

NEM PARTICIPANT FEE STRUCTURES

April 2025

Consultation Paper

A consultation on AEMO's NEM Participant fee structures
to apply from 1 July 2026





We acknowledge the Traditional Custodians of the land, seas and waters across Australia. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.

We acknowledge that, wherever we work, we do so on Aboriginal and Torres Strait Islander lands. We pay respect to the world's oldest continuing culture and First Nations peoples' deep and continuing connection to Country; and hope that our work can benefit both people and Country.

'Journey of unity: AEMO's Reconciliation Path' by Lani Balzan

AEMO Group is proud to have launched its first [Reconciliation Action Plan](#) in May 2024. 'Journey of unity: AEMO's Reconciliation Path' was created by Wiradjuri artist Lani Balzan to visually narrate our ongoing journey towards reconciliation - a collaborative endeavour that honours First Nations cultures, fosters mutual understanding, and paves the way for a brighter, more inclusive future.

Important notice

Purpose

AEMO is consulting on the determination of the structure of Participant fees in accordance with clause 2.11 and clause 8.9 of the National Electricity Rules (Rules).

This document has effect only for the purposes set out in the Rules, and the Rules and the National Electricity (Law) prevail over this document to the extent of any inconsistency.

This publication has been prepared by AEMO using information available as at 9 April 2025.

Disclaimer

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Version control

Version	Release date	Changes
1	10/4/2025	

Executive summary

AEMO consults on and subsequently determines the National Electricity Market (NEM) Participant fee structures under clause 2.11 and clause 8.9 of the National Electricity Rules (NER, the Rules). Under the National Electricity Law (NEL) and the Rules, AEMO's fees and charges are to be determined on a non-profit basis to provide for recovery of AEMO's costs of providing services, including performance of its statutory functions. The current NEM Participant fee structures¹ apply from 1 July 2021 to 30 June 2026.

The publication of this Consultation Paper commences the first stage of the Rules consultation process for determining the NEM Participant fee structures to apply from 1 July 2026. AEMO seeks feedback from its stakeholders on how the NEM Participant fee structures should balance the principles in NER clause 2.11.1(b) (**Fee Structure Principles**) and National Electricity Objective (**NEO**) and address emergent market trends, regulatory reforms or stakeholder-identified issues.

Background and context

The NEM is undergoing rapid transformation, marked by increased adoption of Variable Renewable Energy (VRE) like wind and solar, the rise of Consumer Energy Resources (CER) and Distributed Energy Resources (DER) such as rooftop solar and battery energy storage systems, and the phase-out of coal-fired power. The sector is also going through a digital transformation, with technology and automation offering new and expanded ways to participate and interface with the market. These developments create opportunities for innovation but also present challenges including managing renewable intermittency, maintaining system security, reliability and resilience, and addressing cybersecurity risks in an increasingly digitalised system.

As the operating environment has evolved, so too have AEMO's roles and responsibilities. Our functions have expanded and adapted to ensure we continue meeting our core objectives while addressing the demands of a more complex and transitioning energy market. AEMO's adaptation includes advancing operational and planning capabilities, through such measures as the Integrated System Plan (ISP) and the Operations Technology Program. Its expanded responsibilities now encompass areas like cybersecurity and operation of new ancillary service markets. Meanwhile key programs, such as the NEM Reform Program, have matured and evolved to deliver against a substantial and expanding reform agenda. Furthermore, AEMO is actively integrating CER / DER into the market, leading reforms and trials to ensure these resources contribute to reliability and affordability.

AEMO's ability to evolve and respond to the complexities arising from the energy transition is dependent in part on its ability to suitably recover its budgeted revenue requirements. This consultation, in conjunction with AEMO's separate annual budget and fees consultation, set the basis for that.

Establishing a NEM Participant fee structure

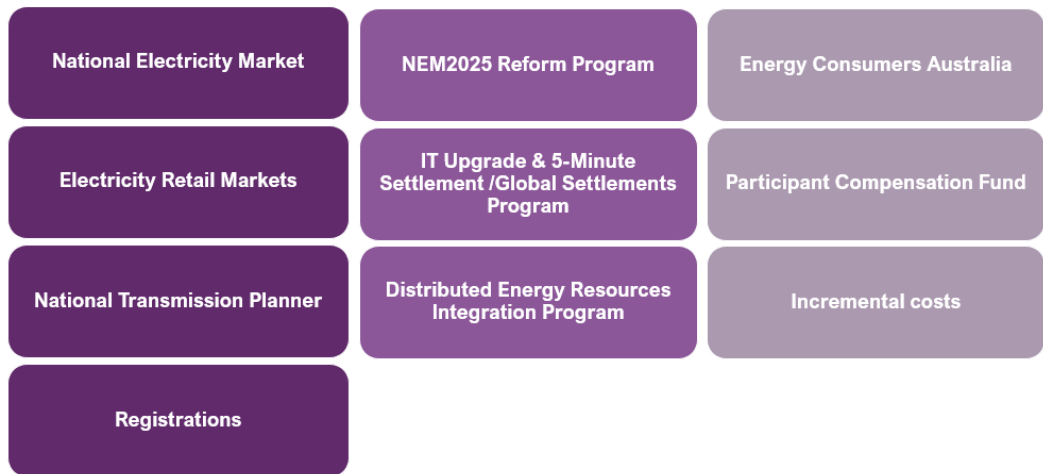
Each NEM Participant fee structure determination is considered anew under the Rules. That is, AEMO considers the application of the NEL and the criteria in clause 2.11.1 of the Rules to the facts, circumstances and analysis

¹ AEMO. Electricity Fee Structure Final Report & Determination. 17 March 2021. Available here: <https://wa.aemo.com.au/consultations/current-and-closed-consultations/electricity-market-participant-fee-structure-review>

available to it at the time of consultation. As of March 2025, the NEM Participant fee structure comprises ten separate fees as shown in Figure 1. These fees provide for the recovery of costs associated with:

- Core system and market operations, forecasting, planning and registration functions (e.g. NEM Core, Electricity Retail Markets, National Transmission Planner and Registrations),
- Delivery of substantial reform programs (DER Integration Program, IT upgrade and 5MS/GS compliance, NEM2025 Reform Program), and
- Bespoke funding requirements as stipulated in the Rules or aligned to incremental services delivered by AEMO (e.g., Energy Consumers Australia, Participant Compensation Fund and Incremental Services).

Figure 1 NEM Participant Fee structures as of March 2025



This consultation provides opportunity to ensure the NEM Participant Fee Structure is fit for purpose and aligned with a transitioning energy landscape and evolution of AEMO roles and responsibilities from 1 July 2026. AEMO notes this consultation only applies to the structure of Participant fees. The actual amount charged for each fee will be determined on an annual basis, via the AEMO budgeting process. AEMO separately consults on the draft budget prior to finalising and publishing it by 30 June each year.

AEMO welcomes stakeholder feedback on key fee structure attributes including:

- the allocation of fees to Registered Participant types or groups of Registered Participants,
- the types and number of fees that are appropriate, having regard to AEMO’s existing NEM Participant fee structure as a comparative basis on which to design and evaluate a fee structure for the upcoming period,
- the basis for charging fees to Registered Participants, and
- the period during which the Participant fee structure should apply.

Submissions are not restricted to these areas and comments are welcome on any issue relevant to the structure (including the introduction and determination) of Participant fees, regardless of whether it is detailed in this document.

Submissions – Closing date and information

Stakeholders are invited to submit written responses on the issues and questions identified in this Consultation Paper by 5.00 pm (Australian Eastern Standard Time [AEST]) on Tuesday 27 May 2025 to reformdevelopmentandinsights@aemo.com.au.

Please refer to the Notice of First Stage of Consultation published with this paper or Section 1.1 for further details.



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1 Consultation overview

The Australian Energy Market Operator (AEMO) invites stakeholder submissions to this Consultation Paper on National Electricity Market (NEM) related Participant fee structures to apply from 1 July 2026.

1.1 Key information

Purpose	To provide stakeholders with the opportunity to have input into the development of the structure of AEMO's NEM Participant fee structures to apply from 1 July 2026.												
Date applicable	1 July 2026												
NEM Participant fees covered in this consultation	<ul style="list-style-type: none">• National Electricity Market• Electricity Retail Markets• National Transmission Planner (NTP)• Energy Consumer Australia (ECA)• Participant Compensation Fund (PCF)• Major Reform Initiatives including NEM2025 Reform Program, 5-minute settlement (5MS)/Global Settlements (GS), Distributed Energy Resources (DER) Integration Program, Cyber Security Roles and Responsibilities²• Connections and Registration• Incremental Services												
Relevant AEMO functions for this consultation	<ul style="list-style-type: none">• Power system security• Power system reliability• Market operation• Wholesale metering and settlements• Retail operations• Prudential supervision• Market development• Information dissemination• Connections & Registration												
AEMO functions out of scope for this consultation	<ul style="list-style-type: none">• AEMO gas related functions• AEMO Wholesale Electricity Market (WEM) related functions• AEMO Victorian TNSP functions• AEMO Services Limited (ASL) functions												
Timetable	<p>The following table contains an outline of the consultation process, including indicative key dates. Please note the key dates are indicative and may change.</p> <table><tr><th>Deliverable</th><th>Indicative date</th></tr><tr><td>Consultation Paper published</td><td>Thursday 10 April 2025</td></tr><tr><td>Submissions due on Consultation Paper</td><td>Tuesday 27 May 2025</td></tr><tr><td>Draft Report published</td><td>By Tuesday 5 August 2025</td></tr><tr><td>Submissions due on Draft Report</td><td>Tuesday 16 September 2025</td></tr><tr><td>Final Report published</td><td>By Tuesday 25 November 2025</td></tr></table> <p>Having regard to stakeholder feedback additional stages (e.g. issues paper) may be included as part of the consultation process.</p>	Deliverable	Indicative date	Consultation Paper published	Thursday 10 April 2025	Submissions due on Consultation Paper	Tuesday 27 May 2025	Draft Report published	By Tuesday 5 August 2025	Submissions due on Draft Report	Tuesday 16 September 2025	Final Report published	By Tuesday 25 November 2025
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Draft Report published	By Tuesday 5 August 2025												
Submissions due on Draft Report	Tuesday 16 September 2025												
Final Report published	By Tuesday 25 November 2025												

² Consultation on this declared NEM project is occurring concurrently and due for a final determination by 30 June 2025.



Meetings	Stakeholders may request a meeting with AEMO in their submission. Matters discussed at the meeting may be made available to other stakeholders.
Submissions – Closing date and information	<p>AEMO requests that submissions are provided in electronic format (either pdf and Word) by 5:00pm AEST Tuesday, 6 May 2025 to reformdevelopmentandinsights@aemo.com.au.</p> <p>Please note that submissions will be published, other than confidential material, as per AEMO's Consultation submission guidelines³. Please identify any part of your submission that is confidential, and you do not wish to be published.</p> <p>Respondents should note that if material identified as confidential cannot be shared and validated with other stakeholders then it may be accorded less weight in AEMO's decision making process than published material.</p>

1.2 Rules requirements and guiding principles

AEMO develops its proposed fee structure for Participants in accordance with clause 2.11.1 (Development of Participant fee structure) of the National Electricity Rules (NER, the Rules). AEMO must develop, review and publish, in consultation with Participants, interested parties and such other persons as AEMO thinks appropriate, the structure of Participant fees for such periods as AEMO considers appropriate. AEMO is required to comply with the Rules consultation procedures in clause 8.9 of the Rules in determining a Participant fee structure under clause 2.11.1 of the Rules.


Under the NEL and the Rules, AEMO has the power to charge and recover fees from Registered Participants. In determining the structure of Participant fees, AEMO must have regard to the National Electricity Objective (NEO). In addition, the structure of Participant fees must, to the extent practicable, be consistent with the principles specified in clause 2.11.1(b) of the Rules (referred to in this document as the Fee Structure Principles). These principles include that:

- The structure of Participant fees should be simple.
- The structure of the Participant fees should provide for the recovery of AEMO's budgeted revenue requirements on the basis specified in clause 2.11.1(b)(2) of the Rules.
- The components of Participant fees charged to each Registered Participant should be reflective of the extent to which AEMO's budgeted revenue requirements involve that Registered Participant.
- Participant fees should not unreasonably discriminate against a category or categories of Registered Participants.

The Fee Structure Principles are set out in Appendix A1 with an explanation and some examples of how these requirements may be applied to reviewing the Participant fee structure.

The Rules do not indicate that one or another of these Fee Structure Principles should have greater weight than the others. There will often be a degree of tension between some of these principles, in which case AEMO will need to consider the appropriate weight to be given to each one. Therefore, meeting the requirements established under the Rules typically requires a trade-off or degree of compromise between

³ AEMO. Consultation submission guidelines. Available here: https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/industry_meeting_schedule/aemo-consultation-submission-guidelines---march-2023.pdf?la=en&hash=DB5BAA8CC5A29297C205B91640A97518



principles. That is, an option to improve the fee structure against one principle may affect consistency with another principle.

For example, commonly competing principles are cost-reflectivity and simplicity. While cost-reflectivity in a fee structure could be improved through measures such as disaggregation of fees, markets or services, this would decrease simplicity of the fee structure, and the systems needed to manage the fees would become more complex.

