

Via email

CEC response to AEMO's Market Visibility Framework consultation paper

Introduction

The Clean Energy Council (CEC) welcomes the opportunity to respond to the Australian Energy Market Operator's (AEMO) consultation paper, *A market visibility framework for price responsive resources*.

The transition to a renewable electricity system will involve increasingly diverse sources of demand-side flexibility. These include large commercial and industrial loads, data centres and other large inverter-based loads, standalone batteries, commercial demand-response portfolios, rooftop solar, household and commercial batteries, electric vehicles, flexible loads and virtual power plants (VPPs).

The scope of the proposed Market Visibility Framework (MVF) therefore extends well beyond consumer energy resources (CER). It encompasses material unscheduled resources whose behaviour responds dynamically to wholesale market conditions and is not sufficiently visible through existing forecasting, registration or dispatch arrangements.

These resource classes differ substantially in their scale, controllability, operational sophistication and relationship with consumers. For example an individual industrial load may be large, professionally operated and able to provide direct operational information. A CER portfolio may comprise thousands of consumer owned devices subject to consumer overrides, varying availability, charging limitations, communications constraints and distribution network constraints. The framework should therefore recognise these differences and avoid applying a uniform threshold, information requirement or implementation pathway to all resources.

The CEC supports the objective of improving visibility of price responsive behaviour where this better information can demonstrably improve forecasting, system security or market outcomes as per the Nelson Review. However, the existence of growing price responsive capacity does not in of itself demonstrate that every responsive resource class creates a visibility problem. Any new regulatory obligations should deliver thoughtful net benefits overall to maintain market efficiency.

The CEC has previously supported development of arrangements to improve the visibility of price responsive resources, while emphasising that information collection should limited itself to what is necessary to achieve clearly defined objectives and benefits. The CEC has also supported a phased approach involving technical working groups, trials and evidence-building before broad obligations are imposed.¹

¹ CEC submission to the AEMC, *Integrating price-responsive resources into the NEM*. September 2023

While the MVF is broader than CER, the CEC's principal emphasis is ensuring that the framework delivers the visibility and forecastability needed for secure system operation, ensuring that new reporting and compliance obligations will not outweigh their benefits. This is particularly important for distributed energy resources, where proportionate regulation will support continued innovation and consumer participation and investment. The CEC has previously emphasised the importance of customer choice, simple processes, low administrative complexity and requirements that recognise the characteristics of CER. This is preferred to reproducing arrangements designed for individual utility scale assets.²

Accordingly, the CEC broadly supports AEMO's proposed staged and evidence-based approach. In particular, the CEC supports:

- making maximum use of information already available to AEMO before establishing new data obligations;
- distinguishing clearly between observational, predictive, operational and dispatch-integrated visibility;
- assessing the visibility problem and appropriate response separately for each resource class;
- testing the accuracy and decision-usefulness of information before it is incorporated into operational or market processes;
- avoiding duplication with the Integrating Price Responsive Resources into the NEM reforms, the National CER Roadmap, large inverter-based load reforms, flexible trading arrangements and the development of distribution system operator functions;
- preserving consumer choice and avoiding obligations that create material barriers to innovative retail, VPP or orchestration products;
- assigning responsibility to the entity that controls or materially coordinates a response and has access to the necessary information, rather than presuming that the financially responsible Market Participant always holds that information; and
- requiring transparent evidence that the benefits of any activated obligation are likely to exceed its implementation, compliance, competition and consumer costs.

CEC recommends support for the framework would benefit from some further development between industry and AEMO. This includes further articulation of the evidence to support activation of broad mandatory obligations across all resource classes. Additional evidence of a visibility problem associated with large industrial load that should not automatically justify equivalent obligations for CER portfolios.

The framework should also distinguish between market visibility and compulsory participation in central dispatch. Providing information for forecasting should not, without a separate assessment, expose unscheduled resources to the full suite of scheduling, dispatch and conformance obligations.

Issues identified by the CEC

1. The framework should clearly identify that the relevant asset classes represents demonstrated issues before seeking to institute visibility requirements.

