

DEFERRED 2015 WHOLESALE ELECTRICITY MARKET (WEM) ELECTRICITY STATEMENT OF OPPORTUNITIES (ESOO)

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- Background
- Purpose of the Deferred 2015 WEM ESOO
- Key findings
- 2015-16 peak demand
- Forecasting methodology
- Peak demand forecasts
- Interesting analysis
- Questions

2015 AND 2016 RESERVE CAPACITY CYCLE DEFERRALS – CONTEXT



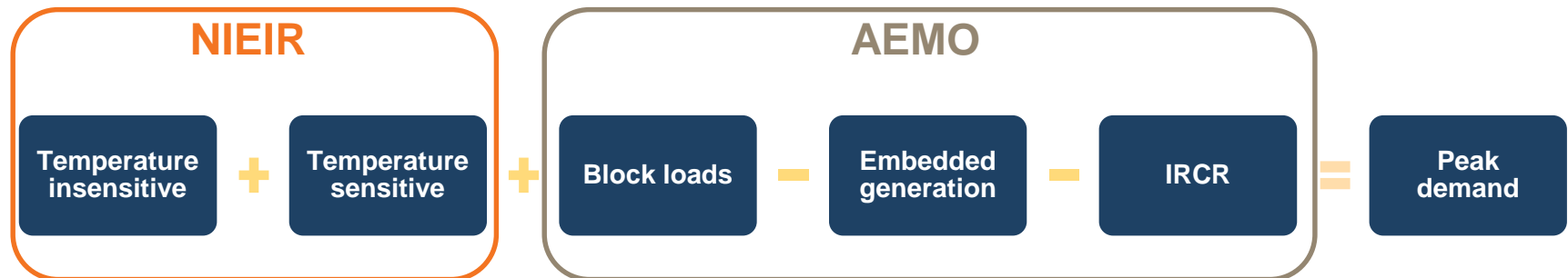
- Aspects of the 2015 Reserve Capacity Cycle, including the publication of the ESOO, were deferred following a direction for the Minister for Energy in March 2015.
 - AEMO published the Deferred 2015 WEM ESOO (including infographics and data register) on 16 June 2016.
- At the Public Utilities Office’s request in March 2016, AEMO deferred aspects of the 2016 Reserve Capacity Cycle by 12 months.
 - AEMO will publish the 2016 WEM ESOO in June 2017.

- Key purpose of the Deferred 2015 WEM ESOO is to set the Reserve Capacity Target (RCT) for the 2017-18 Capacity Year.
- The RCT is set based on the 10% probability of exceedance (POE) forecast plus a reserve margin.