AEMO's objective through this review and consultation process is to strike a balance between the Fee Structure Principles, through careful consideration of the principles, relevant facts, circumstances and analysis available to AEMO and stakeholder feedback on how any fee structure changes impact various stakeholders.

Question 1

How do stakeholders interpret the Fee Structure Principles, and how should they be considered in the NEM Participant fee structure determination?

1.3 Budget and Fee Structure

The operation of clause 2.11.1 of the Rules also needs to be understood in the context of its surrounding provisions which deal with AEMO's budgets and the payment of Participant fees.

Under clause 2.11.3 (Budgeted revenue requirements), AEMO is required to prepare and publish its budgeted revenue requirements for each financial year. That budget must consider and identify revenue requirements for the matters set out in clause 2.11.3(b). Some, but not all, of these matters are referred to in the non-exhaustive list of components of Participant fees in clause 2.11.1(c). AEMO may include components in a fee structure which are different to or more than those set out in clause 2.11.1(c).

Clause 2.11.1(b)(2) of the Rules is the Fee Structure Principle that Participant fees should recover the budgeted revenue requirements for AEMO determined under clause 2.11.3.

Under clause 2.11.2 of the Rules, AEMO may charge Registered Participants the relevant component/s of Participant fees in accordance with the structure of Participant fees.

Consequently, the scheme of clauses 2.11.1 to 2.11.3 of the NER is:

- To require AEMO to determine the structure of Participant fees according to certain Rules;
- To require AEMO to determine AEMO's budgeted revenue requirements according to certain Rules; and
- To empower AEMO to recover the budgeted revenue requirements through charging Registered Participants in accordance with the structure of Participant fees.



2 Transitioning NEM, evolving AEMO

As Australia's independent system and market operator and system planner, AEMO's purpose is to ensure secure, reliable, and affordable energy and enable the energy transition in the long-term interests of consumers. And as the NEM and our operating environment transition to support a net zero future, so too are AEMO's roles and responsibilities. The following sections provide stakeholders with an overview of these changes, and their potential impacts for evaluating a NEM Participant fee structure.

AEMO's ability to evolve and respond the complexities arising from the energy transition is dependent in part on its ability to recover its budgeted revenue requirements. The outcomes of this consultation, in conjunction with AEMO's separate, annual budget and fees consultation, set the basis for that.

2.1 A transitioning energy system

As Australia progresses towards a net zero economy, its energy markets and systems are also undergoing profound transformation. Driven by the retirement of coal-fired generation and growing adoption of renewable energy sources such as wind and solar, alongside the integration of battery energy storage systems, the NEM has shifted from a system predominantly reliant on coal-fired generation to one increasingly characterised by Variable Renewable Energy (VRE). In November 2024, the NEM reached an instantaneous 75.6% contribution from VRE, with this figure expected to grow as more of the NEM's coal fired generation approach retirement. AEMO's 2024 Integrated System Plan (ISP) highlights this forecast change in the NEM's generation mix as shown in Figure 2. This transitioning energy landscape has brought both opportunities (e.g. new markets, participants and technologies), as well as challenges for system and market operations (e.g. managing the intermittency of renewable energy sources and maintaining the power system in a reliable operating state e.g. through the use of directions).

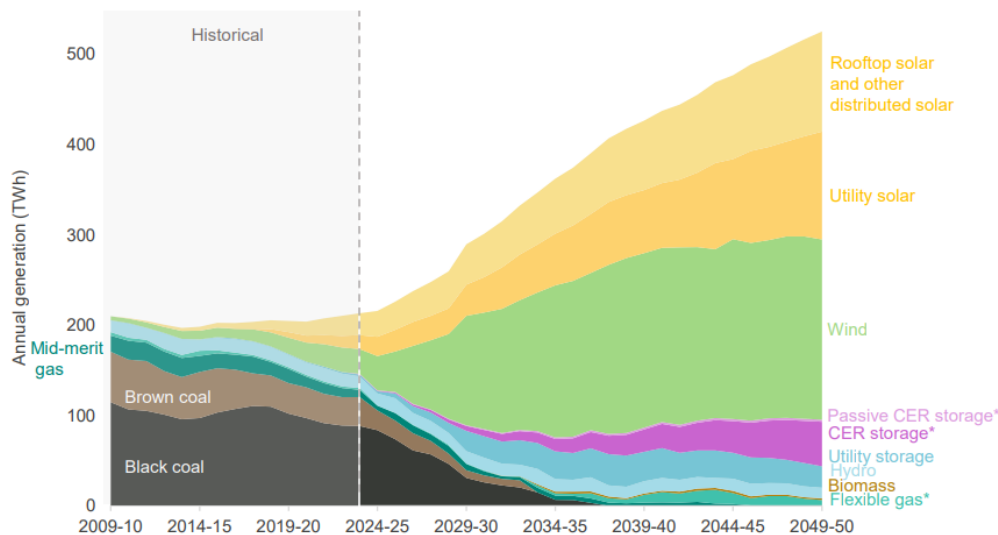
A significant aspect of the NEM's transition is the rising penetration of Consumer Energy Resources (CER) and Distributed Energy Resources (DER), such as rooftop solar photovoltaic (PV) systems, home batteries, and electric vehicles. This shift has empowered consumers to play an active role in the market. To accommodate this growth, market frameworks have, and continue to be, revised to enable efficient integration of CER / DER, unlocking their potential to contribute to system reliability and affordability, while delivering greater value to consumers.

Together these changes have led to planning and coordination becoming more complex, with greater interdependencies between gas and electricity systems as well as between transmission and distribution networks. These changes demand greater sophistication in AEMO's approaches, ensuring alignment between long-term investments with immediate system needs to ensure reliability and efficiency.

Additionally, cyber security has emerged as a critical focus area for the transitioning NEM. The increasing digitisation and interconnectivity of the energy system has heightened its exposure to cyber threats. Recognising these risks, the NEM has prioritised strengthening cyber security measures and fostering collaboration among stakeholders to mitigate vulnerabilities and protect system resilience. Enhanced

planning and response frameworks are now central to ensuring the stability of Australia’s evolving energy landscape and now a core power system security responsibility of AEMO under the Rules.⁴

Figure 2. AEMO 2024 ISP – Generation mix, NEM (TWh, 2009-10 to 2049-50, Step Change) ⁵



As the transition continues, the increasing adoption of CER / DER, reliance on VRE, and significant infrastructure investments to replace coal plants will continue to place mounting pressure on the operation of the energy system. In response, AEMO's responsibilities have rapidly evolved to ensure the power system remains secure, reliable, and affordable amidst these dynamic challenges.

2.2 AEMO’s evolving roles and responsibilities

As the operating environment has evolved, so too have AEMO’s roles and responsibilities. Our functions have expanded and adapted to ensure we continue meeting our core objectives while addressing the demands of a more complex and transitioning energy market. For example, the increasing integration of distributed and VRE sources, such as solar and wind, has required AEMO to adapt its operational and technological capabilities. AEMO has implemented initiatives like the Operations Technology Program to enhance its control room capabilities and manage such complexities.


Similarly, AEMO’s planning functions have also adapted to meet the growing complexities of the energy system. The role of AEMO’s Integrated System Plan (ISP) as a core planning document for the NEM has grown since its inaugural publication in 2018 and will continue to evolve as AEMO implements the actions endorsed by Energy Ministers in response to the review of the ISP.⁶

In addition to the evolving nature of its core responsibilities, AEMO has been given new statutory functions or responsibilities, such as enhanced roles in cyber security (refer to Section 3.1) and the operation of fast

⁴ Refer to Section 3.1.

⁵ Notes: Annual generation for 2023-24 has been estimated for the full financial year. “Flexible gas” includes gas-powered generation and potential hydrogen capacity. “CER storage” means consumer energy resources such as batteries and EVs.

⁶ DCCEEW. Review of the Integrated System Plan. Available here: <https://www.energy.gov.au/energy-and-climate-change-ministerial-council/energy-ministers-publications/review-integrated-system-plan>



frequency response (FFR) markets. Meanwhile, key programs such as the NEM Reform Program (refer to Section 4.3.5) have also matured and evolved to deliver against a substantial and expanding reform agenda.

AEMO is also playing an ever-increasing role in enabling greater participation of CER / DER in the NEM. This includes optimising whole-of-system operations to deliver reliable, affordable, and safe energy to consumers. This work includes the design and implementation of key reforms such as Integrating Energy Storage Solutions, as well as leading various demand response and virtual power plant (VPP) demonstrations and trials such as Project EDGE⁷ and co-design of a CER Data Exchange⁸. AEMO continues to engage with stakeholders, governments and market bodies on key issues such as DER standards and connections and shaping of the National CER Roadmap.

Question 2

What are stakeholder views on how the changes in the NEM and subsequently, changes to AEMO's roles and responsibilities, impact or affect the Participant fee structures and why?

⁷ AEMO. Project EDGE. Available here: <https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/der-demonstrations/project-edge>

⁸ AEMO. CER Data Exchange Industry Co-design. Available here: <https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/markets-and-framework/cer-data-exchange-industry-codesign>

3 Existing NEM Participant fee structures

AEMO's Final Report and Determination of the Structure of Participant Fees (**2021 Final Determination**) for the period 1 July 2021 to 30 June 2026 was published on AEMO's website on 17 March 2021.⁹ Since the commencement of the current fee structure, two major reform programs have been determined to be declared NEM projects for which AEMO recovers its costs:

- The Consumer Data Right (CDR) reforms which was taken to have been determined a declared NEM project in November 2022, and for which, through consultation, it was determined its costs would be recovered through the existing Electricity Retail Markets fee from 1 July 2023.¹⁰
- The NEM2025 Reform Program¹¹ which, through consultation, was determined a declared NEM project in September 2022 with an additional fee developed (the NEM2025 Reform Program fee) in October 2023 through consultation.¹²

As of March 2025, the NEM Participant fee structure comprises ten separate fees. The table below provides a full list of the existing Participant fee structures including current allocation of related costs to each Participant group.

Table 1. NEM Participant Fee structures as of March 2025

Fee	Existing NEM Participant fee structure (until 30 June 2026)
National Electricity Market (NEM)	<ul style="list-style-type: none"> • Allocated direct costs: <ul style="list-style-type: none"> – 70% of AEMO's general budgeted revenue requirements are "allocated costs" and are apportioned on the following basis: <ul style="list-style-type: none"> (a) 26.6% Market Customers; (b) 55.9% Wholesale Participants of which: <ul style="list-style-type: none"> Does not further apportion between Market/Non-Market Scheduled/Semi-Scheduled Generators and MNSPs or to Market Generators and MNSPs; and (c) 17.5% to Transmission Network Service Providers (excluding Murraylink and Directlink). – Wholesale Participant charges: <ul style="list-style-type: none"> (i) 50% charged as a daily rate based on aggregate of the higher of the greatest registered capacity and greatest notified maximum capacity (of energy or FCAS markets) in the previous calendar year of units from Wholesale Participants; and (ii) 50% charged as a daily rate based on MWh energy, or in the case of MASPs/DRSPs the equivalent FCAS enablement, scheduled or metered (in previous calendar year). – Market Customer charges:

⁹ AEMO. Electricity Fee Structure Final Report & Determination. 17 March 2021. Available here: <https://wa.aemo.com.au/consultations/current-and-closed-consultations/electricity-market-participant-fee-structure-review>

¹⁰ AEMO. Consumer Data Right Declared NEM Project. Available here: <https://www.aemo.com.au/consultations/current-and-closed-consultations/participant-fee-structure-for-the-consumer-data-right-cdr-declared-nem-project>

¹¹ Since its establishment in 2022, the NEM2025 Reform Program has and will continue to evolve as new rule changes or policies are assessed and announced and as uncertainty associated with the scope, design, requirements, or timeline for implementing initiatives reduces. AEMO has since rebranded the program to NEM Reform Program. However, the scope of the NEM2025 Reform Program fee remains as per the original scope of the associated declared NEM project.