The growth of CER, batteries, flexible industrial demand and other price responsive resources will increase the importance of accurate forecasting. However, growth in installed or responsive capacity does not

² CEC submission to AEMO, Integrating price responsive resources into the NEM - Draft High Level Implementation Assessment, August 2024.

establish that every resource class creates a material forecasting or operational problem. Before activating an obligation, AEMO should identify:

- the relevant resource class;
- the market or operational problem caused by insufficient visibility;
- the information needed to address that problem;
- the decision that would be improved by that information;
- the party best placed to provide it; and
- the expected benefit relative to the implementation and compliance cost.

This is also consistent with the Australian Energy Council's position, representing large resources, that proof of benefit should inform the timing and scale of reforms affecting price responsive resources.³

2. Different resource classes should not be treated as equivalent

AEMO could assess materiality, information needs and net benefits separately for:

- individual large industrial loads;
- data centres and other large inverter-based loads;
- commercial and industrial demand-response portfolios;
- standalone batteries and battery portfolios;
- coordinated CER aggregations; and
- other unscheduled resources.

This is an appropriate segmentation as an individual industrial load may have a large and visible impact but will also be able to provide direct information about its availability, operating state, outages and its expected consumption.

By comparison, the available capacity of a CER portfolio such as a VPP may change continually according to household demand, battery state of charge, consumer override rights, communications availability and distribution network constraints. The portfolio's total nameplate capacity may therefore overstate the response that its operator can deliver.

3. The framework should support participation rather than introduce measures that could discourage it

The compliance obligations should not make VPPs, innovative retail tariffs or consumer led flexibility uneconomic. Smaller aggregators, technology providers and new entrants will experience compliance costs differently from large incumbent participants. Requirements that are reasonable for a large industrial facility may be excessive when applied to an aggregation of consumer owned devices.

A step change regulatory threshold may also act as a barrier, discouraging portfolio growth or create an incentive to structure portfolios below the threshold. Therefore, obligations should be graduated and proportionate to the scale, class and demonstrated impact of the resource.

³ Australian Energy Council, Submission to AEMC Integrating Price Responsive Resources into the NEM, September 2023.

4. Visibility and dispatch participation should remain distinct

Information that is useful for forecasting does not necessarily justify scheduled participation, or strict dispatch conformance, or unjustified exposure to all requirements applying to scheduled resources. Mode 4 should be treated as a separate market participation decision rather than an automatic escalation from Modes 1, 2 or 3, and not automatically lead to compulsory and uniform dispatch integration.

We acknowledge that there is a relevant competitive neutrality concern here in that, where resources participate in dispatch, influence spot prices or access services requiring scheduling, materially different conformance standards can create distortions between resource classes.

These positions can be reconciled by maintaining a proportionate distinction between the purposes of each mode. Modes 1 to 3 should improve AEMO's visibility without importing obligations designed for scheduled participation, particularly where aggregated CER is subject to consumer overrides, changing availability and other factors outside an aggregator's direct control. If a resource enters Mode 4 and begins participating in central dispatch, then a higher level of accountability may be justified to protect dispatch integrity and preserve competitive neutrality. But those requirements should nevertheless be tailored to the characteristics of the resource and should provide equivalent market assurance rather than automatically replicating every requirement applying to an individual scheduled generator.

5. Responsibility should link control and access to information

The financially responsible Market Participant (FRMP) will not always control a resource or know how it is expected to respond. For example:

- an industrial customer on a wholesale pass-through contract may make autonomous production decisions;
- a third-party demand response provider may coordinate several commercial sites supplied by different retailers;
- an original equipment manufacturer may optimise devices through a common platform across multiple retailers;
- a VPP operator may control batteries for customers whose retail relationship is with another entity; and
- control of an asset may be divided between its owner, site operator, equipment provider and energy service provider (such as a data centre).

The framework should identify a single accountable party for each obligation. That party should generally be the entity with contractual or practical authority to coordinate the response and the capacity to provide accurate information.

6. Significant obligations belong in the Rules

AEMO guidelines are suitable for defining technical formats, data channels, testing procedures and implementation detail. They should not have unconstrained scope to determine fundamental matters such as:

- the classes of parties captured by the framework;
- the principal coordination and materiality tests;
- the commencement of material new obligations;
- the substantive liability of affected parties; or

- progression from visibility to mandatory dispatch participation.

