

ANLEC R&D



Australian Government  
Department of Industry,  
Innovation and Science



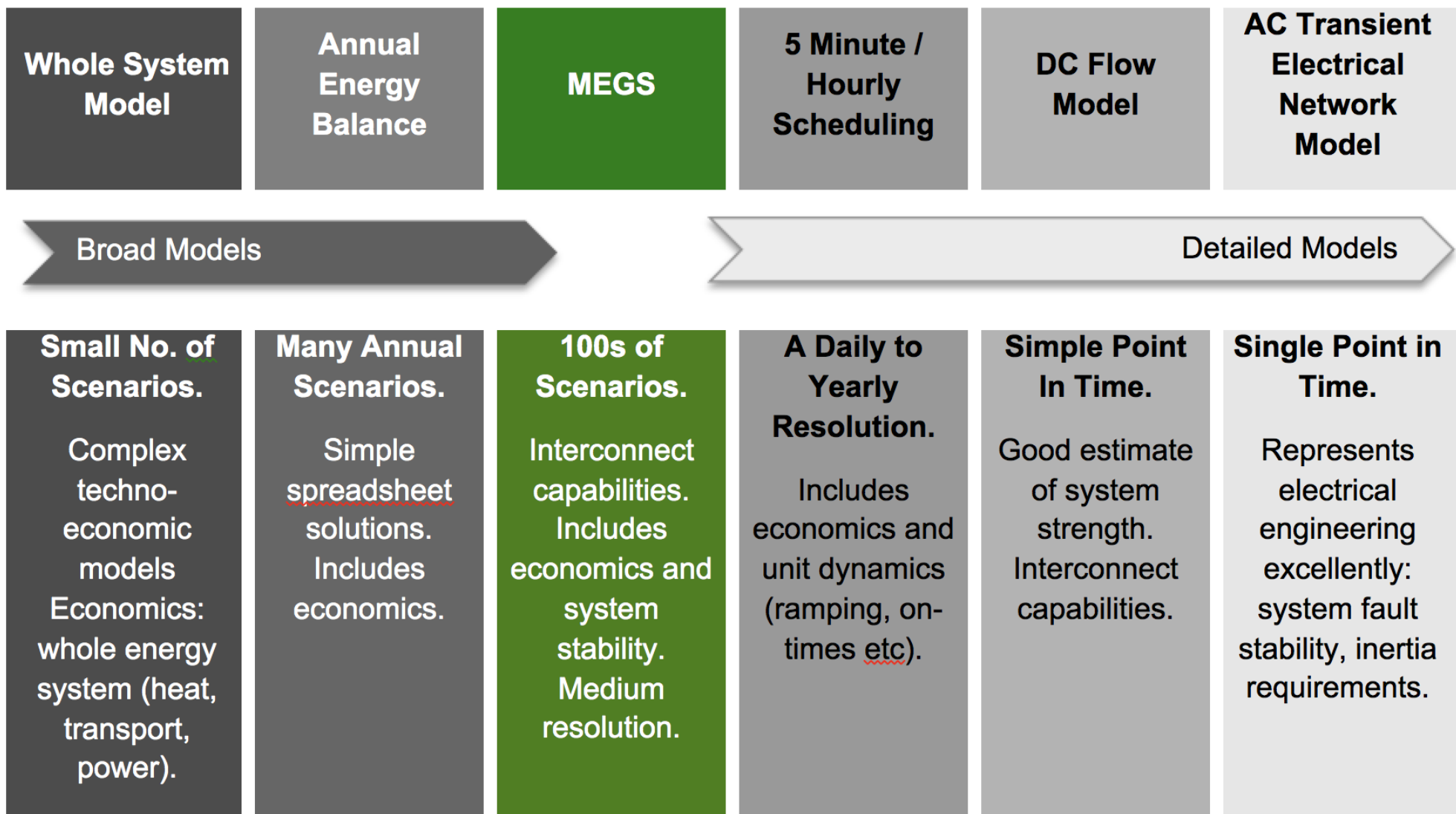
*A \$150M Partnership between the Coal Industry and the Commonwealth Government*

