Australian Energy Market Commission

RULE DETERMINATION

National Electricity Amendment (Secondary trading of settlement residue distribution units) Rule 2017

Rule Proponent
Westpac Banking Corporation

10 October 2017

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About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

Summary

The Australian Energy Market Commission (AEMC or Commission) has made a final rule that amends the National Electricity Rules (NER) to enable the secondary trading of settlements residue distribution units through the Australian Energy Market Operator's (AEMO) settlements residue auctions.

The final rule, which is a more preferable rule, was made in relation to a rule change request submitted by Westpac Banking Corporation (Westpac). The rule change request was aimed at enabling, but not requiring AEMO to provide a mechanism for secondary trading.

Background and rationale

Market participants who operate in more than one region of the National Electricity Market (NEM) may be exposed to price differences between regions. One way to manage this risk is to purchase units that provide the holder with a right to receive a portion of inter-regional settlements residue. These positive inter-regional settlements residues arise when there is a price separation between two inter-connected regions and electricity flows over an interconnector from the low priced region to the high priced region. The difference between the price paid in the importing region and the price received in the exporting region, multiplied by the amount of flow for each interconnector for a trading interval, results in surplus inter-regional settlements residue.

Currently, the NER neither promote nor prohibit the secondary trading of units in general. However, the NER do prevent AEMO from allocating auction proceeds to anyone but the relevant transmission network service provider (TNSP). Therefore, secondary trading through the auction process is effectively prohibited. The current secondary market, which generally only occurs through bilateral contracts, is not anonymous, is illiquid and in many cases, is hindered as a result of the negotiated nature of bilateral contracts. The ability of market participants to hedge and trade electricity across regions is limited by illiquidity of secondary markets.

The rule change request was informed by an informal consultation in 2016 amongst the members of the Settlement Residue Committee (SRC).[1] The AEMC published a consultation paper and a draft determination on the rule change request, and this final determination is informed by stakeholder submissions to those documents.

Changes from the draft rule to the final rule

Stakeholders, in response to the draft rule, indicated that there were practical implementation and operational issues with the draft rule, which would effectively result in the secondary trading mechanism not being implemented.

1 The SRC is a committee that is required to be established under clause 3.18.5 of the NER and is comprised of persons representing generators, market customers (retailers), TNSPs, government, traders, retail customers and AEMO.

These concerns were largely based on the perceived reluctance of secondary traders to enter into trades where their counterparties are unknown, but they are also required to bear the risk associated with counterparty default.

The draft rule has been amended to address concerns raised by stakeholders while balancing the risk of default between the TNSP (and therefore its customers[2]) and secondary traders.

The final rule:

- requires a secondary seller to provide AEMO with a margin when it offers units previously purchased for a loss
- provides that the TNSP bears the risk from a buyer default, where it may:
    - receive a portion of the settlements residue if the buyer's units cannot be re-auctioned by AEMO
    - be required to make a secondary seller whole where the units are re-auctioned by AEMO.

The Commission, in assessing the rule change request, balanced the benefits to consumers from a liquid secondary market in units against the potential increased default risk they are required to manage as a result of the introduction of secondary trading. The Commission is of the view that:

- secondary sellers may have difficulty in managing default risk, given the anonymity of counterparties
- there are likely limited circumstances in which a buyer default could put a TNSP (and hence its customers) in a worse position compared to the status quo
- the additional risk mitigation measure introduced for seller default by way of a margin reduces the risk faced by TNSPs (and their customers) from secondary trading
- the benefits to consumers from a liquid secondary market outweigh any additional risk that the TNSP may face. A more liquid market for inter-regional settlements distribution units is likely to offer better protection against price separation between regions and lead to more efficient inter-regional hedging outcomes. More efficient hedging outcomes may result in lower electricity prices for consumers.

Features of the more preferable final rule

The final rule, which is a more preferable rule, addresses the same issues as Westpac's proposed rule, but takes a different approach with regards to consequences of counterparty default in the secondary market.

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2 TNSPs' customers include market customers directly connected to the transmission network. These customers would see the direct impact of any change in auction proceeds as a result of a change in network charges. In addition, for end-use customers (those connected to the distribution network) the impacts both benefits and costs would likely flow in some way through their retailer.

The final rule:

- enables auction participants to offer their previously purchased settlements residue distribution units (units) at subsequent auctions facilitated by AEMO
- requires AEMO to distribute auction proceeds to either the relevant TNSP or auction participant, as the case may be
- requires secondary sellers to provide a margin at the same time as they submit offers to the auction. In case of a default, AEMO must apply that margin to the amounts owing to AEMO by the defaulting party
- requires TNSPs to be responsible for any shortfall in auction proceeds payable to the secondary sellers arising from a buyer default.

Benefits of the final rule

Having regard to the issues raised in the rule change request, the Commission is satisfied that the final rule will, or is likely to, better contribute to the achievement of the National Electricity Objective (NEO) by:

- allowing market participants to more efficiently manage their hedging risks across regions and therefore more efficiently deliver electricity services to consumers by increasing liquidity in the market for units
- in particular, increased liquidity in the market for units should reduce the risk faced by generators or retailers operating in more than one region. Where the risk faced by the retailer or generator is reduced, consumers will benefit through reduced costs both in relation to the rate of return shareholders expect from the retail or generating business but also, in relation to lower prices paid by consumers
- limiting the risk faced by TNSPs (and therefore their customers) by requiring secondary sellers to bear the risk associated with their own default.

If market participants are better able to optimise their portfolios on a liquid secondary market, that is likely to increase the efficiency of inter-regional trade and competition in retail markets. Consumers also benefit where risks are allocated to the parties that have the information, ability and incentives to best manage the counterparty risks. Secondary sellers are the appropriate party to provide assurance against their own default if that default was going to result in a shortfall in revenue, which would be the case if a secondary seller defaulted after it sold its units for a loss.

Separating buyer default risk that arises from secondary trading from buyer default risk that is associated with the primary market is difficult to implement. The risk profile associated with buyer default risk will not be significantly altered through the introduction of the secondary trading. Buyer default risk is also present and managed by the TNSP in the primary market. This risk is passed on as a cost to consumers.

However, any small increase in buyer default risk is outweighed by benefits provided by the increase in the efficiency of inter-regional trade and competition.

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1 Introduction and background

1.1 Settlements residue

Price separation between regions[3] of the NEM creates risks for parties that contract across those regions. This is because wholesale prices are set at the regional reference price.

Price separation occurs when interconnector capacity is not sufficient to equalise the spot price between a higher priced and a lower priced region in the NEM. If network conditions allow it, electricity flows from a lower priced region toward a higher priced one. In an unconstrained network, with unlimited capacity, this would result in perfectly coupled prices in all regions altered only by network losses. However, there is congestion in the NEM, and interconnectors do not always have enough capacity to allow for the equalisation of prices across regions.

The difference between the price paid in the importing region and the price received in the exporting region, multiplied by the amount of flow for each interconnector for a trading interval, results in surplus inter-regional settlements residue. More broadly, settlements residue is defined in the National Electricity Rules (NER) as "any surplus or deficit of funds retained by AEMO upon completion of *settlements* to all *Market Participants* in respect of a *trading interval*, being either *inter-regional settlements residue* or *intra-regional settlements residue*."[4]

Inter-regional settlements residue can be positive or negative. Negative inter-regional settlements residues arise when counter-price flows occur. Counter-price flows occur when electricity flows from the higher priced region to the lower priced one. There are several reasons why this can occur, including issues with, and errors in, the dispatch process, metering issues, bidding behaviour of scheduled generators, operation of particular transmission constraint equations, misalignment between five minute dispatch and 30 minute settlement periods, and non-compliance with dispatch targets.

The principles of allocation, distribution and recovery of the settlements residue are set out in clause 3.6.5 of the NER. These principles are different for regulated interconnectors and interconnectors that are operated by market network service providers. The rule change request and the Commission's analysis only relate to inter-regional settlements residues on regulated interconnectors (which include all interconnectors in the NEM with the exception of the interconnector between Tasmania and Victoria).

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3 The regions of the NEM include Queensland, New South Wales, Victoria, Tasmania and South Australia. For the purposes of regional pricing in the NEM, the Australian Capital Territory is part of the New South Wales Region.

4 See Chapter 10 of the NER.

1.2 Settlements residue auctions

The principles and requirements of settlements residue auctions are set out in rule 3.18 of the NER. However, the auction rules themselves are developed by AEMO in conjunction with and approved by the Settlement Residue Committee (SRC).[5]

1.2.1 Units and auctions

Current auction rules[6] define units that refer to a particular directional interconnector[7] (unit category) for a particular calendar quarter. There are six unit categories referring to both directions on interconnectors between Queensland and New South Wales, New South Wales and Victoria, and Victoria and South Australia.[8] The maximum number of units in a category is determined and published by AEMO.[9] It is based on the nominal capacity of the interconnector for each direction.[10]

The total number of units in a category that refer to a calendar quarter (also called the relevant quarter) represent the total value of settlements residue accrued in that calendar quarter in that unit category. For example, the 550 units available from New South Wales to Queensland for the second calendar quarter[11] of 2017 represent the total value of inter-regional settlements residue accumulated in that direction, during that time period.

AEMO divides the maximum number of units by twelve, and holds twelve auctions once a quarter, ahead of the relevant quarter. One twelfth (1/12) of the available units is auctioned off at each auction.

Auction participants may submit bids for the price and quantity of units they are willing to purchase. The bid price must be greater than or equal to zero.

The auction has a common clearing price for each unit category and relevant quarter. The auction clearing price is set at the price of the lowest bid that was allocated a unit. All successful participants then pay this price for the units they acquire at the auction. If

5 See clause 3.18.3(d) of the NER. The SRC is a committee that is required to be established under 3.18.5 of the NER and is comprised of persons representing generators, market customers (retailers), TNSPs, traders, government, retail customers and AEMO.

6 See AEMO's website at https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Settlements-and-payments/Settlements/Settlements-Residue-Auction/Rules

7 A directional interconnector refers to a conceptual grouping of all notional interconnectors (i.e. the regulated transmission assets comprising the regulated interconnectors) between two regional reference nodes, with one directional interconnector for each direction of flow

8 See section 4.2 of the Settlements Residue Auction Rules.

9 See AEMO's website: https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Settlements-and-payments/Settlements/Settlements-Residue-Auction/Number-of-units

10 Throughout this final determination, the term 'interconnector' is used to refer to the directional interconnector as described in clause 3.18.1(c) of the NER. In other words, if there is more than one regulated interconnector between two adjacent regions, they constitute a single interconnector.

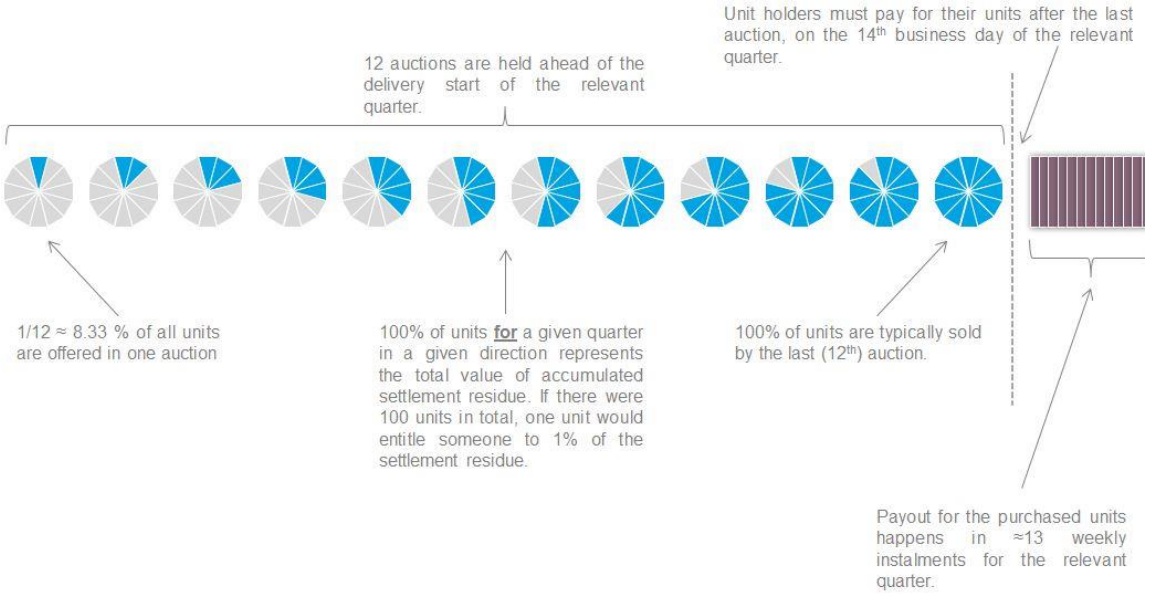
11 The second calendar quarter refers to the time period between 1 April and 30 June.

demand for units is less than the number of units offered at the auction, the clearing price is zero.

Auction participants may start participating in auctions three years (or 12 calendar quarters) ahead of the start of the relevant quarter, however, are only required to pay AEMO for the units they purchased by the 14th business day of the relevant quarter.[12] AEMO must then distribute the proceeds from the auctions to the relevant network service providers.[13]

Figure 1.1 below illustrates the main steps and concepts of the inter-regional settlements residue auction process.

Figure 1.1 Settlements residue auctions



1.2.2 Distribution of instalments

Settlements residue is calculated on a half-hourly basis, and aggregated on a weekly basis. After subtracting the auction expenses, AEMO pays the amounts proportional to the purchased units in weekly instalments. Payments are aligned with payments for the spot market (i.e. approximately five weeks after electricity flowed through the interconnector).

Generally, price differences between regions arise where there is insufficient capacity on the interconnector to equalise prices in adjacent regions. However small the price difference (and hence the weekly aggregated value) is between two adjacent regions, the payout for the corresponding units will not be less than $10 per unit.[14]

12 See section 10.3(c) of the Settlements Residue Auction Rules.

13 See clause 3.18.4(a) of the NER. By way of example, for units relating to the Victoria to South Australia unit category, the relevant network service provider would be ElectraNet.

14 See section 6.1 of the Auction Participation Agreement, which forms Schedule 1 to the Settlements Residue Auction Rules.

As discussed in section 1.2.1, negative settlements residue can and does occur between regions. The risk of this occurring, and the corresponding reduction in payouts, used to sit with the unit holders. Where there was negative settlements residue in a trading interval, the deficit was recovered (deducted) from the weekly positive settlements residue payout. TNSPs were only responsible for any remaining negative settlements residue that was not recoverable from the unit payout.

Since 1 July 2010,[15] however, auction participants do not bear the cost of negative settlement residues. It is instead recovered from the TNSP to which electricity was physically flowing (in the lower priced region) on a weekly basis.

1.2.3 Flow-on effects on TNSP's customers

The TNSPs' regulated revenue is set by the Australian Energy Regulator (AER) for a regulatory control period (typically a five-year period). As part of this process, TNSPs are also required to develop a pricing methodology for the AER's approval.[16] The methodology sets out how much the TNSP will collect in relation to each group of prescribed transmission services in that year, to allow it to collect the relevant portion of its regulated revenue associated with that year.

TNSPs receive the auction proceeds, but are also financially responsible for negative settlements residue for the relevant quarters.

Of importance for this rule change request, the TNSP (as part of its annual pricing methodology) estimates the proceeds it expects to receive from the auction of the relevant units, the negative inter-regional settlement residue and the transmission use of system charges (TUOS charges) to be paid by the TNSPs' customers. Given the total revenue for the year is set, and assuming no changes in other prescribed transmission service components, if auction proceeds are forecast to increase, the TUOS charges would decrease, and vice versa.

It would be expected that the auction proceeds for an importing region which is forecast to have higher prices than the other interconnected, exporting region would be greater than for a region which is expected to have lower prices. Therefore the prices, all else being equal, paid by the TNSP's customers located in usually importing, higher price regions should be lower as a result of a lower TUOS component in the price which has been adjusted for increased auction proceeds.

