

Consumer Advisory Panel

16 October 2018

 **ElectraNet**

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Consumer Advisory Panel - Meeting 13

- South Australian Energy Transformation
 - Submissions received and proposed responses
 - Early works and community engagement

- Other major projects
 - Eyre Peninsula Electricity Supply Options
 - Main Grid System Strength

- National Energy Landscape
 - AEMO's Integrated System Plan

- Around the table check in

South Australian Energy Transformation

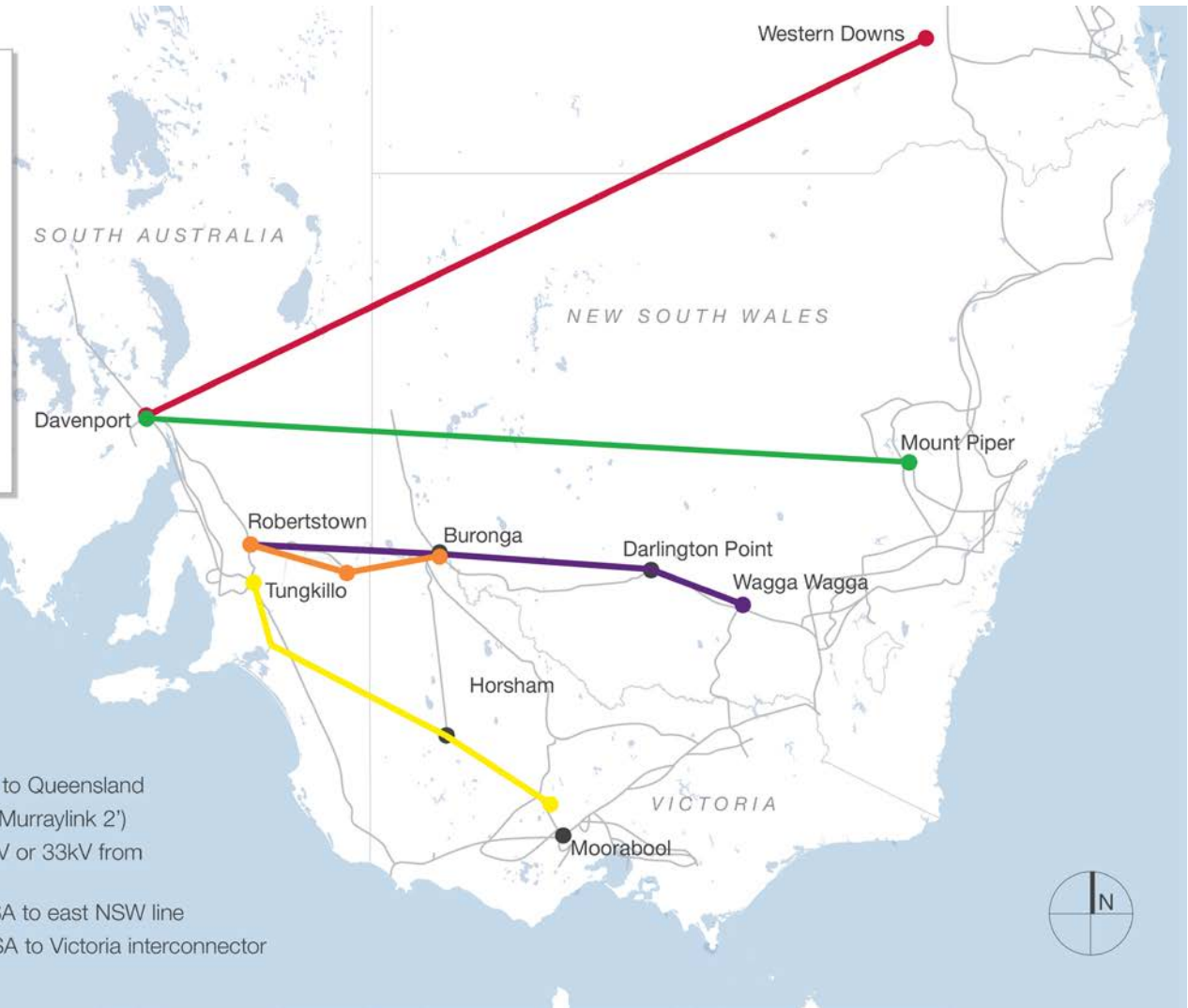
- More than 30 submissions received
- Targeting PACR publication before end 2018
- Working closely with TransGrid
- Early works program
- Community Engagement planning

SAET - Options

OPTION A

A 'least-cost' non-network options, comprising a range of initiatives across SA - including:

