Commitment criteria implementation

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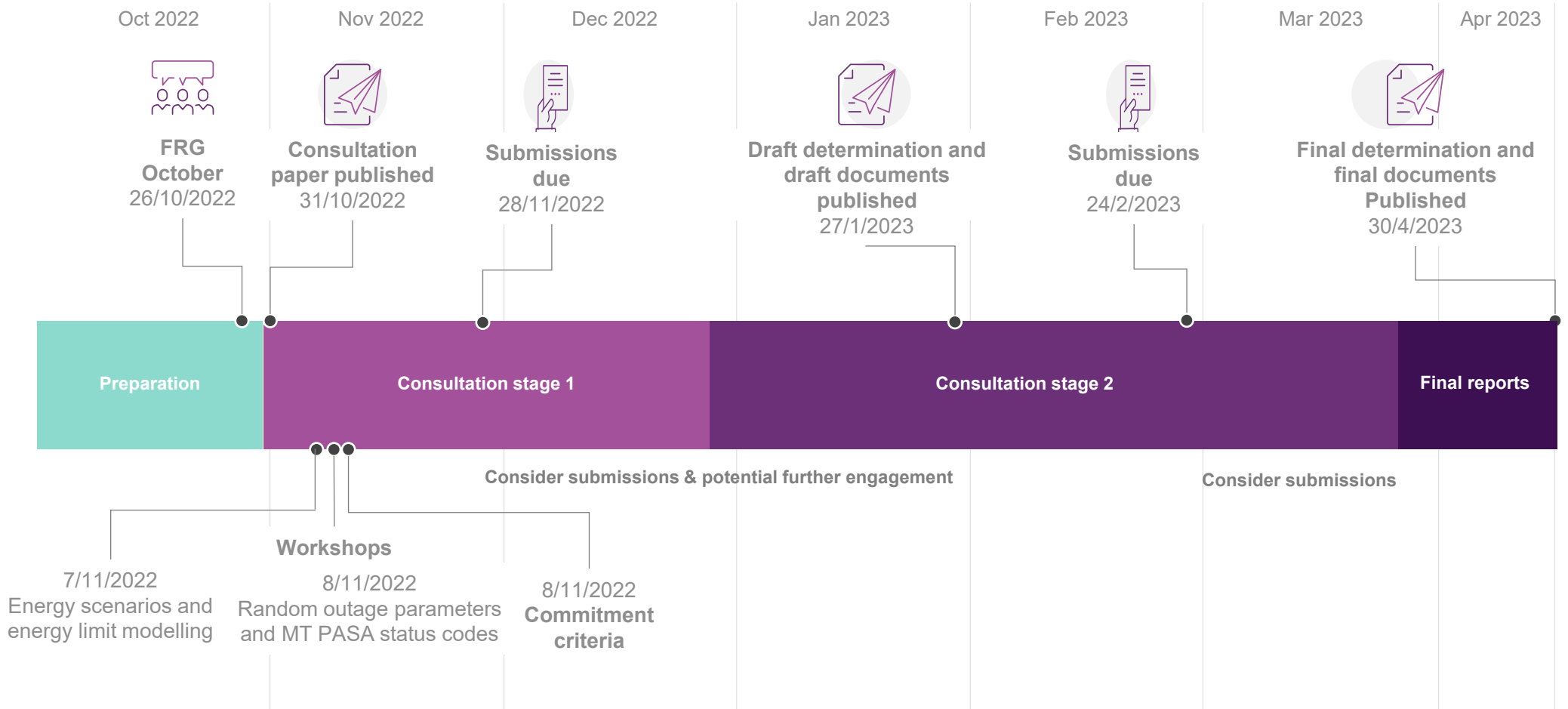
Purpose and consultation timeline

The purpose of this workshop is to *collaborate* with participants and interested parties to better inform stakeholder submissions and outcomes of AEMO's consultation on reliability forecasting guidelines and methodologies.



The need for assessing commitment criteria

- Improved consistency in AEMO's commitment criteria affecting new generator, integrated resource system, aggregated distributed energy resources (DER) and/or transmission assets to improve timely identification of reliability risks considering the timely availability of these assets
- AEMO seeks stakeholder input on an appropriate balance of risks from not being too lax and not being too strict

Current generator and integrated resource systems commitment criteria

Criteria	Description
Land	• Have the rights been secured for the land or sea that is required for construction of the generating unit(s)? • Have the rights been secured for the land or sea that is required for easements of new lines to connect the generating system to the transmission/distribution network?
Contracts	• Has the detailed design been completed to the extent required for a connection enquiry to be made to the relevant network service provider (NSP)? • Are contracts for the supply and construction of major plant or equipment finalised and executed (officially signed), including any provisions for cancellation payments? (Major plant and equipment include components such as generating units, turbines, boilers, transmission towers, conductors, and terminal station equipment, as relevant to the project.)
Planning	• Has an application to connect been made with a NSP? • Has a connection agreement with a NSP been signed? • Have you received AEMO's official letter of acceptance of the generator performance standards? (This is confirmed with AEMO Registrations.) • Have all relevant environmental approvals for construction and operation been obtained? • Have all relevant planning and licensing approvals, from local and state government authorities, been obtained?
Finance	• Does the project/project stage/generating unit(s) have an associated Power Purchase Agreement (PPA)? • Besides a PPA, are there other financing arrangements in place (such as merchant financing and/or long term State or Federal Government funding)? • Has the Final investment Decision (FID) been reached (signed off), under the usual commercial definition of official Board financial approval regarding when, where and how much capital is being spent?
Construction	• Has a firm construction start date (or range) been set? Provide the earliest likely date, and the latest likely date, for commencement of construction or installation at the Site. • Has construction or installation commenced at the Site? If so, provide the actual date that construction commenced. • Has a Full Commercial Use Date (or range) been set, that is, the date from which the generating system is planned to have received official approval (sign-off) of all commissioning tests, from AEMO and the NSP? If so, provide the earliest likely date, and the latest likely date, for Full Commercial Use.