On the other hand, negative settlements residue should also increase TUOS charges in lower priced regions, because the importing TNSP is responsible for these amounts. In these cases, it would be expected that this TNSP would receive a lower amount of auction proceeds (as it would be forecast that the region is generally the lower priced region) and would also be responsible for covering any negative settlements residue arising from the counter-price flows.

15 AEMC, National Electricity Amendment (Negative Inter-regional Settlements Residue Amounts) Rule 2009

16 See clause 6A.10.1 of the NER.

Regardless of the amount received from auction proceeds or paid to settle negative settlements residues, the TNSP's regulated revenue amount does not change. That is, the revenue that a TNSP may earn is determined in accordance with the revenue determination of the AER[17] and is set for each regulatory year in the regulatory control period.[18] Therefore, the TUOS charges collected from the TNSP's customers increase or decrease to ensure the TNSP collects the full amount of regulated revenue it is entitled to recover.

1.3 Secondary trading

Currently, the NER neither promote nor prohibit the secondary trading of units in general. However, the NER do prevent AEMO from distributing auction proceeds to anyone but the relevant TNSP. Therefore, secondary trading through the auction process is effectively prohibited.

Currently, secondary trading of units is only possible via AEMO's assignment process or bilateral or over-the-counter (OTC) contracts, and not through the settlements residue auction process. There is no organised market or trading platform for the purpose of facilitating secondary trading.

A person who wishes to participate in the settlements residue auction must enter into an auction participation agreement (APA) with AEMO, in a form satisfactory to AEMO.[19] As part of the settlements residue auction rules, AEMO has developed a standard form APA, which states that assignment of units to other auction participants may only happen with AEMO's consent.[20] The process and requirements for assignment are set out in a guide published by AEMO.[21]

In addition to the assignment process prescribed by AEMO, parties are also able to trade units amongst themselves through bilateral, private contracts. In this case, the counterparty facing AEMO is not changed, i.e. the original auction participant who purchased units through the auction would be responsible for paying the clearing price from the auction in which the units were purchased. The original auction participant would also receive the pay out from the unit (i.e. the portion of settlements residue to which the unit relates). In such a case, the successful auction participant would enter into a contract with another legal or natural person that is not necessarily an auction participant. The seller of the units could agree to transfer future payments received during the weekly pay outs to the buyer in exchange for a payment for the units. AEMO would have no visibility over these types of contracts.

17 See clause 6A.3.1 of the NER.

18 Subject to any adjustment under rules 6A.7, 6A.8 or 6.15.

19 See clauses 3.18.1(a) and 3.18.3(a)(1) of the NER.

20 See section 14.4(b) of the Auction Participation Agreement, which forms Schedule 1 to the Settlements Residue Auction Rules.

21 AEMO, Settlement Residue Distribution Agreement Assignment Guide, July 2016, p. 2.

2 Westpac's rule change request

On 16 December 2016, Westpac submitted a rule change request to the AEMC. The rule change request seeks to amend the NER to enable the secondary trading of settlements residue distribution units through AEMO's settlements residue auctions.

2.1 Rationale for the rule change request

In its rule change request, Westpac provided its rationale for the rule change. A number of key issues raised in the rule change request are summarised as follows:

- **lack of liquidity and anonymity:** Westpac estimated that the volume of units traded bilaterally is less than 1% of the volumes sold on AEMO auctions. This illiquidity reduces the efficiency of risk management, because positions may be difficult to optimise (i.e. reduce or increase the number of units in a portfolio if new information suggests price differentials will be lower or higher than expected) once units are purchased. Additionally, bilateral trade necessarily reveals the identity of the seller and the buyer to each other, while also revealing their hedging strategies. This is a risk that retailers and generators may not want to take.[22]
- **credit and settlement risk:** bilateral trading of units increases counterparty credit risk that secondary buyers and sellers need to manage. [23]
- **ease of execution:** Westpac stated that secondary trading of units is hindered by the specific requirements around the assignment of units, which would be significantly simpler if such trading could occur through the existing auctions.[24]
- **market preference for trade at auction:** due to internal procedures (such as the timing of planning and risk review processes aligned with settlements residue auctions) auction participants are reluctant to enter into bilateral agreements.[25]
- **market inefficiency:** illiquidity and practical barriers to secondary trading may lead to the formulation of incorrect price signals.[26]
- **auction participant default:** the risk of an auction participant defaulting before paying for the units it purchased could be reduced by the introduction of a liquid secondary market. This is because participants would be able to sell their unwanted units (if they are experiencing financial difficulties) more easily, hence reducing the risk of default and the resale of their units by AEMO at another auction, at a lower price.[27]

22 Westpac, rule change request, 16 December, Appendix 1, 2016, p. 2

23 Ibid., p.2

24 Ibid., p.2

25 Ibid., p.3

26 Ibid., p.3

27 Ibid., p.3

The rule change request contained a proposed rule.[28]

2.2 Solution proposed in the rule change request

This section provides a summary of Westpac's proposed solution to the issues it has raised in its rule change request.

2.2.1 Allowing, but not mandating, for the introduction of secondary trading via auctions

Westpac stated that allowing for the introduction of secondary trading of units via the same auction process already facilitated by AEMO would increase the liquidity of those units. This would, in turn, improve the efficiency of units as an inter-regional hedging tool by providing better opportunities for participants to manage portfolio risks.[29]

The rule change request did not propose to mandate the introduction of a secondary trading mechanism. Rather, it was aimed at removing the implied restriction on secondary trading through the auctions that currently exists in the NER.[30] Prior to any secondary trading mechanism being implemented, the auction rules would have to be amended.[31] In amending the auction rules, AEMO must carry out consultation in accordance with the rules consultation procedures[32] and seek approval from the settlement residue committee.[33] Through this process, AEMO would be required to develop the more detailed aspects of any secondary trading mechanism through consultation with affected stakeholders.

2.2.2 The auction mechanism

In its rule change request, Westpac provided an explanation of what principles and mechanisms may follow from the proposed changes in the NER. However, Westpac reiterated that this was only one option as the final design or mechanism that would be implemented would be developed in the auction rules.

Facilitating transactions

In Westpac's rule change request, it provided an example of a mechanism that could be implemented to allow secondary trading through the current auction process.

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28 A copy of the rule change request and proposed rule can be found on the AEMC website: www.aemc.gov.au

29 Westpac, rule change request, 16 December 2016, p. 2

30 That is, because under clause 3.18.4(a) of the NER, AEMO is required to distribute auction proceeds to the appropriate network service providers, this would be inconsistent with sellers of units receiving a portion of the auction proceeds for any sale of units.

31 See clause 3.18.3(a) of the NER.

32 See clause 3.18.3(e) and rule 8.9 of the NER.

33 See clause 3.18.3(d) of the NER.

The proposed mechanism would allow auction participants to offer their previously purchased "primary units"[34] for sale on subsequent auctions. In theory, AEMO would cancel the units belonging to the "secondary seller", and then reissue those units to the "secondary buyer", independently.[35] Under this mechanism, primary and second units would be simultaneously offered for sale at the same auction.[36]

Payments to TNSPs and auction participants

Generally, the auction proceeds paid to TNSPs would not be influenced by the price secondary units are traded at unless this also impacts on the clearing price for primary units. TNSPs are currently, and would continue to be, entitled to the amount defined by the unit price realised the first time it was auctioned.[37]

The secondary trade is a transaction between the secondary seller and the secondary buyer, through the auction process facilitated by AEMO. Therefore, all profits or losses are borne by secondary sellers and would not impact on the primary unit auction proceeds paid to TNSPs, provided all auction participants honour their payment obligations and none of them default.

Currently, the NER only allow auction proceeds to be paid to TNSPs. Therefore, the rule change request sought an amendment to the NER that would allow for the payment of auction proceeds to either TNSPs (in the case of primary units) or secondary sellers (in the case of secondary units).[38]

Managing default

Westpac stated in its rule change request that the proposed changes to the NER "clarifies that if AEMO incurs a shortfall after recovering costs from the proceeds of auctions, then recovery of the shortfall would align with the distribution of surpluses and recovery of negative settlement residue, i.e. it resides with the relevant Network Service Provider".[39] In other words, if an auction participant that previously purchased secondary units from a secondary seller defaults, that auction participant's units will be offered for sale at a subsequent auction. If the subsequent auction's clearing price is lower than the auction price at which the defaulting participant bought its units, the shortfall would be recovered from the relevant TNSP entitled to the primary auction proceeds.

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34 Throughout this final determination, primary units refer to units that not previously sold at an auction, or were sold but were re-auctioned. Secondary units refer to units that are not primary units and were sold previously at an auction.

35 In practice, however, the two transactions cannot happen independently, unless the secondary seller defaulted and its units were offered for sale at a subsequent auction by AEMO. This makes AEMO a de-facto central clearing counterparty; an effective intermediary between secondary sellers and buyers of units.

36 Westpac, rule change request, 16 December 2016, p. 3

37 Ibid., p. 3

38 Ibid., p. 3

39 Ibid., p. 3

2.2.3 Stated costs, benefits and potential impacts

Westpac submitted a summary of costs, benefits and potential impacts associated with the rule change request. These are as follows:

- costs to AEMO: based on AEMO's estimation the costs for implementation would be between $195,000 and $285,000.
- benefits to sellers and buyers: anonymity, increased liquidity, simplified execution and reduced default, credit and settlement risk arising from secondary trading would benefit secondary sellers. If sellers are able to sell more easily, buyers could also receive the same benefits and be able to dynamically optimise the risks created by their changing portfolio.
- potential impacts: the value of units may not change significantly. The overall supply of units would not change, because only units that were previously bought could be offered for sale. As a result, prices should not be affected. If increased liquidity is strongly valued by participants that may cause an increase in prices. An incentive for bidding and purchasing units longer periods ahead may appear, as positions in units may be more easily managed.[40]

2.3 The rule making process

On 11 April 2017, the Commission published a notice advising of its commencement of the rule making process and consultation in respect of the rule change request.[41] A consultation paper identifying specific issues for consultation was also published.

The Commission received ten submissions as part of the first round of consultation. The Commission considered all issues raised by stakeholders in submissions. Issues raised in these submissions are summarised and responded to in this final rule determination. Issues that are not discussed in the body of draft rule determination were summarised and responded to in Appendix A.1.

On 18 July 2017 the Commission published a draft rule determination and draft rule.[42] Submissions on the draft rule determination closed on 29 August 2017. The Commission received seven submissions on the draft rule and the draft determination.

The Commission considered the issues raised by stakeholders in submissions. Issues raised in submissions are discussed and responded to throughout this final rule determination. Issues that are not discussed in the body of this determination are summarised and responded to in Appendix A.2.

40 Ibid., p. 4

41 This notice was published under section 95 of the National Electricity Law (NEL).

42 The draft rule determination was published under section 99 of the NEL.

3 Final rule determination

3.1 The Commission's final rule determination

The Commission's final rule determination is to make a more preferable final rule. The final rule enables, but does not mandate AEMO to facilitate, the secondary trading of settlements residue distribution units through the existing settlements residue auctions. The final rule also implements a specific risk mitigation measure for seller default risk.

The Commission's reasons for making this final rule determination are set out in section 3.4.

This chapter outlines:

- the rule making test for changes to the NER
- the more preferable rule test
- the assessment framework for considering the rule change request
- the Commission's consideration of the more preferable final rule against the national electricity objective.

Further information on the legal requirements for making this final rule determination is set out in Appendix B.

3.2 Rule making test

3.2.1 Achieving the national electricity objective

Under the National Electricity Law (NEL) the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO).[43] This is the decision making framework that the Commission must apply.

The NEO is:[44]

> "to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system"

The NEO captures the three dimensions of efficiency: productive (efficient operation), allocative (efficient use of) and dynamic efficiency (efficient investment).[45]

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43 Section 88 of the NEL.

44 Section 7 of the NEL.

45 Productive efficiency means goods and services should be provided at the lowest possible cost to consumers; allocative efficiency means that the prices of goods and services should reflect the cost of providing them, and that only those products and services that consumers desire should be

3.2.2 Making a more preferable rule

Under section 91A of the NEL, the Commission may make a rule that is different (including materially different) to a proposed rule (a more preferable rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule will or is likely to better contribute to the achievement of the NEO.

In this instance, this is because the final rule, in comparison to the proposed rule, allocates more risks to those parties (secondary sellers) that have the information, ability and incentives to best manage the relevant risks.

In comparison to the proposed rule, the final rule better balances any increase in default risk with the benefits of increased liquidity in the market of settlements residue distribution units. This is because the final rule requires secondary sellers to manage certain risks that they are reasonably able to manage (i.e. their own default).

A more liquid market for inter-regional settlements distribution units is likely to offer better protection against price separation between regions and lead to more efficient inter-regional hedging outcomes. More efficient hedging outcomes may result in lower electricity prices for consumers.3.2.3 Making a differential rule

From 1 July 2016, the NER, as amended from time to time, apply in the Northern Territory, subject to derogations set out in Regulations made under the Northern Territory legislation adopting the NEL. Under these Regulations, only certain parts of the NER have been adopted in the Northern Territory.[46]

The Commission has considered whether a differential rule is required for the Northern Territory and concluded that it is not required in this instance. This is because the provisions of the final rule either:

- have no application in the Northern Territory because they relate to provisions of the NER that have no effect in the Northern Territory (i.e. chapter 3); or
- have no practical effect in the Northern Territory because although they relate to chapters of the NER that do apply in the Northern Territory (i.e. chapter 10), the changes to that chapter relate only to provisions that have no application in the Northern Territory (i.e. they are definitions that are only used in provisions of chapter 3 that do not apply in the Northern Territory).

Therefore, as the final rule relates to parts of the NER that currently do not apply in the Northern Territory, the Commission has not assessed the final rule against additional elements required by the Northern Territory legislation.[47]

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provided; dynamic efficiency means arrangements should promote investment and innovation in the production of goods and services so that allocative and productive efficiency can be sustained over time, taking into account changes in technologies and the needs and preferences of consumers.

46 For the version of the NER that applies in the Northern Territory, refer to: http://www.aemc.gov.au/Energy-Rules/National-electricity-rules/National-Electricity-Rules-(Northern-Territory).

47 National Electricity (Northern Territory) (National Uniform Legislation) Act 2015.

3.3 Assessment framework

To determine whether the rule change request was likely to contribute to the achievement of the NEO, the Commission assessed the rule change request against an assessment framework. It should be noted that the design, operation and effectiveness of the units and auction process were examined by the Commission only to the extent necessary to inform its assessment of the appropriateness of allowing secondary trading.

- **Design of units:** the Commission considered whether units provide a risk mitigation tool, and therefore, a more liquid secondary market is likely to provide market participants a greater ability to mitigate their price risk. The Commission also examined whether a secondary market in units facilitated through the AEMO auction process would be likely to limit the evolution or innovation of other, related financial products.
- **Efficient trade in electricity across interconnectors:** the Commission examined whether the ability of market participants to more easily access a secondary market for mechanisms or instruments that allow effective operation in more than one region is likely to lead to more efficient outcomes in respect to the management of inter-regional risks and therefore be in the long-term interest of consumers.
- **Value maximisation:** the Commission examined whether a more liquid secondary market is likely to result in increased value of the underlying instrument. The Commission also considered whether the added value of optionality to sell units is likely to outweigh the possibility of creating value for only non-customer facing entities in the market.
- **Efficient allocation of risk:** in assessing the rule change request the Commission found it necessary to assess the allocation of risk associated with the current auction process between the TNSP, unit holders and other market participants operating across multiple regions. This was done only to the extent of examining how this risk allocation may be impacted by the possibility of a secondary market through the AEMO auction process. The efficiency of this risk allocation, in relation to whether risks are being allocated to the party that has the information, ability and incentives to best manage the risks, was also assessed.
- **Competition:** the Commission examined impacts on retail competition that may arise as a result of the rule change request both in terms of access to units and other risk mitigation tools.
- **Costs and benefits:** the likely benefits of the proposed rule were balanced against additional costs that will arise as a result of the introduction of secondary trading. In this case, these costs included the costs of developing new auction rules, AEMO system and implementation costs, the risk of default and likely increased auction fees.