- A network support agreement with pumped storage (at Port Augusta)
- A network support agreement with Osborne Power Station
- A solar thermal network support agreement
- A new battery at Tailem Bend
- Murraylink transferring FCAS
- Minimum load control



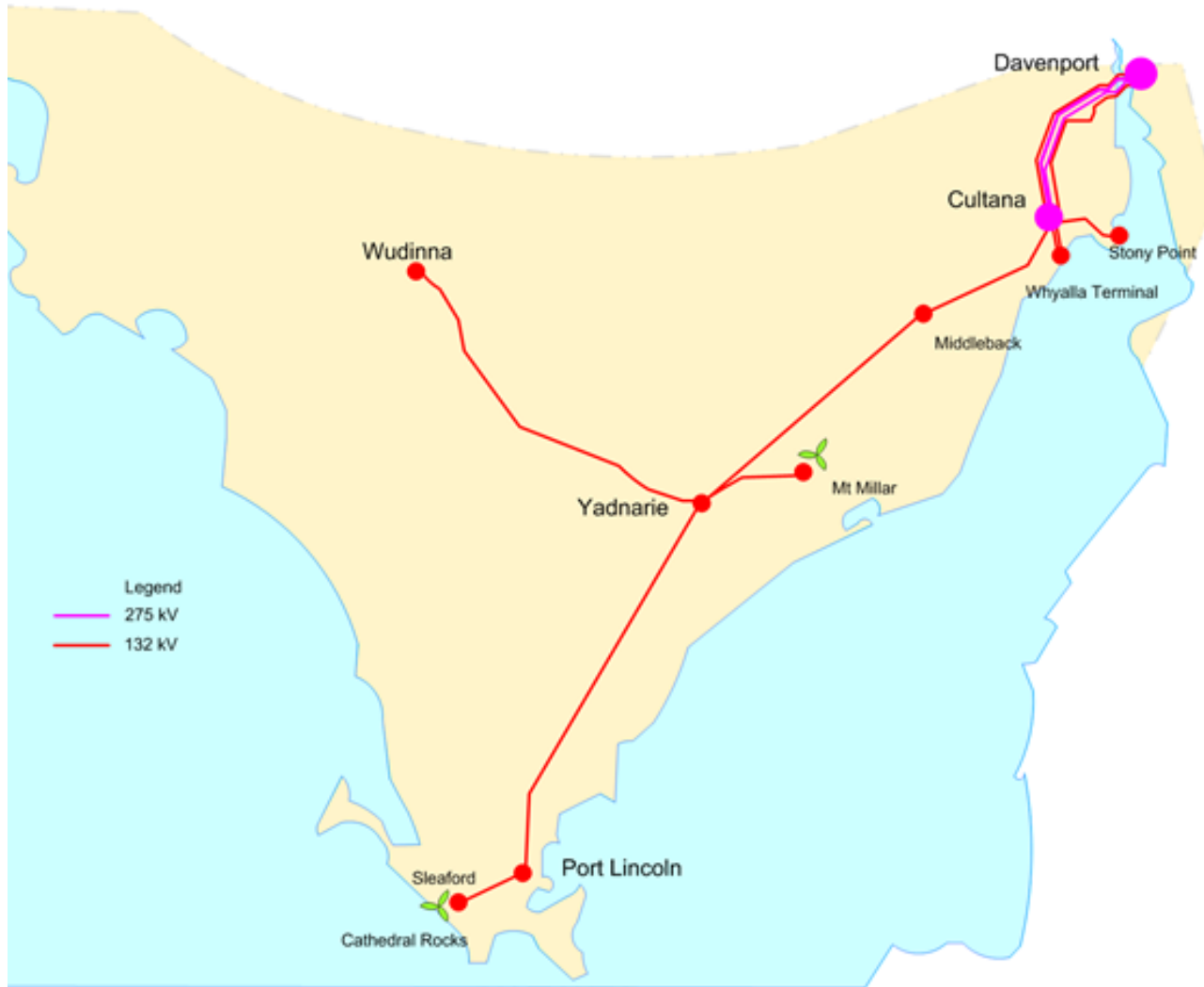
Key for Interconnector Options

- **Option B** HVDC from northern SA to Queensland
- **Option C.1** New DC link to NSW ('Murraylink 2')
- **Option C.2, C.3, C.3i & C.4** 275kV or 33kV from mid-north SA to western NSW
- **Option C.5** 500 kV line Northern SA to east NSW line
- **Option D.1 & D.1i** 275 kV central SA to Victoria interconnector

Indicative route – preferred option



Eyre Peninsula electricity supply options



- > Existing 132 kV line close to full capacity
- > Asset condition challenges with line >45 years old
- > Port Lincoln supply reliability includes network support from 3 x 25 MW diesel-fired gas turbines