These matters should be governed in the rules by clear rule-based objectives, criteria and safeguards.

7. Consumer benefits should be demonstrated transparently

The net benefit of market visibility depends not simply on collecting additional data, but on whether the data is accurate, timely and capable of improving AEMO or participant decision making. Therefore, the cost/benefit assessment should include and assess the potential effects on:

- AEMO forecasting and operational outcomes;
- implementation and ongoing participant costs;
- competition and market entry growth;
- the availability and pricing of flexible retail products;
- CER orchestration and VPP participation;
- consumer choice and willingness to participate;
- cyber security, data management and privacy; and
- duplication with related market reforms.

These assessments should be undertaken separately for each resource class and visibility mode.

The CEC encourages AEMO to continue working with CER providers, industrial users, retailers, aggregators, OEMs, consumer representatives, networks and other market participants in further developing the framework.

Responses to consultation questions

Question 1

Are there any reforms stakeholders see as being key dependencies or antecedents for the Market Visibility Framework? Are there reforms/initiatives that should be informed by the Market Visibility Framework and information it collects? For example, should the Market Visibility Framework support the development of DSO capabilities, or should DSO functions be developed and their effects observed before committing to visibility obligations under the MVF?

CEC response

Yes. The relevant dependencies and related initiatives include:

1. the implementation and monitoring of the Integrating Price Responsive Resources into the NEM reforms;
2. the implementation of the National CER Roadmap;
3. the development of distribution system operator and transmission-distribution coordination functions;
4. to be determined CER data sharing, interoperability and dynamic operating envelope arrangements;
5. concurrent reforms addressing the operational integration and visibility of large inverter-based loads;

6. flexible trading and metering reforms;
7. proposed improvements to the Distributed Energy Resources Register and CER standing data;
8. existing registration, connection and telemetry requirements for large loads and batteries; and
9. the broader cyber security, consent and consumer data protection arrangements.

The MVF should operate as an integrating framework rather than as a parallel data architecture. Information should, wherever practicable, be collected once and made available to authorised parties for defined purposes.

The relevant dependencies may differ by resource class. For large industrial and inverter-based loads, AEMO should consider the visibility that will be delivered through connection, registration and related large load reforms. For CER portfolios, AEMO should consider the information and forecasting capability that will be delivered through the National CER Roadmap, distribution level reforms and improved standing data.

For CER, Phase 1 should be coordinated with prospective DSO functions. It should determine:

- what information a DSO requires to manage distribution constraints;
- what information AEMO requires for wholesale forecasting and system operation;
- which party is best placed to collect or produce each dataset;
- how information can be exchanged securely; and
- whether improved distribution-level forecasting removes or reduces the need for direct MVF obligations.

The MVF may support development of DSO capability by identifying wholesale use cases and information gaps. However, the possibility of a future DSO model should not itself justify new CER obligations. AEMO should first assess the capabilities delivered through the National CER Roadmap and related reforms, then identify any residual visibility gap.

The CEC has previously supported a staged approach to network visibility involving identification and trialling of relevant datasets before a final pathway is established, supported by an industry working group.⁴

Question 2

Do you consider that the proposed visibility modes are appropriately defined to capture the different types, materiality and operational characteristics of price responsive resources? In your response, please identify any aspects of the mode definitions that should be clarified, expanded or refined to ensure the framework is practical, proportionate and capable of providing decision-useful visibility information.

CEC response

The CEC broadly supports the four-mode structure. It provides a useful conceptual distinction between:

- aggregate observation;
- forward looking intent;
- near real time operational information; and

⁴ CEC submission to (AER) Energy Security Board (ESB) Consultation Paper: Benefits of increased visibility of networks, September 2023.

- dispatch integrated participation.

However, the framework should clarify that the modes are not a uniform or automatic escalation pathway. The CEC suggests that the mode definitions could be refined in four respects.