3.4 Summary of reasons

The final rule, which is a more preferable rule, made by the Commission is published with this final rule determination.

Importantly, the final rule does not require secondary trading to be implemented by AEMO. Instead, it removes the implied restriction on secondary trading and sets out certain requirements that would operate if secondary trading is implemented. If AEMO and the SRC decide to implement secondary trading, the auction rules must be amended accordingly, taking into account the requirements set out in the final rule.

Other key features of the final rule (which only operate if a decision to implement secondary trading is made) are that the final rule:

- enables auction participants to offer their previously purchased settlements residue distribution units (units) at subsequent auctions facilitated by AEMO[48]
- requires AEMO to distribute auction proceeds to either the relevant TNSP or auction participant, as the case may be[49]
- requires secondary sellers to provide a margin at the same time as they submit offers to the auction. In case of a default, AEMO must apply that margin to the amounts owing to AEMO by the defaulting party[50]
- requires TNSPs to be responsible for any shortfall in auction proceeds payable to the secondary sellers arising from a buyer default.[51]

Further detail on the final rule can be found in Chapter 4.

Having regard to the issues raised in the rule change request and during consultation, the Commission is satisfied that the final rule, which is a more preferable rule, will, or is likely to, better contribute to the achievement of the NEO. The final rule will promote the efficient operation and investment in electricity services for the long-term interests of consumers, for the following reasons:

- Although the units do not provide a firm hedge to unit holders, market participants use the units to provide risk mitigation where they operate in two interconnected regions.
- By allowing market participants to participate in a secondary market for units and improving the liquidity of the market, market participants will be able to more efficiently manage their risks and therefore more efficiently deliver electricity services to consumers. Units that can be traded more easily are also likely to bear greater value for market participants, resulting in higher auction proceeds. Where TNSPs are the recipient of the auction proceeds, increased auction proceeds, all else being equal, should reduce the TUOS charges to be collected from the TNSPs customers.

48 See clause 3.18.1(b)(2)(i) of the final rule.

49 See clauses 3.18.4(a)(1) and 3.18.4(a1) of the final rule.

50 See clauses 3.18.4A(b) and 3.18.4A(c) of the final rule.

51 See clause 3.18.4A(d) of the final rule.

- Risk allocation is considered efficient if it is being allocated to the party that has the information, ability and incentives to best manage the risks. Efficient allocation of risks in the NEM leads to lower costs for consumers as the adverse effects of default are better managed. TNSPs and by extension their customers, receive the benefit of auctions through the receipt of the auction proceeds, however, they do face uncertainty in terms of the amount of these auction proceeds. Secondary sellers are able to manage certain, seller default related risks, while the management of other, buyer default related risks would be impractical for secondary traders. Further, where units are re-auctioned after a buyer default, there is an equal opportunity that those units will be cleared at a price higher or lower than the price paid by the defaulting party. This benefit or risk, as the case may be, rests with the TNSP, similar to the current situation in the primary market.
- As a result of a requirement on secondary sellers to manage seller default risks and a requirement for TNSPs, and by extension its customers to bear the buyer default risk, they may be in a slightly worse position as if secondary trading was not introduced, where significant buy-side risk exists. However this increase in risk is likely offset by benefits of the increased liquidity of units.

  Further, where secondary trading market participants are electricity retailers, their customers may benefit in terms of lower costs as a result of the retailer being able to better manage the risks faced from operating in inter-connected regions.

Further detail on those reasons can be found in Chapter 4.

4 Assessment of the final rule

As a number of traditional synchronous generators are operating less or being decommissioned, access to local hedging contracts has also been decreasing. As a result, the importance of being able to underwrite hedging contracts across regions has been gradually increasing, especially for standalone retailers and generators. Cross-regional hedging contracts would benefit from being supported by instruments that help manage the basis risk associated with different spot price outcomes in adjacent regions. The Commission considers that the existing instruments that support the inter-regional trade of electricity can be improved by the introduction of auction based secondary trading, facilitated by AEMO.

This chapter summarises the key issues considered by the Commission in developing the final rule. It outlines:

- how the current design of units and auctions provides a basis for the introduction of secondary trading
- how secondary trading is expected to incentivise efficient inter-regional trade, increase the value of units and lead to increased competition in regions
- how default risk is likely to change as a result of the introduction of auction based secondary trading, and where practical, how risk is allocated to parties that can most efficiently manage such risk
- what direct and indirect costs and benefits are likely to occur as a result of the final rule.

4.1 Design of units and auctions

Primary auctions and units were originally designed to allow market participants to manage the price risks associated with operating in more than one region of the NEM. Because of various reasons including interconnector constraints, the effectiveness of units as a risk mitigation tool that allows for inter-regional hedging may vary. Understanding the original rationale for the unit and auction design and how and why market participants participate in the auction, is an important consideration in determining the role of secondary trading and the benefits that may flow from it.

4.1.1 Westpac's view

Westpac in its rule change request did not address the question of whether primary auctions and units are effective risk mitigation tools for the purposes of inter-regional hedging.

4.1.2 Stakeholder views

Submissions to the consultation paper

In their submissions to the consultation paper, stakeholders generally were of the view that the current design of primary auctions remains fit for the purpose and no further inquiry is necessary into the issue.

Some stakeholders were concerned that consulting on matters that relate to the merits of the primary market would be out of scope of Westpac's original rule change request and the AEMC's ability to make a more preferable rule in relation to the primary market would be out of scope.[52] Others noted that current arrangements in the primary market are effectively operating, and therefore no change should be made to the NER in relation to them.[53]

ERM Power, however, was of the view that currently, the units as offered via the primary auction process were of little value for supporting interregional trading.[54]

Submissions to the draft determination

In its submission to the draft determination, Snowy Hydro was of the view that current settlements residue auction process operates effectively and allows secondary units to be traded amongst counterparties. It added that the rule change is not required because there is no market failure with regards to the operation of the market. It was also of the view that the primary auction remains fit for purpose with the secondary units already being traded through secondary mechanisms.[55]

4.1.3 Assessment

As shown in section 4.2.3, the current design of inter-regional settlements residue auctions and inter-regional settlements residue distribution units do not allow for firm hedging across regions. However, their design has continuously been improved since their inception in 1999. The current design allows for multiple purposes, which include support for inter-regional hedging for market participants that have a physical position in the NEM, and speculative trade for traders that participate in auctions for the purposes of profit maximisation. The Commission understands that such variety of purposes also exist in other financial markets that underpin physical hedging in the NEM. Therefore, it is not a limit on the ability for the units to be used as a hedging tool where the market operates to meet more than one objective – in this case, hedging and speculation.

The Commission sought evidence on whether the current design of auctions allows market participants to use the units to hedge risks that arise from operating in interconnected regions. Stakeholder submissions confirmed that despite not providing firm hedges, units are indeed being used to support inter-regional hedging. Therefore, given the original unit and auction design were examined to determine if the units were being used for the intended purpose of providing an instrument for inter-regional hedging, the Commission is satisfied there is no basis for not considering the

52 AEMO submission, 5 May 2017, p. 2, Energy Network Australia submission, 9 May 2017, p. 2, Snowy Hydro submission, 9 May 2017, p. 2, South Australian Department of the Premier and Cabinet submission, 29 May 2017, p. 1, Westpac submission, 9 May 2017, p. 1

53 AEMO submission, 5 May 2017, p. 1, Snowy Hydro submission, 9 May 2017, p. 2, AGL submission, 17 May 2017, p. 1

54 ERM Power submission, 8 May 2017, p. 4

55 Snowy Hydro submission, 29 August 2017, p. 1

appropriateness of secondary trading on the basis of the design and mechanisms associated with the primary units.

4.2 Efficient inter-regional trade, value maximisation and effects on competition

Efficient inter-regional trade largely depends on whether price differences in regions can be managed by market participants. The efficiency of the primary market and the currently illiquid secondary market can be improved by introducing auction based secondary trading to the market, which in turn is likely to increase wholesale and retail competition in different regions. The ability to sell units adds value to the units in the form of optionality that already exists in liquid financial markets. Further, a liquid secondary market should reduce the overall risk faced by retailers as they will better be able to hedge their position as it changes over time. The reduction in risk faced by retailers is likely to flow through to consumers in the form of reduced costs both in terms of the rate of return shareholders would expect from the business but also, in relation to lower prices paid by consumers. Section 4.2.2 summarises stakeholder submissions on the issue of supporting inter-regional trade, increasing competition, the value of units and the Commission's assessment of those issues.

4.2.1 Westpac's view

Westpac in its rule change request submitted that by allowing NEM participants to sell units at auctions, additional liquidity will allow participants to build their unit positions to their desired hedge levels. This could be done with the knowledge that they could reduce their positions if necessary in response to changing market conditions or portfolio requirements.[56] It added that net value is created by trading when an item has a different value to a buyer and a seller. In the case of units, participants might have different needs for those units based on the inter-regional mismatch between customer liabilities, generation and hedging contracts.[57] According to Westpac, allowing sellers to participate in the settlements residue auction directly enhances competition and efficiency in interstate trade of electricity.[58] It noted that allowing sellers as well as buyers to determine the price of units at auctions will increase the amount of information captured within the unit prices.[59]

4.2.2 Stakeholder views

Submissions to the consultation paper

In their submissions to the consultation paper, most stakeholders supported the introduction of secondary trading through AEMO facilitated auctions. This support was related to the possible market benefits a liquid secondary market could provide to the NEM.

56 Westpac rule change request, 16 December 2017, Appendix 1, p. 2

57 Ibid., p. 4

58 Ibid., p. 4

59 Ibid., p. 4

AEMO was of the view that a liquid secondary market would be expected to provide participants with additional flexibility in building hedge positions, in the knowledge that they could confidently reduce a position in response to changed market conditions or portfolio requirements.[60] It also stated that the enablement of secondary trading would promote the NEO by enhancing allocative efficiency, as the reduction in transaction costs will enable units to be more freely traded to those participants that value them the most.[61]

EnergyAustralia noted that at present the lack of liquidity in units reduces the accessibility and usefulness of settlements residue auctions as a hedging instrument. It submitted that the mathematical value per unit decreased after the scope of auctions was extended to three years (or 12 calendar quarters) in advance. It added that the required effort and timeframe over which analysis needs to be performed in order to participate in auctions reduces the worth of any given auction due to these limitations. EnergyAustralia was also of the view that as more units are reintroduced into the market the quantity of units increase the potential benefits in participating in any given auction.[62] EnergyAustralia considered that the introduction of secondary trading to AEMO facilitated auctions would enhance flexibility for participants using units in their portfolio. It added that the ability to sell units back into an auction is an improvement on the current mechanism, allowing participants to exit a position rather than waiting until settlement and making those units available for another buyer.[63]

ERM Power submitted that allowing secondary trading would be a positive outcome as it would promote additional trading of units.[64] ERM Power further noted that with the NEM entering a period of greater uncertainty, effective and efficient interregional trading will be required to ensure stable risk management to ensure the lowest prices are available to consumers.[65]

Epoch Capital was of the view that auction based secondary trading would positively increase liquidity while providing increased risk management options to portfolio managers.[66] Liquid Capital Australia considered that trading out of existing unit positions has been difficult. It added that improved liquidity arising from the rule change request would allow all participants to execute their strategies with anonymity and would also reduce the costs of auction participant default.[67]

Westpac restated its view held in the rule change request that increased liquidity would give participants the ability to reduce a position size if needed at a fair market price. It

60 AEMO submission, 5 May 2017, p. 1

61 Ibid., p. 2

62 Energy Australia submission, 9 May 2017, p. 1

63 Ibid., p. 2

64 ERM Power submission, 8 May 2017, p. 1

65 Ibid., p. 4

66 Epoch Capital submission, 17 May 2017, p. 1

67 Liquid Capital Australia submission, 19 May 2017, p. 1

was of the view that the ability to adjust positions sizes both up and down would allow participants to better achieve their desired inter-regional hedging strategy.[68]

AGL was of the view that auction based secondary trading would likely create market benefits by making trading easier, thereby increasing secondary market liquidity, allow participants to more readily optimise their portfolio and contribute to increased interstate trade of electricity and increase competition.[69]

The South Australian Department of the Premier and Cabinet considered that facilitating secondary trading through the rule change request would improve and increase liquidity. This, in its view, would produce reliable price signals essential to the development of OTC derivative markets and the ability for market participants to hedge their cash flow risks without owning generating portfolios. The Department noted that increasing liquidity provides greater opportunities for auction participants to manage their positions in the market. This allows participants to build their units positions to their desired hedge levels, with the knowledge that they could reduce their positions if necessary in response to changing market conditions or portfolio requirements. It further argued that a greater supply of units being offered for auction would reduce the price of risk so that the wholesale purchase of electricity costs by retailers would be lower, benefiting all consumers in the long run and contributing to the achievement of the NEO.[70]

Snowy Hydro, however, submitted that existing mechanisms for secondary trading are sufficient and the introduction of auction based secondary trading would encourage speculation. Further, they indicated there was no rationale for auction proceeds to be distributed to someone else other than the TNSP.[71]

Submissions to the draft determination

In their submissions to the draft determination, the majority of stakeholders maintained their support for the introduction of secondary trading into AEMO facilitated auctions.

EnergyAustralia submitted that increased liquidity is one of the primary benefits of the proposed change. It added that improved trading efficiency will enable participants to better manage inter-regional risk in their portfolios over time, leading to reduced costs to supply energy.[72]

AEMO was of the view that Westpac's rule change, which was developed in consultation with the SRC, "was judged" to provide benefits to consumers in the form of an ability for market participants to manage inter-regional hedge positions more efficiently. It added that such benefits would have outweighed any risk allocated to consumers, and therefore, the rule change promoted the NEO.[73]

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68 Westpac submission, 9 May 2017, p. 4

69 AGL submission, 17 May 2017, p. 1

70 South Australian Department of the Premier and Cabinet submission, 29 May 2017, p. 2

71 Snowy Hydro submission, 9 May 2017, pp. 1-2

72 EnergyAustralia submission, 29 August 2017, p. 1

73 AEMO submission, 5 September 2017, p. 1

4.2.3 Assessment

Efficient inter-regional hedging

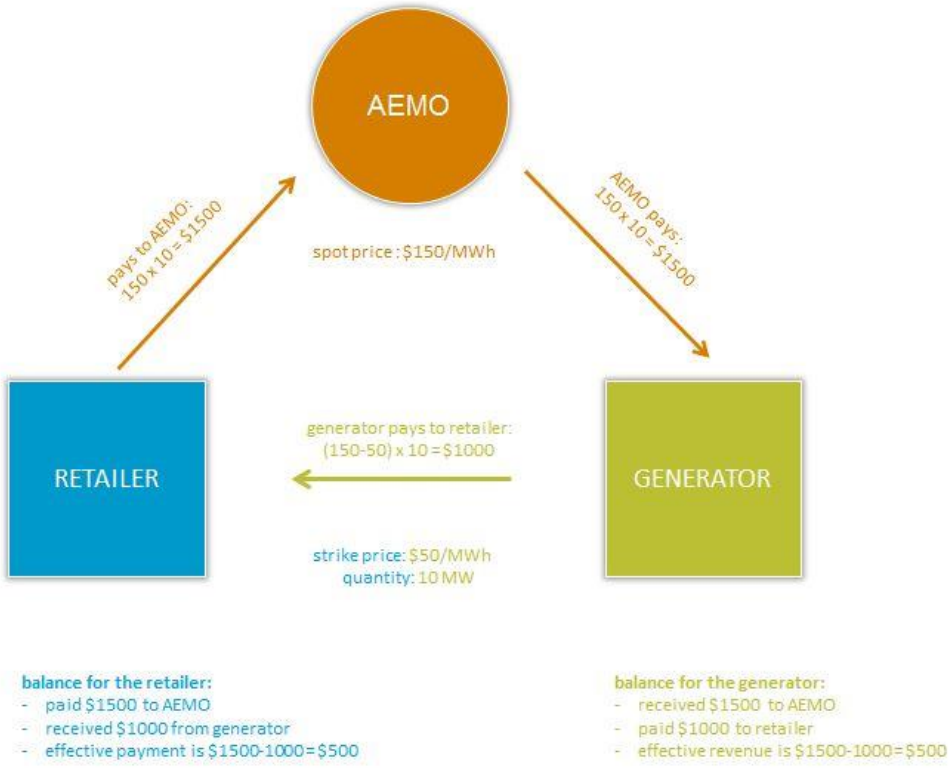
Hedging within a region

If a retailer was to enter into a baseload swap contract with a generator located within the same region, they would agree on a quantity referring to the size of the load and a strike price. If the spot price is above the strike price, then the generator would pay the retailer the product of multiplying the agreed quantity by the price difference between the spot price and the strike price. In cases where the spot price was below the strike price, the retailer would pay the generator.

