



5 September 2024

Australian Energy Market Commission
Level 15, 60 Castlereagh Street
Sydney NSW 2000

RE: ERC-0386 Inter-regional settlements residue arrangements for transmission loops

About Shell Energy in Australia

Shell Energy is Shell's renewables and energy solutions business in Australia, helping its customers to decarbonise and reduce their environmental footprint. Shell Energy delivers business energy solutions and innovation across a portfolio of electricity, gas, environmental products and energy productivity for commercial and industrial customers, while our residential energy retailing business Powershop, acquired in 2022, serves households and small business customers in Australia.

As the second largest electricity provider to commercial and industrial businesses in Australia¹, Shell Energy offers integrated solutions and market-leading² customer satisfaction, built on industry expertise and personalised relationships. The company's generation assets include 662 megawatts of gas-fired peaking power stations in Western Australia and Queensland, supporting the transition to renewables, and the 120 megawatt Gangarri solar energy development in Queensland. Shell Energy also operates the 60MW Riverina Storage System 1 in NSW. Shell Energy Australia Pty Ltd and its subsidiaries trade as Shell Energy, while Powershop Australia Pty Ltd trades as Powershop. Further information about Shell Energy and our operations can be found on our website [here](#).

Key Points:

- Shell Energy does not support the proposed rule change and instead supports retaining the current approach to cost recovery of negative inter-regional settlement residues (IRSR) and the allocation of settlement residue distribution (SRD) unit auction proceeds to transmission network service providers (TNSP's) in the importing region.
- Shell Energy supports the current process which distributes all positive IRSR's to SRD unit holders.
- The proposed netting approach to reallocate the costs of negative IRSR's around an interconnector loop by allocating these costs to TNSP's in the exporting region should not be pursued. Should the Commission determine that the cash flow risk from negative IRSR's for TNSP's in an importing region are unacceptable, we favour an alternative approach to managing cash flow issues for TNSPs that does not interact with NEM dispatch and settlement mechanisms.

¹By load, based on Shell Energy analysis of publicly available data.

² Utility Market Intelligence (UMI) survey of large commercial and industrial electricity customers of major electricity retailers, including ERM Power (now known as Shell Energy) by independent research company NTF Group in 2011-2021.

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Settlement Residue Auctions

Shell Energy believes that it is critical to retain the current approach for the distribution of positive IRSR's to Settlement Residue Auctions (SRAs) distribution unit holders to ensure that they continue to provide value as a risk management instrument for market participants.

We note the Commission's view that;

The Commission considers inter-regional trade is essential for the NEM to function efficiently, to continue encouraging investment, and to maintain retail competition.³

We therefore support the proposal contained in the Rule change to continue to pay positive settlement residues on each individual interconnector to settlement residue distribution (SRD) unit holders and to add NSW-SA and SA-NSW units. This approach will ensure that retailers can continue to hedge their price risk for loads in various regions and will support continued efficient delivery of retail products to consumers. We consider any change to this approach would be highly detrimental to the efficient operation of the market as a whole and would deliver negative outcomes to consumers due to retailers potentially being unable to effectively hedge their risk across regions. This would lead to lower liquidity in exchange traded and over-the-counter futures markets and higher costs to consumers.

Whilst the Commission has raised concerns that historically the value of auction proceeds have been less than the value of positive IRSR's payouts, we consider that this outcome has also led to lower wholesale price outcomes to consumers than would otherwise be the case had the auction proceeds been equal to the positive IRSR's payouts. It should also be noted that the act of auctioning the SRD units results in a competitive process where the best price for the SRD unit is received taking into account known and unknown risks and uncertainty which will impact positive IRSR's payouts. Shell Energy considers that any changes to these current arrangements will only reduce the value of the SRD units and result in higher costs to consumers through both lower SRD unit auction proceeds and higher wholesale market costs for inter-regional price hedging.

Reallocation of the Costs of Negative IRSR's to TNSP's in the Exporting Region

Shell Energy does not support the primary proposal of the rule change request to reallocate the costs of negative IRSR's arising from an inter-regional network loop to TNSP's in another importing region(s) where positive IRSR's accrue. Despite assertions by the rule change proponent that allowing negative IRSR's increases the level of positive IRSR's to another region(s) in the presence of an inter-regional alternating current (AC) network loop, the proponent has provided no data or analysis to support this assertion.

We agree with the view that implementing an inter-regional AC network loop will result in frequent trading intervals of negative IRSR's on a least one and potentially multiple flow paths in the loop due to the known issue of the "spring washer effect". Under the current rules the costs of any negative IRSR's would be passed through to consumers in the lower priced importing region(s). This would somewhat offset the benefit received by these consumers from the lower price outcomes due to the counter-price flows. Continuing the current arrangement ensures that costs and beneficiaries remain aligned. The proposal to allocate the costs of negative IRSR's to consumers in another importing region(s), where higher prices are already being paid to facilitate the counter-price export flows, would see these consumers penalised through higher transmission use of system (TUOS) charges even though they receive no lower wholesale price benefit. This would be in addition to TUOS costs imposed on consumers in the New South Wales and South Australia regions to construct the PEC network assets.

