

13 September 2023

Ms Anna Collyer
Chair
Australian Energy Market Commission
Sydney NSW 2000

By online submission: ERC0352

Dear Ms Collyer

Consultation Paper: Integrating price responsive resources into the NEM

AEMO welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (AEMC's) consultation paper on *Integrating price responsive resources into the NEM*, which commences its consideration of AEMO's Scheduled Lite rule change proposal.

Scheduled Lite is one important reform in a package of reforms required to better integrate distributed energy resources (DER)¹ into the National Electricity Market (NEM). Fulsome integration of DER is imperative to realise the opportunity coordinated use of these resources presents to meet system reliability and security needs as Australia transitions to a net-zero energy system.

Scheduled Lite is a voluntary mechanism that aims to lower barriers and offer incentives for price-responsive distributed resources to provide visibility and participate in the market scheduling process of the NEM. Scheduled Lite is designed to present opportunities for distributed resources to make valuable contributions to the secure and reliable operation of the power system, whilst providing new ways to enable and reward consumers for their flexibility. Over time, the proposed framework can be expected to facilitate better allocation of resources to meet demand for energy services, enhancing the efficiency of long-term investment for all consumers, particularly when combined with broader reform to support the integration of DER.

AEMO appreciates the AEMC's consideration of the complex challenges associated with integrating DER and flexible demand into the NEM. In addition to the responses to the AEMC's questions provided in **Attachment 3**, AEMO raises the following key considerations as the AEMC progresses its decision-making process.

Timely progression of DER integration solutions

Solutions to DER market and system integration must be progressed with alacrity to ensure these resources can play a role in maintaining an efficient, reliable and secure system in the face of increasingly challenging operational conditions. The aggregate capacity of DER already far exceeds levels equivalent to the largest 'units' in the system, creating both an opportunity for consumers to support the needs of the evolving system, as well as a range of operational challenges that must be managed.² Existing market mechanisms and AEMO's current operational toolkit are not designed to facilitate participation of DER in market systems and instead are forcing an increased reliance on other resources and at times, interventions, to manage system security and reliability.

¹ AEMO utilises the term "DER" in this paper to encompass both consumer energy resources (CER) and other unscheduled price responsive resources connected to the distribution network. The Scheduled Lite mechanism is intended to capture both.

² Further detail can be found in the Scheduled Lite Rule Change Request Appendix A Justification. Available at https://www.aemc.gov.au/sites/default/files/2023-01/ERC0352_Rule%20Change%20Request_Scheduled%20Lite%20-%20including%20Appendix.pdf

While AEMO recognises that key aspects of DER integration, such as flexible export limits and Distribution System Operator models, are still being resolved, this should not hinder the progression of foundational market reform to facilitate recognition of these resources. The Scheduled Lite framework was deliberately designed to accommodate decisions and outcomes from other market reform processes, allowing for reform to progress with opportunities to evolve in the future as required.

Importance of Visibility mode for situational awareness

Facilitating the provision of data to enable visibility and predictability of price-responsive resources to market systems and processes as soon as possible would allow this information to be leveraged to reduce operational uncertainty, supporting more proactive and efficient operational decision-making via enhanced situational awareness.

Attachment 1 includes a worked example to illustrate how the data proposed to be collected can help to achieve these outcomes. The worked example explores the potential benefits of enhancing situational awareness in the operational demand forecasting process. Importantly, it demonstrates that enhanced situational awareness is facilitated through the development of historical datasets to which the relevant data provided on a given day can be compared. This emphasises the importance of timely progression of DER integration solutions, to start building such historical data sets as soon as possible.

Consideration of the benefits of the visibility mode should be done with this broader perspective in mind. That is, the information received through the visibility mode will not just create better operational decision making on-the-day, but can also inform longer-term forecasting and planning through more sophisticated, probabilistic understanding of the behaviours and responses of these resources to varying market conditions.

Importance of accommodating different levels of sophistication

Additionally, to realise these benefits, AEMO acknowledges it is important to facilitate broad participation in the mechanism and to accommodate a range of capabilities and levels of sophistication of traders. In recognition of feedback received through development of the proposal, the High-Level Design accompanying the Rule Change Request delves into alternative models to achieve this.³ AEMO would welcome further consideration of alternative models that start simple and enable evolution and scalability, with consideration to how they may be further stepping-stones to full integration, particularly if it facilitates earlier participation.

Incentives to participate

Scheduled Lite is a voluntary mechanism and as a consequence, its value to the power system is dependent on the volume and rate that customers choose to participate in the mechanism. It is therefore important that incentive arrangements are designed in close consultation with industry to ensure they:

- drive efficient participation in the mechanism to enable the benefits described above.
- drive effective performance by traders.
- deliver reliable outcomes that provide confidence to AEMO and market participants.
- proportionally reflect the value provided.

AEMO welcomes broader consultation on this topic and considers it a priority.