In the wholesale electricity market, the retailer will pay AEMO the spot price for the quantity of electricity consumed. AEMO will pay to the generator the spot price for the quantity of electricity produced.

The end result to the parties when they have entered into a swap contract and participated in the spot market, is the difference between the two cash-flows. Figure 4.1 reflects an example of the cash-flows between the parties for a baseload swap contract.

Figure 4.1 Hedging within a region



Hedge contracts within a region are generally directly between counterparties (bilateral trade) or through a futures exchange (the ASX for example).

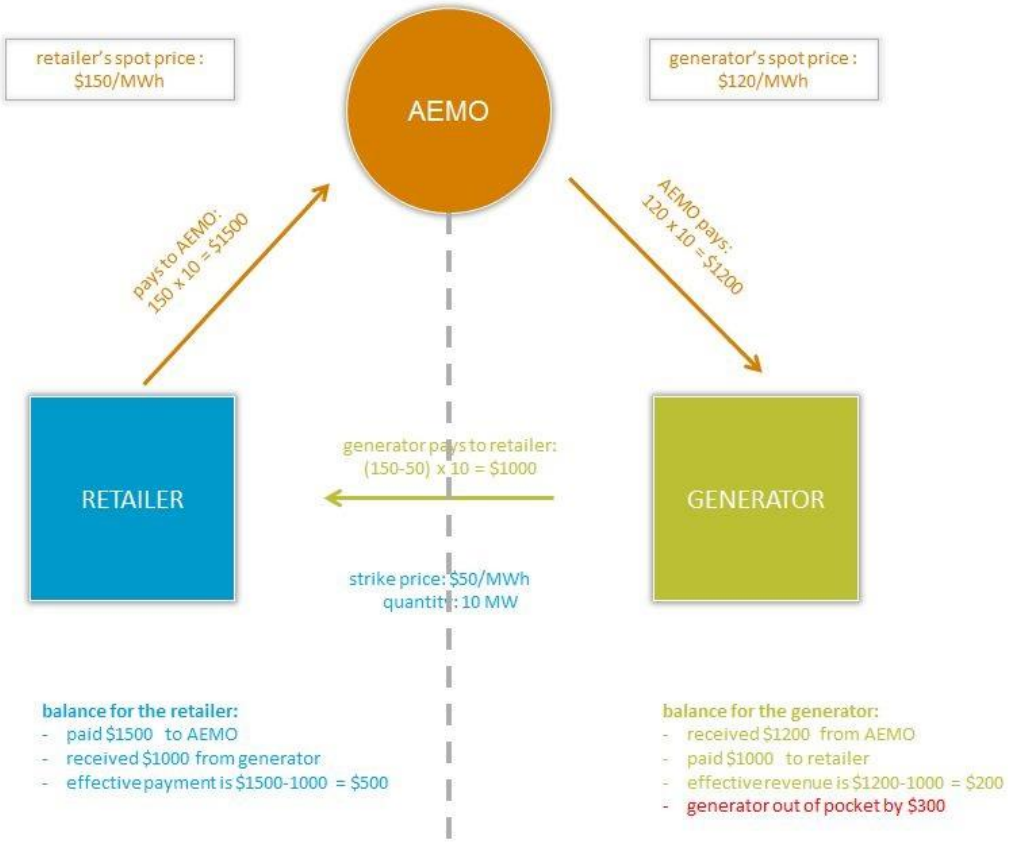
Hedging across regions

If a retailer would like to enter into a hedging contract with a generator located in another region, they would have to agree on which regions spot price would form the strike price for the contract. If the strike price for an inter-regional hedge is based on the spot price of the region where the retailer is located in, it creates "basis risk" for the generator.

Basis risk arises when there is a price separation between the generator's region and the retailer's region and the retailer's regional spot price is higher than the generator's. In these circumstances the generator would lose money on the contract. This is because the price difference between the strike price and the spot price in the retailer's region would be greater than the price difference between the strike price and the spot price in its own region. Contracting across regions may result in price differences not flowing through to the generator.

This basis risk also would hold for a retailer where the strike price used is in the generator's region rather than the retailer's.

Figure 4.2 Hedging across regions



In the example in figure 4.2, price separation between regions is responsible for the generator's loss. The $30/MWh difference in the spot price, multiplied by the 10 MW load supplied across regions, is equal to a loss of $300. If the interconnector between these two regions was never constrained and electricity flowed between the regions at the interconnector's nominal capacity, buying 10 units, equalling 10 MW would provide a firm hedge against this difference. This is a result of the settlements residue equalling

the price difference ($30/MWh) multiplied by the number of units purchased (10), which is $300.

Hedge contracts across regions may exist in the form of bilateral trade, where at least one of the counterparties would need to manage the risk of price separation, typically by purchasing inter-regional settlements residue distribution units.

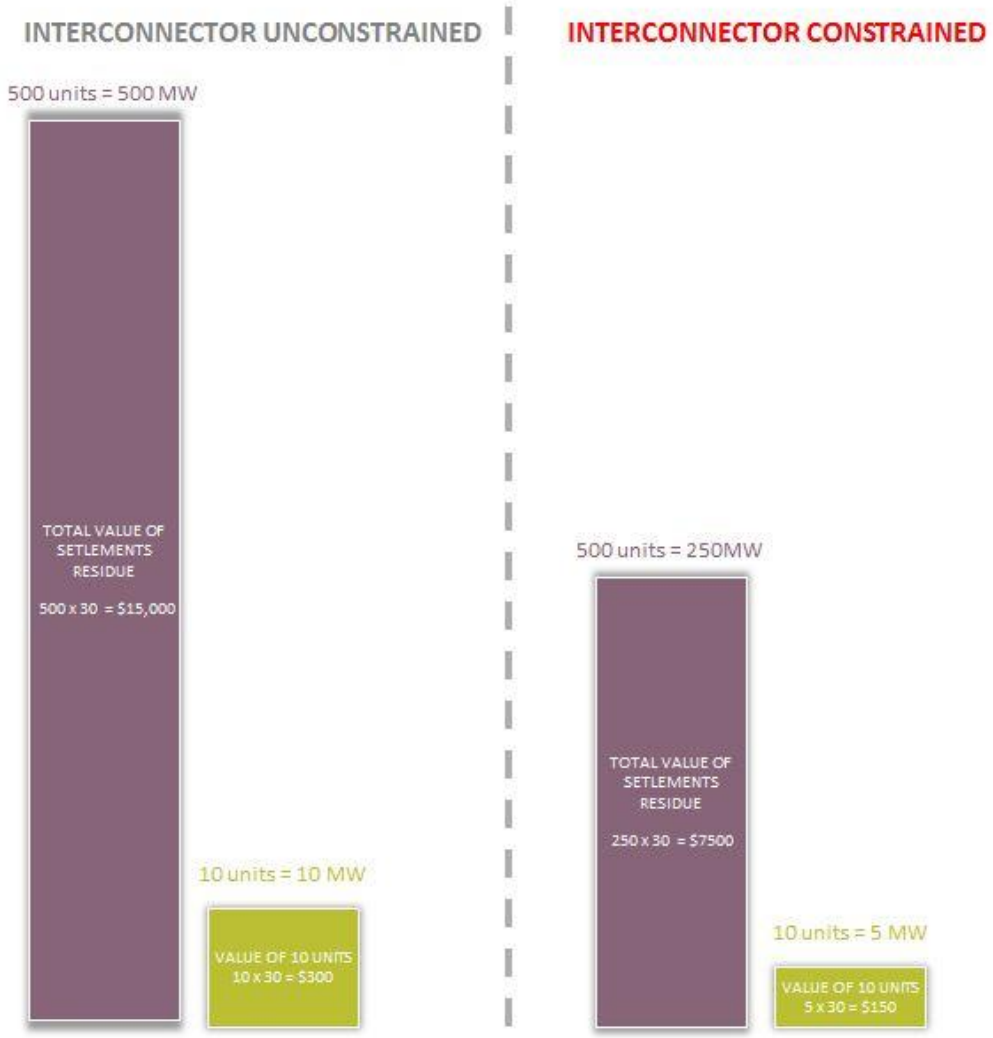
The ASX currently offers inter-regional swap contracts for a premium (spread). Hedging across regions on the ASX would involve buying a swap contract in one region and selling in the other. This can be problematic in regions where liquidity on the ASX has been traditionally quite low, such as in South Australia.

The firmness of hedging

As discussed in section 1.2.1, the number of units for each interconnector direction is based on the interconnector's nominal capacity. This means that one unit would be equal to one MW capacity and would provide close to a perfect and firm hedge if the interconnector was always operating at its nominal capacity

In practice, however, there are often binding constraints on the interconnectors. Figure 4.3 illustrates the difference between how units could serve as a hedging tool based on the previous example on both an unconstrained and a constrained interconnector with a nominal capacity of 500 MW with 500 available units. If there is a binding constraint on the interconnector, it can deliver less electricity from the lower priced region to the higher priced region. Therefore, the proportion of the value that 10 units represent is lower. In this example, it only represents 5 MW of capacity (i.e. the interconnector is only operating at 50 per cent of its nominal capacity).

Figure 4.3 Constrained versus unconstrained interconnector



The firmness of an inter-regional hedge (i.e. the coverage it can provide against price differences between regions) is best measured by the ratio between units and their capacity values in MW. On an unconstrained interconnector, this ratio is 100 per cent. When the interconnector is constrained this ratio will fall to less than 100 per cent when the interconnector is out of service this ratio would fall to zero. In the example above, the ratio is 50 per cent as 1 unit corresponds with only 0.5 MW capacity.

Often when price separation occurs between two regions, there is also a binding constraint on the interconnector. The result is that the constraint serves to decrease the firmness of the inter-regional hedge at the time it is needed the most

Inter-regional hedging through the use of units may, therefore, be a high-risk exercise as the actual flow of electricity across the interconnector and price differences may be difficult to forecast. In the example above, a generator would need to have perfect foresight of the constraints and procure 20 units instead of ten, in order to protect its revenue against price differences across regions.

Forecasting future value

Auction participants must forecast the possible total value of inter-regional settlements residue that is to be accumulated in the future. The price participants are willing to pay at the auctions should reflect this value.

AEMO specifically indicates that there are several variables affecting inter-regional settlements residue and therefore, participating in auctions is financially speculative and carries a number of risks.[74] The higher risk nature of the units is due in part to the difficulty in forecasting the flow on an interconnector at any time, what the price separation may be at the time of the flow over the interconnector and whether, due to other market participant behaviour or circumstances, counter-price flows may occur.

Further, given the likelihood of the interconnector being constrained during a time when there is a price separation between regions, the units provide an imperfect hedge. However, the units do provide some insurance to participants that operate across two regions. Therefore, it would be expected that where units provide value as an inter-regional hedge, the unit price would reflect the insurance nature of the product

The ratio between auction proceeds and payouts in the NEM over time is shown in Figure 4.4.

Figure 4.4 Unit proceeds versus payout

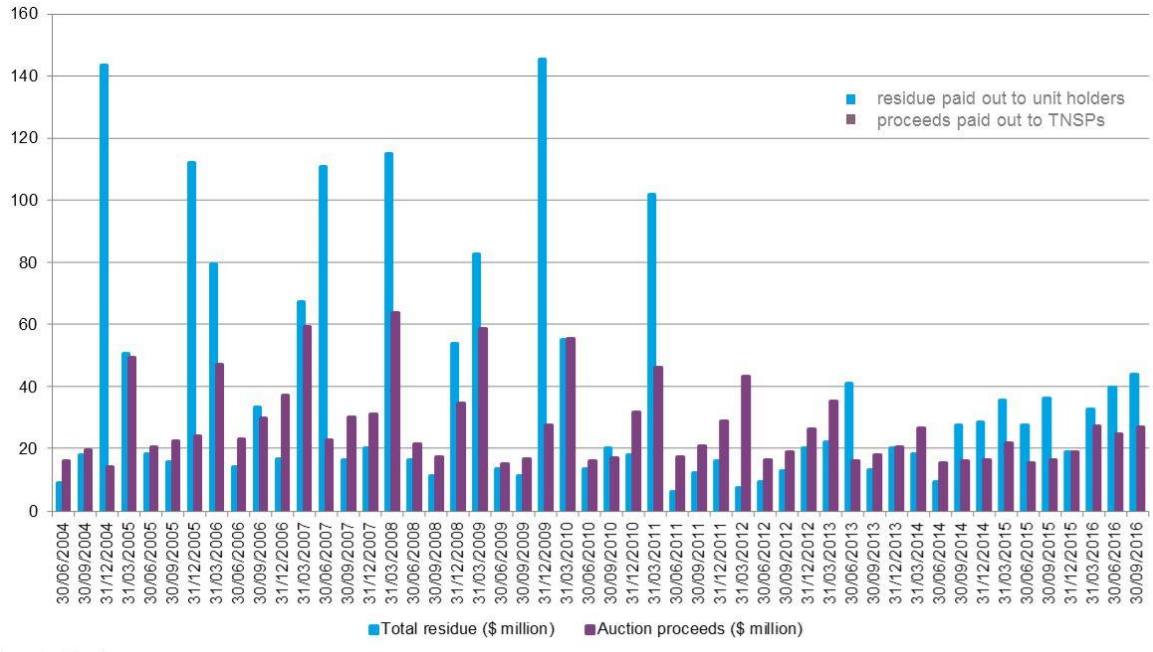


Figure 4.4 illustrates that no clear relationship or trend appears between payouts and auction proceeds over the past 12 years. Although, more recently for quarters relating to time periods from 2014 onwards, the inter-regional settlements residue paid out to unit holders exceeded auction proceeds. The Commission is of the view that this trend

74 https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Settlements-andpayments/Settlements/Settlements-Residue-Auction/Guide-to-settlements-residue-auction

reflects market participants' expectation of a unit trading at discount to reflect the non-firm nature of the product.

Where the units are seen as a type of insurance against inter-regional price separation the price paid for units includes a premium over the payout amount. Based on the ratio between the actual auction proceeds and the unit payouts, this does not appear to be the case in most instances. However, in practice, this premium is often cancelled out by the unpredictability of payouts.

Given the high risk and volatility of these units, forecasting and the trading strategy of participants includes several elements and factors including the need to align forecasting and trading strategies with corporate risk and hedging strategies.

The inherent characteristics and calculation methodology of inter-regional settlements residue prevents units from being used as a perfect risk mitigation tool of inter-regional electricity trade. Because of this imperfection, the current design of units does not allow for firm hedging and making accurate forecasts about the future value of those units. However, the Commission is of the view that the purpose of units and their non-firm nature is well understood by those market participants that use them as risk mitigation tools. The Commission understands that units can and do support inter-regional trade, despite being non-firm and the payouts being hard to forecast.

