative IRSR	The Consultation Paper notes that this option would re-allocate both positive and negative IRSR in proportion to the total magnitude of IRSR accrued. It notes that AEMO decided against this approach as it would re-allocate some of the net positive IRSRs to interconnectors with negative residues.[12] We understand that this option would, in effect, erode the value of the SRA pool. It is not clear to Origin how this differs from Option 3, which has similar outcomes. We suggest more information should be provided on this option.

[11] Ibid. (p1)
[12] AEMO, PEC Market Integration Directions Paper (p33), https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2022/pec-market-integration-paper/directions-paper-for-consultation/pec-market-integration---directions-paper-for-consultation.pdf?la=en

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	We note alternative methods could be used, such as only re-allocating positive residues across the loop, separate from negative residues. This would still affect hedging markets since the value of bi-directional SRD units would be changed.
Option 2b: Reallocate negative IRSR to positive limbs using a different metric	As a principle, if only negative IRSRs are re-allocated using a metric other than the proportionate approach proposed by AEMO, the value of SRD units may be preserved. This would not be the case if all residues, including positive, are re-allocated. However, we note that AEMO had previously ruled out other allocation metrics. It is also not clear to Origin what the distributional impacts would be for cost recovery. More information is therefore welcome.
Option 2c: Reallocate negative IRSR amongst all limbs	We understand this option would seek to allocate negative residues evenly across all three TNSPs. Once again, assuming only negative residues are allocated, it is likely that the value of hedging markets would be preserved. In terms of distributional impacts on consumers, this option could be useful if net consumer impacts are difficult to determine since the re-allocation would smear the costs amongst all limbs.
Option 3: Change the separation of positive and negative IRSR	We understand this option would explicitly net positive and negative residues, either fully, or in some other way. We do not support netting or otherwise eroding the value of SRD units.

If you wish to discuss any aspect of this submission further, please contact Megan Findlay at Megan.Findlay@originenergy.com.au or by phone, on +61 434 934 793.

Yours sincerely,

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