

FORECASTING REFERENCE GROUP

September, 2018

Agenda

- ☐ Purpose
- ☐ Objective
- ☐ Review scenario assumptions from FY 2018 and updates
- ☐ Forecasting Reference Group Scenario Survey
- ☐ Feedback and discussion of scenario settings for future use

Purpose

- Scenarios form the framework for the supply, demand and transmission investment projections, which are used for supply adequacy assessments; investment decision making and to inform policy.
- Scenarios are intended to capture the breadth of uncertainty facing the transformation of the energy markets for both gas and electricity.
- AEMO has been consulting with industry on scenario settings over the last few years and the following themes have continually emerged as sources of material uncertainty for industry:

Fuel Costs | Economic Growth | DER | Emissions Abatement | Policy

AEMO's scenarios have been structured around the grid implications of these uncertainties.

Objective

- Consult on the scenarios used in the 2018 Integrated System Plan, and test the degree to which these scenarios adequately captured the needs of industry members.
- Gather feedback on key drivers and scenario settings that should be considered further for future publications.

Measure of success: Establish scenarios that are internally consistent, plausible, and have reasonable stretch from what is familiar.

Current Scenarios

- ISP considers two central scenarios and 3 additional scenarios.

Scenario	Objective
Neutral	Provides a central estimate of the transition forecast of the NEM
Neutral with Storage	Neutral scenario with Snowy Hydro 2.0 Project and Battery of the Nation project
Slow Change	Considered slower power system transformation which may impact the risks and benefits of transmission development
Fast Change	Considered faster power system transformation which may impact the risks and benefits of transmission development
High DER	Examines how increased DER could impact on investment needs for utility-scale generation and storage and transmission, and how this would influence the plans presented in the ISP.
Increased role of gas	Explores the potential implications on investment pathways if significant quantities of gas was to be made available at a much lower price.
Early exit of coal	This sensitivity tested the impacts on the identified investment plans of potentially catastrophic failures to plant resulting in unplanned early retirements of coal-fired generation in New South Wales or Victoria.

- Two additional sensitivities were included in the ISP to explore key opportunities or risks:
 - Increased role for gas,
 - and early exit of coal-fired generation

Forecasting Reference Group Survey

- 4 categories of questions:

1. General Questions

2. Demand Settings

2. Supply Settings

4. Risk and
Uncertainties

Survey Questions

AEMO's survey sought feedback on the following topics:

1. Relevance of scenarios and sensitivities
2. Evaluation of breadth of scenarios and sensitivities
3. Evaluation of demand side settings (e.g. economic growth; population; DER; DSP)
4. Evaluation of supply side settings (e.g. fuel costs; generation mix; storage)
5. Other technological, behavioural or market considerations?
6. Risks and uncertainties around the scenarios and sensitivities

Feedback and Discussion

- From feedback received in consultation with stakeholders and review of market changes, AEMO will be reviewing the following scenarios settings:
 - ❖ LNG demand strong scenario: There will be no 7th train
 - ❖ Fuel costs
 - ❖ Energy Efficiency settings
 - ❖ Rooftop PV (< 100 kW capacity)
 - ❖ Distributed Energy Resources