The role of liquidity

Where secondary trading of units is provided through the AEMO auction process, the liquidity of units is likely to increase. Liquidity provides better opportunities for auction participants to manage their positions in the market. This is because as the delivery period approaches, participants become aware of previously unknown market conditions, including interconnector upgrades and maintenance

In such cases, the retailer's position and underlying need for units change, and therefore, the number of required units also changes. There are numerous factors that impact on the number of units a market participant may need for the purpose of hedging. This may be due to changes in the portfolio being hedged, as well as issues impacting the firmness of the unit (i.e. factors impacting the interconnector). Increased liquidity of units allows parties to adjust their position regardless of the underlying reasoning for the re-adjustment. This provides confidence to market participants that they will be able to effectively manage their risks, which should result in more efficient operation of the market and benefits to consumers.

Changes to auction design

Although the final rule does not impact on the original design of auctions and units, it creates an increased opportunity for optimising the number of units that are required for a certain volume of inter-regional hedging. This is because as the start of the relevant quarter draws close, auction participants are better able to forecast the expected physical conditions in the NEM that are likely to influence interconnector flows, price differences between regions and, therefore, the payout associated with the units they hold.

The final rule therefore allows for the introduction of secondary trading via the existing auctions facilitated by AEMO, but does not mandate the implementation of secondary

trading in the auction. It does so, by introducing clauses to the NER that allow AEMO to pay out auction proceeds to auction participants,[75]rather than to TNSPs only.[76]

Currently an auction participant receives the right to a portion of the net surplus inter-regional settlements residue and has an obligation to pay for such a right when it successfully bids for a unit. In order to allow secondary trading, auction participants must be able to cede their previously acquired right in exchange for an expected auction proceed payment from one or more secondary buyers. In an auction based secondary trading platform facilitated by AEMO, this may only occur if the holder of a unit is allowed to offer its unit back to the auction for cancellation and sale.[77]

Under the final rule, a secondary seller, through its settlements residue distribution (SRD) agreement with AEMO, remains contractually obligated to pay to AEMO the auction proceeds associated with the unit it has purchased (i.e. the clearing price of the unit). However, it will no longer have the right to receive a portion of the inter-regional settlements residue payout, as the unit representing that underlying right is cancelled.[78] The secondary seller agrees to this cancellation in exchange for the auction proceeds representing the new unit price under which the secondary seller offered its units for cancellation. Despite ceding its right to the settlements residue payout through cancellation of the unit, the auction participant still retains its obligation to pay the purchase price for the unit. The final rule therefore provides that the underlying SRD agreement between the auction participant and AEMO is not terminated following cancellation of a unit,[79] such that the contractual obligation to pay AEMO under the SRD agreement remains in place.

The final rule does not define the conditions upon which units may be offered for cancellation or the requirements for any subsequent cancellation by AEMO; instead it requires the processes and mechanisms for secondary trading to be carried out in accordance with auction rules.[80] The Commission considers it is appropriate that the detailed design of the secondary trading mechanism is set out in revised auction rules rather than the NER. This ensures consistency with the current regulatory framework for the auction and provides flexibility for AEMO and the SRC to adjust the auction rules as market conditions change.

By allowing market participants to participate in a secondary market for units and improving the liquidity of the market for units, market participants will be able to more efficiently manage their risks and therefore more efficiently deliver electricity services to consumers. Units that can be traded more easily are also likely to provide greater value for market participants, resulting in higher auction proceeds that may lead to TNSPs having to collect less TUOS charges from their customers. Therefore, the

75 The NER uses the term 'eligible person' to describe those persons who participate in auctions under rule 3.18 of the NER.

76 See clause 3.18.4(a1) of the final rule.

77 See clause 3.18.1(b)(2)(i) of the final rule.

78 See clause 3.18.1(b)(2)(ii) of the final rule

79 See clause 3.18.1(b)(2)(iii)of the final rule.

80 See clause 3.18.3(a1) of the final rule.

Commission is of the view that the final rule, which is a more preferable rule, is likely to better contribute to the achievement of the NEO.

4.3 Efficient allocation of risk

The risk of counterparty default in the existing auction process is borne by TNSPs (and consequently, their customers), but the current secondary market has a different allocation of risks, whereby participants that decide to trade units are responsible for bearing any additional default or credit risk.[81] Depending on the ultimate design of the auction for secondary trading that would be implemented through revised auction rules, secondary trading could increase the risks faced by TNSPs and therefore, its customers.

4.3.1 Westpac's view

Westpac in its rule change request stated that current methods of secondary trading involve a certain level of counterparty default risk. Credit or settlement risk against counterparties other than AEMO could be eliminated with the introduction of auction based secondary trading.[82] Westpac noted that auction participant default creates the risk of losses occurring to TNSPs (and therefore its customers) if the market value of units decreases in the period between when the defaulting auction participant purchased the units and when the units are finally offered for resale. It was of the view that allowing auction participants the ability to get out of unit trades earlier, participants would be more able to actively decrease their risk when desired, lowering the exposure under a default event.[83]

Westpac proposed that if there was a shortfall while recovering costs from auction proceeds, the relevant TNSP would be required to cover that shortfall. This would mean that TNSPs (and by extension, their customers) would bear the counterparty default risk of secondary trading in the same way they do in relation to the primary market.[84]

4.3.2 Stakeholder views

Submissions to the consultation paper

Stakeholders in their submissions to the consultation paper had differing views on the issue of efficient allocation of risk, stemming from the rule change request.

AEMO was of the view that it is highly unlikely that an auction participant defaulting on a secondary unit could lead to payments from the TNSP to the secondary seller arising. In AEMO's view, the following events would need to materialise in order for such an outcome to occur:

- a large number of units are offered for re-sale in a single auction and purchased by a single buyer

81 See section 1.3 for a description of the current secondary market.

82 Westpac rule change request, 16 December 2017, Appendix 1, p. 2

83 Ibid., p. 3

84 Westpac rule change request, 16 December 2017, p. 3

- despite the large supply of units, the auction clearing price is very high on that auction
- the buyer of the units defaults and is suspended by AEMO
- AEMO re-auctions the units and the clearing price is lower than that received by the seller, creating a shortfall in proceeds to pay the secondary seller
- the losses incurred by those units are greater than all proceeds received by the affected TNSPs from other units sold in that auction.

Therefore, in this scenario, the relevant TNSP would be required to make a payment to AEMO to make up the difference payable to secondary sellers.

Westpac stated that secondary trading does not materially increase the default risk faced by TNSPs, and auction participants do not have better information, ability and incentives to manage the risk of default in comparison to TNSPs.[85] Furthermore, it added that if default risk was to be managed, its exact details would be determined in public consultation by AEMO.[86] Westpac was also of the view that applying different risk management obligations (i.e. if collateral or up-front payment were required) to primary and secondary trading would not be beneficial, because it would create two separate financial products, the latter being less preferable to hold than the former.[87]

ERM Power suggested that counterparty default risk would be best managed by implementing an initial and variation margin regime for both sellers and buyers of units, similar to the initial and variation margin arrangements utilised for trading of electricity futures on an exchange. It was also of the view that the SRC is best placed to provide both guidance and assistance to AEMO in developing the process, methodologies and procedures to be adopted with regard to those default risk mitigation options.[88]

AGL was of the view that consideration should be given to the appropriateness or otherwise of prudential charges for unit holders, if the proposed rule change were to be implemented, in order to reflect the credit risk and embedded optionality of the units.[89]

Snowy Hydro submitted that increased speculation resulting from secondary trading would heighten the risk of defaults in the market. It added that this higher risk of default would increase the risk that TNSPs would receive less from auction proceeds.[90]

Energy Networks Australia was of the view that if a secondary trading mechanism for settlement residue distribution units was allowed, some form of collateralisation or a default risk fund could be considered as a prudential option. It added that auction participants have better information, ability and incentives to manage the risk of default

85 Westpac submission, 9 May 2017, pp. 4-5

86 Ibid., p. 4

87 Ibid., pp. 4-5

88 ERM Power submission, 8 May 2017, p. 4

89 AGL submission, 17 May 2017, p. 2

90 Snowy Hydro submission, 9 May 2017, pp. 1-2

than TNSPs.[91] Energy Networks Australia was also concerned that if secondary trading was to be enabled on auctions facilitated by AEMO, ultimately consumers could be responsible for a counterparty default risk in what can reasonably be perceived as a speculative market. It added that, should AEMO facilitate this arrangement, this counterparty risk appears to allocate the residual risk on a party, poorly placed to manage such commercial risks.[92]

Submissions to the draft determination

In their submissions to the draft determination, stakeholders continued to express differing views on the issue of efficient allocation of risk, arising from the rule change request.

Snowy Hydro opposed the proposed rule. However, it preferred the Commission's more preferable rule as it would require priority payout of auction proceeds to TNSPs and a prohibition in the auction rules for placing additional risks related to secondary trading on AEMO and TNSPs.[93]

Snowy Hydro was concerned that if an auction participant in financial distress proposes to sell its units, but the market remains illiquid and the sale cannot be made, under Westpac's proposal, TNSPs would be responsible for a shortfall in auction revenue.[94]

Further, Snowy Hydro indicated that secondary selling of units is likely to increase more speculation which is likely to increase the risk that TNSPs will receive less from the auction proceeds. It added that under the Westpac proposal TNSPs would be at risk of secondary SRA default. It added that this is inconsistent with the principle that risk should reside with the party best able to manage the risk and therefore were supportive of the separation of primary and secondary trades.[95]

Energy Networks Australia supported the AEMC's view that TNSPs and consumers are not well placed, and are not the appropriate parties to manage, and don't have any direct control over these commercial risks. It also supported the AEMC's perspective that any secondary trading default risk needs to be managed, despite its low probability of occurrence, and that it was best allocated to secondary trading auction participants. Energy Networks Australia endorsed the AEMC's statement that the non-significant nature of the risk of default would make it appropriate for auction participants to bear such risk.[96]

Energy Networks Australia was also of the view that the following risk management options could be consulted by the SRC: collateralisation options, as well as other

91 Energy Network Australia submission, 9 May 2017, p. 4

92 Ibid., p. 5

93 Snowy Hydro submission, 29 August 2017, pp. 1-2

94 Ibid., pp. 2-3

95 Ibid., pp. 2-3

96 Energy Network Australia submission, 29 August 2017, p. 2

prudential arrangements and protocols, capping of trading units, and establishing a default risk fund.[97]

TransGrid supported the reallocation of risk from TNSPs and consumers to secondary buyers and sellers. It considered that the more preferable draft rule would provide greater certainty in settlements residue distribution for TNSPs than Westpac's proposed rule, which will lead to less volatility in transmission pricing for customers. TransGrid also noted that it is supportive of the secondary trading of settlements residue distribution units only where this certainty is not undermined.[98]

EnergyAustralia supported the rule change as proposed by Westpac and did not support the revised rule proposed by the AEMC in the draft determination. It was of the view that method proposed by the AEMC, which shifted the default risk from TNSPs to secondary buyers and sellers, would inhibit liquidity thereby undermining the expected benefits of the change.[99]

EnergyAustralia was of the view that by transferring the entire risk of counter-party default from TNSPs to secondary buyers and sellers, market liquidity is likely to be restricted. As secondary participants are then trading with anonymous counterparties with unknown risk profiles, they face increased risk which is likely to reduce market engagement and subsequently market liquidity.[100]

EnergyAustralia recognised the AEMC's concerns about increased and asymmetrical risk being carried by the TNSPs. It, however, believed there are alternative mechanisms for allocating the risk that will ensure benefits of the change are realised.[101]

The South Australian Department of the Premier and Cabinet was concerned that the separation of primary and secondary units would alter the way in which default risk is currently managed (i.e. borne by the TNSPs).[102]

The South Australian Department of the Premier and Cabinet was of the view that defaults in relation to secondary market trading would be rare and very unlikely, and any perceived increase in default risk would be orders of magnitude smaller than the default risk already present in the settlements residue distribution units market. It also noted that to date there has only been one instance where a participant defaulted, when the purchaser was in external administration and actions under the prudential arrangements administered by AEMO were effectively undertaken.[103]

97 Energy Network Australia submission, 29 August 2017, p. 3

98 TransGrid submission, 29 August 2017, p. 1

99 EnergyAustralia submission, 29 August 2017, p. 1

100 Ibid., p. 1

101 Ibid., p. 1

102 South Australian Department of the Premier and Cabinet submission, 15 September 2017, p. 1

103 Ibid., p. 2

AEMO was of the view that the draft determination differed from Westpac's proposal, because it shifted the risk of default of secondary buyers and sellers from TNSPs to secondary market participants.[104]

AEMO noted that since the inception of the SRAs the primary market has not been collateralised. It added that there is no requirement in the NER or auction rules for AEMO to require participants to post collateral for unit purchases. It was also of the view that while this has been the approach since the start of the market, the management of credit risk is a reasonable topic for consideration as part of an AEMC review into the SRA framework or within a specific rule change process on the topic.[105]

Westpac was of the view that the AEMC seemed chiefly concerned with the entry of low-credit speculators into the market, however, the draft rule does not mitigate that risk.[106]

Westpac was also of the view that the draft rule does not allow for efficient risk allocation because of the following reasons:

- as the auction process is anonymous, auction participants have no information about counter-parties in the auction and therefore are no better placed to manage default risk than the TNSP
- the requirement to manage risk in this regard would result in either a price discount in exchange for bearing additional default risk, or a refusal to participate in auctions which would lead to lower demand and prices
- without information or ability to act on an incentive to manage default risk, no efficient action can be taken.[107]

Stakeholder options for implementation

In their submissions to draft determination, Westpac and AEMO provided an evaluation of possible options for implementing the draft rule.

AEMO identified two options that could be implemented to meet the AEMC's draft rule, with regards to risk of default for secondary units.[108] The options described below reflect AEMO's opinion.

Socialising the risk of default among all secondary sellers[109]

Primary and secondary units under this option would be auctioned in a single auction. AEMO would make a notional allocation of primary and secondary units to buyers, pro rata based on the total number of units sold at a particular auction.

104 Ibid., p. 1

105 Ibid., p. 3

106 Westpac submission, 29 August 2017, p. 1

107 Ibid., p. 3

108 AEMO submission, 5 September 2017, p. 2

109 Ibid., pp. 2-3

In the event of a default a gain or loss on re-auction of units would be shared between the TNSP and socialised across all secondary sellers in proportion to the primary/secondary units held by the defaulting party. This would place the default risk of primary units on the TSNP and secondary units on secondary participants. In order to do this, AEMO would need to notionally allocate primary and secondary units to buyers as part of the auction process.

Secondary sellers would not know their counterparties or their credit worthiness, making it impossible for them to mitigate default risk. This is a substantial change from the current arrangements in the primary market and is allocating a risk to a party that is not best placed to manage it.

This option would likely require AEMO to seek an Australian financial services licence (AFSL) exemption from the Australian Securities and Investments Commission (ASIC). This is because an indirect relationship would be created between sellers and buyers, as a result of the requirement to allocate the risk to specific sellers.

Collateralising secondary trading[110]

Under this option, AEMO indicated that there would be separate auctions for primary and secondary units and buyers would be required to lodge collateral with AEMO against the settlement exposure associated with secondary units.

Holding two auctions would allow sellers and buyers to price secondary units separately from primary units after taking into account the cost of providing collateral. In the event of default of a participant holding secondary units, the collateral would be used to keep the impacted counterparties whole.

Feedback from participants suggests that prudential costs, along with splitting liquidity across two auctions, will reduce the attractiveness of participating in secondary trading. The overall cost of establishing two auctions, developing a collateralisation framework for units and the acquisition of an AFSL or an AFSL exemption will also likely result in this option being practically infeasible to implement.

Evaluation of the options

AEMO and Westpac provided further evaluation of the two possible implementation options they considered.

AEMO was concerned that the possible options for risk management under the draft rule would include:

- unmanageable risks on participants
- splitting liquidity across two auctions
- collateralising only the secondary market
- higher system implementation costs, and
- greater likelihood that AEMO would need to seek an additional AFSL exemption from ASIC.