¹² AEMO. NEM2025 Declared NEM Project. Available here: <https://www.aemo.com.au/consultations/current-and-closed-consultations/participant-fee-structure-for-the-nem2025-reform-program-declared-nem-project>

Fee	Existing NEM Participant fee structure (until 30 June 2026)
	<ul style="list-style-type: none"> (i) 50% charged as a rate per MWh for a financial year based on AEMO's estimate of total MWh to be settled in spot market transactions by Market Customers during that financial year. Rate applied to actual spot market transactions in the billing period; and (ii) 50% charged on a per connection point basis per week. <ul style="list-style-type: none"> – Transmission Network Service Provider charges: charged on the basis of energy consumed for the latest completed financial year. <ul style="list-style-type: none"> • Unallocated costs: <ul style="list-style-type: none"> – 30% of AEMO's general budgeted revenue requirements are "unallocated costs" and are allocated 100% to Market Customers. – Market Customer charges: <ul style="list-style-type: none"> (i) 50% charged as a rate per MWh for a financial year based on AEMO's estimate of total MWh to be settled in spot market transactions by Market Customers during that financial year. Rate applied to actual spot market transactions in the billing period; and (ii) 50% charged on a per connection point basis per week.
Electricity Retail Markets	<ul style="list-style-type: none"> • Charged to Market Customers with a retail licence and levied on a per connection point basis per week.
National Transmission Planner	<ul style="list-style-type: none"> • Charged to Coordinating Network Service Providers on the respective jurisdiction's consumption for the latest completed financial year.
IT upgrade and SMS/GS compliance	<ul style="list-style-type: none"> • For SMS/GS legacy and specific upgrade costs: <ul style="list-style-type: none"> (a) 82% allocated to Market Customers (same fee structure as core NEM allocated Market Customer fee); and (b) 18% allocated to Wholesale Participants (same fee structure as core NEM allocated Wholesale Participant fee).
DER program	<ul style="list-style-type: none"> • 80% allocated to Market Customers levied on the basis: <ul style="list-style-type: none"> (i) 50% charged as a rate per MWh for a financial year based on AEMO's estimate of total MWh to be settled in spot market transactions by Market Customers during that financial year. Rate applied to actual spot market transactions in the billing period; and (ii) 50% charged on a per connection point basis per week. • 20% allocated to Wholesale Participants levied on the same basis as above for NEM.
NEM2025 Reform Program	<ul style="list-style-type: none"> • 27.5% allocated to Wholesale Participants charged: <ul style="list-style-type: none"> (i) 50% charged as a daily rate based on aggregate of the higher of the greatest registered capacity and greatest notified maximum capacity (of energy or FCAS markets) in the previous calendar year of units from Wholesale Participants; and (ii) 50% charged as a daily rate based on MWh energy, or in the case of MASPs/DRSPs the equivalent FCAS enablement, scheduled or metered (in previous calendar year). • 72.5% allocated to Market Customers charged: <ul style="list-style-type: none"> (i) 37% charged as a rate per MWh for a financial year based on AEMO's estimate of total MWh to be settled in spot market transactions by Market Customers during that financial year. Rate applied to actual spot market transactions in the billing period; and (ii) 63% charged on a per connection point basis per week.
Energy Consumers Australia	<ul style="list-style-type: none"> • Charged to Market Customers and levied at a rate per small customer (as defined in the National Energy Retail Law) connection point.
NEM Participant Compensation Fund	<ul style="list-style-type: none"> • Charged to Scheduled Generators, Semi Scheduled Generators and Scheduled Network Service Providers in accordance with the NER, levied on 50% maximum capacity and 50% energy generated in the previous calendar year.
Registration fees	<ul style="list-style-type: none"> • The fee structure for registration fees for each application type to continue to be charged.

Fee	Existing NEM Participant fee structure (until 30 June 2026)
	<ul style="list-style-type: none"> The actual registration fee amounts are to be set as part of the annual budget.
Incremental charges	<ul style="list-style-type: none"> Where it is practical for AEMO to identify that doing something specific for a participant, and that action causes identifiable and material costs for AEMO, AEMO can seek to levy fees to recover the incremental costs incurred.

3.1 Open consultation – Cyber Security Roles and Responsibilities declared NEM Project

In accordance with the Rules, AEMO may, after consultation, determine that specific projects are declared NEM projects for which an additional fee structure can be determined and used to recover the costs of those projects until the next general determination of the NEM Participant fee structure.

On 12 December 2024, the AEMC published its final determination and made the National Electricity Amendment (Cyber security roles and responsibilities) Rule 2024 (amending Rule) to explicitly include the coordination and support of cyber security preparedness, response and recovery as one of AEMO’s power system security responsibilities in Chapter 4 of the NER, as well as four additional cyber security functions that AEMO is to perform.¹³ The amending Rule came into effect on 12 December 2024.

AEMO has subsequently commenced the first stage of the Rules consultation process for two separate but inter-related consultation processes:


- Part A – consultation on whether the new AEMO cyber security roles and responsibilities in the Rules should be determined to be a declared NEM project.
- Part B – if those AEMO cyber security roles and responsibilities are determined to be a declared NEM project, consultation on the determination of an additional Participant fee structure to be used to recover AEMO’s costs associated with those cyber security roles and responsibilities, including the Registered Participants that will be charged the fee, the start date for recovery and the period or periods over which recovery will occur.

AEMO is undertaking the first stage of both consultation processes in parallel, in order to confirm a cost recovery approach with stakeholders in time for FY26. The outcomes of the consultation processes initiated in Part A and Part B (if required) will be reflected in and further consulted upon as part of this broader consultation on NEM Participant fee structures. AEMO aims to complete the declared NEM project consultation by the end of June 2025.

Specifically, should AEMO determine that the new cyber security roles and responsibilities meet the criteria of a declared NEM project and establish an additional Participant fee structure for the declared NEM project, then:

- that additional Participant fee structure would only apply until 30 June 2026 (inclusive), and

¹³ AEMC. National Electricity Amendment (Cyber Security Roles and Responsibilities) Rule 2024. 12 December 2024. Available here: <https://www.aemc.gov.au/rule-changes/cyber-security-roles-and-responsibilities>

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- cost recovery for the new cyber security roles and responsibilities would be included as part of this NEM Participant fee structure consultation moving forward.

AEMO received three submissions to our Consultation Paper on the new cyber security roles and responsibilities declared NEM project, which can be found on AEMO's website. We are currently reviewing these submissions and will be publishing a Draft Determination by 15 April 2025 at the earliest. AEMO encourages stakeholders to participate in this consultation process.



4 Establishing a NEM Participant fee structure

In accordance with the Rules¹⁴, AEMO must develop, review and publish in consultation with stakeholders a structure (including the introduction and determination) of Participant fees for such periods as AEMO considers appropriate. Each NEM Participant fee structure determination is considered anew under the Rules. That is, it must consider the application of the criteria in clause 2.11.1 of the Rules and the NEL to the facts, circumstances and analysis available to it at the time. In doing so, however, AEMO will have regard to its previous Participant fee structure determinations, where appropriate.

This consultation therefore provides the opportunity to ensure the NEM Participant Fee Structure is fit for purpose and aligned with a transitioning energy landscape and evolving AEMO roles and responsibilities. The following sections highlight key fee structure attributes that stakeholders may wish to comment on. Submissions are not restricted to these areas and comments are welcome on any issue relevant to the structure (including the introduction and determination) of Participant fees, regardless of whether it is detailed in this document.

4.1 Fee structure attributes

Establishing a NEM Participant fee structure in accordance with the Rules requires consideration of the following:

- **Registered Participants** – Under the Rules, AEMO only has the power to recover market fees from Registered Participants.¹⁵ AEMO, through this consultation, must determine the categories of Registered Participants to be allocated costs as part of its fee structure.

The allocation of costs to a Registered Participant category or group of Registered Participants is based on AEMO's activities and outputs and the extent of the involvement of those Registered Participants with each activity or output. AEMO's proposed cost allocation methodology is outlined in Section 5.

- **Types and number of fees** – AEMO must determine the type and number of fees that comprise the NEM Participant fee structure and their relation to AEMO's activities and outputs. In accordance with the Rules, the fees should collectively provide for the recovery of AEMO's budgeted revenue requirements.

AEMO's existing NEM Participant fee structure provides a comparative basis for designing and evaluating a new fee structure for the upcoming period. Section 4.3 discusses each of the existing fee structures and their potential suitability in the new fee structure to apply from 1 July 2026.

- **Basis (metric) for charging fees to individual Registered Participants** – In the development of the fee structure, AEMO must include how the Participant fees are to be charged to each relevant Registered Participant category. These metrics must be developed with due consideration to the NEO and consistently with the Fee Structure Principles to the extent practicable.

¹⁴ Clause 2.11.1 of the NER

¹⁵ Ibid.

- **Fee structure period** – Under the Rules, AEMO must determine the period for which the NEM Participant fee structure determination should apply.¹⁶

4.2 Registered participants

AEMO only has the power to recover market fees from Registered Participants. The allocation of costs to a category of Registered Participant or group of Registered Participants in the fee structure is based on AEMO's activities and outputs and the extent of involvement by Registered Participants in those activities or outputs.

4.2.1 Changes to Registered Participant categories

For the first time, AEMO's 2021 Final Determination grouped Registered Participants into two separate categories – Wholesale Participants and Market Customers – and subsequently allocated costs to each category group. This approach sought, to the extent reasonably practicable, to: (1) simplify the NEM Participant fee structure, (2) provide for consistency in allocation and charging approach, and (3) avoid unreasonably discriminating between Registered Participant types (e.g. type of generator). The Registered Participant types grouped as part of that determination were:

- Wholesale Participants: Scheduled and Semi-scheduled generators, Market Network Service Providers (MNSPs), Market Ancillary Service Providers (MASPs), Demand Response Service Providers (DRSPs) and Small Generator Aggregators (SGAs).
- Market Customers: Retailers and Large Consumer and Industrial (C&I) customers.

Further, AEMO determined to allocate NEM Core related costs to transmission network service providers (TNSPs) for the first time noting an increased level of involvement in AEMO's activities and outputs.¹⁷ This change came into effect on 1 July 2023 following a transitional period of 1 July 2021 to 30 June 2023 specified in AEMO's Final Determination, which allowed for an amendment to the NER to facilitate TNSPs' recovery of AEMO's costs.¹⁸

Since this determination, several Registered Participant categories have ceased to exist under the Rules, including Non-market Scheduled Generator, Non-market Semi-scheduled Generator, SGAs and MASPs.¹⁹ Conversely, new Registered Participant categories have been established including Integrated Resource Providers (IRP).

As a result, should AEMO determine the fee structure should contain groups of Registered Participant categories, these would need to be updated to reflect the Registered Participant categories under the Rules at the time of AEMO's final determination.

¹⁶ Clause 2.11.1(a) of the NER.

¹⁷ AEMO. Electricity Fee Structure Final Report & Determination. 17 March 2021. Available here: <https://wa.aemo.com.au/consultations/current-and-closed-consultations/electricity-market-participant-fee-structure-review>

¹⁸ AEMC. Recovering the cost of AEMO's participant fees. Available here: <https://www.aemc.gov.au/rule-changes/recovering-cost-aemos-participant-fees>

¹⁹ The SGA category was transferred into the new Integrated Resource Provider (IRP) category once the Implementing Integrated Energy Storage Systems (IESS) Rule 2023 came into effect on 3 June 2024. The Demand Response Service Providers (DRSPs) registration category replaced the existing MASP through the Wholesale demand response mechanism rule change introduced in June 2010. DRSPs are already included in the registration fee table.

4.2.2 Registered Participants who do not currently incur fees

Further to the developments above, AEMO notes there are other Registered Participants who do not incur AEMO fees at this time but may warrant inclusion in the Participant fee structure moving forward. For example:

- **Distribution Network Service Providers (DNSPs)** – AEMO determined not to allocate costs to DNSPs as part of the 2021 Final Determination due to their low levels of involvement with AEMO’s activities and outputs as assessed at that time.²⁰ Equally, AEMO determined not to allocate costs to DNSPs as part of the NEM2025 Reform Program fee structure determination due to limited involvement, impact or potential benefit arising from the implementation of reform initiatives to be delivered under the program between the commencement of the NEM2025 Reform Program fee and this fee structure consultation.²¹ AEMO also noted concerns raised by stakeholders about allocating costs to DNSPs citing the need to establish a suitable cost regulatory mechanism that would allow them to recover AEMO’s fees.²²

Since these determinations, market developments and reforms in the NEM have impacted the level of involvement of DNSPs with AEMO’s activities and outputs going forward. Specifically, many of the upcoming initiatives to be implemented under the NEM Reform Program²³ as well as the National CER Roadmap²⁴ will require DNSPs to engage more with the broader market, and subsequently with AEMO’s operational systems, procedures and processes.

- **Metering Coordinators (MCs)** – During the 2021 fee determination process, AEMO considered extending recovery of the Electricity Retail Markets fee to MCs due to the increase in the number of participants in this Participant category since the introduction of the Power of Choice (PoC) reforms in 2017. It was determined that MCs would not be charged as their level of involvement with the revenue requirements for AEMO’s retail activities was not material enough.

Like DNSPs, various reforms have, or are likely to, impact the level of involvement between MCs and AEMO over the course of the next NEM Participant Fee Structure. For example, the Accelerating Smart Meter Deployment Rule²⁵ that creates new obligations for industry coordination for sites with shared points of isolation. As part of these changes, MCs are required to provide DNSPs with a basic power quality data (PQD) service. AEMO is tasked with determining the specifications, formats, and delivery mechanism for this service. AEMO is also to develop a guideline to assist MCs in developing asset management strategies for testing and inspecting metering installations.

²⁰ AEMO. Electricity Fee Structure Final Report & Determination. 17 March 2021. Available here: <https://wa.aemo.com.au/consultations/current-and-closed-consultations/electricity-market-participant-fee-structure-review>


²¹ AEMO. Structure of Participant fees for AEMO’s NEM2025 Reform Program. Final Report and Determination. October 2023. Available at: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/participant-fees-aemo-2023-nem-reform-program/final-report-and-determination.pdf?la=en

²² Ibid.