Current generator and integrated resource systems commitment criteria

Based on the answers from the criteria, the following commitment status are derived:

1. **Committed**: developments are those that have fully met all of the above criteria
2. **Committed***: developments are those that fully meet at least four of the above criteria but may only partially meet either contracts or planning criteria
3. **Anticipated**: developments are those that fully meet at least three of the above criteria, and have updated their submission in the previous six months
4. **Publicly Announced**: developments are those that do not meet any of the above commitment status requirements

Generating and integrated resource systems commissioning analysis

On average, projects took **576** days from becoming 'Committed' to becoming 'In service', while on average, developers assumed this would only take 150 days, indicating an average delay against developer provided information of **over 400** days.

Publication	Forecast operational capacity (MW)	Actual operational capacity (MW)	Difference (MW)
2019 ESOO (2019-20 summer period)	53,204	52,156	-1,048
2020 ESOO (2020-21 summer period)	55,997	53,887	-2,090
2021 ESOO (2021-22 summer period)	56,872	55,592	-920

Possible reasons include:

- Poor estimation of commissioning timeframes by developers
- Unforeseen construction and commissioning delays due to parts or labour unavailability
- Unforeseen commissioning delays due to complexities in the connections process.

Proposed generator and integrated resource systems commitment assessment

1. Committed projects that **have met the commissioning requirements of their first hold point** to be included in reliability forecasts at:
   (a) the FCUD submitted by the developer.
2. Committed projects that **have not met the commissioning requirements of their first hold point** to be included in reliability forecasts at:
   (a) Six months after the FCUD submitted by the developer.
3. Committed* projects to be included in reliability forecasts at the furthest date of either:
   (a) The first day after the T-1 year for RRO purposes, or
   (b) The FCUD submitted by the developer.
4. Anticipated projects to be included in the reliability forecast at the furthest date of either:
   (a) the first day after the T-1 year for RRO purposes, or
   (b) One year after the FCUD submitted by the developer.

- For example, 1 July 2024 is the first day after the T-1 financial year as applied to the 2022 ESOO.

Current Transmission developments Commitment Criteria

- AEMO's current commitment criteria for transmission developments in the ESOO reliability forecast consider whether the development has successfully completed a Regulatory Investment Test for Transmission (RIT-T), or equivalent for smaller projects.
- All dates are implemented as provided by the developer.

Proposed Transmission developments Commitment Criteria

- AEMO proposes to deploy a criteria consistent with the ISP methodology and the CBA Guidelines (and the RIT-T instrument). If the transmission project has satisfied all five criteria (similar to generation), it is defined in the glossary of the RIT-T instrument as a committed project. If the project is in the process of meeting at least three of the criteria, it is defined as an anticipated project.
- AEMO proposes the following application of commitment criteria for transmission developments:
    1. Committed projects to be included in the ESOO and EAAP reliability assessments at the:
        - commissioning dates provided by the developer.
    2. Anticipated projects to be included in the ESOO and EAAP reliability assessments at:
        - One year after the commissioning dates provided by the developer.

Current Aggregated DER developments Commitment Criteria

- AEMO's current approach is to include all aggregated DER developments forecast in the central scenario in the ESOO reliability forecast.
- This current approach (of not applying commitment criteria) is inconsistent with that applied to generation and integrated resource systems, transmission developments, and DSP.
- Aggregated DER developments are not included in MT PASA or EAAP, unless registered as a generator or integrated resource system participant. AEMO does not propose to change this approach for MT PASA.

Proposed Aggregated DER developments Commitment Criteria

- Aggregated DER is a supply side component and is modelled by AEMO, hence we propose to include only those aggregated DER developments that can be identified as having committed in the ESOO and EAAP forecasts.
  - The effect of increased DER orchestration will lower the investment requirements of utility-scale generation and storage, as the DER uptake that is orchestrated operates to minimise USE risks.
  - Should these battery installations, VPP services, and/or demand reduction schemes occur slower than forecast or underdeliver, the reliability forecast may worsen and the need for further utility-scale solutions may increase.
- Forecast DER that is not yet deemed committed will be modelled without aggregation.

Consultation Questions

1. Do you agree that AEMO's current commitment criteria require revision?
2. Does AEMO's proposed generation and integrated resource system commitment criteria implementation balance the risks of over or underestimating the required reliability market response?
3. Does AEMO's proposed transmission commitment criteria implementation balance the risks of over or under estimating the required reliability market response?
4. Does AEMO's proposed application of the commitment criteria to aggregated DER balance the risks of over or under estimating the required reliability market response?
5. Are there any other issues AEMO should consider in its commitment criteria and implementation?

For more information visit

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