110 Ibid., p. 3

Based on the views expressed at the SRC, AEMO expects that if the draft rule was made as it stands, the SRC would be unlikely to implement secondary trading and the provisions would sit dormant in the NER.[111]

Westpac suggested that where implementation of the draft rule involved a pro-rata pass-through of aggregated default risk, this would result in a complete inability to trade secondary units. This is because Westpac's credit risk team indicated that it would not allow such trading, given that "credit risk cannot be quantified nor attributed to the relevant counterparties". Westpac was of the view that only participants with relatively weak risk oversight would be allowed to trade under the AEMC's proposed structure.[112] It further added, that the implementation of such mechanism (i.e. pro-rata pass-through of aggregated default risk) could not be done without affecting credit support mechanisms on the primary market too, which would result in a total withdrawal from the auction by participants.[113]

Westpac listed the following disadvantages of creating and collateralising a separate secondary auction:

- the primary objective of creating liquidity would not be achieved
- any mechanism to mitigate default risk for secondary units in the secondary auction such as margining or prudential requirements would make secondary units less desirable than primary units
- implementation of a separate secondary auction would be expensive
- current OTC based secondary trading would be a more preferable method for secondary trading, given the known counterparty.[114]

AEMO, Westpac, EnergyAustralia and the South Australian Department of the Premier and Cabinet provided and supported an alternative approach of risk mitigation in their submissions to the draft determination. This approach is largely based on a proposal that was presented by AEMO at an SRC meeting on 17 August 2017.[115] This alternative solution of risk mitigation is discussed in further detail in section 4.3.3.

4.3.3 Analysis

Current default procedure

As a result of the current auction design not requiring collateralisation of risks from auction participants, any risk of counterparty default is borne by TNSPs. Figure 4.5 illustrates the risk stemming from an auction participant default under the current auction rules.

111 AEMO submission, 5 September 2017, p. 3

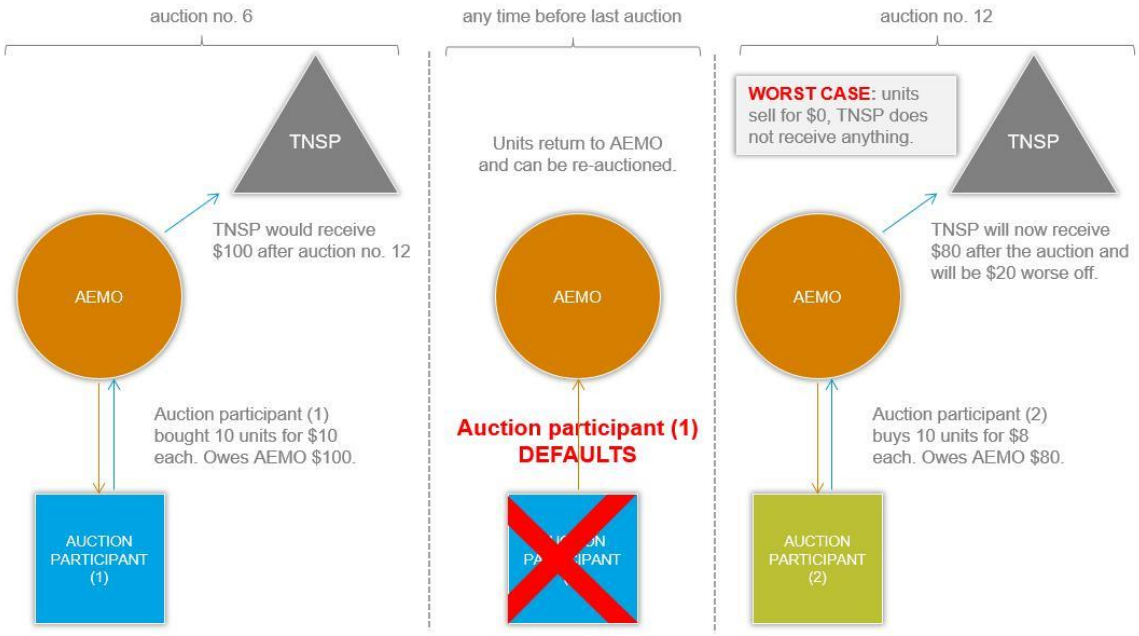
112 Westpac submission, 29 August 2017, pp. 1-2

113 Ibid., p. 2

114 Ibid., p. 2

115 South Australian Department of the Premier and Cabinet submission, 15 September 2017, p. 2

Figure 4.5 Current default procedure



If a participant defaults, its units are cancelled by AEMO and are then re-auctioned at another auction, if there is time. If the price at the new auction is lower than what the participant would have paid if it did not default, then the amount the TNSP would receive from the auction proceeds would decrease. The effect of the zero dollar reserve price means that, in the worst case scenario, the TNSP would not receive any auction proceeds from those units. If the units sold at the new auction for a higher price than originally paid by the party that defaulted, then the amount the TNSP receives from the auction would increase.

In other words, the counterparty default risk borne by TNSPs is symmetrical in a sense that if re-auctioned units sell for a higher price, they receive more auction proceeds, and if units sell for a lower price, they receive less auction proceeds.

If the participant default occurs after the last auction, AEMO would cancel the SRD agreement for those units and pay the TNSP its respective share of the positive inter-regional settlements residue which accrued to those units. No auction proceeds in relation to those units would be paid to the TNSP in this case, but it would receive the potential benefit of any positive inter-regional settlements residue related to those units.

As TNSPs are required to reduce their TUOS charges by the amount of the auction proceeds (or the payout from any non-auctioned units), the greater the value of these units, the more customers benefit. Current procedures require TNSPs to be responsible for the risk of other parties' default that they may have no information, ability or incentive to manage. The risk of loss is, therefore, passed on to customers, who may be required to pay higher TUOS charges if revenue from the auction proceeds is decreased due to a participant default.

Changes to default procedures as proposed in the draft rule

The introduction of secondary trading creates better opportunities for auction participants to manage their risk, by allowing for an easier way of changing their

positions. A more liquid secondary market could provide means for an auction participant in financial distress to sell its units and, therefore, improve its financial situation. This could, in theory, lead to a decrease in default risk in this market. Depending on the requirements in the NER and the auction design developed by the SRC, there can be cases where TNSPs (and as a result, customers) would need to be responsible for a shortfall in auction revenue, however unlikely.

The Commission is of the view that the proposed rule would have allowed for the development of an auction design, where the symmetry of the TNSP being able to receive higher or lower proceeds from a new auction following an auction participant default would have been altered. This is because if a secondary buyer defaulted and its units were re-auctioned for a lower price, the TNSP would have been responsible for the shortfall. However, if the new auction price was higher than the previous selling price, the TNSP would not have received higher auction proceeds as a result.

Default risk associated with secondary trading is currently managed by the auction participants. If a counterparty to a bilateral trade defaults, it does not have flow-on effect to a TNSP or its customers, as auction proceeds distributed to TNSPs remain unaffected. If secondary trading was to be facilitated by AEMO, counterparty risk originating from secondary trading may be socialised among a TNSP's customers as a result of the impacts on TNSPs. Clause 3.18.4(a2) of the proposed rule would have required TNSPs to cover the secondary seller's shortfall in revenue if the secondary buyer was unable to pay for the units it previously purchased.

The Commission understands that to date the risk of default in auctions has been low. Stakeholders submitted that such a risk continues to be immaterial and the possible effects on the TNSPs, and therefore, on its customers would not be significantly different as a result of secondary trading. However, socialising risk among the broader group of consumers would still remain a possibility.

The Commission understands that the likelihood of counterparty default remains low and that the likelihood is expected to further decrease as auction participants receive the optionality to sell their units; however, this has to be balanced against the possibility of increased speculation occurring in the market which may increase the risk of default. Any additional costs associated with increased risk management required as a result of secondary trading, in the Commission's view, is outweighed by the benefits of increased liquidity. However, it is still necessary to recognise that the risk must be managed. The draft rule therefore, required that secondary trading auction participants bear the risk of secondary trading. Stakeholders indicated that the risk of default is not significant and therefore, is not a major risk for the TNSP to manage. The Commission was of the view, that given stakeholders views on this risk, it would have been appropriate for auction participants to bear this risk. The draft rule did not set out how this risk is to be managed, however, as the Commission considered the auction rules are the appropriate place for this issue to be addressed.

Therefore the draft rule did not mandate any type of risk mitigation method to be used in relation to secondary trading as these specific and technical details are best addressed by the SRC through the auction rules. As the auction rules would have required amendment prior to any implementation of secondary trading, auction participants would have had the opportunity to consider this issue through the rules consultation

procedures, which AEMO is required to follow if a decision is made to amend the auction rules in order to implement secondary trading.[116] However, the draft rule made it clear that any shortfall in secondary auction proceeds cannot be recovered from a TNSP, and AEMO has no obligation to pay auction proceeds to secondary sellers where it has not received sufficient proceeds to do so.[117] Therefore, the auction rules could not be amended in a way that would have be inconsistent with this requirement.

The Commission was of the view it was appropriate to allocate default risk in a way that reflects the beneficiaries of the persons receiving the auction proceeds. TNSPs are entitled to auction proceeds related to primary units and also bear the default risk associated with those units.[118] Secondary sellers are entitled to auction proceeds related to secondary units, and so they bear the associated default risk accordingly.[119]

The draft rule did not alter current arrangements with respect to primary units and did not increase already existing risks for the TNSPs (and as a result, customers). This means that in case of the default of a primary buyer, units that were not sold in the secondary trading auction could still be re-auctioned by AEMO. Auction proceeds stemming from the sale of primary units were payable to the relevant TNSP in all cases.[120]

In relation to the case where a primary buyer defaults after reselling some or all of its units in the secondary trading auction, re-auctioning by AEMO of those units was no longer possible, because of the secondary trade.[121] That is, the right to the settlements residue associated with the relevant unit has been transferred to another person. In such a case, the primary auction proceeds received by AEMO could have been less than what AEMO is required to pay to the TNSP. The draft rule required AEMO to pay to the relevant TNSP the total of the primary auction proceeds prior to paying any secondary seller. Where the total auction proceeds received by AEMO was less than the amount owed to the relevant TNSP (which the Commission recognised may not be very likely), AEMO must have paid all of the auction proceeds to the TNSP.[122]

Difficulties of implementation and operation

Stakeholders have indicated that the implementation and operation of the draft rule would result in numerous practical difficulties. The Commission understands that AEMO and the SRC have identified two possible options for the implementation of the draft rule:

116 See clauses 3.18.3(d)(1) and 3.18.3A(b) of the draft rule.

117 See clause 3.18.4 and particularly, paragraph (a6) of the draft rule.

118 See clause 3.18.4(a2) of the draft rule.

119 See clauses 3.18.4(a5) and 3.18.4(a6) of the draft rule.

120 See clause 3.18.4(a1) of the draft rule and the definition of "primary SRD unit".

121 The primary buyer in this case sold its units on an another auction that is different and happened after the original purchase.

122 See clause 3.18.4(a3) of the draft rule.

1. socialising the risk of default among all secondary sellers (in case of a buyer default risk, secondary sellers would have been required to cover the shortfall in revenue, pro-rata to their contribution to the total units sold at the relevant auction)
2. collateralising secondary trading (secondary auctions would have been separated from primary auctions and buyers would have been required to post collateral in order to be able to participate in those auctions)

Although options exist, the Commission also understands that neither option is likely to be implemented, and there may be unintended consequences arising from the implementation of either of these options.

From the perspective of risk management of trading, the magnitude of the risks are just as important as their predictability. Low probability risks coupled with relatively low sums may still be prohibitive to trading, if calculating the probability of default is not possible. Because the auction process is anonymous, secondary sellers do not have the means to calculate the credit risk associated with their buyers. In such a case, secondary sellers are not in a position to appropriately manage their risk. The Commission acknowledges that if the risk of default was socialised among all secondary sellers, there is a possibility that secondary sellers would chose to withdraw from the market or the secondary sellers that did participate may be the ones with less rigorous risk management policies.

If secondary sellers do not participate in the market, the benefits associated with increased liquidity and more efficient inter-regional hedging are not likely to eventuate. If secondary sellers with less rigorous risk management practices were encouraged to trade in the market, that could potentially lead to a general increase in default risk in both primary and secondary markets.

The Commission understands that if secondary auctions were separated from primary auctions, with buy-side collateralisation in the secondary market, liquidity would be split between the two auctions and potentially reduced.

Where collateral was required for these auctions, it is likely to lead to the creation of a separate unit class that may be less valued. This is because an upfront security payment would be required for the secondary units as far as three years ahead of their delivery period, while no such financial obligation would be required for units traded at the primary auction.

The Commission is of the view that the introduction of a separate secondary auction would have a number of advantages over the existing OTC-based secondary trading options. However, the Commission recognises that units traded at the separate secondary auction could be less valued than the primary units, because of the associated collateral requirements.

The Commission recognises that both of the options described above could have unintended consequences that would result in the draft rule either not being implemented or not providing the desired results. In either circumstance, the draft rule would not likely better contribute to the achievement of the NEO than the proposed rule.

Due to the potential unintended consequences arising from the implementation of the draft rule, the Commission has changed its approach in the final rule, regarding the mitigation of default risk.

The sections below discuss three distinct types of default risk and changes from the draft rule to the final rule associated with those types of default risks.

These are:

- default of a secondary seller
- default of a buyer prior to the start of the relevant quarter
- default of a buyer after the start of the relevant quarter.

Changes from the draft rule to the final rule – mitigating seller-side risk

Stakeholders have provided alternative risk mitigation methods which are outlined in text box 4.1 and further discussed in this section below.

Box 4.1 Alternative risk mitigation measures proposed by stakeholders

In its submission to the draft rule, AEMO suggested an alternative approach of risk mitigation that would address some of the risks arising from secondary trading.[123] The approach was endorsed by other stakeholders including Westpac, EnergyAustralia and the South Australian Department of the Premier and Cabinet.[124]

Firstly, AEMO proposed imposing a limit on the number of secondary units that can be sold at a particular auction and/or limiting the number of units an auction participant is able to sell at a particular auction. AEMO noted that limiting the number of secondary units in an auction may reduce the market's efficiency, but consider this drawback is outweighed by the counterfactual, which is the lack of trading in the current illiquid secondary market for SRDA units. AEMO suggested that these limitations could be a principle that is included in the NER.

Secondly, it proposed to require an up-front cash settlement of any trading loss soon after the secondary transaction. If a secondary seller was to offer its units to be sold at a loss, it would have to pay the difference between the price it previously purchased those units at and the clearing price it sold them at. AEMO suggested that cash settling a trading loss could be a principle that is included in the NER.

AEMO was of the view that this up-front payment would protect consumers if a future default event occurred. It also suggested that if participants were not able to cash settle their loss, their financial issues would be known to AEMO and the market earlier than otherwise would have been the case, allowing AEMO to

123 AEMO submission, 5 September 2017, pp. 3-5

124 Westpac submission, 29 August 2017, pp. 2-3; EnergyAustralia submission, 29 August 2017, pp. 1-2, South Australian Department of the Premier and Cabinet submission, 15 September 2017, p. 2

suspend the participant from further trading. Such suspension would involve the close-out of positions and crystallising any gain or loss as soon as possible.[125]

AEMO considered the following benefits for its alternative solution:

- the original design for secondary unit trading, that was developed in consultation with the SRC, could be implemented
- no requirement for AEMO to track primary and secondary units and make material changes to systems, minimising implementation costs for participants
- measures implemented to mitigate risks of secondary trading
- greater likelihood AEMO's existing AFSL exemption will apply
- efficiency benefits of secondary SRDA unit trading have the potential to be realised, benefiting consumers and promoting the NEO.[126]

Westpac's suggested alternative solution for risk mitigations are largely similar to the ones submitted by AEMO. In addition, Westpac added that cash settlement by sellers if selling at a loss would reduce the default risk for auction participants, compared to the status quo.[127]

Westpac also suggested the introduction of a percentage based limit on secondary traders calculated from the aggregate value of sell trades that would force auction participants to always hold a substantially net long position in the market (i.e. the aggregate value of their purchased units must be significantly lower than the value of their sold units). Westpac was of the view that with such limitations introduced, selling of units could only be used to adjust previously purchased volumes and not to speculate in large volumes auction to auction.[128]

The Commission retains its view that additional risks stemming from secondary trading must be managed and the primary beneficiaries of secondary trading, secondary sellers, should be responsible for managing risks, where reasonable. However, the Commission also acknowledges that in practice it is not possible to require secondary sellers to manage all risks related to secondary trading without foregoing considerable benefits to consumers, related to increased liquidity and more efficient inter-regional hedging.