³ Further detail can be found in the Scheduled Lite high-level design section 3.2.2 (Visibility Model/Data types). Available at https://www.aemc.gov.au/sites/default/files/2023-01/ERC0352_Rule%20Change%20Request_Scheduled%20Lite%20-%20including%20Appendix.pdf

Ensuring a holistic design

Scheduled Lite was developed based on a comprehensive and pragmatic design that intentionally sought to balance leveraging existing frameworks while ensuring the mechanism would be scalable in the future. It also builds on recent reforms such as the Integrating Energy Storage Systems (IESS) rule change, which introduces the concept of bi-directional resources and integrated resource providers into the NEM framework. Consequently, the end-to-end design features strong interlinkages, requiring careful consideration when modifying aspects of the design to ensure the mechanism remains cohesive and achieves its objectives.

Recognition of aggregators in participation framework

The AEMC's direction on the Unlocking CER benefits through flexible trading rule change will have important implications for the Scheduled Lite participation framework, particularly around opportunities for participation by aggregators operating at small customer sites. AEMO encourages the AEMC to consider whether and how these parties may be appropriately accommodated within the mechanism, as they are responsible for a growing portion of CER coordination today as well as an important potential source of visibility information. Attachment 2 outlines AEMO's perspectives on this issue, including some considerations the AEMC may wish to consider in its decision-making process. AEMO emphasises the importance of transparent roles and responsibilities in market systems and confidence in the accuracy of data. AEMO's submission to the Unlocking CER benefits through flexible trading directions paper touches on potential consequences of 'how' flexible trading is delivered, and should be read in conjunction with this submission.

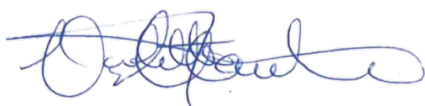
Progressing a two-sided market

Progressing towards a two-sided market is the guiding policy position adopted through the Energy Security Board's consideration of a fit-for-purpose future NEM. This position recognises the opportunities available through market participation by all entities supplying energy to, or consuming energy from, the system, supporting a large number of geographically dispersed, smaller participants and allowing consumers to choose if and how they participate.

Scheduled Lite can play a central role in progressing the NEM towards a two-sided market where both demand and supply-side resources have opportunities to participate, and be rewarded for, their flexibility and the services they provide to the market.

AEMO looks forward to continuing to work collaboratively with the AEMC and industry on this rule change process. Should you wish to discuss any of the matters raised in this submission, please contact Kevin Ly, Group Manager - Reform Development and Insights at kevin.ly@aemo.com.au.

Yours sincerely,



Violette Mouchaileh

Executive Group Manager – Reform Delivery

Attachment 1: Visibility Mode Worked Example – Visibility Mode benefit

Attachment 2: Accommodating aggregator participation and AEMC's direction on flexible trading

Attachment 3: Responses to consultation paper questions

Attachment 1: Visibility Mode – Worked Example

The purpose of this worked example is to emphasise the value of enabling enhanced visibility and predictability to market systems of non-scheduled price responsive resources. The worked example:

- Intends to provide a snapshot of the benefits for a hypothetical case, rather than a full set of benefits.
- Delves into the value of enhanced visibility and predictability for the operational demand forecast.
- Explores two scenarios: status quo, which describes the current operational demand forecast vs. a scenario with enhanced visibility and predictability for situational awareness.

Status quo

Explores the counternarrative where no changes are made to the regulatory framework to enable integration in market systems of non-scheduled price responsive resources and therefore remain non-visible.

Figure 1 shows a considerable range of uncertainty of the operational demand forecast, suggesting the potential need for AEMO intervention activity. This range of uncertainty is informed by historical data indicating deviations between the operational demand forecast and the actual. This deviation⁴ can be attributed to the non-scheduled price responsive resources' actions, driven by price signals. These are neither visible nor predictable, posing complex operational challenges despite their potential to support the reliability and security of the network.