³AEMC Consultation Paper page 27



Allocating all negative IRSR's to the importing region has the benefit of dampening the impact of the "spring washer" effect which is inherently active as a result of implementing an inter-regional AC network loop in an electricity market with nodal dispatch but regional settlement such as the NEM in the presence of intra-regional constraints located remote from the regional reference node.

Shell Energy supports and agrees with the Commission's view that;

Our analysis does not show any obvious misalignment of costs and beneficiaries if negative residues in a transmission loop were to be allocated to importing TNSPs. Therefore, the Commission has not found there to be a clear problem in applying the current arrangements to a loop.⁴

Accordingly, Shell Energy supports the retention of the current arrangement where the costs of negative IRSR's on a specific inter-regional flow path are recovered only from the importing region on that specific inter-regional flow path.

Shell Energy does not support any of the proposed alternatives discussed in Sections 3.3.2 or 3.3.3 of the Consultation Paper due to the increased complexity of the allocation method and the potential for these alternatives in some cases to impact the ability for SRD units to manage inter-regional price basis risk.

It should be noted by the Commission that due to the potential for increased negative IRSRs that Shell Energy did not support the integration of Project Energy Connect (PEC) as an inter-regional AC network loop in the NEM. We remain of the opinion that dispatch, pricing and consumer outcomes in the NEM would be superior had PEC been integrated as a micro-slice through the Victorian Region with the no-load substation of Buronga notionally allocated to the Victorian Region to facilitate this. We note the rule change proponent did acknowledge that instances of negative IRSR's would be less frequent and of lower value across the PEC flow path if PEC was integrated as a micro-slice through the Victorian Region. Shell Energy believes this would then have been more easily managed to prevent the increased costs to consumers of implementing PEC as an inter-regional AC network loop.

We note that the integration of Stage 1 of PEC will be made as a micro-slice through the Victorian Region where the impact on dispatch, counter-price flows and IRSR's can be readily observed in the NEM.

TNSP Cash Flow and Negative Settlement Residues

As discussed above, Shell Energy sees no clear rationale for changing the current arrangements for recovering the costs of negative IRSR's to remedy the cash flow concerns raised in the consultation paper. The implementation of PEC using an inter-regional AC network loop flow model has given rise to concerns regarding cash flow for TNSPs and equity for consumers in impacted regions. However, we consider the proposed solution creates a cross-subsidy between consumers in different regions which should be avoided.

AEMO's argument in support of implementing PEC using a loop flow model is that it promotes the most efficient dispatch and settlement outcome. They noted that negative IRSR's may result from efficient dispatch using this approach and that this benefits consumers in the importing region. Shell Energy also notes that implementing PEC as an inter-regional AC network loop is equally likely to result in inefficient dispatch outcomes due to binding remote intra-regional constraints of which there are many associated with the proposed AC network loop associated with integrating PEC in the NEM.

Nevertheless, we acknowledge the potential for greater and more frequent negative IRSR outcomes due to the inter-regional AC network loop flow model being implemented for PEC and the resultant potential for cash flow

⁴ AEMC Consultation Paper page 21



issues to arise for TNSPs. Given this, we support a solution to limit cash flow risk for TNSPs that does not require fundamental change to the existing dispatch, pricing, and settlement processes in the NEM.

Shell Energy's preferred approach is to amend the current framework for calculation of Transmission Use of System (TUOS) charges. The current approach adjusts TUOS prices based on an ex-ante calculation of forecast SRA proceeds adjusted for potential negative settlement residues. We propose that doing this calculation on an ex-post basis would greatly assist with cashflow risk as payments would reflect actual outcomes. The amended framework would make no allowance in the calculation of annual TUOS payments for forecast net SRD units auction proceeds. These proceeds would be held in trust by AEMO and used to fund weekly settlement of negative IRSR outcomes with distribution of net funds to TNSPs at final settlement for each calendar quarter. In the event that net negative IRSR's accrue prior to the end of the quarter, these would be paid on a weekly settlement basis by the relevant TNSP, in line with the current framework. Annually, SRD unit auction proceeds and negative IRSR's payments would be assessed and adjustments to the following year's TUOS payments made as required. We consider that such adjustment to annual TUOS payments would be of lower magnitude than the current ex-ante calculation process and allow TNSP's to better manage any cash flow concerns.

For further information regarding this submission, please contact Peter Wormald (peter.wormald@shellenergy.com.au).

Yours sincerely,

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