1. The modes should not be automatically additive. Information obtained under one mode may reduce or eliminate the need for information under another.
2. Coordination should be defined objectively. Common equipment, firmware, technology platforms or tariffs should not automatically establish coordination. The relevant test should be whether an entity has contractual or practical authority to direct or control aggregate operations in response to wholesale market conditions.
3. Technical capability should be decoupled from a resource entering a because it is technically capable of responding. The framework should require evidence of actual or contractually committed price responsive behaviour.
4. Information requirements should be differentiated by resource class. Direct operational telemetry may be appropriate for an individually material industrial load but disproportionate for a diverse CER aggregation.

Question 3

How can thresholds and coordination be defined with respect to size and coordination to ensure the intended resources are captured in a manner that is objective, consistent and equitable?

CEC response

Thresholds should combine four elements:

1. Credible responsive capability rather than total nameplate capacity;
2. Aggregation within a relevant geographic area;
3. A defined coordination relationship based on control and contractual rights; and
4. A demonstrated or reliably committed materiality.

The appropriate measurement methodology will vary by resource class. For an individual industrial load, the relevant measure may be the maximum credible change in net demand that can occur in response to wholesale market conditions. For a demand response portfolio, the relevant measure may be the aggregate response contractually available to the coordinating entity, adjusted for constraints.

For a battery or CER portfolio, the relevant measure should be credible coincident responsive capacity after accounting for all the elements of that portfolio's diversity. But in each case nameplate capacity should not be used as a universal proxy for market impact.

A portfolio should be considered coordinated where a person or related group:

- controls or directs multiple resources;
- exercises contractual rights to alter their operation;
- optimises them collectively against actual or forecast wholesale prices; or
- makes decisions by reference to an aggregate commercial or operational outcome.

As noted earlier, resources should not be combined merely because they use common equipment, software or communications infrastructure. Nor should unrelated portfolios be aggregated across separate legal entities or different NEM regions in the absence of common operational control.

Question 4

What would be an appropriate threshold to commence with to capture resources of a material size? Should MW thresholds initially be higher to capture only the most material resources and aggregations, before progressively lowering the threshold if adverse market impacts continue to be observed?

CEC response

The CEC supports beginning with the largest and most material resources. This is preferable to activating a common threshold across all resource classes before the accuracy, cost and operational value of the information have been established.

AEMO should calibrate thresholds separately for:

- individual large loads;
- large inverter-based loads;
- C&I demand-response portfolios;
- standalone battery portfolios; and
- coordinated CER aggregations.

As an initial position:

- Mode 1 should make broad use of existing aggregate datasets without imposing new resource specific obligations.
- Mode 2 trials should prioritise resources and portfolios with at least 30 MW of credible responsive capability in a NEM region.
- Any mandatory Mode 2 obligation should initially focus on the most material resources, potentially using a threshold above 30 MW when justified by Phase 1 evidence.
- Mode 3 should initially apply only to very large resources or portfolios where AEMO demonstrates a specific operational requirement.
- Lower thresholds should be considered only where monitoring shows that material adverse impacts remain unaddressed.

A lower threshold may be appropriate for an individual resource at a sensitive connection point or in a constrained area, but such an exception should be supported by an identified operational need and appropriate regulatory safeguards.

Thresholds should include arrangements so as resources do not repeatedly enter and leave the framework because of normal changes in portfolio size or availability. A reasonable transition period should apply after a resource first exceeds the relevant threshold.

Question 5

Should MVF obligations be assigned by reference to the relevant resource or aggregation, with the responsible party identified according to the nature of that resource (for example, the site operator, aggregator, retailer or financially responsible Market Participant, as specified in AEMO guidelines)? Or should the framework instead impose a broader obligation on registered participants to provide information about resources they control, coordinate or are financially responsible for, similar to the current Demand Side Participation Information arrangements? In your response, please comment on which approach would better support accurate, timely and practical information provision while maintaining clear accountability.

CEC response

The CEC prefers a resource or aggregation-based approach under which the accountable party is identified according to who controls or materially coordinates the price responsive behaviour *and* has access to the relevant information.

For example:

- for an individual industrial or large inverter-based load, the site operator or relevant registered participant may be best placed to provide operational information;
- for a C&I demand-response portfolio, the retailer, aggregator or energy service provider may hold the best information about expected response;
- for a standalone battery, responsibility may rest with its operator or market-facing optimiser; and
- for a CER portfolio, responsibility may rest with a VPP operator, OEM platform, aggregator or retailer depending on who has practical control and optimisation responsibility.