²³ For example: Unlocking CER benefits through flexible trading (go live date 1 November 2026), Integrating price responsive resources into the NEM (go-live date May 2027), and CER data exchange industry co-design project (available on AEMO’s website at: <https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/markets-and-framework/cer-data-exchange-industry-codesign>)

²⁴ Energy and Climate Change Ministerial Council. National Consumer Energy Resources Roadmap. July 2024. Available at: <https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf>

²⁵ AEMC. Rule change: Accelerating smart meter deployment. Available here: <https://www.aemc.gov.au/rule-changes/accelerating-smart-meter-deployment>



The level of involvement with AEMO activities and outputs of these Participant types among others is to be determined over the course of this consultation.

Question 3

Do stakeholders agree the current grouping of Participant categories should be continued in the new Participant fee structure? If so, why?

Question 4

Are there alternative groupings of Participant categories that AEMO should consider in determining the new Participant fee structure? If so, why should these alternative groupings be considered?

4.2.3 Integrated Resource Providers

IRPs were introduced as a new Registered Participant category following commencement of the Integrated Energy Storage System (IESS) final rule on 3 June 2024.²⁶ In establishing the IRP category, the AEMC sought to establish a new technology neutral participant category which accommodates participants with bi-directional energy flows that may offer and consume energy and ancillary services including, for example, grid-scale storage, hybrids and aggregators of small generation and storage units.²⁷

The IESS final rule provided those Participants registered under another Registered Participant category prior to its commencement on 3 June 2024 the option to voluntarily re-register as IRPs. At the same time, the IESS final rule mandated those Registered Participants previously classified as SGAs to transfer to the IRP category on 3 June 2024. Participants who were previously registered under another Registered Participant category prior to 3 June 2024 incurred NEM Participant fees. These Participants have continued to incur NEM Participant fees on the same basis as if they were an existing Market Customer (for consumption) or Wholesale Participant (for generation).


AEMO expressly addressed IRPs (including batteries) in the NEM2025 Reform Program declared NEM project fee structure determination given the timing of this consultation relative to the commencement of the IESS rule change.²⁸ As a result, the IRP category was accommodated in the NEM2025 Reform Program fee from 1 July 2024.

AEMO is mindful that its Participant fees should not, as far as reasonably practicable, unreasonably discriminate against a category or categories of Registered Participants. A Participant who registers as a Generator or IRP in relation to a generating unit which has been classified as a scheduled generating unit should be treated equally under the NEM Participant fee structure and be allocated costs commensurate with their level of involvement with AEMO's activities and outputs.

²⁶ AEMC. Rule Change: Integrating Energy Storage Systems. Available at <https://www.aemc.gov.au/rule-changes/integrating-energy-storage-systems-nem>

²⁷ Ibid.

²⁸ AEMO. Structure of Participant fees for AEMO's NEM2025 Reform Program. Final Report and Determination. October 2023. Available at: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/participant-fees-aemo-2023-nem-reform-program/final-report-and-determination.pdf?la=en



The optionality afforded to Participants regarding registering under the IRP category was unique. Should AEMO determine to recover costs from IRPs under its new NEM Participant fee structure, how those IRPs are treated and charged relative to other categories of Registered Participants needs to be considered. AEMO notes if IRPs (including batteries) continue to be treated in a similar manner to Wholesale Participants and Market Customers there may be scenarios where this approach is not consistent with the Fee Structure Principles.

For example, a Small Resource Aggregator (SRA) registered as an IRP with non-registered embedded generator sites is charged Wholesale Participant fees but can only be charged based on MWh energy, as those sites have no registered energy capacity. Non-registered embedded generator sites can also be owned by Market Customers and therefore charged Market Customer fees. Under this scenario, it is likely that similar non-registered embedded generator sites are not treated equally for the recovery of fees due to the type of ownership (SRA-IRP and Market Customer) and resulting Registered Participant group they belong to.

Similarly, battery energy storage systems that produce and consume electricity are charged as a Wholesale Participant when discharging (energy generation) and as a Market Customer when charging (energy consumption) consistent with existing arrangements. AEMO notes however that batteries are charged as Market Customers for consumption only, rather than being charged based on absolute net energy²⁹ as it is not possible for batteries to offset consumption unlike other sources of generation (such as solar PV). This leads to discrepancies in the application of Market Customer fees to batteries compared to other Market Customers.

Question 5

How should IRPs be considered, if at all, in the NEM Participant fee structure and why?

4.3 Types of fees

AEMO's existing NEM Participant fee structure provides a comparative basis for designing and evaluating a new fee structure for the upcoming period.³⁰ AEMO is seeking feedback from stakeholders on the current structure of its NEM Participant fees including, but not limited to, the current segmentation of NEM Participants fees across critical functions and reform programs, the categories or groups of Registered Participants allocated AEMO's costs and the current basis for charging those Registered Participants.

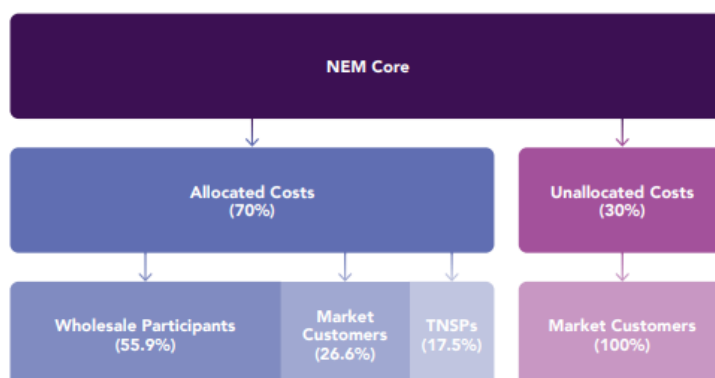
Determining the type and number of fees typically requires trade-offs between Fee Structure Principles to some extent. For example, commonly competing principles are cost-reflectivity and simplicity. While cost-reflectivity in a fee structure could be improved through measures such as the disaggregation of fees (i.e. having a greater number of fees), this could potentially also increase the complexity of the fee structure, its administration and costs including transaction costs in managing moving forward. AEMO notes alternative options may better satisfy that objective (e.g. reporting through AEMO's budget and fee report) without being as administratively complex and costly to implement.

²⁹ Market Customers are currently charged based on absolute net energy, that is the ACE and ASOE, netted within an interval (noting ACE is a negative value) and further explained in section 4.6.3.

³⁰ The figures highlighted in each of the subsections below reflect the current NEM Participant fee structure as of March 2025.

4.3.1 NEM Core

The NEM Core fee seeks to recover costs associated with AEMO's core functions of keeping the NEM operating safely, reliably, and securely. This includes ensuring power system security and reliability, markets operation and systems, wholesale metering, settlements, and prudential supervision, and near-term energy forecasting and planning. The NEM Core fee is AEMO's primary fee and represents the largest portion of spend for AEMO.



The NEM Core fee has historically recovered two types of costs based on AEMO's budget and fees process, allocated (direct) costs and unallocated (indirect costs). Allocated costs are costs which can be readily allocated to either a particular function (e.g. system security and reliability functions), or to a participant category or class. Unallocated (indirect) costs are costs which cannot be readily allocated to a particular participant category or function (e.g. corporate overheads) and are based on principles of economic efficiency having regard to the NEO.

AEMO notes one option may be to remove reference to allocated and unallocated costs from any future fee structure determination providing for greater simplicity and administration of the NEM Participant fee structure. Similarly, since the 2021 Final Determination new participant types such as IRPs have been established who are involved in AEMO's core functions. The attribution of the costs as allocated or unallocated, and to which Registered Participants, are matters to be considered as part of the cost allocation methodology (referred to Section 5).

Question 6

How should AEMO look to recover the costs associated with its core NEM functions and why?

4.3.2 Electricity Retail Markets

AEMO is responsible for facilitating retail market competition in the east coast and southern states of Australia by managing and supporting retail market functions and customer transfers, managing data for settlement purposes, implementation of market procedure changes, and business to business processes.

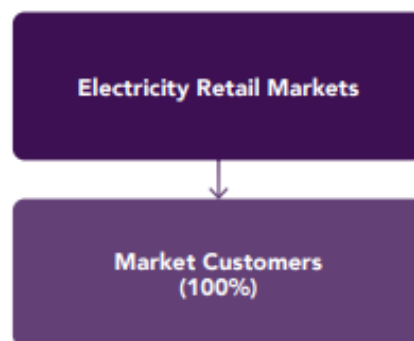
As part of this responsibility, AEMO publishes retail electricity market procedures concerning Metrology, Market Settlement and Transfer Solutions (MSATS), B2B transactions and Metering Data. AEMO also manages the accreditation and registration of Metering Coordinators, Metering Providers, Metering Data Providers, Embedded Network Managers and third party B2B participants.³¹

³¹ Clause 2.11.1A Application for the purposes of rule 2.11 only, Third Party B2B Participants (other than Third Party B2B Participants who are also Embedded Network Managers) and book build participants who are not otherwise Registered Participants are deemed to be Registered Participants.

Since the commencement of the current fee structure period, the Electricity Retail Markets fee now also provides for the recovery of AEMO's costs under the CDR declared NEM project since 1 July 2023.³² Recovery of AEMO's costs of implementing the CDR reforms will conclude on 30 June 2026.

Further, the NEM Reform Program has implemented a suite of retail market improvement initiatives including five-minute load profiles, metering substitution changes (substitution type and reason codes), net system load profiles, MSATS standing data review changes (compliance holidays, metering exemptions) and updates to existing retail processes (for example, Business to Business (B2B) v3.8³³). These initiatives collectively aim to deliver efficiencies, provide for greater insights, improve customer communication and settlement processes. The costs of implementing these initiatives are also recovered via the Electricity Retail Markets fee.

AEMO notes the current approach to recovering the Electricity Retail Market fee from Market Customers who hold a retail licence reflects that this is the primary Registered Participant category involved in the activities or outputs of AEMO's electricity retail functions.



Question 7

Should AEMO continue to separately recover costs for the electricity retail function from AEMO's other NEM functions? If so, why?

Question 8

How should AEMO look to recover the costs associated with its electricity retail market functions and why?

4.3.3 IT Upgrade & 5MS/Global Settlements Program

The Five-Minute Settlement (5MS) and Global Settlements (GS) Program coordinates the implementation of changes as a result of the 5MS rule change and the GS rule change respectively.³⁴ These rule changes altered the settlement period for the wholesale electricity spot market from thirty (30) minutes to five (5) minutes to align with

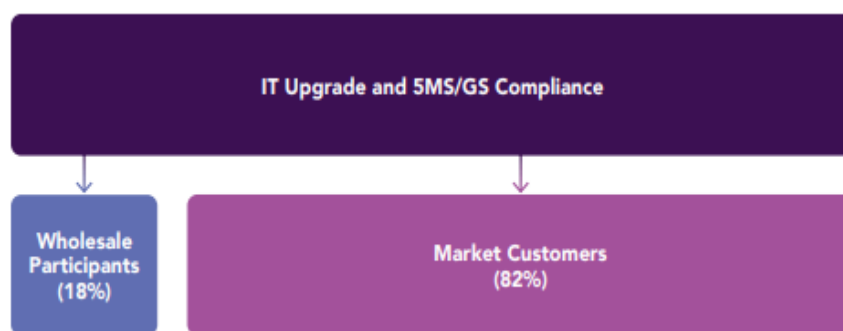
³² AEMO. Final Determination – Participant Fee Structure for CDR Declared NEM Project. Available here: <https://aemo.com.au/consultations/current-and-closed-consultations/participant-fee-structure-for-the-consumer-data-right-cdr-declared-nem-project>

³³ AEMO. Information Exchange Committee. B2B Procedure – Customer and Site Details Notification Process. V3.8. Available here: https://aemo.com.au/-/media/files/electricity/nem/retail_and_metering/b2b/2023/b2b-procedure-customer-and-site-details-notification-process-v38-clean.pdf?la=en&hash=BBAA1A5AAE274A8311598F326751472B

³⁴ AEMC. Five Minute Settlement. Available here: <https://www.aemc.gov.au/rule-changes/five-minute-settlement>. Global settlement and market reconciliation. Available here: <https://www.aemc.gov.au/rule-changes/global-settlement-and-market-reconciliation>

the dispatch period, and established a framework for the demand side of the wholesale electricity market allowing the market to settle using the same process for all retailers, improving transparency of unaccounted for energy (UFE).

The implementation of 5MS and GS required major changes to wholesale systems and processes (settlement, prudentials, and bidding/dispatch) and retail systems and processes (metering data management and MSATS). At the time, these updates were assessed as legacy upgrades to existing systems and processes required to enable the reform, and specific upgrades required to give effect to the 5MS and GS rule changes specifically.



As a significant reform, AEMO provided transparency in its 2021 Final Determination³⁵ by establishing a separate fee structure to recover the costs of implementing the required changes. This fee structure provided for consolidation of legacy and specific upgrades under a single structure to simplify the overall fee structure and reduce the number of fees used to charge Market Customers. It was determined in 2021 that recovery of AEMO's costs of implementing the 5MS/GS program would occur commencing 1 July 2021 for a period of 10 years based on the expected life of the systems that were to be implemented or upgraded.

AEMO considers the decision and reasoning set out in the 2021 Final Determination to establish and maintain the IT Upgrade & 5MS/GS Program fee for 10 years are relevant considerations for this consultation and informs AEMO's initial view that there is merit in continuing to include an IT Upgrade & 5MS/GS Program fee in the new fee structure to apply from 1 July 2026.