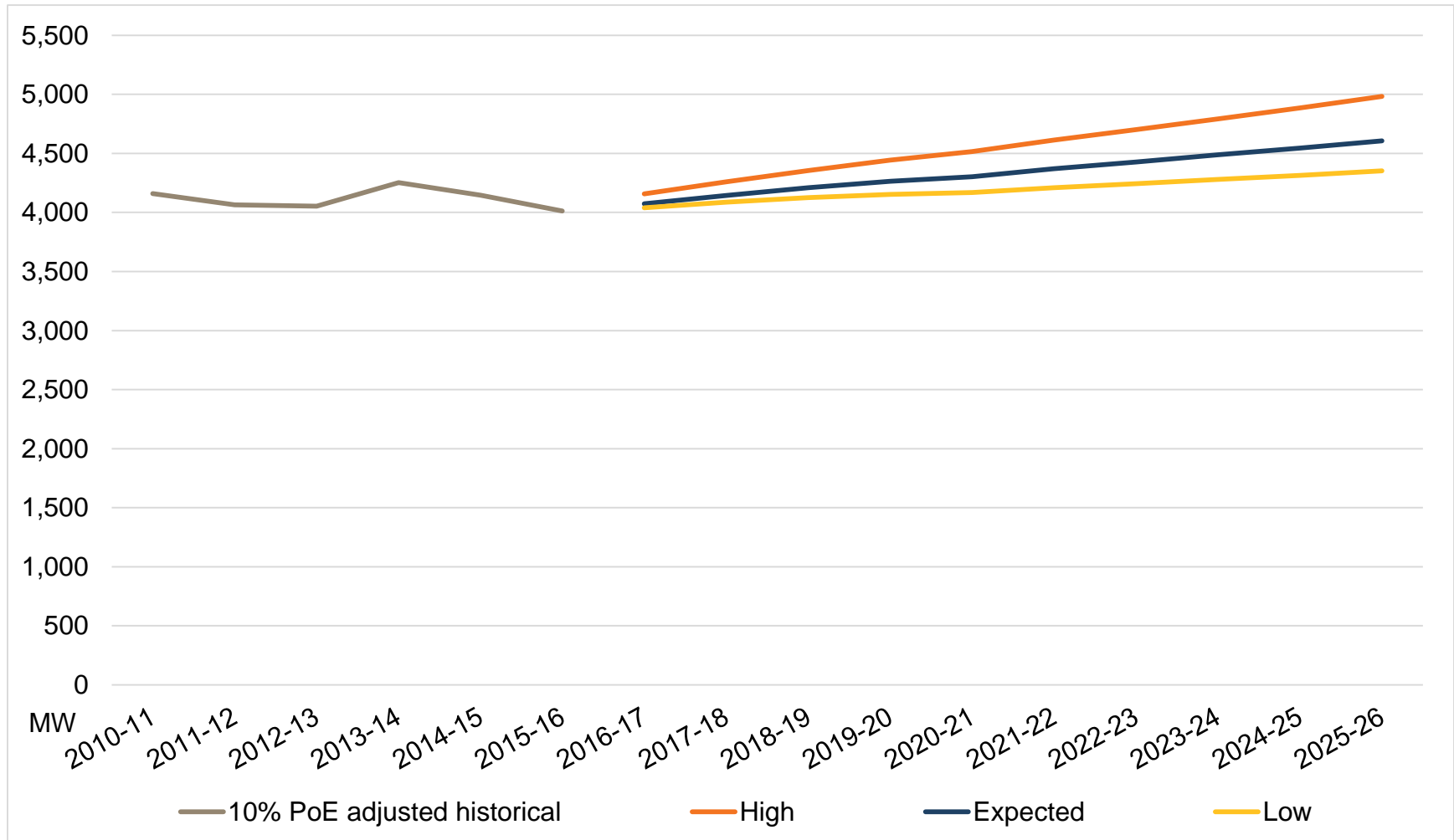
KEY FINDINGS

- The RCT for 2017-18 is **4,552 MW**.
- All-time record peak demand (4,013 MW) on 8 February 2016, up from 3857 MW on 25 January 2012.
- Rooftop PV continues to affect peak demand.
- Individual Reserve Capacity Requirement mechanism remains effective.
- No new generation or Demand Side Management capacity will be required for the 2016-17 to 2025-26 forecast period.

- The National Institute of Economic and Industry Research (NIEIR) prepares peak demand and energy forecasts for 2016-17 to 2025-26.
- AEMO forecasts:
 - Block loads – customers using more than 20 MW.
 - Embedded generation – rooftop PV and battery storage.
 - IRCR – the reduction in demand from customers minimising their contribution to capacity costs.