A broad obligation on registered participants for all resources for which they are financially responsible would risk:

- requiring retailers to report information they do not hold;
- duplicating reporting by retailers, site operators and third-party aggregators;
- encouraging onerous contractual information-transfer requirements;
- reducing accuracy as data pass through multiple parties;
- making retailers responsible for autonomous customer decisions; and
- obscuring rather than clarifying accountability.

The Rules should establish a clear hierarchy. The primary obligated party should be identified as:

1. the registered operator, aggregator or service provider that materially coordinates the response;
2. otherwise, the FRMP where it controls or coordinates the response;
3. otherwise, another eligible designated entity with direct contractual or operational control; or
4. for genuinely customer-controlled behaviour, the party identified through a proportionate arrangement appropriate to that resource class.

Only one party should have primary accountability for each dataset. Other parties may have reasonable cooperation obligations, but any liabilities should not be duplicated.

Question 6

Would a separate price responsive sensitivity in pre-dispatch provide better information to support participant decision-making without compromising the price signals against which participants are planning their response? Are there alternative approaches to managing the circularity problem while still providing better information to the market that AEMO should consider?

CEC response

The CEC has previously supported improved modelling and near-term forecasting based on greater visibility of price-responsive resources, subject to clearly demonstrated net benefits and defined modelling-

performance objectives.⁵ Against that background, the CEC considers that a separate price responsive pre-dispatch sensitivity warrants further development and trialling. A separate sensitivity would also be consistent with AEMO's existing use of pre-dispatch scenarios to illustrate how changes in forecast demand may affect prices and interconnector flows.

Retaining the base pre-dispatch run as the principal market signal while providing a clearly labelled sensitivity is a reasonable way to examine the aggregate effect of price responsive behaviour without immediately embedding uncertain responses into the price setting process. The sensitivity should initially:

- operate in a shadowing mode;
- be assessed against actual outcomes;
- distinguish between participant submitted intent and AEMO modelled behaviour;
- identify the resource classes included;
- avoid presenting a single deterministic outcome where uncertainty is material; and
- be published only when AEMO is satisfied that participants can interpret it appropriately.

AEMO should consider publishing ranges or scenarios rather than a single alternative trajectory. Low, central and high response cases may better represent uncertainty associated with consumer override, industrial processes, device availability, state of charge and portfolio participation.

Any progression from an informational sensitivity tool to an input that affects price clearing should require further separate consultation, combined with evidence that the information has the accuracy required for that use.

Question 7

Do you support the proposed staged implementation approach, including the use of monitoring, trials and implementation guidelines before mandatory visibility obligations are activated? How should this approach be accounted for in the NER versus guidelines?

CEC response

Yes. The CEC strongly supports monitoring, resource-specific trials and evidence-based stage gates before mandatory obligations are activated. This is consistent with the CEC's previous support for phased development of visibility arrangements and its emphasis on simple and fit for purpose participation processes.⁶

Trials should be undertaken separately for the different resource classes. As noted earlier, a successful large industrial load trial should not constitute evidence that an equivalent obligation is suitable for CER aggregations.

In the question of what should be in rules versus guidelines, the CEC is of the view that the National Electricity Rules should specify:

- the purpose and scope of the MVF;

⁵ CEC submission AEMC Consultation Paper: Integrating price-responsive resources into the NEM September 2023

⁶ CEC submission to the AEMC consultation paper: Integrating Price-responsive Resources into the NEM, September 2023

- the meaning of price responsiveness and coordination;
- the categories of entities that may be obligated;
- the objectives and decision criteria governing activation;
- the requirement for resource-specific assessment;
- minimum consultation and notice requirements;
- cost-benefit and proportionality requirements;
- confidentiality, cyber security and permitted-use protections;
- review, exemption and dispute mechanisms;
- requirements to avoid duplication with equivalent obligations; and
- the process for imposing any dispatch-integrated requirement.