Question 9

Do stakeholders agree with AEMO's initial view to maintain the IT Upgrade & 5MS/GS Program fee in its current form in the new fee structure? If not, how should AEMO look to recover the costs associated with the IT Upgrade & 5MS/GS Program and why?

4.3.4 DER Integration Program

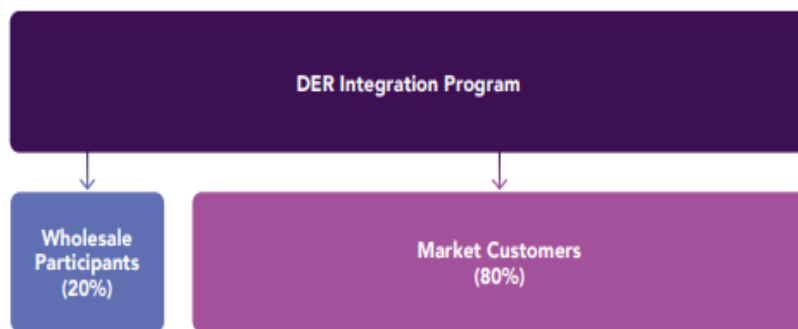
The DER Integration Program fee was established as part of the 2021 Final Determination to recover specific reform program costs associated with understanding and integrating high levels of DER into the NEM.³⁶ The program was initially structured under five workstreams: Consumer Data, Markets, Operations, Standards and Demonstrations.

Since its establishment, the program has been responsible for advising, developing and implementing several initiatives and trials including but not limited to:

³⁵ AEMO. Electricity Fee Structure Final Report & Determination. 17 March 2021. Available here: <https://wa.aemo.com.au/consultations/current-and-closed-consultations/electricity-market-participant-fee-structure-review>

³⁶ AEMO. Website: DER Program. Last accessed 26 February 2025. Available at: <https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/about-the-der-program>

- establishing the DER Register³⁷,
- implementation of the Wholesale Demand Response Mechanism (WDRM)³⁸,
- engaging on DER standards and connections (including AS/NZS 4777.2 Inverter Requirements and AS 4755 Demand Response, and new standards for DER data, communications, interoperability and cyber-security),
- various demand response and virtual power plant demonstrations and trials including Project EDGE, and
- co-design of a CER Data Exchange, which is a foundation piece and key enabler to a customer-centric, flexible and dynamic, and data-enabled electricity system .³⁹



Since its 2021 Final Determination, AEMO has established the NEM Reform Program (refer to Section 4.3.5). The NEM Reform Program includes various DER related reform initiatives, initially identified as part of the Energy Security Board (ESB) pathway – Integrating DER & Flexible Demand. AEMO notes there are similarities in the scope and objectives between the NEM Reform Program and DER Integration Program fee, with both programs focused on the operational and technical aspects and opportunities associated with integration of CER / DER at scale.

Further to these programs, AEMO notes the scope of CER / DER related reforms are set to increase to deliver the initiatives set out in the National CER Roadmap published by Energy Ministers in July 2024.⁴⁰ The National CER Roadmap (and related Implementation Plan) provides strategic direction and highlights priority reforms and sequencing considerations to enable CER uptake to be as efficient and effective as possible while delivering benefits and equitable outcomes to all consumers. AEMO is engaging with Participants, jurisdictions, market bodies, the CER Taskforce⁴¹, and various working groups on the development and implementation of these reforms.

In light of the expansion of CER / DER related reforms and recovery of such reform related costs being split across multiple Participant fees, AEMO is considering whether the DER Integration Program in its current form remains fit for purpose for the next fee structure period. AEMO is interested in stakeholder feedback on the DER Integration Program and options for how best to recover costs associated CER / DER related reforms and activities more broadly moving forward.

³⁷ AEMO. Distributed Energy Resource Register. Available here: <https://aemo.com.au/energy-systems/electricity/der-register>

³⁸ AEMO. Wholesale demand response mechanism. Available here: <https://aemo.com.au/initiatives/trials-and-initiatives/past-trials-and-initiatives/wholesale-demand-response-mechanism>

³⁹ AEMO. CER Data Exchange Industry Co-Design. Available here: <https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/markets-and-framework/cer-data-exchange-industry-codesign>

⁴⁰ Energy and Climate Change Ministerial Council. National Consumer Energy Roadmap. July 2024. Available here: <https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf>

⁴¹ The CER taskforce consists of members from governments, market bodies, industry and consumer representatives.

Question 10

How should costs resulting from CER / DER related reforms and activities more broadly be recovered and from whom? Why should costs be recovered in this way?

For example, should costs for the activities and outputs for the DER Integration Program and NEM Reform Program be recovered under the same fee structure (e.g., under a single Reform fee)? If so, how should AEMO look to recover the costs associated with that fee, and why?

4.3.5 NEM2025 Reform Program

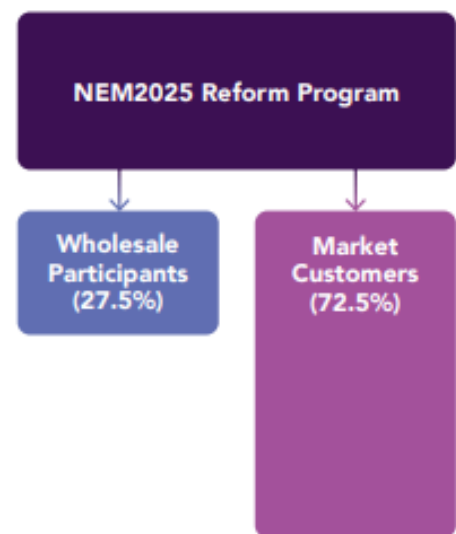
In October 2023, AEMO concluded its consultation on the determination of the Participant fee structure for the NEM2025 Reform Program declared NEM project and commenced recovering the costs for these initiatives from 1 July 2024.⁴² Importantly, the scope of initiatives covered under the NEM2025 Reform Program fee is limited to those initiatives identified as in scope at the time of the declared NEM project determination. This amounted to 26 initiatives at the time.

Implementation costs of the individual initiatives delivered by AEMO roll into the NEM2025 Program fee at the time each initiative 'goes-live'. Initiative implementation costs are subsequently recovered over a seven year period having regard to the initiatives' 'go-live' date.

Over time, the NEM2025 Reform Program has evolved from the initial scope of initiatives set out by the ESB to now include wider wholesale electricity and retail electricity market and CER / DER related reforms.⁴³ Subsequently, the program has been renamed the 'NEM Reform Program'.

Today, the NEM Reform Program is a large-scale, complex, industry-wide program that necessitates collaboration with a broad stakeholder group from effective solution design through to solution implementation, with a focus on ensuring efficient delivery with the least-cost and lowest-risk outcomes.

As a multi-year program, it now encompasses implementation of the majority of reform initiatives across NEM, as well as the delivery of key AEMO foundational and strategic initiatives that bring an uplift to the base capability on which reforms are dependent.⁴⁴ The breadth of reforms covered by the NEM Reform Program aims to address essential change in a world of expanding consumer choices, new technologies, and large-scale capital replacement as ageing thermal power generators leave the market, as well as key actions to support a more



⁴² AEMO. Structure of Participant fees for AEMO's NEM2025 Reform Program. Final Report and Determination. October 2023. Available at: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/participant-fees-aemo-2023-nem-reform-program/final-report-and-determination.pdf?la=en

⁴³ For example, as new rule changes are made by the AEMC that were not accounted for as part of the initial 26 initiatives captured under the NEM2025 Reform Program declared NEM project.

⁴⁴ Not all rule changes or policy outcomes are to be delivered via the NEM Reform Program. In other cases, a reform may be delivered by one of AEMO's other teams or programs subject to its scope and timeline for implementation (e.g. Cyber security roles and responsibilities as described in section 3.1).

secure and resilient power system. This includes delivery of new CER / DER related reforms, such as those resulting from the National CER Roadmap.⁴⁵

AEMO anticipates the scope of the NEM Reform Program will continue to evolve over time as new reform initiatives are approved, and as the scope, design and timelines to implement such initiatives becomes more certain.

Acknowledging this continued evolution, AEMO is considering whether the NEM2025 Reform Program fee in its current form remains fit for purpose for the upcoming fee structure period. AEMO is interested in stakeholder feedback on options for how best to recover the costs associated with the NEM Reform Program moving forward.

Question 11

How should AEMO recover the cost of the expanded NEM Reform Program? For example, should it remain a stand-alone fee? Why should AEMO recover costs this way?

Question 12

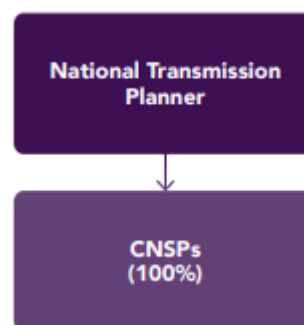
How should the NEM Reform Program fee structure be designed to ensure it is fit for purpose in a changing environment, and why?

4.3.6 National Transmission Planner

The National Transmission Planner (NTP) fee recovers AEMO's costs associated with performing its NTP related functions from Coordinating Network Service Providers (CNSPs).⁴⁶

AEMO fulfils its NTP functions by undertaking the forecasting, modelling and planning required to support the energy industry and government to make cost-effective and coordinated energy investment that delivers energy to consumers at least cost. This work culminates in a suite of plans and reports that AEMO produces for use by industry, government, and consumers. Chief of these is AEMO's biennial flagship ISP, which provides a whole-of system blueprint for developing future energy infrastructure, identifying the most cost-effective approach to meet system needs over time, and identifying investment in strategic transmission infrastructure that is robust, justified, and coordinated.

AEMO is required to recover NTP functions fees from CNSPs, following the National Electricity Amendment (Reallocation of National Transmission Planner costs) Rule 2020.⁴⁷ AEMO is also required by clause 2.11.3(ba) of the Rules to advise each CNSP of its allocation of NTP function fees for the next financial year by 15 February each year. This allows each CNSP to reflect its allocation in the prescribed transmission prices it publishes for that financial year.



⁴⁵ Energy and Climate Change Ministerial Council. National Consumer Energy Resources Roadmap. July 2024. Available at: <https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf>

⁴⁶ The NTP functions are defined in section 49(2) of the National Electricity Law and clause 5.22.18 of the NER.

⁴⁷ AEMC. Reallocation of national transmission planner costs Rule. October 2020. Available here: <https://www.aemc.gov.au/rule-changes/reallocation-national-transmission-planner-costs>

While the Rules set out from whom AEMO may recover its NTP related costs, this consultation process will inform how those costs are to be recovered. At the time the amending rule was being developed, AEMO collaborated with Energy Networks Australia (ENA) in development and assessment of options for the charging mechanism. AEMO determined in the 2021 Final Determination that NTP related costs should be recovered from CNSPs based on the relevant jurisdiction's consumption (GWh) for the latest completed financial year. AEMO's initial view is that this approach remains appropriate.

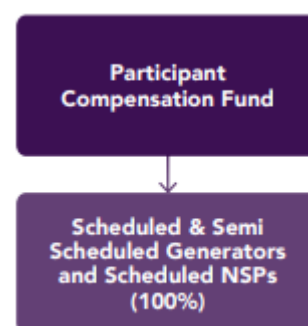
Question 13

How should AEMO recover its NTP related costs from CNSPs and why?

4.3.7 Participant Compensation Fund

Clause 3.16 of the Rules requires AEMO to maintain the Participant Compensation Fund (PCF) for the NEM. The purpose of this fund is to pay compensation to Scheduled Generators, Semi-Scheduled Generators, Scheduled Integrated Resource Providers and Scheduled Network Service Providers for scheduling errors as determined by the Dispute Resolution Panel under Chapter 3 of the Rules.

Clause 2.11.3(b)(8) of the Rules allows the funding requirements of the PCF to be recovered only from Scheduled Generators, Semi-Scheduled Generators and Scheduled Network Service Providers.



While the Rules set out from whom AEMO recovers its PCF funding requirements, how those costs are to be recovered remains subject to this consultation. AEMO subsequently determined in the 2021 Final Determination to charge the NEM PCF fee to Scheduled Generators, Semi-scheduled Generators and Scheduled Network Service Providers levied on a 50% maximum capacity and 50% energy generated in the previous calendar year basis. AEMO's initial view is that the assessment completed as part of the 2021 Final Determination to establish a fee based on capacity and energy remains appropriate.

Question 14

How should AEMO charge NEM PCF fees to Scheduled Generators, Semi-Scheduled Generators and Scheduled Network Service Providers, and why?

4.3.8 Connections & Registrations

For the purposes of this review, and to provide stakeholders with an understanding of the total fees payable in relation to AEMO's connection and registration functions under Chapters 5 and 2 of the Rules, AEMO has outlined its current fee structure arrangements across the end-to-end connections process (Figure 3).

Importantly, the Rules provide for separate cost recovery arrangements dependent on the function being performed by AEMO. These arrangements are outlined in the following sections.