Identified need

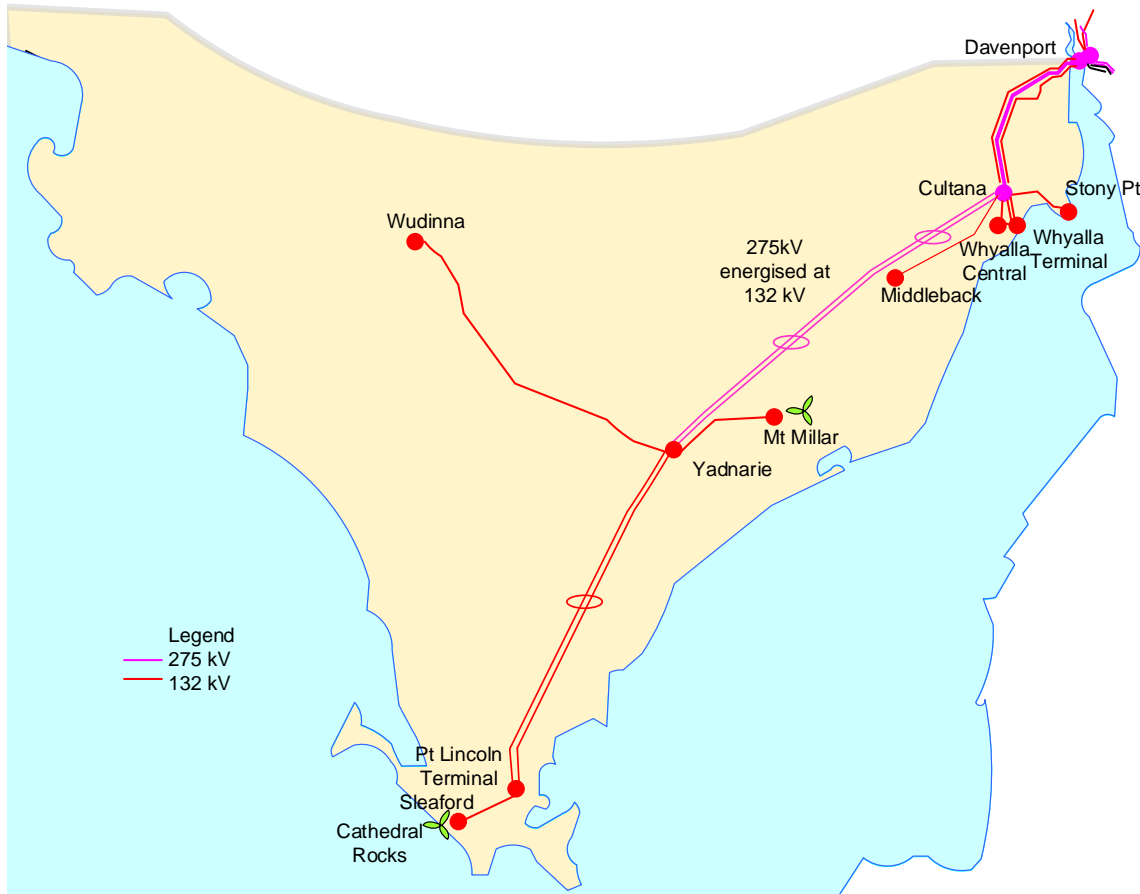
Providing cost-effective, reliable electricity supply to the Eyre Peninsula

Key drivers:

- The need to **replace existing transmission line components** in the next few years
- The upcoming **expiry of the network support arrangement** at Port Lincoln (at end 2018)

ElectraNet has been investigating the best option for meeting this need via a formal **Regulatory Investment Test for Transmission (RIT-T)** process under the National Electricity Rules

RIT-T conclusions report outcome



Upfront cost: \$240 million

- > Double-circuit line from Cultana to Yadnarie initially energised at 132 kV with a rating of about 300 MVA, with the option to be energised at 275 kV with a rating of about 600 MVA if required in the future
- > Double-circuit 132 kV line from Yadnarie to Port Lincoln rated to about 240 MVA
- > Capable of accommodating potential future large mining loads
- > If upgraded to 275 kV operation, can facilitate new generator connections of up to about 1000 MW

Update – System Strength

- System studies progressed with AEMO to confirm size of solution required
- Commercial and technical due diligence of procurement options in parallel
- Staged approach agreed for early implementation:
 - Delivery of first units to provide initial capability – end 2019
 - Delivery of balance of full solution – 2020
- Next steps:
 - Finalise and publish economic evaluation report in consultation with AER (Nov)
 - Engage with the relevant suppliers through accelerated tender process
 - Obtain land and approvals for initial site
 - Confirm size and extent of full solution required