The Commission is of the view that limiting the number of units that sellers can offer at each auction or limiting the value of sales is a kind of mitigation measure that is best addressed in the auction rules. The Commission, however, notes that the benefits of such risk mitigation measures may be outweighed by the disadvantages they may cause in terms of their limiting effect on liquidity, as increased liquidity is the major benefit of the rule change.

125 AEMO submission, 5 September 2017, pp. 3-4

126 Ibid., pp. 4-5

127 Westpac Submission, 29 August 2017, pp. 2-3

128 Ibid., pp. 2-3

The Commission considered that there are difficulties and risks associated with the unintended consequences of the draft rule being made with no changes. The Commission therefore further considered the alternative risk mitigation methods proposed by stakeholders.

The Commission considers that the requirement for secondary sellers to provide a margin to AEMO when offering to sell their previously purchased units at a loss is an appropriate mechanism to manage sell-side default risk in the market. The Commission notes that sell-side risk is a new type of risk which is currently not present in the primary market, as participants are not able to offer their units back into the auction after they have been acquired.

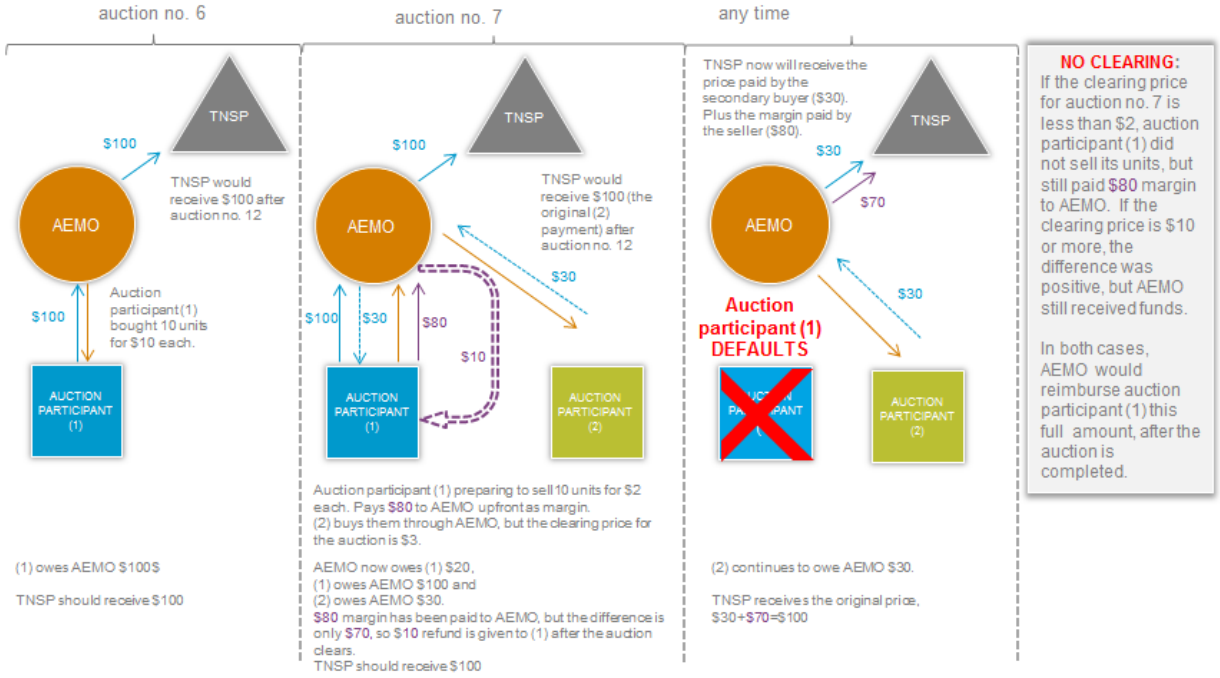
If a secondary seller purchases units at previous auctions at a high price, sells them at a subsequent auction for a lower price and then defaults there will be a shortfall in auction proceeds. The proposed rule would have required TNSPs to cover the shortfall, while the implemented draft rule may have required other secondary sellers to cover the shortfall. If the secondary seller was required to provide a margin that covered the price difference and defaulted, AEMO would be able to apply that margin to the auction proceeds payable by the defaulting party. The margin, together with the new, lower purchase price would make the sellers[129] that sold their units to the defaulting counterparty whole. As a result, TNSPs would not be required to cover the shortfall. However, this mechanism only applies to units that the seller successfully sold at auctions. In relation to units that are still being held by the seller when it defaults (i.e. the seller did not sell them at auctions) the rules of buyer default would apply.

The Commission considers that in practice the requirement to provide a margin will produce better outcomes, if it is required simultaneously with the submission of offers by secondary sellers. If the margin was only to be provided after the auction, there is a possibility that a secondary seller would not able to provide such margin, which creates the potential for another type of default event.

Figure 4.6 illustrates the possible mechanics of dealing with a seller that defaulted after providing a margin.

129 For the purposes of this example sellers include both AEMO that auctions units for the first time, and secondary sellers who offered previously purchased units for sale.

Figure 4.6 Seller default with margin



The Commission considers that the SRC is best placed to determine how the margin should be calculated. However, the final rule requires that the mechanisms set out in the auction rules for calculating and determining the margin must take into account the relevant prices at which the secondary seller offers its units at the auction, as well as the auction clearing prices at which it received units at previous auctions.[130] The Commission expects that the auction rules would define the margin to be provided only if it is a positive number (i.e. offers that would not result in a loss would not attract a margin payment).

The calculation method of the margin could be based on an average of all clearing prices of the auctions the secondary seller purchased its units at. Alternatively, the calculation could use a different approach, by allowing for an individual selection of units that carry their original purchase price as an attribute. In such a case a secondary seller could differentiate between the units it purchased at different auctions previously and manually select the ones that it is preparing to sell. In such a case, the margin could be based on the price of those selected units only.

The Commission understands that depending on the clearing price of the auction the secondary seller sold its units, AEMO may decide to provide a full or partial refund after the auction clearing price becomes known. This is because if the secondary seller's offer price was above the clearing price, its units did not clear at the auction, therefore, its units were not sold and no margin should be required from the secondary seller. If the clearing price was above the offer price, the secondary seller may not have sold at a loss, therefore, no margin would be required from the secondary seller. If the clearing price was higher than the offer price, but lower than the previous purchase price that was determined for the purposes of calculating the margin, AEMO would not need to

130 See clause 3.18.3(a1)(5) of the final rule.

hold the full amount and could chose to provide a partial refund to the secondary seller. The final rule requires the specifics of this process to be set out in the auction rules.

The final rule, therefore, requires auction participants that are offering a unit for sale to provide a margin to AEMO at the same time it offers the unit.[131] It also requires the auction rules set out a mechanism for calculating and determining the margin.

The final rule does not prescribe how the margin must be provided to AEMO, as it may be provided in the form of a bank guarantee, a cash payment or some other type of financial security. The final rule also does not prescribe deadlines or processes of how the margin should be obtained or refunded as these are the kind of details that are best addressed in the auction rules. The final rule therefore requires AEMO to amend the auction rules (if the SRC decides to introduce secondary trading) to set out the procedures AEMO will follow to obtain and manage the margin.[132]

The final rule also requires AEMO to apply the margin previously provided by a defaulting secondary seller to any outstanding amounts owing to AEMO or amounts that would have been owing to AEMO had the secondary seller not defaulted.[133]

The Commission is of the view that the final rule strikes the appropriate balance between individual benefits and responsibilities by requiring a margin from sellers in a transparent, predictable way, in exchange for the added value of the optionality of being able to sell unwanted units.

Changes from the draft rule to the final rule - mitigating buyer-side risk

The Commission understands that if there is a single auction and no distinction is made between primary and secondary units, there are various buyer-side default scenarios that may occur if auction based secondary trading is implemented. Buyer default constitutes a distinct group of defaults and it can occur well before the start of the relevant quarter of a particular class of units, so that AEMO is able to re-auction those units. However, buyer default can also occur at the beginning of the relevant quarter, when auction participants are required to pay for the units they previously acquired, in which case there is no time left for AEMO to re-auction the units.

These two types of buyer defaults are discussed below.

Buyer default prior to the start of the relevant quarter

Where units that were not previously sold by the auction participant can be re-auctioned prior to the relevant quarter, the new auction price may be less or more than what the buyer originally bought it for at previous auctions. If units are re-auctioned, through AEMO, the TNSP becomes the recipient of the gain or loss that is realised on the sale of these units. If secondary sellers are not responsible for the shortfall and trading is not collateralised, any loss or gain realised at the new auction is then passed on to the relevant TNSP.

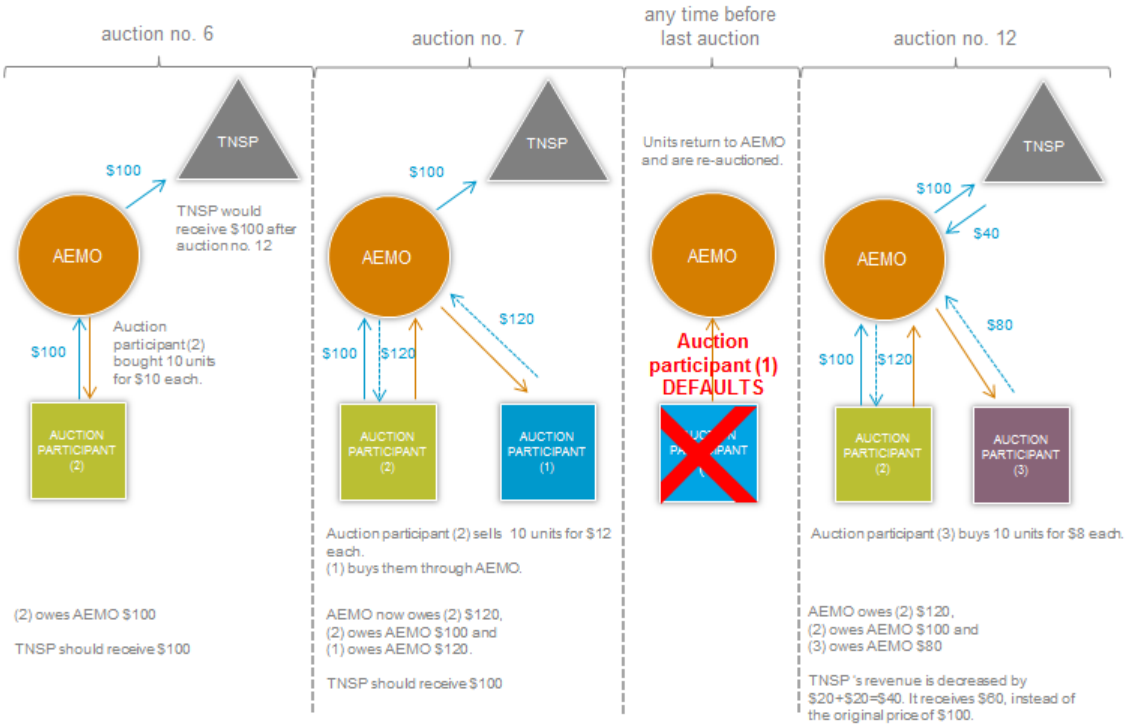
131 See clause 3.18.4A (b) of the final rule.

132 See 3.18.3(a1)(6) of the final rule.

133 See clause 3.18.4A (c) of the final rule.

This is not dissimilar to the current default procedure, except that the "loss" TNSPs are required to cover now includes receiving a lower amount of auction proceeds for the units and also having to make up for the difference for the secondary sellers that were involved in the sale of units to the defaulting participants. Figure 4.7 illustrates the risk arising from this type of buyer default.

Figure 4.7 Early buyer default



Buyer default after the start of the relevant quarter

If units that were not previously sold by the auction participant cannot be re-auctioned (i.e. because there are no remaining quarters), and the auction participant defaults on its payment for those units, the TNSP would be entitled to the inter-regional settlements residue payment related to those units.

If the previous seller, from which the defaulting party bought the units, sold these units at a loss, the TNSP, apart from the settlements residue, would also receive a net payment that equals the amount of that loss.

If the previous seller made a profit on the sale, (i.e. bought at a lower price, sold at a higher price) the TNSP would need to cover that profit from the settlements residue payment. The Commission considers that this type of buyer default preserves the symmetrical treatment of gains and losses from secondary trading for TNSPs.

Changes in the final rule

The Commission understands that there is only one specific type of buyer default scenario that may alter the current symmetry of losses and gains for TNSPs. That is, the first of the two buyer default scenarios described above, which is when a buyer defaults before the start of the relevant quarter, its units are re-auctioned and they are sold for a lower price than the defaulting buyer bought them for. The Commission is of the view that given the preserved balance of gains and losses in other types of buyer default, the

benefits to consumers of a liquid secondary market and the seller-side risk mitigation measures introduced in the final rule, which are described in section 4.3.3, a change in the draft rule is warranted.

The final rule, therefore, requires AEMO to recover the shortfall in auction proceeds arising from a buyer default from the auction proceeds payable to the relevant TNSP.[134] If that amount is not sufficient to cover the shortfall, AEMO must recover the remaining amount directly from the relevant TNSP in such a way it would do as if the shortfall was negative settlements residue.[135]

The final rule also allows AEMO to re-auction the units that were still being held by a defaulting auction participant immediately prior to the default.[136]

The Commission is satisfied that the final rule is likely to better contribute to the achievement of the NEO than the proposed rule. Risk allocation is considered efficient if it is being allocated to the party that has the information, ability and incentives to best manage the risks. Efficient allocation of risks in the NEM leads to lower costs for consumers as the adverse effects of default are better managed.

Consumers are likely to benefit from preserving the symmetry of those that receive the benefits of auction proceeds with those that bear the risk of default. The Commission considers that where such symmetry cannot be fully preserved, it is necessary to consider the overall benefits and costs that consumers may face from the introduction of secondary and determine the appropriate balance.

The Commission understands that the proposed rule would have provided greater liquidity, while exposing the TNSPs' customers to greater risk. The draft rule would have provided lower or no additional liquidity benefit, while not increasing risks for the TNSP's customers. The final rule allows for additional liquidity that is more than what the draft rule would have achieved, but slightly less than what the proposed rule would have resulted in. This is balanced against any increase in risk the TNSPs' customers may face that is lower than in the proposed rule, but higher than in the draft rule.

The Commission is of the view that the final rule strikes the appropriate balance for consumers between providing the benefit of greater liquidity and the expected costs of increased risk of default as a result of the introduction of secondary trading.

4.4 Costs and benefits

There are some direct, easily quantifiable costs involved with the implementation of auction based secondary trading, relating to necessary IT and auction rules development. Other costs and benefits depend on whether the added value of optionality and better opportunities for optimising a portfolio across regions outweigh the indirect costs of lower auction prices result from an additional supply of units per auction.