Connections

The cost associated in performing AEMO advisory functions for generator connections are recovered from the relevant Network Service Providers in accordance with the Rules⁴⁸. These functions are performed by the AEMO Connections team at the Connection Application (Step 3), Registration⁴⁹ (Step 6), Commissioning (Steps 7, 8, 9) and Model Validation (Step 10) stages along the connection process (see Figure 3). Fees and charges for the specific tasks AEMO are required to perform throughout the connection process are outlined in AEMO's Generator Connection Application Fees document published for each financial year.⁵⁰ AEMO charges applicants on a time and materials basis based on its published hourly charge out rates.⁵¹

Figure 3. End to end connection process⁵²



Registrations

Registration costs (see Figure 3, Step 6) have historically been recovered under a NEM Participant fee structure determined under clause 2.11 of the Rules.

⁴⁸ Clause 5.3.4(d) enables AEMO to recover costs relating to assessing applications for new connections from NSPs. Other clauses in NER Chapter 5 enable AEMO to recover costs dependent on the type of connection application. For example, clause 5.3.9(g) enables AEMO to recover from NSPs in respect of assessing applications to alter a connected generating system or integrated resource system, and clause 5.3A.9(e) enables AEMO to recover costs relating to assessing applications for new or modified connections to distribution connected systems from DNSPs.

⁴⁹ Registration model review (R1 Package) is one of many approvals required by the Registration team to effectively register a plant in the NEM. The current registration fee does not include the cost of the R1 package review, this cost is directly recovered by the connections team on a time and material basis.

⁵⁰ AEMO. Generator Connection Application Fees. FY2024-25. July 2024. Available here: https://www.aemo.com.au/-/media/files/electricity/nem/participant_information/fees/generator-connection-application-fees.pdf?la=en

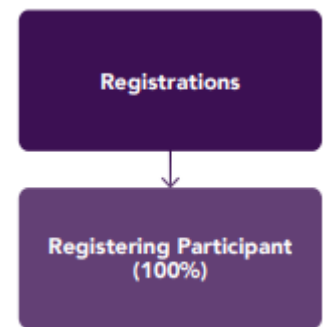
⁵¹ Ibid.

⁵² AEMO Connections teams have limited engagement with NSPs and connection applications during Steps 1, 2, 4 and 5 of the end-to-end connections process in Figure 3. Hence it is unlikely to AEMO needs to recover costs in respect of these stages.

While connections assessment tasks are charged on a time and materials basis, Registration fees are currently charged as a fixed fee based on application type to the Registered Participant applicant.⁵³ The complexity of the registration process can vary significantly depending on the application type and this is reflected in the different fees charged for the different application types. AEMO notes the amount of the Registration fee per application type is consulted on annually in the Budget and Fees document.

AEMO determined in the 2021 Final Determination that Registration costs should be recovered directly from the registration applicant as a fee per application type. AEMO's initial view is that this approach remains appropriate for the next fee structure period.

Further, there are other matters related to registration and post-registration activities and outputs that may support changes to any Registrations fee structure included in the new fee structure. These are outlined in further detail in section 4.6.4 for stakeholder comments.



Question 15

How should AEMO seek to recover the costs associated with its Connections functions? Why should costs be recovered in this way?

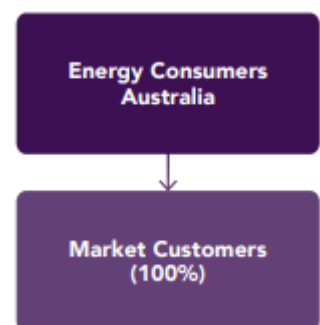
Question 16

How should AEMO seek to recover the costs associated with its Registrations function, and why? For example, would a fixed fee or time and materials approach be appropriate?

4.3.9 Energy Consumers Australia

The Council of Australian Governments (COAG) Energy Council approved the establishment of Energy Consumers Australia (ECA) by 1 January 2015, providing a focus on national energy market matters of strategic importance for energy consumers, in particular residential and small business consumers. Clauses 8.10(a) and 8.10(b) of the Rules require AEMO to pay to the ECA the amount of its consumer advocacy funding obligation (as defined in that clause) for each financial year and allows AEMO to recover costs of meeting the consumer advocacy funding obligation from NEM Participant fees allocated to Market Customers.

In October 2014, prior to the commencement of the ECA, AEMO conducted a consultation process⁵⁴ and it was determined that the electricity component of ECA fees would be recovered from Market Customers based on a



⁵³ A person intending to act in a Registered Participant category may be registered by AEMO as an Intending Participant under Chapter 2 of the Rules upon application for registration for that category.

⁵⁴ The final report on the ECA fee collection methodology, including the consultation and submissions received, is available on AEMO's website available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/energy-consumers-australian-fee-collection-methodology>

charge per connection point for small customers.⁵⁵ Since this time, subsequent Participant fee structure determinations have resulted in no changes to AEMO's approach to recovering ECA-related fees.

Since the ECA's establishment, its constitution and mandate to provide a focus on national energy market matters of strategic importance (in particular to benefit residential and small business consumers) has not changed. Recognising AEMO's obligations under the Rules, AEMO's initial view is that charging Market Customers the ECA fee based on a charge per connection point for small customers remains appropriate.

Question 17

How should AEMO meet its Rules obligations to recover the costs of funding the ECA? Why should this approach be adopted?

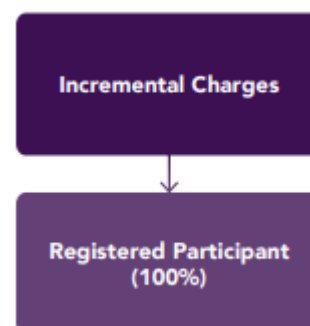
4.3.10 Incremental charge

Where it is practical for AEMO to identify that its completion of a specific task for a Participant will result in identifiable and material costs for AEMO, AEMO may seek to levy fees ('incremental charges') directly upon the Participant to recover the incremental costs it has incurred in completing the task.

Prior to levying such fees, AEMO would typically agree with the relevant Participant the scope of the task for which incremental charges will be levied. Incremental Service fees are typically calculated by reference to AEMO's charge-out rates published in AEMO's annual budget and fees report.⁵⁶ Examples of incremental charges include:


- Subscription fees for services or reports requested from AEMO.
- Charging for ad-hoc, bespoke reports and services developed by AEMO and delivered from AEMO retail systems for individual Participants. For example, a snapshot report from MSATS which is used by a Retailer to reconcile their systems against what is held in MSATS.
- Applying a user-pays service charge for AEMO support hub enquiries from Participants who call the support hub for assistance on specific procedural requirements.

AEMO considers a separate incremental fee, charged directly to a Registered Participant for specific activities or outputs not captured as part of its other fees, to be of value under any NEM Participant fee structure. This approach ensures AEMO is able to recover the incremental costs of certain activities or outputs, can be simple (e.g. in the form of a one-off fee for service), is calculated transparently based on AEMO's published charge out-rates, and provides for flexibility in design subject to the prevailing task. Importantly, any incremental fee is easily applied directly to those Participants involved in or benefitting from an activity or output or who have requested AEMO undertake specific tasks.



⁵⁵ Small customers are defined in the National Energy Retail Law.

⁵⁶ AEMO. FY25 Annual Budget and Fees. Available here: https://aemo.com.au/-/media/files/about_aemo/energy_market_budget_and_fees/2024/aemo-final-budget-and-fees-fy25.pdf?la=en



AEMO is mindful however that a broader definition for what is recoverable via an Incremental Service fee may be appropriate moving forward. This broader definition could provide Registered Participants with a greater understanding of the types of work and therefore costs to be recovered as part of the incremental fee.

Question 18

How should AEMO recover its costs associated with completing specific activities or outputs for specific Registered Participants which are not captured as part of its other fees, and why?

Question 19

Should AEMO include an Incremental Services fee in its final determination, what, if any, improvements could be made? Why have these improvements been suggested?

4.4 Basis for charging

Through past Participant fee structure determinations, AEMO has explored alternative charging approaches including but not limited to marginal cost, average cost, Ramsey pricing, and multi- or two-part tariff arrangements.⁵⁷ AEMO's current approach of adopting a two-part tariff applicable across the majority of its Participant fees seeks to balance achieving an economically efficient approach, consistency with the Fee Structure Principles and NEO, and what is simple to implement given the current systems and processes.

4.4.1 Wholesale Participants

The Wholesale Participants group currently consists of: Scheduled and Semi-scheduled Generators, Market Network Service Providers (MNSPs) and Demand Response Service Providers (DRSPs).⁵⁸

Currently, Wholesale Participants are charged with an equal allocation to capacity and energy, being:

- 50% charged as a daily rate based on the aggregate of the higher of the greatest registered capacity and greatest notified maximum capacity (of energy or FCAS markets) in the previous calendar year, and
- 50% charged as a daily rate based on MWh energy, or in the case of DRSPs using the data specific to the service these participants provided in the previous calendar year.

This approach aims to balance the dynamic and allocative inefficiencies of applying a fixed or variable charging approach only. Further, it seeks to address equity concerns across the Wholesale Participant types given potential differences in size (MW) and operation (e.g. baseload versus peaking plant) of individual Participant facilities.

⁵⁷ AEMO. Electricity Fee Structure Final Report & Determination. 17 March 2016. Available here: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/electricity_consultations/2017/draft-report-and-determination-for-the-electricity-frc-fee-structure-consultation.pdf?la=en

⁵⁸ Should AEMO determine to continue grouping Registered Participant categories, such groupings will need to be assessed to reflect the current Registered Participant types under the Rules at the time of AEMO's final determination (Refer section 4.2)

Question 20

Were AEMO to determine the fee structure to contain groups of Registered Participant categories, how should Registered Participants captured under the 'Wholesale Participant' group be charged and why?

Question 21

Is the current basis for charging across all individual Participant types that would make up the 'Wholesale Participant' group appropriate, and why?

4.4.2 Market Customers

The Market Customer group currently consists of Retailers and Large Consumer and Industrial (C&I) customers.⁵⁹ Market Customers have been typically charged in one of two ways:

- a charge as a rate per MWh for a financial year based on AEMO's estimate of total MWh to be settled in spot market transactions by Market Customers during that financial year. This rate is then applied to actual spot market transactions in the billing period; and
- a charge on a per connection point basis per week.

This approach seeks to provide for a more equitable recovery of costs across Market Customers noting potential equity considerations between large and small customers, and between customers that have higher consumption and customers that have lower consumption (e.g. due to DER) or are otherwise incentivised to pursue energy efficiency opportunities as a result of an alternative prevailing fee structure (e.g. a variable charge based on MWh only).

Additionally, Market Customers have been charged on a per connection point basis (e.g. Electricity Retail Markets). While the activities and outputs covered under a fee such as the Electricity Retail Market fee, specifically using MSATs and B2B data may lend itself to an alternative charging approach (e.g. per transaction), such approaches need to be considered relative to their overall complexity and capacity to provide economic efficiency improvements. For example, AEMO in the past has determined a per connection point charge to have largely the same distributive effect to the end consumer as a per transactions approach.

Question 22

Were AEMO to determine the fee structure to contain groups of Registered Participant categories, how should Registered Participants captured under the 'Market Customer' group be charged and why?

Question 23

Is the current basis for charging across all individual Participant types that would make up the 'Market Customer' group appropriate, and why?

⁵⁹ Ibid.

4.4.3 TNSPs and CNSPs

TNSPs and CNSPs have historically been charged based on energy consumed by the TNSP or by the jurisdiction for the latest completed financial year respectively.

This approach is consistent with the AEMC's Reallocation of National Transmission Planner costs final rule and determination published on 29 October 2020⁶⁰ that takes into account AEMO's close collaboration with the ENA in developing the charging mechanism, which included an assessment of alternative options.

Question 24

How should TNSPs and CNSPs be charged and why?

4.5 Fee structure period

The Rules permit AEMO to determine the structure for its NEM Participant fees for a period AEMO considers appropriate. In each of the past four determinations (2006, 2011, 2015, 2021) AEMO fixed the duration of the fee structure at five years. Prior to that, they were set for three-year periods.

AEMO considers that having a structure that applies over a longer period (e.g. seven years) could provide Registered Participants with greater certainty and predictability over the structure of AEMO's NEM Participant fees. However, this needs to be balanced against having the ability to change the Participant fee structure at timely intervals to ensure it remains fit for purpose and consistent with the NEO and Fee Structure Principles. For example, a shorter period (e.g. three years) may provide greater flexibility to address potential developments in the NEM and Rules such as the introduction of new categories of Registered Participants. However, greater flexibility comes with potential costs including reduced longer-term certainty for Participants about fees, as well as financial costs incurred in running more frequent consultation processes and potentially implementing resulting system and procedural changes.

AEMO notes a five-year period has typically provided the right balance when setting the NEM Participant fee structure. Where major change has occurred, AEMO notes that in certain circumstances the Rules allow AEMO to determine a declared NEM project and subsequent additional fee structure, which may provide sufficient flexibility until the next general determination of the NEM Participant fee structure.

Question 25

What is the preferred length of time over which the structure of Participant fees for electricity markets should apply? Why is this the preferred fee structure period?

Question 26

Are there other factors that should be considered when determining the period of application, and why?