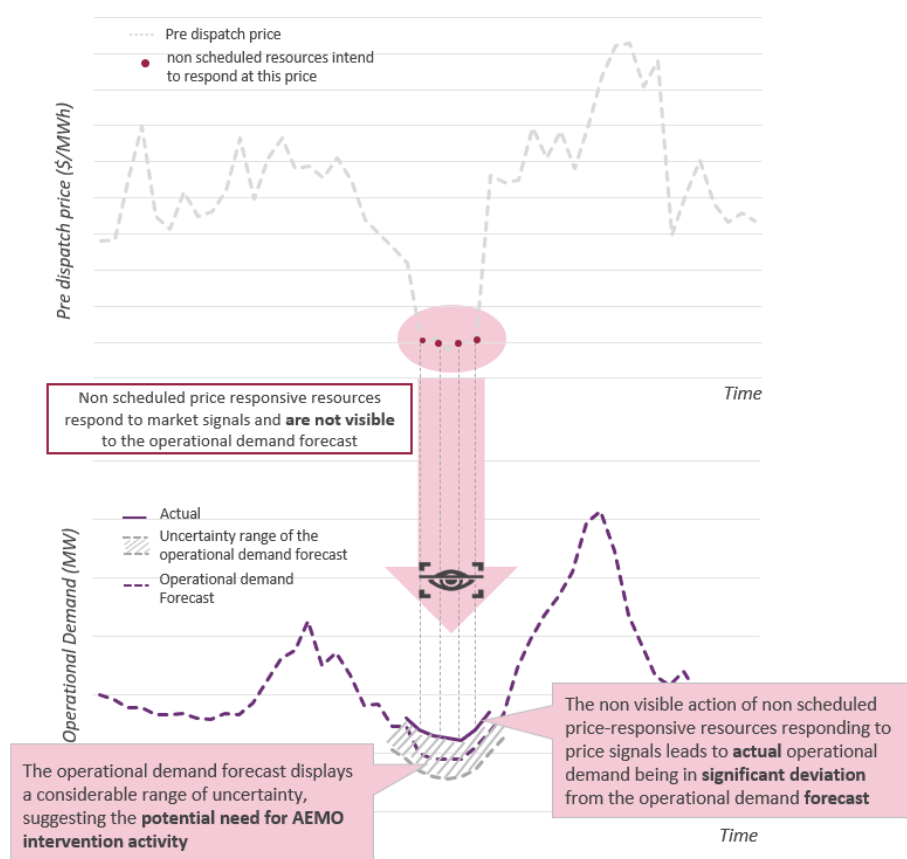


Figure 1. Status quo scenario - current operational demand forecast cannot take into account non-visible price responsive resources.

⁴ The extent of the deviation would rise as the uptake of this type of resource increases.

Enhanced visibility and predictability for situational awareness

This section explores a scenario where changes are made to the regulatory framework to enable the integration of non-scheduled price responsive resources into market systems, making these resources visible and predictable in forecasting processes.

Figure 2 illustrates the impact of participation by non-scheduled price responsive resources participating in market systems (i.e., providing indicative bids), enabling visibility and predictability of injection and withdrawal intentions at different price points. The provision of indicative bids and performance data enables the formation of historical data sets. The indicative bids provided on a given day can be compared to the historical data set, generating enhanced probabilistic information about situational awareness. The situational awareness is provided by different alternative forecasts which reflect the associated uncertainty of the data. In this scenario, the operational demand forecast processes utilise the enhanced data, to establish if there is need for AEMO intervention activity.