Enabling CO<sub>2</sub> storage  
for  
Australia

A NATIONAL INITIATIVE



# The Electricity Grid System is Complex

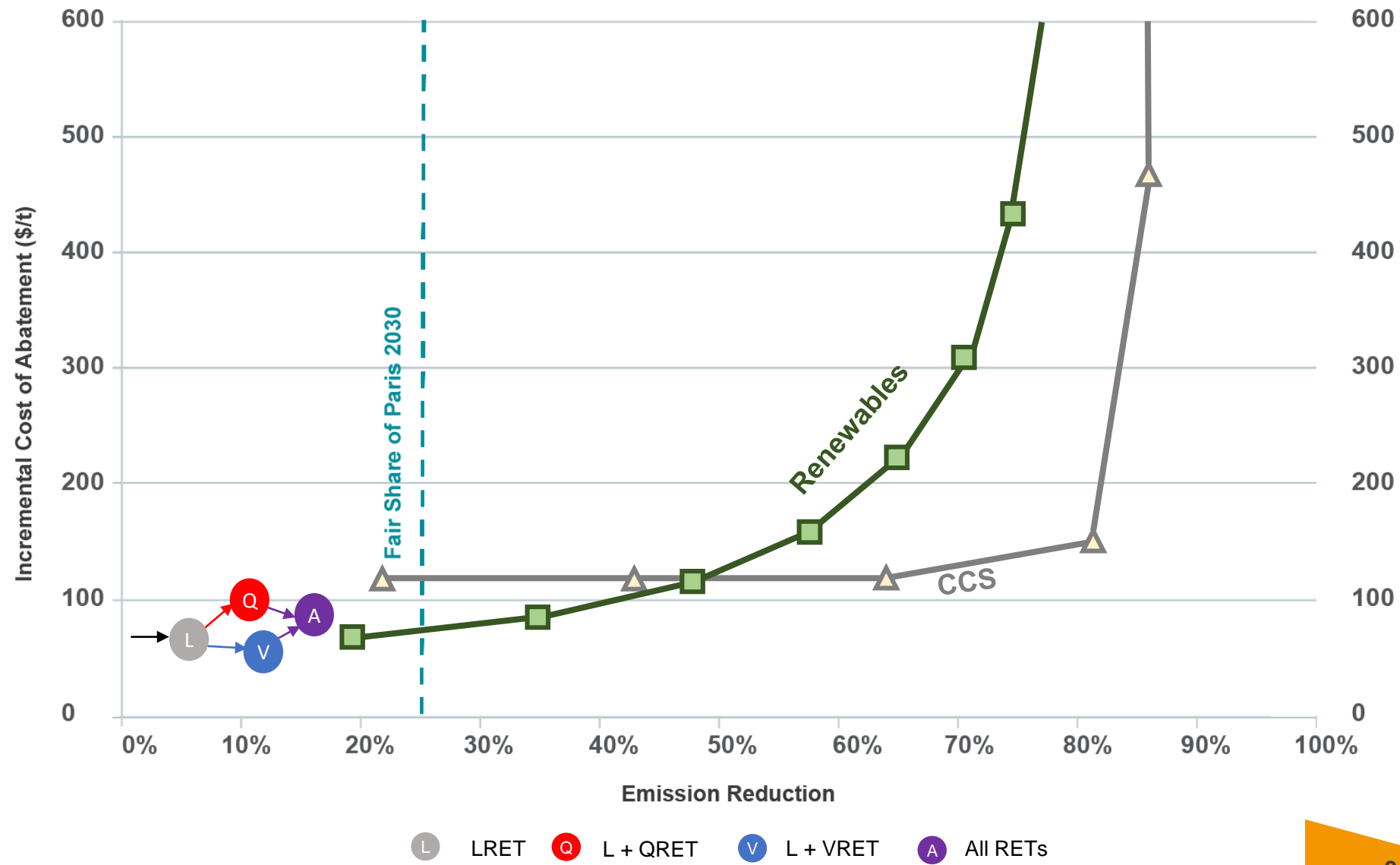




# Total Generation System Costs – CCS is Competitive

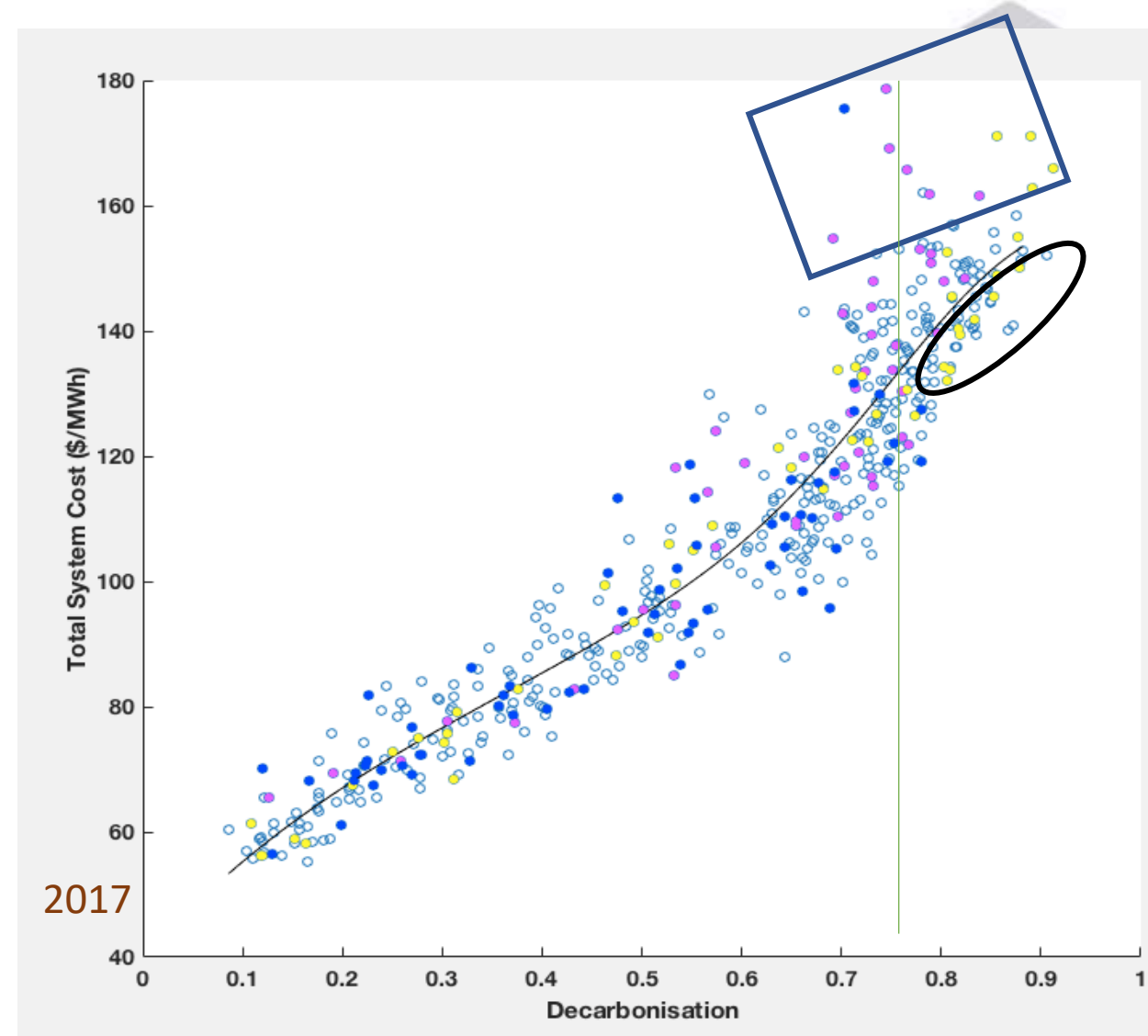
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- LRET, VRET, QRET together do not get to Paris
- Renewables included PV, Wind and Batteries. CSP was available but not used (too expensive)
- Cost of abatement using renewables starts cheaper than CCS but cross over at 45% decarbonisation.
- Coal with CCS is a cheaper option than RE above 45% RE penetration on the grid



# Scenario Testing

- Coloured dots are missing one tech:
  - No Renewables (Magenta)
  - No Gas (Yellow)
  - No Coal-CCS (Blue)
- Rectangle portfolios all missing one component
  - Lack of diversity could lead to very high cost solution
- 78% line shows there are no scenarios beyond this that are missing CCS.
  - CCS is essential to get to > 80%.
- The favourable black ellipse are mostly balanced or with some missing out on gas.
  - Both CCS and renewables are key to deep decarbonisation. Gas may have a role too.



A full catalogue of the ANLEC R&D program is available at:

<http://anlecrd.com.au/wp-content/uploads/2019/01/ANLEC-RD-catalogue-Volume2-v2.pdf>

## ANLEC R&D

Noel Simento

Managing Director

**Phone:** +61 2 6175 6400

**Email:** noel.simento@anlecrd.com.au

[www.anlecrd.com.au](http://www.anlecrd.com.au)

**Thank you**



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