10% POE PEAK DEMAND FORECASTS

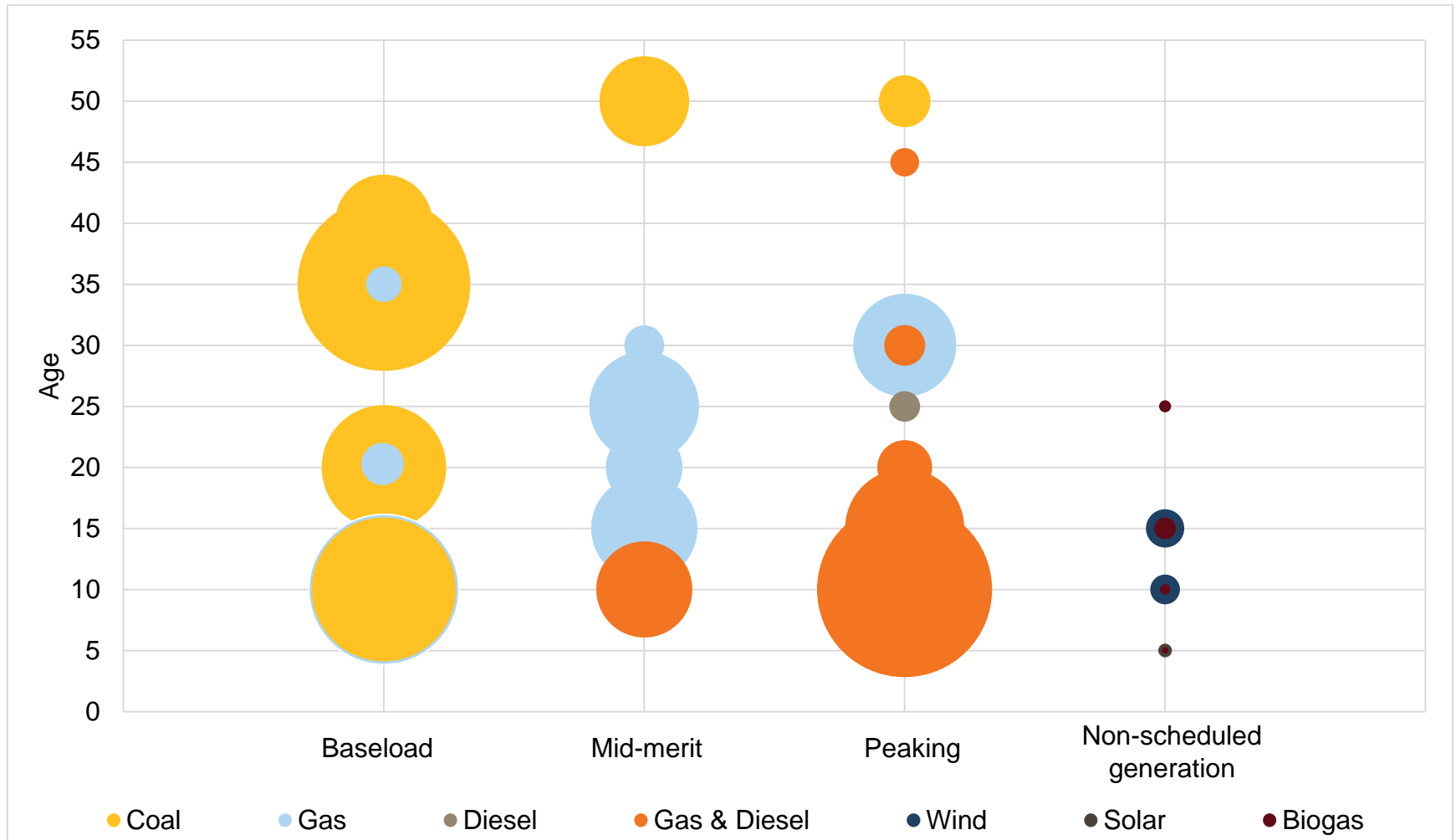


- Record peak demand on 8 February 2016 of 4,013 MW in the trading interval commencing 17:30.
- Second day of a four day heatwave, when maximum temperatures exceeded 40°C.
- IRCR response of 77 MW during the peak trading interval.
- Rooftop PV reduced demand by 191 MW.
 - 96 MW due to generation from PV systems.
 - 95 MW due to shifting peak trading interval by one hour.
 - 531 MW of rooftop PV currently installed in the SWIS (1 in 5 residential customers).

INTERESTING ANALYSIS FROM THE 2015 WEM ESOO



CAPACITY IN THE SWIS



- Increasing volatility in peak demand has made it more difficult for large customers to predict days to respond.
- In 2015-16 large users were well-prepared because the peak had characteristics of a typical peak, occurring during a four day heatwave.

| Date | Peak demand (MW) | Trading interval commencing | Estimated IRCR response (MW) | Number of customers responding |
|------------------|------------------|-----------------------------|------------------------------|--------------------------------|
| 8 February 2016 | 4,013 | 17:30 | 77 | 57 |
| 5 January 2015 | 3,744 | 15:30 | 42 | 20 |
| 20 January 2014 | 3,702 | 17:30 | 50 | 44 |
| 12 February 2013 | 3,732 | 16:30 | 65 | 59 |
| 25 January 2012 | 3,857 | 16:30 | 50 | 59 |

THANK YOU

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