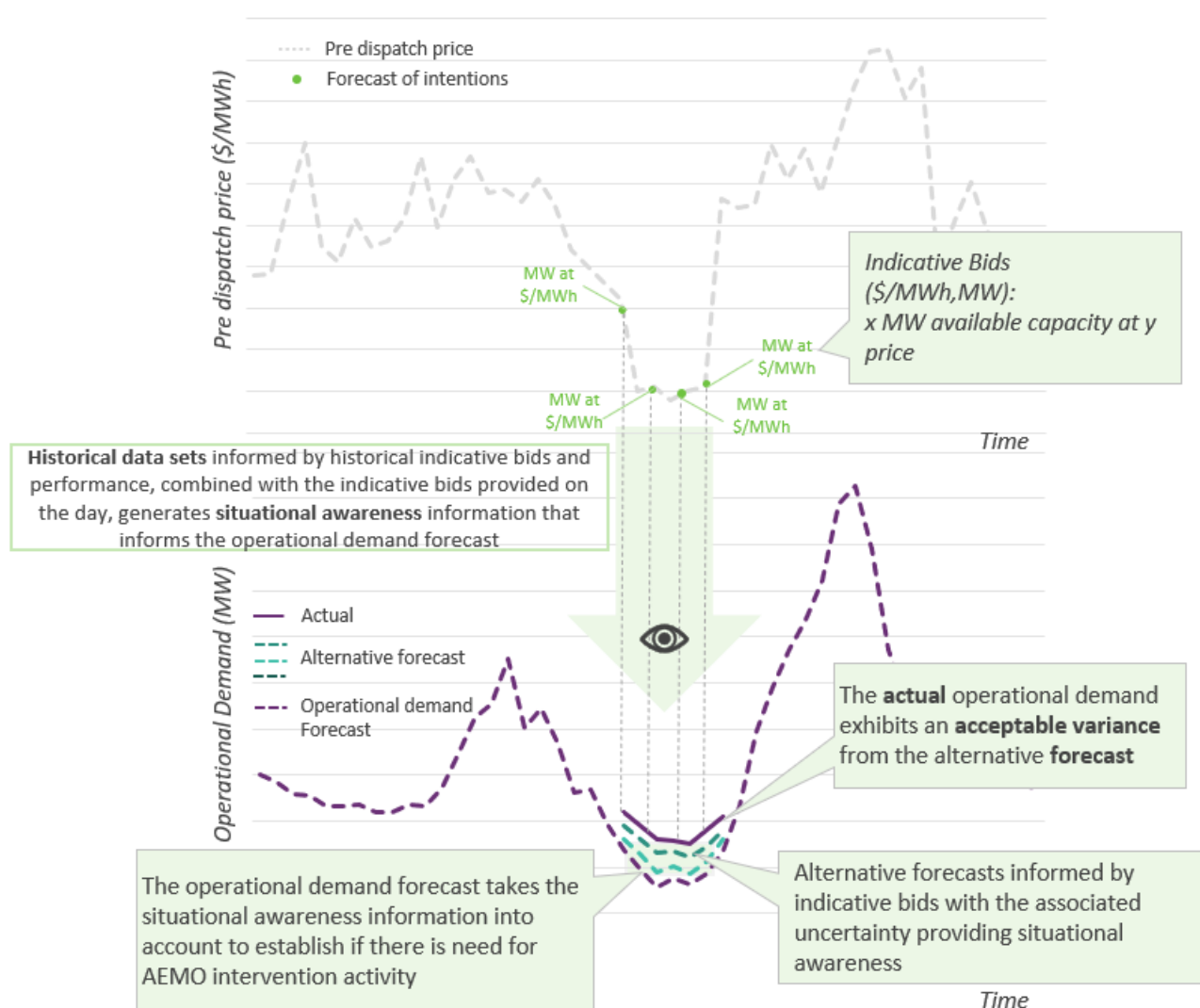


Figure 2. Enhanced visibility and predictability for situational awareness

The situational awareness enabled by Visibility mode could be leveraged to support decision-making in a variety of contexts, including day to day operations and interventions.

It is important to note that as the situational awareness is reliant on the formation of historical data sets⁵; a more comprehensive historical data set would lead to a reduction in uncertainty, thereby facilitating a more accurate approximation to the actual. Hence, timely integration of such resources becomes important to facilitate the formation of robust historical data sets.

Additionally, given that the situational awareness is informed by performance data, it is expected that an appropriate formulation of the performance thresholds would contribute to achieving an acceptable level of data accuracy. There is an opportunity within the design phase of the proposed Visibility payment, to consider a framework that supports data accuracy, including the potential to be able to contact the proponents to better understand their indicative bids on days where the system could be stressed.

⁵ The provision of indicative bids and performance data enables the formation of historical data sets.

Attachment 2: Accommodating aggregator participation and AEMC's direction on flexible trading

AEMO acknowledges that it is important to review the development of a Scheduled Lite participation framework considering the AEMC's intended direction on the Unlocking CER benefits through flexible trading rule change.

The proposed Scheduled Lite participation framework leverages existing arrangements in the NEM.⁶ As such, it does not seek to accommodate parties that are not the financially responsible Market Participant (FRMP) for participating connection points, referred to as 'aggregators' in this submission.⁷ In designing the Scheduled Lite participation framework, AEMO considered that Flexible Trader Model 2 (FTM2) could provide an avenue for aggregators to register and become financially responsible for the customer's flexible resources in the market, accommodating their direct participation in the mechanism (with formalised roles in market systems) and the wholesale energy market more broadly.⁸

Rather than enabling a separate FRMP to be appointed to manage a customer's flexible resources, the AEMC's proposed direction for the Unlocking CER benefits through flexible trading rule change only enables one FRMP for small customer connections. This means small customers cannot appoint a separate FRMP to manage their flexible resources for participation in Scheduled Lite⁹. However, providing that the (single) FRMP for a small customer is allowed to establish 'secondary' NMIs as proposed in AEMO's FTM2 design, CER could be separated from customers' general usage, enabling that FRMP to participate without accounting for non-controllable energy flows. The option to separate flexible resources is an important aspect of the Scheduled Lite design.

AEMO considers that non-FRMP aggregators may be indirectly accommodated within the proposed participation model via agreements with retailers (FRMPs), reflecting the way many aggregators currently operate within the existing NEM framework. This arrangement could apply to management of a customer's whole site or to a secondary connection point whereby the aggregator is appointed to manage the customer's flexible resources only. Regardless of the agreement between parties, responsibility for participation ultimately remains with the party in market systems – i.e. the FRMP.

Alternative approaches seeking to enable direct participation of non-FRMP aggregators, or arrangements that separate the point of participation from the NMI/connection point, may introduce more complexity in implementation as they depart from existing frameworks established in the NEM and market systems associated with roles, responsibilities, obligations, and management of compliance. The AEMC may wish to undertake further consideration as to whether, and how, non-FRMP aggregators should be facilitated or obligated within the Visibility model.