⁶⁰ AEMC. Reallocation of national transmission planner costs. 29 October 2020. Available here: <https://www.aemc.gov.au/rule-changes/reallocation-national-transmission-planner-costs>

4.6 Additional matters for consultation

As noted above, each NEM Participant fee structure determination is considered anew under the Rules. In establishing a NEM Participant fee structure for the coming period, AEMO notes there are several additional matters that warrant consideration throughout the consultation. AEMO is interested to hear from stakeholders on the following matters.

Question 27

Are there any other matters, in addition to those identified below, that should be considered by AEMO in establishing a new Participant fee structure? Please provide an overview of and rationale for consideration of each matter.

4.6.1 Simplification through aggregation

AEMO's current Participant fees include three reform related fees – NEM2025 Reform Program, DER Integration Program and 5MS/GS Program. A fourth reform related fee may also be established in the coming months in the form of a cyber security fee should AEMO determine that its new cyber security roles and responsibilities meet the criteria to be a declared NEM project.

While disaggregation of fees may provide transparency in relation to individual program costs, AEMO notes alternative options that aggregate some fees may better satisfy that objective and be simpler to understand and less administratively burdensome to apply (e.g. reporting through AEMO's budget and fee report). Depending on the level of aggregation this approach may be more consistent with the Fee Structure principle of simplicity.

As noted in Section 4.3.4, one option may be to aggregate the DER Integration Program fee and NEM2025 Reform Program fee into a single 'Reform fee' and/or other reform-related fees, given the overlaps in their scope and similarities in objectives.

Question 28

What opportunities do stakeholders see to simplify AEMO's NEM Participant Fee structure? Please provide an overview of and rationale for each opportunity to be considered.

Question 29

Are there other approaches to determination of fees – including different fee types or structures – that should be considered in light of the changes that have occurred since the last determination? Please provide a rationale for each approach to be considered.

4.6.2 Use of historical data for fees

Wholesale Participants today are charged daily rates of capacity and energy use based on the previous calendar year. This approach has been a consistent element of AEMO's past Participant fee structure determinations.⁶¹

The environment AEMO operates in has changed significantly since these fee determinations. The ageing fleet of coal power plants around Australia has led to a rise in unplanned and planned outages in more recent years. Also, extended outages of power plants are more prevalent today than they were in the past which poses concerns around the appropriateness of previous calendar year data as a basis for charging Wholesale Participants.

For example, a generator with an extended outage earns no revenue over the time the plant is offline but would be charged based on daily rates of capacity and energy of the previous calendar year. Conversely, when a new generator comes online, this new generator would not be charged for at least twelve months as there is no data for its registered capacity and energy from the previous calendar year. In light of this, other approaches to be developed and considered by AEMO may be more consistent with the non-discriminatory or reflective of involvement Fee Structure principles.

AEMO notes the use of previous calendar year capacity and energy is not consistent with the approach to charging Market Customers who incur charges, dependent on the relevant fee structure, based on an estimate of their total MWh energy and / or connection points.

Question 30

Should charges to Wholesale Participants be based on previous calendar year data? If so, why? If not, what are suitable alternatives and their implications for Participants and why?

4.6.3 Net vs Gross charging


Under the IESS rule change, there were significant changes made to the calculation method to be used for Non-Energy Cost Recovery (NECR).⁶² The final rule amends the NECR framework such that recovery is based on a Participant's gross adjusted consumed energy (ACE) and/or gross adjusted sent out energy (ASOE) in an interval across its connection points. This is irrespective of the Participant category in which a Participant is registered.

Currently, Market Customers are charged Participant fees based on absolute net energy; this is the ACE and ASOE, netted within an interval (noting ACE is a negative value).

AEMO considers that the current net energy charging approach is not consistent with the changes implemented under the IESS rule change and may lead to perverse outcomes; for instance, zero/low fees being charged if the ACE and ASOE coincidentally fully/almost offset each other in a 5-minute interval across a Participant's portfolio of customers. The ASOE in this case is the generation recorded from small scale generation such as rooftop solar PV systems.

⁶¹ AEMO. Electricity Fee Structures. Final Report and Determination. March 2016. Available here: https://aemo.com.au/-/media/Files/Stakeholder_Consultation/Consultations/Electricity_Consultations/Structure-of-Fees/Final-Report--Structure-of-Participant-Fees-in-AEMOS-Electricity-Markets-2016-170316.pdf

⁶² Non-Energy Costs refer to AEMO's costs associated market and non-market ancillary services and regulatory mechanisms. AEMO has a responsibility to operate the power system in a safe, secure and reliable manner. AEMO fulfils this by controlling technical characteristics of the system through various market and non-market ancillary services and regulatory mechanisms.



Under a gross charging approach, Market Customers would be charged based on ACE and ASOE separately. AEMO would still recover its budgeted revenue requirements for the financial year with the Market Customer rate per MWh to be based on AEMO's gross energy estimate of total MWhs.

Question 31

Should a gross, as opposed to net, charging approach be applied to Market Customers? If yes, what would be the implications for Participants if this change were made and why? If no, why not?

4.6.4 Emerging issues to be addressed in the new Registration fee structure

Since the commencement of the current fee structure period, some registration and post-registration activities and outputs have arisen for which AEMO is responsible, which will need to be addressed in the new fee structure. These have included:

- *New Registered Participant categories under the Rules* – When a new Registered Participant category is introduced through a Rule change (for example, the introduction of the IRP category in accordance with the IESS rule change in 2023), the current fee structure may not accurately reflect an appropriate Registration fee / charge for the new category. The addition of new categories is not permitted during a fee period unless the Rule change by which the new Registered Participant category was introduced explicitly allows for it.
- *Changes in unit classification* – New activities and outputs may emerge when the Rules provide the opportunity for a Registered Participant to classify or nominate their unit/s in a new dispatch mode during the fee period. For example, the Voluntary Scheduled Resource nomination, introduced as part of the AEMC's Final Determination and Rule on Integrating price responsive resources into the NEM published on 19 December 2024⁶³, required registration process changes for the Registered Participant during the current fee structure period – these changes are not currently accommodated in the Registration fee structure.
- *Registration fee table* – The 2021 Final Determination determined the fee structure for registration fees for each application type should continue. The registration fee structure is set out in the Registration fee table in AEMO's annual budget and fee report. AEMO notes there is an inability to update / change this fee structure during the fee structure period (unless a rule change permits the fee structure to be re-opened).

Consequently, the new fee structure will need to make updates including:

- removing several Registered Participant categories which have ceased to exist since the current fee structure was determined, including Non-market scheduled generator, Non-market semi-scheduled generator, SGA and MASP.⁶⁴
- updating references including amending Ancillary Service Load (ASL) and Ancillary Service Generating Unit (ASGU) to Ancillary Service Unit, amending Generator to Generating Unit, and removing references to Dedicated Connection Asset (DCA).

⁶³ AEMC. Integrating price-responsive resources into the NEM. Final Determination available on AEMC's website: <https://www.aemc.gov.au/rule-changes/integrating-price-responsive-resources-nem>

⁶⁴ The SGA category was transferred into the new Integrated Resource Provider (IRP) category once the Implementing Integrated Energy Storage Systems (IESS) Rule 2023 came into effect on 3 June 2024. The Demand Response Service Providers (DRSPs) registration category replaced the existing MASP through the Wholesale demand response mechanism rule change introduced in June 2010. DRSPs are already included in the registration fee table.

- *Other specific work requests* – There are several specific requests from Registered Participants that can be made either during or following the registration process. Some requests include (but are not limited to), Schedule 3.1, Registered Participant Agent (RPA), Telemetry exemption and Aggregate Dispatch Conformance change applications which are currently allocated to the NEM Core fee. The new fee structure will assess how best AEMO can recover the costs of these activities and outputs.

As each general Participant fee structure has typically been determined to apply for several years and a fee structure cannot be re-opened once determined, except if permitted by the NER (e.g. by transitional provisions accompanying NER changes), ensuring the fee structure remains fit for purpose into the future as far as reasonably practicable is a very relevant concern for AEMO.

AEMO are interested in stakeholder feedback on how best to address these issues in the new Registration fee structure, while ensuring appropriate recovery of its Registration related costs. One example may be for the new fee structure to expressly refer to Registered Participants under Chapter 2 of the Rules being charged for applications or other requests set out in AEMO's annual Budget and Fees report. Where future NER changes result in the addition or removal of Registered Participant categories, this would enable AEMO's registration fees to reflect all current Registered Participant fee categories at the time of publication. Similarly, costs associated with additional post-registration activities (e.g. updates to the data that has been registered) may be recovered via a separate fee structure, or equally, via an Incremental Service fee were one to be determined as part of the new Participant fee structure.

Question 32

What changes to the Registration fee structure should be considered by AEMO to address the emerging issues and resulting Registration related activities described above and why?

Question 33

Are there any other emerging Registration-related issues, in addition to those identified above, that should be considered by AEMO in establishing a new Participant fee structure?

5 Cost allocation methodology

To determine the allocated fees to Registered Participants or categories of Registered Participants, it is necessary to understand their level of involvement with AEMO's activities and outputs and the costs attributed to them. To inform this task, AEMO has historically surveyed its internal Senior Leadership Team (SLT) leveraging their experience and expertise to understand the level of involvement attributed to each Registered Participant, based on AEMO's core functions.

AEMO's initial position is to leverage this survey approach to determine the allocation of costs in the NEM Participant fee structure. AEMO considers the merits and levels of accuracy achieved through this approach are at this time likely to outweigh potential costs associated with alternative approaches such as an activity-based costing approach. Further, AEMO considers this approach better aligns with its current internal budgeting process, which equally leverages consultation with SLT members across all business areas.

AEMO is aware a survey approach may risk potential recency bias in its results owing to the structure of the questions and answers recorded required at the time of the survey. One approach to mitigate such biases would be to repeat the survey during the period of this consultation or fee structure period itself (e.g. annually or bi-annually). The results would then be collated and for example averaged in arriving at a final determination. The benefits of this task would need to be weighed against the time and costs of administering the survey, noting the significant volume of resources engaged throughout each individual survey.

The following section provides an overview of the key steps completed as part of the survey approach underpinning the 2021 Final Determination are outlined further below.⁶⁵

Step 1 – Identification of broad activities and outputs

The first step in the analysis was to identify the broad outputs of AEMO's activities in relation to its various functions and programs. As part of this process, AEMO developed a detailed list of activities that represented each of the key outputs from those functions or programs. This list was reviewed and confirmed by SLT members to be an accurate reflection of their teams' roles and responsibilities.

As part of the 2021 Final Determination, AEMO identified a number of activities that it undertakes, which were then categorised into 10 broad outputs as follows: Power system security, Power system reliability, Market operation, Wholesale metering and settlements, Prudential supervision, Market development, Information dissemination including stakeholder engagement and consultation, Retail markets, Registration, and DER integration.

Table 2. Example output and activities (non-exhaustive) from 2021 Final Determination

Output	Activities
Market operation	<ul style="list-style-type: none">Providing information systems for the receipt and processing of dispatch bids, dispatch offers, and market ancillary services offers.

⁶⁵ Refer to AEMO's 2021 Final Determination (Appendix B) for further details. AEMO. Electricity Fee Structures Final Report and Determination. March 2021. Available here: https://wa.aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2020/electricity-market-participant-fee-structure-review/final-report/aemo-electricity-fee-structure-final-report-and-determination.pdf?la=en

Output	Activities
<p>This output involves determining the efficient dispatch of scheduled and semi-scheduled generating units, scheduled loads, scheduled network services and market ancillary services for the NEM. This involves balancing supply and demand of electricity, while maintaining power system security to achieve an efficient price. Also includes monitoring of wholesale markets to ensure their outcomes deliver on effective market design.</p>	<ul style="list-style-type: none"> Managing central dispatch processes, which includes the publication of pre-dispatch schedules and spot price forecasts. Determining and publishing spot prices and ancillary service prices. Collecting and disseminating information necessary to enable the market to operate efficiently (i.e. pricing and power system incident reports). Investigating market events and errors and reporting on findings. NEMDE Queue service. Quarterly reporting on market dynamics, trends and outcomes.
<p>Power system security</p> <p>This output delivers a secure power system. All those who are connected to the power system are involved in this output. A secure power system ensures that equipment belonging to TNSPs, DNSPs and end use customers is not damaged.</p>	<ul style="list-style-type: none"> Control room operations. System simulations. Outage co-ordination. Dispatch of ancillary services. Power system analysis and performance monitoring. Network connections work (assessing simulation models, commissioning and post-commissioning activities). Generator performance standard non-compliance studies/investigations. Demand reduction calculation work as part of the restart and restoration process after a system black.


Step 2 – Cost estimates

AEMO used its latest budget figures at the time FY2020/21 as the basis for this cost attribution analysis. This budget provided the most up-to-date information AEMO had available for the purposes of that Final Determination. Although AEMO's annual costs vary over the duration of any new structure, the FY2020/21 budget provided a robust basis for notionally dividing AEMO's annual budgeted revenue requirements in relation to NEM Core between AEMO's outputs during the period covered by the new structure.