And, AEMO guidelines may appropriately specify:

- submission formats and data fields;
- systems and communications channels;
- reporting cadence and latency;
- accuracy methodologies;
- derating processes;
- technical testing;
- transitional arrangements; and
- operational procedures.

In the CEC view this is consistent with broader NER governance, where the core rights, responsibilities, resource classifications and materiality principles are not generally capable of being altered solely through an AEMO guideline.

Question 8

If the publication of guidelines activates obligations under the MVF, which party should decide when guidelines are published and how should this role be accounted for in the Rules?

CEC response

AEMO is best placed to develop technical guidelines, but it should not have unconstrained discretion to activate material regulatory obligations through publication alone.

The Rules should provide that activation may occur only after:

1. AEMO publishes evidence of the relevant market or operational problem;
2. the problem is identified for the specific resource class concerned;
3. the proposed information has been tested;
4. AEMO assessed the expected costs and benefits;
5. affected stakeholders are consulted;
6. a reasonable implementation period is provided; and
7. an independent market body confirms that the activation criteria have been satisfied.

This last independent decision body could be the Australian Energy Market Commission, through a defined approval or non-objection process. Alternatively, the Australian Energy Regulator could assess whether the relevant rule based activation conditions have been met.

The important principle is that material obligations should not be activated by the same entity that proposes, administers and uses the information. Therefore, material dispatch and conformance requirements should be contained in the Rules rather than an AEMO guideline.⁷

Question 9

If MVF obligations do not include conformance requirements equivalent to those applying to scheduled resources, do stakeholders consider that most resource types should still be able to translate their intended behaviour into bid based information for forecasting and pre-dispatch purposes?

CEC response

The CEC considers that most material CER portfolios should be capable of providing bid-based or bid-like information that supports more accurate forecasting and pre-dispatch. Price/quantity bands expected import or export changes at nominated prices, and confidence ranges could provide AEMO and market participants with valuable insight into the expected behaviour of aggregated CER.

The framework should recognise, however, that this information represents a portfolio forecast rather than a firm dispatch commitment. As noted, CER availability varies with battery state of charge, household consumption, network conditions, communications availability and customer preferences. Aggregators should therefore be able to update their information and express uncertainty through ranges, availability factors or other formats.

A staged approach would allow simpler information to be provided initially, with more sophisticated bid-based formats introduced as portfolio and market capabilities mature. This would improve the visibility and value of CER without prematurely subjecting visibility only resources to scheduled resource conformance requirements.

Question 10

Can the content and format of DSPI submission be improved and cadence increased (to quarterly) to provide more useful and up to date information on price responsive resources? How material are the compliance costs associated with this? Can wholesale price responsiveness could be flagged through an alternative channel such as MSATS to support AEMO improve the identification, calibration or forecasting of price responsive behaviour? Can wholesale price responsiveness be flagged through an alternative channel such as MSATS to support to AEMO improve the identification, calibration or forecasting of price responsive behaviour?

Draft CEC response

CEC supports modernising Demand Side Participation Information (DSPI) where this simplifies reporting and produces information that AEMO can demonstrate is useful. Increasing reporting from annual to quarterly should not in our view be implemented as a blanket requirement without first reviewing:

- whether each or any data field changes sufficiently frequently to justify quarterly reporting;

⁷ AEC submission to AEMC, Draft Determination - Integrating price-responsive resources into the NEM, September 2024.

- whether update information can be generated automatically from data already available in MSATS, the DER Register, registration systems or connection arrangements;
- whether quarterly information is of itself sufficiently timely for the stated operational purpose; and
- the different reporting capacity of large industrial facilities, retailers and smaller aggregators.

Our preference is that stable standing information could remain annual or be updated when circumstances change. More dynamic portfolio level information could be provided quarterly by participants above a materiality threshold. We would have reservations about any intent to transform DSPI into a near operational system.

An MSATS flag may assist in identifying connections associated with wholesale-responsive arrangements. But before introducing additional fields, AEMO should identify what information it already holds, the visibility gap it is seeking to address and how each proposed field could improve a specified forecast or decision.

Question 11

Are there any resource types and retailer relationships where it is not feasible for regulatory obligations to be assigned to the FRMP or registered service provider? In your response, please provide specific examples.