In developing settings and the approach to accommodating these parties, the AEMC could consider the following implications for the end-to-end participation model:

- Impact upon consumer choice, protection, competition and innovation, including potential limitations in consumer choice in how, and by whom, flexible resources are managed.
- Management of participation for aggregators seeking to operate across multiple retailers within a single zone.

⁶ Including changes made through the *Integrating energy storage systems in the NEM* rule change.

⁷ In the small customer context, the FRMP is the customer's retailer.

⁸ The AER's *Review of consumer protections for future energy services* is considering the appropriate obligations and consumer protection arrangements for the evolving CER landscape.

⁹ Unless a second connection point to the distribution network is established - the barriers to this are explored in AEMO's Flexible Trading Arrangements rule change proposal.

- Impact upon the stepping-stone approach – the participation model should ideally support participants' capability development and process of transition to the Dispatch model.
- Impacts upon participation rates in the Scheduled Lite mechanism. Complex participation settings and requirements may reduce incentives to participate.
- Source of measurement and quality of data. AEMO requires data provided from Scheduled Lite to be verifiable, accurate and reliable.
- Clarity of roles and obligations, as well as verification of parties and risk allocation. This includes considering whether AEMO and the AER need to understand contractual participation agreements and the implications for the ability to monitor and enforce conformance and compliance, as well as what functionality parties require to appropriately identify, appoint and manage roles associated with participation.

Attachment 3: Responses to consultation paper questions

Question	Response
QUESTION 1: DO YOU AGREE THAT PRICE-RESPONSIVE RESOURCES NEED TO BE INTEGRATED INTO THE NEM?	
<p>1. The Commission has identified five types of issues with increasing volumes of price-responsive resources. Do you agree with this breakdown of the issues? What do you consider the magnitude of each issue is? How is this likely to change over time?</p>	<p>The Commission’s breakdown provides a clear view of the breadth of impacts AEMO expects to result from the growth of price-responsive distributed resources that are not effectively integrated into market systems and processes. As described in detail in Appendix A (Justification) of AEMO’s rule change request, the magnitude of each of the identified impacts is expected to escalate rapidly over time alongside the proliferation of unscheduled price-responsive resources.</p> <p>AEMO would further like to emphasise the importance of Scheduled Lite, or a similar mechanism, in enabling the optimal development path (ODP) in the 2022 Integrated System Plan (ISP). For VPPs, Vehicle to Grid (V2G) services and other emerging technologies to contribute to the firming capacity of the NEM in accordance with the ODP, these resources must be integrated into market processes (visible, predictable and dispatchable). Without a mechanism to deliver this outcome, the value of these resources to the system cannot be fully realised and additional investment in large-scale resources will be required to fulfill power system needs, at higher cost to consumers.</p> <p>This opportunity is reflected in the 2023 Electricity Statement of Opportunity (ESOO), which notes that forecasts “...highlight the high value of solutions in which resources owned by consumers, such as residential electricity generation and storage devices, and increased demand flexibility, can help meet power system needs. With a high level of consumer participation and coordination of consumer energy assets and demand to help meet power system needs, the need for utility-scale solutions would be much lower.”</p>
QUESTION 2: REPRESENTING PRICE-RESPONSIVE RESOURCES IN SCHEDULING PROCESSES	
<p>1. Is participation in this mechanism dependent on whether price-responsive resources can be separated at or behind the connection point (currently being considered through the “Unlocking CER benefits through flexible trading” rule change)? Please explain what impacts separating CER would have on traders’ participation in energy markets.</p>	<p>The ability for a trader to separate and participate with controlled resources independent of passive resources supports participation in Scheduled Lite and provides whole-of-system value by:</p> <ul style="list-style-type: none"> • Reducing risk of participation and compliance as the Trader is only responsible for forecasting, bidding and dispatch of resources under its control, providing more operational certainty. This also supports participation by traders with less advanced capabilities and smaller installations. • Enabling more efficient utilisation of the aggregated capacity of Traders’ resource portfolios. • Enhancing market and system value by better enabling participation that makes valuable contributions to the secure and reliable operation of the power system, including more reliable visibility of DER. • Providing more value to consumers by supporting greater flexibility and more choice around how they manage and engage with their flexible resources. <p>The participation framework in the Scheduled Lite high-level design was designed to provide optionality for traders in terms of connection point configurations within their aggregated portfolios, including whether or not flexible resources are separated from passive resources for participation in the mechanism. Fundamentally, the trader is responsible for providing data, forecasting, bidding, dispatch and compliance (as applicable to the Visibility or Dispatch model) associated with the resources sitting behind the NMI at which it is participating (at an aggregate</p>

