

# DSP Update

Forecasting Reference Group meeting – 25 September 2019

# Agenda

1. DSP Forecast and Methodology 2019
2. DSP and the 2020 Reliability Forecast
3. Beyond 2020
  1. DSPI portal upgrades
  2. Update to the DSPI Guidelines

# DSP forecast and methodology

- Updated DSP forecast published for use in 2019 ESOO and reliability forecast
- Document covers the used methodology in detail, including:
  - How current DSP capability is assessed
  - How forecast DSP growth has been estimated
- It has also a section with statistics based on the DSP information submitted to AEMO by registered participants in their April 2019 submissions.



# 2019 DSP forecast

- Tables show forecast DSP used in AEMO's 2019 ESOO and ongoing MTPASA runs.
- DSP here represents:
  - The likely (50% likelihood) response
  - Responses from load reductions only (non-scheduled generation and storage covered by other processes)
  - Occasional rather than regular daily responses (i.e. excludes responses\* from daily hot water load control and TOU tariffs) as the regular responses are built into the forecast maximum demand forecasts.

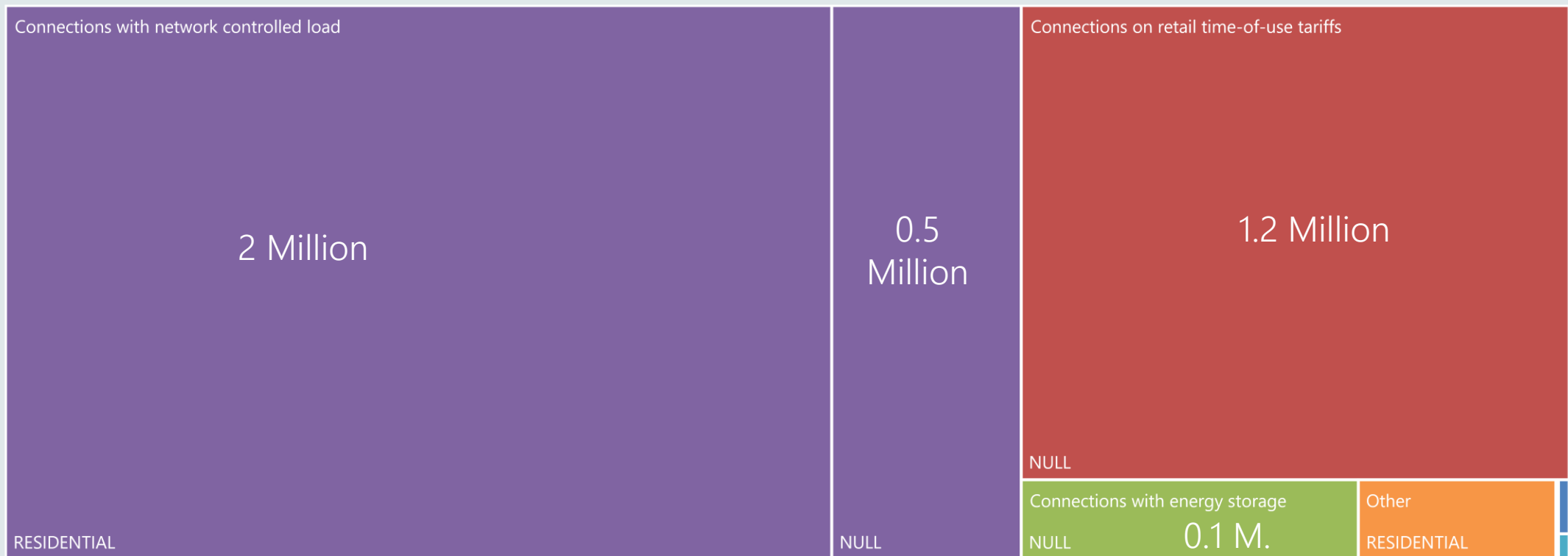
Trigger	Summer	NSW	QLD	SA	TAS	VIC
> \$300/MWh	2019-20	42	6	4	0	14
> \$500/MWh	2019-20	78	11	11	1	46
> \$1000/MWh	2019-20	80	12	12	30	50
> \$2500/MWh	2019-20	86	25	19	30	58
> \$5000/MWh	2019-20	93	32	27	30	60
> \$7500/MWh	2019-20	93	32	33	30	60
Reliability response	2019-20	93	52	33	30	185

Trigger	Winter	NSW	QLD	SA	TAS	VIC
> \$300/MWh	2020	42	6	4	0	14
> \$500/MWh	2020	78	11	11	1	46
> \$1000/MWh	2020	80	12	12	30	50
> \$2500/MWh	2020	86	25	19	30	58
> \$5000/MWh	2020	93	32	27	30	60
> \$7500/MWh	2020	93	32	33	30	60
Reliability response	2020	93	32	33	30	160

# DSP statistics (connection numbers)

Which category covers the greatest number of connections?  
(split by reported load type)

- Connections on network event tariffs
- Connections on retail time-of-use tariffs
- Connections with energy storage
- Connections with network controlled load
- Market exposed connections
- Other