CEC response

Yes, but the circumstances are likely to be limited. In most cases, an obligation will be able to be assigned to an identifiable party, including the FRMP, a registered aggregator or another registered service provider.

The exception arises where an unregistered third-party coordinates price responsive resources across customers supplied by multiple FRMPs. For example, an OEM or technology platform may optimise a portfolio of CER across several retailers, so no individual FRMP has visibility of, or control over, the portfolio's aggregate response. If the coordinating entity is *not eligible* to become the obligated party, there may be no existing registered participant capable of providing complete and accurate portfolio level information for this case.

The framework should therefore be designed so that the entity with practical control of the price responsive behaviour and access to the relevant information can become the obligated party. This may require an appropriate registration, accreditation or nomination mechanism for third-party coordinators. The FRMP should remain responsible where it controls the response or can reasonably obtain the required information but, should not be made accountable for the accuracy of portfolio level information held exclusively by an unrelated third party.

Question 12

How can thresholds be applied to obligated parties in a way to mitigate the risk of portfolio structuring and gaming below MW thresholds? Can less onerous obligations help mitigate this risk? For example, in relation to > 5 MW battery portfolios, should obligations commence first in Mode 2 before further consideration is given to requiring scheduling through market mechanisms?

CEC response

The CEC supports commencing material small-battery portfolios in Mode 2 rather than moving directly to mandatory scheduling. A predictive visibility obligation is more proportionate while AEMO develops evidence about the portfolio's accuracy, impact and operability.

Related portfolios could be combined where they:

- are controlled by the same entity or related entities;
- use a common market-facing optimisation process;
- are managed as one commercial portfolio;
- share bidding or response decisions; and importantly
- have been separated primarily to avoid a threshold.

Conversely, aggregation should not be required just because portfolios share an ultimate corporate owner where their control systems, commercial decisions and market facing operations are genuinely independent.

As note earlier, a steep regulatory hurdle, under which a small increase in portfolio size triggers full scheduling, is likely to create stronger avoidance incentives than a graduated framework would. Therefore, moving a resource class from Mode 2 to mandatory scheduling should be separately assessed and it should not follow automatically from exceeding a capacity threshold.

Question 13

What process can be used to provide market participants and consumers with confidence that the visibility obligations' benefits outweigh the costs and deliver value to consumers? Is there an alternative approach to assessing costs and benefits to that outlined in this paper that AEMO should consider?

CEC response

Market participants support a transparent, stage gate assessment before any visibility obligation is activated. AEMO should clearly identify the problem and demonstrate through trials that the proposed information improves a specific forecast or operational decision, quantify implementation and ongoing costs, and consider lower-cost alternatives. This approach boosts participant confidence.

For consumers, AEMO should demonstrate a clear empirical link between the information collected, its accuracy and timeliness, the resulting improvement in forecasting or operational decisions and the ultimate benefit. Assessments should be undertaken separately for each resource class and visibility mode

The emphasis must remain on realistic participation assumptions, establishment costs and demonstrable consumer benefits before new market mechanisms are expanded.

Conclusion

The CEC supports development of a proportionate Market Visibility Framework that improves the integration of material price responsive resources while preserving the value that flexible demand, batteries and CER provide to consumers and the wider electricity system.

The CEC considers that the large industrial loads, large inverter-based loads, commercial demand-response portfolios, standalone batteries and coordinated CER differ materially in their operation, controllability, predictability and ability to provide information. They should not be subject to a common threshold, data standard or implementation timetable without evidence that this is necessary and proportionate.

The staged framework proposed by AEMO is a constructive foundation. The framework should begin with existing information, targeted trials and the most material resources. It should expand only where transparent evidence demonstrates that additional obligations will deliver net benefits. And evidence relating to one resource class should not be treated as sufficient justification for imposing equivalent obligations on another.

The CEC encourages AEMO to continue working with CER providers, industrial users, retailers, aggregators, OEMs, consumer representatives, networks and other market participants through Phase 1. This work should develop objective coordination tests, measures of responsive capacity, practical information formats and robust consumer benefit tests to inform future stages.

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Kind regards

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