Having identified all relevant costs, the second step in the analysis was to identify those costs assessed to be direct, attributable costs to key NEM outputs versus those costs that were assessed to be indirect costs that were allocated to the NEM function. AEMO's 2021 Final Determination found that approximately 70% of NEM Core costs are assessed to be direct, attributable costs, while the remaining approximately 30% of NEM costs were assessed to be indirect, non-attributable costs. For the remaining fee structures, 100% of the costs identified were determined to be direct costs attributed to the output or function.

Step 3 – Cost allocation (excluding digital costs)

Having identified the broad outputs, associated key activities, and corresponding budget amounts, SLT members were then surveyed to determine the extent to which the outputs involve a class of Registered Participant by



assigning a percentage to the individual output / activity.⁶⁶ As part of this process, SLT members were instructed to consider factors such as the degree to which:

- the class of Registered Participant interacts with AEMO in relation to the output,
- the class of Registered Participant uses the output,
- the class of Registered Participant receives the output,
- the class of Registered Participant benefits from the output, and
- those revenue requirements are given rise to, or caused by, that class of Registered Participant's presence in the NEM.

Individual SLT members were not required to respond to all aspects of the survey, rather only those output or activity areas they were directly involved in. For example, SLT members from AEMO's Operations and System Design teams were required to respond to those questions regarding the output power system security.

Survey results were verified with relevant SLT members to ensure consistency in assessment approach, as well as explain differences noted from prior determinations. Once the surveys were completed, weightings were applied, based on the FY2020/21 budget, to the survey results to reflect the proportion of the relevant departments costs associated with the output/activity. Surveys from across the Departments were aggregated to determine the final allocation percentage to individual Participant types.

Step 4 – Cost allocation (digital costs)

While AEMO's Digital department incurred direct NEM costs, it also provided services to internal teams to support NEM systems. For this reason, digital costs were allocated via a two-step process. Firstly, Digital teams allocated their direct NEM related costs to AEMO's internal departments / teams. Then, using the cost allocation identified under Step 3 as a basis, AEMO determined the allocation of Digital costs to individual Registered Participant categories.

Question 34

AEMO is interested in stakeholder views on its proposed approach to allocating costs within each category of output to Registered Participants or categories of Registered Participants. What alternative approaches or improvements to the current approach should be considered, and why?

⁶⁶ The class of Registered Participant reflects those categories identified in the Rules at the time of completion of the survey.

A1. NEO & Fee Structure Principles


Objective / Principle	Requirement	Application and examples
National Electricity Objective (NEO)	<p>In determining Participant fees, AEMO must have regard to the national electricity objective.</p> <p>The NEO as stated in the NEL is 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—</p> <ul style="list-style-type: none"> (a) price, quality, safety, reliability and security of supply of electricity; and (b) the reliability, safety and security of the national electricity system; and (c) the achievement of targets set by a participating jurisdiction – <ul style="list-style-type: none"> i. for reducing Australia’s greenhouse gas emissions; or ii. that are likely to contribute to reducing Australia’s greenhouse gas emissions. 	<p>The Second Reading Speech to the National Electricity (South Australia) (New National Electricity Law) Amendment Bill 2005 makes it clear that the NEO is an economic concept and should be interpreted as such.</p> <p>The Speech gives an example that investment in and use of electricity services will be efficient when services are supplied in the long run at least cost, resources, including infrastructure, are used to deliver the greatest possible benefit and there is innovation and investment in response to changes in consumer needs and productive opportunities.</p> <p>The Speech goes on to state that the long-term interests of consumers of electricity requires the economic welfare of consumers, over the long term, to be maximised.</p> <p>If the NEM is efficient in an economic sense, the long-term economic interests of consumers in respect of price, quality, reliability, safety and security of electricity services will be maximised. Applying an objective of economic efficiency recognises that, in a general sense, the NEM should be competitive, that any person wishing to enter the market should not be treated more, or less, favourably than persons already participating, and that particular energy sources or technologies should not be treated more, or less, favourably than others.</p> <p>Since 2006, the NEO has been considered in a number of Australian Competition Tribunal determinations and Federal Court matters, which have followed a similar interpretation. See, for example, Application by ElectraNet Pty Ltd (No 3) [2008] ACompT (paragraph 15):</p> <p>“The national electricity objective provides the overarching economic objective for regulation under the Law: the promotion of efficient investment in the long term interests of consumers. Consumers will benefit in the long run if resources are used efficiently, i.e. resources are allocated to the delivery of goods and services in accordance with consumer preferences at least cost.”</p> <p>The NEO is clearly a relevant consideration where AEMO has to exercise judgment or discretion in reaching its determination, for example, if there is a number of Participant fee structures each of which can satisfy the Fee Structure principles, or where the relevant provisions of the Rules are ambiguous.</p>
Simplicity	<p>The structure of Participant fees should be simple</p>	<p>As “simple” is not defined in the Rules, it must be given its ordinary meaning as understood in the context of clause 2.11 of the Rules.</p> <p>The New Shorter Oxford English Dictionary’s definition of “simple” (in this context) is: “not complicated or elaborate” and “plain, unadorned”. Whether a fee structure fits these definitions is largely a matter of judgement.</p> <p>There is a wide range of possible fee structures. There is no single identifiable point where “simple” becomes “complicated”.</p> <p>It is clear from this provision that a certain degree of complexity was envisaged in that the structure of Participant fees may involve several components and budgeted revenue consists of several elements. The structure of Participant fees need not demonstrate absolute simplicity.</p> <p>The simplest fee structures are unlikely to be consistent with the other criteria. However, it is possible to find fee structures that, while consistent with the other criteria, are relatively simple, in comparison to alternative structures.</p> <p>Further, AEMO considers that the use of the word “simple” in this context also involves a degree of transparency.</p>

Objective / Principle	Requirement	Application and examples
		<p>AEMO considers that the simplicity principle means that the basis of the fee structure and its application to various Registered participants should be:</p> <ul style="list-style-type: none"> • straight-forward • easily understood by participants • readily applied by Registered participants and AEMO • foreseeable and forecastable in terms of impacts and costs.
Reflective of Involvement	The components of Participant fees charged to each Registered Participant should be reflective of the extent to which the budgeted revenue requirements for AEMO involve that Registered Participant	<p>In determining whether the extent to which the budgeted revenue requirement relating to a particular output involves a class of Registered Participant, AEMO relies on the experience and expertise of its general managers and staff, and considers factors such as the degree to which the class of Registered Participant:</p> <ol style="list-style-type: none"> a) interacts with AEMO in relation to the output; b) uses the output; c) receives the output; and d) benefits from the output. <p>AEMO also considers how the revenue requirements are given rise to, or caused by, that class of Registered Participant's presence in the NEM.</p> <p>AEMO must determine the structure of Participant fees "afresh".</p> <p>That is, it must freshly consider the application of the criteria in clause 2.11.1 of the Rules and the NEL to the facts, circumstances and analysis available to it at this time.</p> <p>In doing so, however, AEMO will have regard to its previous determinations under clause 2.11.1 of the Rules, where appropriate.</p> <p>The principle of "reflective of extent of involvement" does not have a specialised meaning in economics. It is consistent with the economic notion of 'user pays' but as a matter of ordinary language, it indicates a degree of correspondence (between AEMO and its costs and participants) without connoting identity.</p> <p>However, this principle does not involve a precise degree of correspondence.</p> <p>Where fixed and common costs are involved, multiple registered participants may be involved with AEMO costs in relevantly similar ways. AEMO's analysis and experience shows that there are categories or classes of Registered Participants that share certain characteristics that mean that the way in which they interact with AEMO is likely to have the same or similar cost implications for AEMO.</p> <p>Where it is practical for AEMO to identify costs that are fixed or common in nature that can reasonably be allocated to a class or classes of Participants that share characteristics such that their involvement with AEMO's outputs is likely to have the same or similar cost implications, AEMO will seek to do so.</p>
Non-discriminatory	Participant fees should not unreasonably discriminate against a category or categories of Registered Participants	<p>In past Participant Fee determinations, AEMO (and its predecessor, NEMMCO) adopted the following definition of discriminate:</p> <p>"Discriminate means to treat people or categories of people differently or unequally. Discriminate also means to treat people, who are different in a material manner, in the same or identical fashion. Further, "discriminate against" has a legal meaning which is to accord "different treatment ... to persons or things by reference to considerations which are irrelevant to the object to be attained".</p> <p>This principle allows AEMO to discriminate against a category or categories of Registered participants where to do so would be reasonable.</p> <p>Where a degree of discrimination between categories of Registered Participants is necessary or appropriate to achieve consistency with the other</p>

Objective / Principle	Requirement	Application and examples
		<p>principles in clause 2.11.1(b) of the Rules, or the NEL, the discrimination will not be “unreasonable”.</p> <p>In considering a past fee determination, the Dispute Resolution Panel accepted that this principle is to be applied to the extent practicable and it is only unreasonable discrimination that offends.</p>
Comparison with existing fee structures	<p>In developing, reviewing and publishing, the structure of Participant fees, AEMO must consider other fee structures in existence which it thinks appropriate for comparison purposes.</p> <p><i>Note that this is not strictly a principle but is included for completeness in describing the matters to which AEMO must have regard.</i></p>	<p>Other relevant fee structures could include:</p> <ul style="list-style-type: none"> • Other electricity market fee structures such as Western Australia or globally • Gas markets operated by AEMO

A2. Registered Participants


Participant category	Description	Participant classification
Generators	Any person who owns, controls or operates a generating system connected to a transmission or distribution network	<ul style="list-style-type: none"> • Market Scheduled • Market Non-scheduled • Market Semi-scheduled • Non-market Scheduled • Non-market Non-scheduled • Non-market Semi-scheduled
Customers	A customer is a registered participant that purchases electricity supplied through a transmission or distribution system to a connection point	<ul style="list-style-type: none"> • Market customer
Integrated Resource Providers	An Integrated Resource Provider is a technology neutral participant category that accommodates a variety of participants with bi-directional energy flows that may offer and consume energy and ancillary services.	<p>Classification of production units:</p> <ul style="list-style-type: none"> • Scheduled generating unit • Non-scheduled generating unit • Semi-scheduled generating unit • Scheduled bi-directional unit • Non-scheduled bi-directional unit • Scheduled generating unit and a scheduled load • Semi-scheduled generating unit and a scheduled bi-directional unit <p>Classification of small resource connection point as market connection point:</p> <ul style="list-style-type: none"> • Small Resource Aggregator
Network Service Providers	A person who owns, operates or controls a transmission or distribution system	<ul style="list-style-type: none"> • Transmission network service provider • Distribution network service provider • Market network service provider
Special Participant	<p>A delegate appointed by AEMO to carry out, on AEMO's behalf, some or all of AEMO's rights, functions and obligations under Chapter 4 of the Rules</p> <p>A Distribution System Operator who is responsible, under the Rules or otherwise, for controlling or operating any portion of a distribution system (including being responsible for directing its operations during power system emergencies)</p>	<ul style="list-style-type: none"> • System operator • Distribution system operator
Reallocator	Anyone that wishes to participate in a reallocation transaction undertaken with the consent of two market participants and AEMO	<ul style="list-style-type: none"> • Reallocator
Trader	Anyone who wants to take part in a Settlements Residue Auction (SRA), and is not already registered as a customer or generator	<ul style="list-style-type: none"> • Trader
Metering Coordinator	Has the overall responsibility for coordination and provision of metering services at a connection point in the NEM	<ul style="list-style-type: none"> • Metering coordinator



Participant category	Description	Participant classification
Demand Response Service Provider (DRSP)	A person who offers and provides load as either or both: (a) wholesale demand response in respect of a wholesale demand response unit; and (b) a market ancillary service in respect of ancillary service load	<ul style="list-style-type: none"> • Demand response service provider
Stand-alone Power System (SAPS) Resource Provider	A person who intends to supply electricity from one or more production units to a stand-alone distribution system in a regulated SAPS	<ul style="list-style-type: none"> • SAPS Resource Provider • Market SAPS Resource Provider (MSRP)

A3. Acronyms

Acronym	Meaning
ACE	Adjusted Consumed Energy
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AGSU	Ancillary Service Generating Unit
ASL	Ancillary Service Load
ASOE	Adjusted Sent Out Energy
B2B	Business-to-Business
CDR	Consumer Data Rights
CER	Consumer Energy Resources
DCA	Dedicated Connection Asset
DER	Distributed Energy Resource
DNSP	Distribution Network Service Provider
DRSP	Demand Response Service Provider
ECA	Energy Consumers Australia
ESB	Energy Security Board
FCAS	Frequency Control Ancillary Service
IESS	Integrating Energy Storage Systems
IRP	Integrated Resource Provider
ISP	Integrated System Plan
MASP	Market Ancillary Service Provider
MC	Metering Coordinator
MC	Market Customers
MNSP	Market Network Service Provider
MSATS	Market Settlement and Transfer Solutions
NECR	Non-Energy Cost Recovery
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
NTP	National Transmission Planner
PCF	Participant Compensation Fund
PoC	Power of Choice
PV	Photovoltaic



Acronym	Meaning
RPA	Registered Participant Agent
SGA	Small Generator Aggregator
SLT	Senior Leadership Team
TNSP	Transmission Network Service Provider
VRE	Variable Renewable Energy
WDRM	Wholesale Demand Response Mechanism
WP	Wholesale Participants
5MS/GS	Five-Minute Settlement / Global Settlement