	<p>level). This may be a standard connection point arrangement whereby the trader takes responsibility for all resources (both passive and controlled) at the site, or a second/ secondary connection point arrangement whereby the trader is participating with the controlled resources only via separation.</p> <p>As such, participation in Scheduled Lite is not dependent on the ability to separate out price-responsive resources, but rather is an important enabler for participation. AEMO considers that enabling separation and independent management of flexible resources will support and drive higher levels of participation in Scheduled Lite, including supporting the transition from Visibility to Dispatch modes as traders develop their capabilities.</p>
<p>2. Do you have views on the need to define price-responsive resources or the traders that might coordinate a large amount of such resources?</p>	<p>AEMO’s view is that defining technology is not required, in accordance with the NEM principles, the ESB’s trader-services model and the principle of enabling market and technological evolution.</p> <p>The proposed participation framework for Scheduled Lite ties participation to the connection point. Obligations for Scheduled Lite do not depend on the type of resources established behind the participating connection point. For example, if a Trader is participating with a small customer connection point where the flexible resources are not separately identified in wholesale settlement, the Trader is responsible for reflecting both price-responsive and passive resources in Scheduled Lite processes. Appropriate accommodation of traders within the participation framework facilitates the application of obligations and responsibilities of traders in relation to the connection point for which they are financially responsible.</p> <p>In future, consideration regarding a definition for price-responsive resources may be required if mandatory participation aspects are under consideration. In this case, it is important to conduct a thorough assessment of any potential impacts it may pose on other aspects of the design.</p> <p>‘Traders’ (as per the use of the word in the consultation paper and AEMO’s high level design)¹⁰ are already defined as the FRMP at the connection point participating in Scheduled Lite and, in AEMO’s view, do not require additional definition unless fundamental changes are made to the participation framework. The IESS rule determination introduced a near-universal participation category that shifted away from obligations being attached to assets and participation categories, towards services. Further defining the concept of a ‘trader’ for the purpose of Scheduled Lite may be counter-productive and may unnecessarily limit the scope of services these parties can provide in future.</p>
<p>QUESTION 3: VISIBILITY MECHANISM - ENCOURAGEMENT TO PARTICIPATE</p>	
<p>1. What are your views on the incentive mechanisms outlined in Table 3.1?</p> <p>2. Are there any alternative incentives the Commission should consider?</p>	<p>Incentive arrangements need to be designed in close consultation with industry to ensure they drive effective performance by traders and deliver reliable outcomes that provide confidence to AEMO and market participants. This will enable realisation of the benefits that flow from integrating distributed resource information into the operation of the market. Different incentives may need to be combined to obtain an effective outcome; for example, a Visibility payment combined with an indicative pre-dispatch schedule.</p> <p>As noted in the Scheduled Lite high-level design, AEMO considers the development of incentive mechanisms should be guided by the following considerations:</p>

¹⁰ AEMO notes that the use of the word ‘trader’ in this context is aligned with the Energy Security Board’s use of the term for the trader-services model, and is different to the way it is defined in the NER (which is specific to the Settlement Residue Auction process).

	<ul style="list-style-type: none"> • Value of improved visibility, leading to more efficient operation of the power system. The incentive structure should proportionally reflect the value provided. • Costs of telemetry, metering, forecasting and monitoring to enable access. • Opportunities to participate in the wholesale market, and the incremental cost to extend that participation to the Visibility mode. <p>Finally, with regard to the AEMC's assessment of the merits of the indicative pre-dispatch schedule, AEMO notes a further advantage in relation to the stepping stone approach from Visibility to participation in Dispatch. Access to an indicative pre-dispatch schedule supports the trader to make more informed decisions in relation to their operations and supports the development of capabilities required for participation in dispatch processes.</p>
<p>3. Should mandatory participation in the visibility mode be considered?</p> <p>a. If so, what types of traders/ resources should be required to participate and what criteria (for example size in a region) or circumstances (observed behaviour or performance) could the requirement to participate be based on?</p>	<p>Visibility and predictability of these price-responsive resources is critical to the ongoing reliable and secure operation of the system. AEMO considers a combination of different approaches and mechanisms will be needed in the future to paint a complete picture of these resources. The Scheduled Lite mechanism was designed to accommodate these mechanisms as they are further developed, such as the implementation of Distributed Operating Envelopes and enhanced activity by DNSPs to manage their networks.</p> <p>For Scheduled Lite, AEMO considers that a voluntary approach that aligns incentives with benefits to the power system is more likely to drive accurate forecasting and compliance than a mandatory approach.</p> <p>As noted in the high-level design, the initial design should focus on appropriate incentive structures, facilitating ease of participation and lowering barriers and transaction costs to support greater participation prior to consideration of mandatory elements.</p> <p>AEMO does, however, recognise that there is a risk of low uptake, and therefore limited benefits, particularly if incentives are not sufficient to drive participation. In the future there may be further need to calibrate mandatory participation based on power system requirements to maintain security and reliability of the system. Related work, including AEMO's Engineering Framework, will continue to assist in the ongoing task of identifying the functional requirements for maintaining the security and reliability of the network in a High DER context.</p> <p>If participation were to be mandatory, AEMO highlights that significant consideration will be required to working through how this is to be triggered and enforced, and suggests this could work in parallel to implementing a (relatively) simpler, voluntary, mechanism sooner.</p>
<p>QUESTION 4: ASSESSMENT OF VISIBILITY MODE</p>	
<p>1. Do you think visibility mode would be effective as designed? If not, what improvements or amendments would you suggest and why?</p> <p>2. Do you agree with the Commission's initial assessment of visibility mode's ability to achieve the outcomes identified?</p>	<p>AEMO emphasises the value of enabling visibility and predictability to market systems of non-scheduled price responsive resources. For this purpose, AEMO has developed a worked example that delves into the value of enabling enhanced visibility and predictability of these type of resources on the operational demand forecasting. (see Attachment 1). The worked example highlights how enhanced the visibility and predictability would lead to situational awareness that would support reduced operational uncertainty and enable proactive operational decision-making.</p>