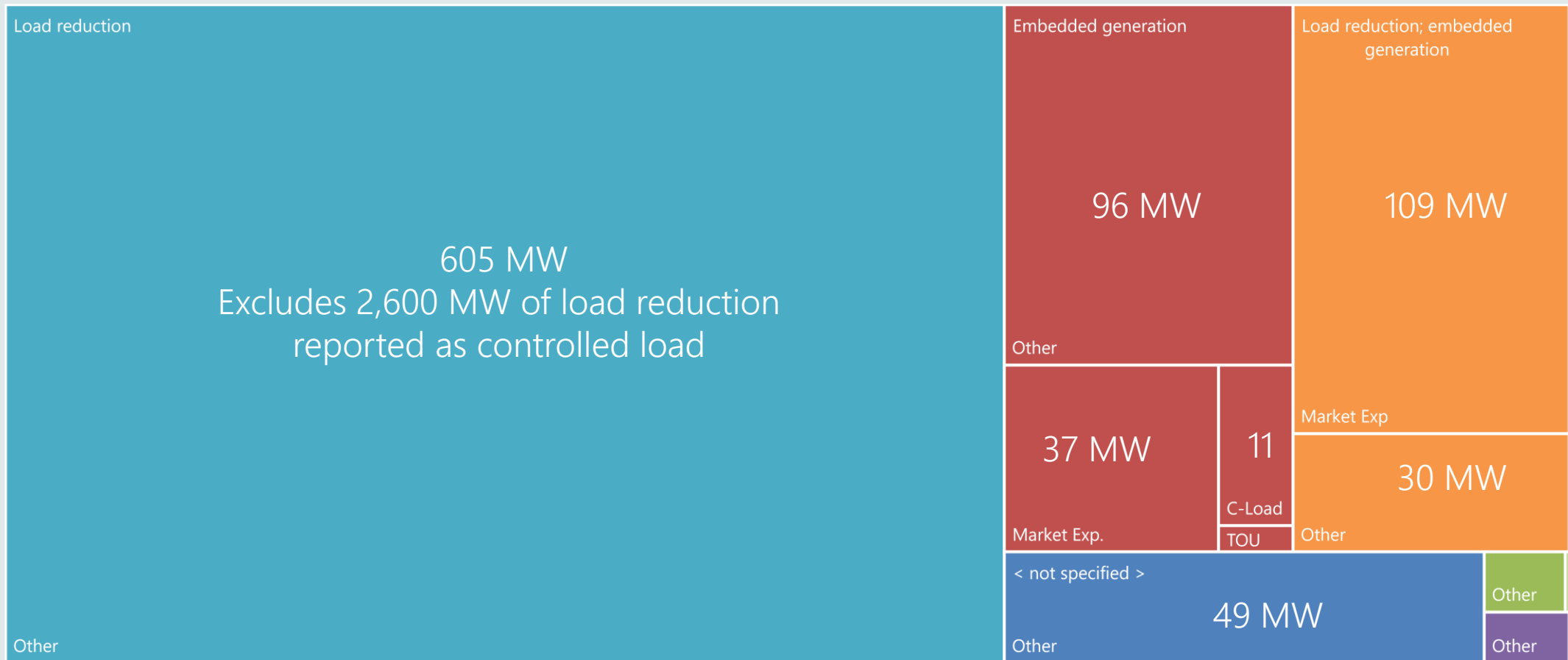
# DSP statistics (program categories)

Category	Number of connections (connections may appear in more than one program)	Number of programs	Number of programs which included potential response information in submission
Connections on network event tariffs	2593	1	0
Connections on retail time-of-use tariffs (TOU)	1,184,151	31	1
Connections with energy storage (storage)	234364	13	2
Connections with network-controlled load (C-Load)	2545015	62	58
Market exposed connections (Market Exp.)	1268	24	5
Other	72539	45	40

# DSP statistics (potential response)

Reported potential response by DSP type (covering 185 thousand connections)  
(programs without response data covered 1.2 million connections, majority on TOU)

■ < not specified > ■ Embedded generation ■ Energy storage ■ Energy storage; embedded generation ■ Load reduction ■ Load reduction; embedded generation



# DSP and the 2020 Reliability Forecast

Planned changes



# Learning from 2019

- Challenges getting submissions
  - How can we make it easier?
  - Portal enhancements or improved documentation?
- Challenges validating against historically observed DSP
  - Some “potential” DSP entries missing
  - Some programs covering multiple DSP sources, some falling outside what AEMO model as DSP (we still capture it, just through other processes)
- One NMI can be on multiple programs
  - Careful to avoid double counting
- Limited future outlook

# Improved validation

Through discussion with registered participants and improved documentation, AEMO seek the following for the 2020 DSP forecast work:

- More to fill out “potential response”
  - Can it be done for programs like TOU tariffs?
  - What does “potential response” actually mean? Likely response or upper bound? What would AEMO like it to mean?
- More to fill out “future” DSP
  - Can future growth be accurately provided?
  - What if that relies on growth from DSP resources currently reported by others, will this introduce potential double counting issues?
- Avoid having programs reported that cover different technology types (i.e. have them split into load response, non-scheduled generation and storage.
  - Is that feasible for registered participants?

# Looking beyond 2020

Updates to Portal and DSPI Guidelines

# Implementing change

- Planned revisions to the DSPI Guidelines:
  - Formalise changes to data provision as per below.
  - Any changes driven by the DER register.
  - Any changes driven by the Wholesale Demand Response proposal.
- Updates proposed for Portal:
  - Split “potential” into potential and firm (qualifying contract).
    - Should exclusions apply for certain programs?
  - Future response to be provided in numerical fields.
  - Ability for users to see submitted data (both current year and previous years).
  - Any user driven enhancements?
  - Linked to AEMO’s digital strategy that will mean changes to most of AEMO’s portal solutions over the next few years.
- Work is expected to be initiated in early 2020 and completed by the end of 2020 so available and tested for the 2021 DSP Information submissions.

# Key questions

- Any suggestions for additional DSP statistics AEMO should consider reporting?
- How feasible to report on future DSP? How long can forward can it be provided?
- Any suggestions for portal improvements beyond those listed by AEMO?