134 See clause 3.18.4A(d)(1) of the final rule.

135 See clause 3.18.4A(d)(2) of the final rule.

136 See clause 3.18.4A(e) of the final rule.

4.4.1 Westpac's view

Westpac in its rule change request submitted that the benefits of the rule change request would likely outweigh the costs. It was of the view that the costs incurred by auction participants would increase as AEMO would pass on any increased cost of running the auction through an increase to the auction expense fees. Based on advice from AEMO, Westpac suggested that the cost of implementation would be between $195,000 and $285,000 which, if recovered through the auction fees of 2016 (where the total amount of auction proceeds was over $150 million), would have increased the cost of units by 0.15 per cent[137]in that year.[138]

Westpac also noted that benefits to sellers include liquidity, anonymity, simplified execution and reduced default, credit and settlement risk, which are all extremely hard to quantify. Additionally, buyers would be able to quickly build a unit position to their desired level if required to meet shifts in risk portfolio requirements.[139]

Westpac stated that it was unclear whether the proposed change in units would cause any shift in the value of units large enough to be distinguishable from the usual price movements and allowing the sale of units at auctions would not create an overall change in supply or demand of units and therefore should not affect the price. It, however, noted that if auction participants strongly valued the increased liquidity that sale at auction creates, then units might become fundamentally more valuable.[140]

4.4.2 Stakeholder views

Submissions to the consultation paper

AGL noted that as AEMO's maximum estimate of the cost of implementation was $285,000, even if there was little interest in secondary trading, market participants would not be left with a large implementation bill.[141]

AGL was also of the view that units already purchased should not be included in the draft rule. To ensure that the cost of units already purchased is not compromised, only units purchased at auctions after any draft rule is implemented should be allowed to be sold into the secondary trading process. It further argued that altering the settings of the remaining tranches of units may still compromise the cost of those units already purchased, as embedded in the cost attributed to the units is that there is no provision to sell units back in to the auction. As a result, AGL suggested that the rule change request should be implemented only prior to the first tranche of the units at auction, namely

137 In comparison the weighted average clearing price of units for the second calendar quarter of 2017 ranged between $845 and $32,145. A 0.15 per cent increase in those prices would have meant having to pay an additional $13 and a $482 per unit.

138 Westpac rule change request, 16 December 2017, Appendix 1, p. 4

139 Ibid., p. 4

140 Ibid., p. 4

141 AGL submission, 17 May 2017, p. 1

three years in advance. AGL did not specify whether these recommendations should be included in the NER or in the auction rules.[142]

Westpac submitted that the proposed change to the NER has no cost other than the effort of participants responding to the consultation. It added that other costs could only be incurred if a change is made to the auction rules, if AEMO and the SRC go through a process which requires public consultation and must be considered in regard to contributing to the achievement of the NEO.[143]

Westpac considered that secondary trading provides participants with an additional optional action to sell and, in general, increases in optionality increase value.[144]

Westpac reiterated its view from its original rule change request, stating that the costs indicated by AEMO are trivial in percentage terms and are much smaller than market participants typically pay in brokerage fees, which is a proxy for the value the market places on liquidity for financial products. It considered that implementation costs could be recovered only from sellers of units, because in that case only those who valued the change would pay for implementation.[145]

Submissions to the draft determination

EnergyAustralia supported immediate implementation to ensure that benefits of making the change can be realised as soon as possible, ultimately delivering lower costs to its customers.[146]

AEMO was of the view that Westpac's proposal allows primary and secondary units to be auctioned in a single auction and minimises implementation costs for industry. It added that the proposal results in no legal relationship between the buyer and seller, which is a key argument that AEMO's existing AFSL would cover secondary trading if this market design was adopted.[147]

Snowy Hydro contended that the draft determination does not provide a clear identification of benefits from AEMO's secondary trading process, while identifying that market participants could be left with a large implementation bill if auction participants did not choose to participate in the market.[148] It added that if fundamental changes would have to be made to Westpac's proposal in relation to collecting margins managing the risk of secondary trade default, the costs of implementation would further rise.[149]

142 Ibid., p. 1

143 Westpac submission, 9 May 2017, p. 6

144 Ibid., p. 6

145 Ibid., p. 6

146 EnergyAustralia submission, 29 August 2017, p. 2

147 AEMO submission, 5 September 2017, p. 2

148 Snowy Hydro submission, 29 August 2017, p. 1

149 Ibid., p. 3

Snowy Hydro was concerned that benefits were unquantified and that extra costs are likely to be significant, and encouraged the Commission to weigh up the benefit of secondary market against the costs before proceeding with the final determination.[150]

The South Australian Department of the Premier and Cabinet reiterated its former view that the greater supply of units being offered for auction would reduce risk premiums and lower wholesale costs for retailers, which would be beneficial for consumers in the long run and would meet the NEO. It was, however, concerned that the approach taken in the draft rule regarding counterparty default would create barriers to the efficient introduction of secondary trading.[151]

The South Australian Department of the Premier and Cabinet further noted that the SRC was of the view that implementing the draft rule would introduce greater complexity in the design of the auction rules for secondary trading. In particular, it would introduce greater implementation costs because of the likelihood that AEMO would be required to obtain a financial services licence exemption from ASIC.[152]

The South Australian Department of the Premier and Cabinet was also of the view that the draft rule as it stands would not be implemented and instead remain dormant in the NER. This would a highly undesirable, sub-optimal outcome from the rule change process.[153]

4.4.3 Analysis

The costs of changes to the auction rules and AEMO's IT systems to support trading can be recovered through auction fees that are paid by auction participants. These costs would add to the total cost of units, however, the recovery of these costs is likely to come from those who value and benefit most from the introduction of auction based secondary trading: auction participants.

Indirect costs and benefits are related to the value that auction participants attach to the units that can be traded in a more robust manner.

If secondary units are auctioned at the same auction as primary units are offered for sale, the supply of units at a particular auction could naturally increase. All things being equal, increased supply usually leads to lower prices. Lower unit prices could, on the one hand, reduce auction proceeds going to TNSPs, resulting in higher TUOS charges for customers. On the other hand, if units are fit for purpose in terms of being efficient hedging tools, retailers may be able to decrease their retail prices for customers, as the wholesale purchase of electricity costs would be lower. Customers, however, do not directly benefit from lower unit prices and higher payouts received by traders, as their profits typically increase the value for their private shareholders.

The Commission is of the view that the added value created by increased liquidity and the optionality of being able to sell units through the AEMO auction process is likely to

150 Ibid., p. 3

151 South Australian Department of the Premier and Cabinet submission, 29 May 2017, p. 1

152 Ibid., p. 1

153 Ibid., p. 2

outweigh the possible decrease in unit prices stemming for the increased supply of units per auction.

The Commission understands that any secondary trading mechanism implemented will require AEMO to determine what, if any, requirements or exemptions it may be need to comply with. Seeking an exemption from an AFSL is considered to be such a requirement that AEMO will need to investigate if secondary trading is implemented.

The Commission considers that the auction rules are best placed to address the issue of deciding whether units that were sold at auctions prior to the commencement of the rule could subsequently be offered for secondary sale. The Commission understands that the benefit of additional liquidity stemming from the ability to offer those units for sale could outweigh the retrospective gain in value for those auction participants that hold those units.

The Commission has made changes from the draft rule to the final rule that address stakeholders' concerns about the feasibility of implementation and operation. The Commission is of the view that these changes will allow for the development of a functioning secondary market that will enhance the efficiency of inter-regional hedging.

4.5 Conclusion

The Commission considers that the increased liquidity of secondary trading is likely to improve the effectiveness of units as inter-regional hedging instruments. This improvement, together with the added optionality of being able to sell units is expected to create more value for auction participants, leading to higher unit prices and therefore higher auction proceeds to be distributed to the TNSPs, which in turn will lower TUOS charges for customers. This contributes to the NEO by promoting the efficient operation of electricity services for the long term interests of consumers with respect to price.

The Commission is of the view that the final rule, which is a more preferable rule, appropriately allocates most of the risks stemming from the introduction of auction based secondary trading by requiring those parties who have the information, ability and incentives to best manage the risks they are able to reasonably manage. Better managed risks mean that shortfalls following secondary seller defaults occurring are not passed on to customers via possible higher TUOS charges.

The Commission considers that the introduction of secondary trading brings about seller default risk which is not currently present in the existing primary market. The final rule, however, mitigates this new risk by introducing a compulsory requirement for sellers that are intending to sell their units at a loss to provide an upfront margin to cover that loss.

The Commission also considers that buyer default risk is a type of risk that currently exists in the existing primary market and the final rule expands this to include risk arising from the secondary market. This means that the customers of TNSPs are exposed to some additional risk through the possible impact on TUOS charges. However, any increase in buyer default risk is balanced by the benefit to consumers of retailers that is stemming from the improvement of liquidity of units, as it improves the efficient operation of electricity services.

The Commission considers this is in the long-term interests of consumers in relation to price and investment in electricity services and therefore, it will, or is likely to, better contribute to the achievement of the NEO.

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AFSL	Australian financial services licence
ASX	Australian Stock Exchange
Commission	See AEMC
MCE	Ministerial Council on Energy
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National electricity objective
NER	National Electricity Rules
SRA	settlements residue auctions
SRC	Settlement Residue Committee
SRD	settlements residue distribution
TNSP	transmission network service provider
TUOS Charge	transmission use of system charge

A Summary of other issues raised in submissions

A.1 Summary of other issues raised in submissions to the consultation paper

This appendix sets out the issues raised in the first round of consultation on this rule change request and the AEMC's response to each issue. If an issue raised in a submission has been discussed in the main body of the draft determination, it has not been included in this table.

Stakeholder	Issue	AEMC response
ERM Power, p. 2	ERM submitted that the maximum number of units for each directional interconnector should be subject to change at every auction instead of the current practice where that number is based on the nominal capacity of interconnectors. ERM was of the view that instead, there should be an expected average interconnector limit based on a previously agreed methodology. It suggested that this would improve the effectiveness of units for supporting inter-regional trade	The Commission notes that the NER does not prescribe any methodology on how the maximum number of units should be calculated. Section 4.3(d) of the auction rules requires AEMO to publish the maximum number of units, but it does not provide guidance on how those numbers should be determined. The Commission considers that underlying methodology for calculating the maximum number of units for each directional interconnector is out of scope of this rule change request, and would be best addressed through consultation on amendments to the auction rules and not by the NER.
ERM Power, pp. 2-3	ERM was of the view that the firmness of units would be greatly improved if the calculation of inter-regional settlements residue was modified in a way that TNSPs became financially responsible for the changes in inter-regional settlements residue that is caused by network outages.	The Commission considers that while this issue is relevant to the underlying value of units in general, addressing it would represent a change to the current calculation methodology of settlements residue, which would be out of scope of this rule change request.
ERM Power, p. 3	ERM noted that short selling of units should be permitted on auctions, because that would further increase liquidity and therefore the effectiveness	The Commission is of the view that the permission of short selling at auctions would significantly expand AEMO's current roles and responsibilities in the NEM, with the result of

Stakeholder	Issue	AEMC response
	of units as inter-regional hedging instruments.	AEMO effectively becoming a central clearing counterparty of auctions. The risk management practices required for this exercise, as ERM noted, would likely be similar to the operation of the ASX, including the requirement of margining and possibly daily marked-to-market evaluation of financial positions. The Commission therefore considers that allowing or mandating the operation of a financial market for AEMO would not be in line with its current responsibilities and is not an appropriate role for the market operator.
ERM Power, pp. 3-4	ERM was of the view that an offer curve should be published by AEMO after the auctions, similarly to how bid curves are published following current auctions.	The Commission notes that the NER does not prescribe what information AEMO must publish following each auction. Section 10.2 of the auction rules requires AEMO to publish details of the anonymised version of bids on its website. The Commission considers that the requirement to publish offers without identifying auction participants would be best addressed through consultation on amendments to the auction rules and not by the NER.

A.2 Summary of other issues raised in submissions to the draft determination

This appendix sets out the issues raised in the second round of consultation on this rule change request and the AEMC's response to each issue. If an issue raised in a submission has been discussed in the main body of this document, it has not been included in this table.

Stakeholder	Issue	AEMC response
Energy Networks Australia, p. 2	Energy Networks Australia considered that the AEMC should continue to refer any potential Settlement Resides Auction rule amendments to the SRC. Energy Networks Australia added that it might be appropriate for the SRC to undertake further analyses as to what it considers are the best options to potentially establish secondary trading arrangements that are cognisant of, and fully aligned with the AEMC's draft preferred rule determination recommendations.	The Commission notes that the final rule requires the auction rules to set out a range of mechanisms and procedures. Such requirements are aimed at providing high level guidance and flexibility to the SRC while designing the new auction rules.
Snowy Hydro, p. 2	Snow Hydro noted that overwhelming feedback from submissions to date is that the current SRA process remains fit for purpose.	The Commission notes that submissions related to the current auction process being fit for purpose were made in relation to the primary market only. The majority of submissions did not suggest that the current processes related to secondary trading remain fit for purpose.
Snowy Hydro, pp. 2-3	Snowy Hydro was concerned that with the uncertainty that currently resides in the NEM, due to a changing generation plant mix and increasing intermittent generation, means that the risk of default in the NEM is likely to be on the rise. It added that under current secondary trading arrangements the risk of default resides with the secondary seller.	The Commission is of the view that the final rule allows for the development of a functioning secondary market will provide more benefits to the market of inter-regional settlements residue distribution units, than the risks it would introduce.

Stakeholder	Issue	AEMC response
Snowy Hydro, p. 3	Snowy Hydro suggested and supported the draft determination's position that the current auctions remain fit for purpose and no further inquiry on this matter is necessary.	The Commission notes that the draft determination clarified a distinction between the current primary and secondary market. The Commission considered that changes to the current primary market are not in the scope of this rule change, however, it did not come to such a conclusion about the current secondary market.
Westpac, p. 1	Westpac was of the view that no other market requires its participants to take default risk against anonymous counter-parties. It added that such operation would degrade market efficiency and ultimately result in worse outcomes for consumers.	The Commission notes other markets where auction based trading is facilitated, generally deal with anonymous counterparty risk by requiring the posting of some form of collateral or an upfront payment from their participants. The draft and the final rule do not preclude the SRC from introducing full collateralisation of the market if it is determined that counterparty-risk is best addressed that way.

B Legal requirements under the NEL

This appendix sets out the relevant legal requirements under the NEL for the AEMC to make this final rule determination.

B.1 Final rule determination

In accordance with sections 102 and 103 of the NEL the Commission has made this final rule determination in relation to the rule proposed by Westpac

The Commission's reasons for making this final rule determination are set out in section 3.4

A copy of the final rule, which is a more preferable rule, is published with this final rule determination. Its key features are described in section 3.4.

B.2 Power to make the rule

The Commission is satisfied that the final rule falls within the subject matter about which the Commission may make rules. The final rule falls within section 34 of the NEL as it relates to the activities of persons (including Registered Participants) participating in the national electricity market or involved in the operation of the national electricity system.[154]

B.3 Power to make the more preferable rule

Under section 91A of the NEL, the Commission may make a rule that is different (including materially different) from a market initiated proposed rule if the Commission is satisfied, having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will, or is more likely to, better contribute to the achievement of the NEO.

As discussed in chapter 3, the Commission has determined to make the final rule, which is a more preferable rule.

B.4 Commission's considerations

In assessing the rule change request, the Commission considered:

- its powers under the NEL to make the rule
- the rule change request
- submissions received during first and second rounds of consultation and
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO.

154 Section 34(1)(a)(iii) of the NEL.

There is no relevant Ministerial Council on Energy (MCE) statement of policy principles for this rule change request.[155]

The Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of Australian Energy Market Operator (AEMO)'s declared network functions.[156] The more preferable final rule is compatible with AEMO's declared network functions because it does not impact on AEMO's declared network functions.

B.5 Civil penalties

The final rule amends one clause that is currently classified as civil penalty provision under the NEL or Schedule 1 of the National Electricity (South Australia) Regulations.

Clause 3.18.4(e) of the NER is amended by the final rule and is currently classified as a civil penalty provision. The Commission will consult with the AER regarding whether this clause should continue to be classified as a civil penalty provision, and whether any other provisions of this rule should be classified as civil penalty provisions, and following such consultation will make a recommendation to the COAG Energy Council.

B.6 Conduct provisions

The final rule does not amend any clauses that are currently classified as conduct provisions under the NEL or the National Electricity (South Australia) Regulations. The Commission will consult with the AER regarding any recommendations to the COAG Energy Council for provisions of the final rule to be classified as conduct provisions.

155 Under section 33 of the NEL, the AEMC must have regard to any relevant MCE statement of policy principles in making a rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for Energy. On 1 July 2011 the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated council is now called the COAG Energy Council.

156 Section 91(8) of the NEL.