	<p>To realise these benefits, it is important to facilitate broader participation in the Scheduled Lite mechanism. AEMO acknowledges the need to accommodate a range of capabilities and levels of sophistication of traders, to enable broad participation. That is, it may be worth considering alternative models that adhere to the stepping stone approach principle i.e. start simple and enable evolution. The Scheduled Lite High-Level Design accompanying the Scheduled Lite Rule Change Request, delves into the following alternative models¹¹:</p> <ul style="list-style-type: none"> • Simple Visibility Mode: a simpler model that acknowledges the potential value that could be derived from understanding the price-responsive behaviour of a broader range of non-scheduled price responsive resources that would not have the operational capability to participate in the Visibility model e.g. a Trader with a portfolio composed of price-responsive resources with limited operational sophistication, but with intentions that may be forecastable. • Aggregated DPV Visibility Mode: Stakeholder engagement to date has highlighted that price-responsive DPV is expected to grow with retail offers now available to customers to manage DPV in a more price-responsive manner. As such, visibility of these resources should be considered as a potential future model.
<p>3. If we progress with this mode, what should the Commission consider in terms of implementation of this mode?</p>	<p>As part of the Visibility mode implementation, AEMO encourages the Commission to consider ways in which:</p> <ul style="list-style-type: none"> • the mode is able to accommodate a range of capabilities and levels of sophistication of traders to enable broad participation. • flexibility is built into the design to enable innovation. • compliance and incentive settings are appropriate to drive effective performance of traders and deliver reliable outcomes, including potential to shift towards participation in dispatch.
<p>4. Is visibility mode needed as a steppingstone to the dispatch mode?</p>	<p>AEMO considers that the Visibility mode is a useful steppingstone to facilitating DER integration in wholesale electricity markets, particularly for aggregators of small customer portfolios. This derives from insights gained during Project EDGE. Project EDGE found that a stepping-stone approach could potentially:</p> <ul style="list-style-type: none"> • support gradual maturity of the market. Traders require time and certainty to develop their capabilities for market participation, including developing an understanding of market requirements for dispatchability which can be built through provision of visibility. • support the development of innovative consumer service offerings. Providers need more opportunities to innovate consumer service offerings under lighter compliance requirements prior to participation in dispatch. • enable a progressive (simple to complex), service-based approach that aligns revenue opportunities with system development and fund portfolio growth. <p>AEMO welcomes further consideration of potential stepping stone approaches and looks forward to supporting the AEMC.</p>
<p>QUESTION 5: DISPATCH MODE — INCENTIVES TO PARTICIPATE</p>	
<p>1. Do you think dispatch mode would be effective as designed? If not what improvements or amendments would you suggest and why?</p>	

¹¹ Further detail can be found in the Scheduled Lite high-level design section 3.2.2 (Visibility Model/Data types). Available at https://www.aemc.gov.au/sites/default/files/2023-01/ERC0352_Rule%20Change%20Request_Scheduled%20Lite%20-%20including%20Appendix.pdf

2. What costs would traders incur to participate in dispatch mode?	AEMO welcomes further consultation on the design put forward in the rule change request and looks forward to working through opportunities to refine the design further.
3. Is access to the wholesale electricity market and other markets (for example regulation FCAS and PFR) sufficient incentive to participate in dispatch mode?	
4. Are there other factors that would encourage or discourage participation in the dispatch mode?	<p>In putting together the design, AEMO received feedback to consider how participation in dispatch mode may be encouraged through a design that reflects the evolving capabilities of traders, this includes:</p> <ul style="list-style-type: none"> • balancing dispatchability requirements with obligations that are proportional to power system risk (e.g. appropriate dispatch conformance and fit-for-purpose data communication standards) • enabling opt-out arrangements so traders can more easily manage their operation, balancing operational obligations with added value to the security and reliability of the network¹² • providing opportunities to participate in markets and services that currently require participation in scheduling processes.
5. Should participation in the dispatch mode be required? If so, what types of traders/resources should be required to participate, against what criteria and in what circumstances?	<p>In order for price-responsive resources to contribute to the firming capacity of the NEM in accordance with the ISP ODP, they must be integrated into market processes – visible, predictable and dispatchable.</p> <p>For Scheduled Lite, AEMO considers that a voluntary approach that aligns incentives with benefits to the power system is more likely to drive appropriate participation than a mandatory approach. It is expected the stepping-stone approach would facilitate appropriate participation the dispatch mode (see Q4.4).</p> <p>AEMO does, however, recognise that there is a risk of low uptake, and therefore limited benefits, particularly if incentives are not sufficient to drive participation. There may be future potential to calibrate mandatory participation based on power system requirements to maintain security and reliability of the system. Related work, including AEMO’s Engineering Framework, will continue to assist in the ongoing task of identifying the functional requirements for maintaining the security and reliability of the network in a High DER context.</p> <p>If participation were to be mandatory, AEMO highlights that significant consideration will be required to working through how this is to be triggered and enforced potentially increasing the complexity of the design, and suggests this could work in parallel to implementing a simpler (voluntary) mechanism sooner.</p>
QUESTION 6: ASSESSMENT OF DISPATCH MODE	
1. Do you agree with the Commission’s initial assessment of the ability of dispatch mode to address the outcomes identified?	AEMO considers that the Commission has conducted an effective assessment of the value of Dispatch Mode. It is important to note the potential to provide future new services like operating reserves or capacity certificates are likely to provide stronger participation incentives for participating in dispatch mode. If these new mechanisms do not

¹² Further detail can be found in the Scheduled Lite high-level design section 3.2.7 (Visibility Model/Opt-out arrangement) and section 4.2.9 (Dispatch Model/Opt-out arrangement). Available at https://www.aemc.gov.au/sites/default/files/2023-01/ERC0352_Rule%20Change%20Request_Scheduled%20Lite%20-%20including%20Appendix.pdf

<p>2. If we progress dispatch mode, what does the Commission need to consider in terms of implementation of this mode?</p>	<p>progress, then an incentive scheme specific to distributed resources may need to be considered that provide a sufficient incentive to encourage participation.</p>
<p>QUESTION 7: OTHER ISSUES RAISED IN RELATION TO THE SCHEDULED LITE MECHANISM</p>	
<p>1. Do you consider that the proposed mechanism (or a similar mechanism) should be introduced through a principles-based framework, with the details considered through AEMO's procedures and guidelines?</p>	<p>AEMO considers that due to the rapidly evolving nature of these resources and potential for innovation, adopting a principles-based approach in the Rules would enable flexibility whilst maintaining the objective of the mechanism, with the appropriate Guidelines to provide additional transparency and opportunity for consultation.</p>
<p>2. Do you consider that the proposed mechanism (or a similar mechanism) requires changes to the NERR to protect consumers?</p>	<p>AEMO agrees that a comprehensive review of consumer protection implications will be important for Scheduled Lite and notes the importance of the Australian Energy Regulator's (AER's) <i>Review of consumer protections for future energy services</i> in considering the requirements for small consumers engaged in the mechanism.</p>
<p>QUESTION 8: ARE THERE PREFERABLE ALTERNATIVE ARRANGEMENTS?</p>	
<p>1. Are there any alternative solutions that you think would be preferable to AEMO's proposal and more aligned with the long-term interests of consumers? What are the costs and benefits of any proposed alternative arrangement?</p>	<p>AEMO's rule change request provides its assessment of alternatives that have been considered in putting together the request.</p>
<p>QUESTION 9: ASSESSMENT FRAMEWORK</p>	
<p>1. Do you agree with the proposed assessment framework? Are there additional principles that the Commission should take into account or principles included here that are not relevant?</p>	<p>AEMO supports the Commission's proposed assessment framework. AEMO also notes the importance of Scheduled Lite in advancing the NEM towards a two-sided market where both demand and supply-side resources have opportunities to participate, and be rewarded for, their flexibility and the services they provide to the market.</p>
<p>QUESTION 10: VISIBILITY MODEL — PARTICIPATION, DATA AND OPERATIONS</p>	
<p>1. Would traders be readily able to participate and provide the data as proposed? What implementation considerations and costs would be required to participate?</p>	<p>N/A</p>
<p>2. Is there anything the Commission could do in designing the rule that would help to minimize the costs and maximise the benefits?</p>	<p>N/A</p>
<p>QUESTION 11: DISPATCH MODEL — PARTICIPATION, DATA AND OPERATIONS</p>	
<p>1. Could price-responsive resources comply with the operational and data requirements? If not: a. How difficult would it be to change your systems to comply with the requirement outlined above?</p>	<p>N/A</p>

b. Does this depend on what resource is participating?	
2. Do the proposed compliance arrangements strike an appropriate balance between the reliability of the response and the barrier to participation?	N/A