NSW Energy and Demand Forecast 2011

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NER Obligations

- ESOO clause 3.12.3 (s)
  - JPB to provide AEMO with information AEMO requires
- NTNDP clause 5.6A.5
  - JPB to provide assistance to AEMO in its performance of its NTP function
- APR clause 5.6.2A
  - Publish load forecast submitted by DNSPs

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The AEMO Forecasts

- AEMO makes formal request
  - specifies NSW Global Native Demand and Energy
  - delivery timetable – May 2011
- AEMO provides
  - Economic inputs
  - Renewables projections
- TransGrid provides the model
  - three related models
  - Minor post modelling adjustments (eg for PV)
  - remaining input data from recongnised sources eg BoM temperature data, ABS, Reserve Bank

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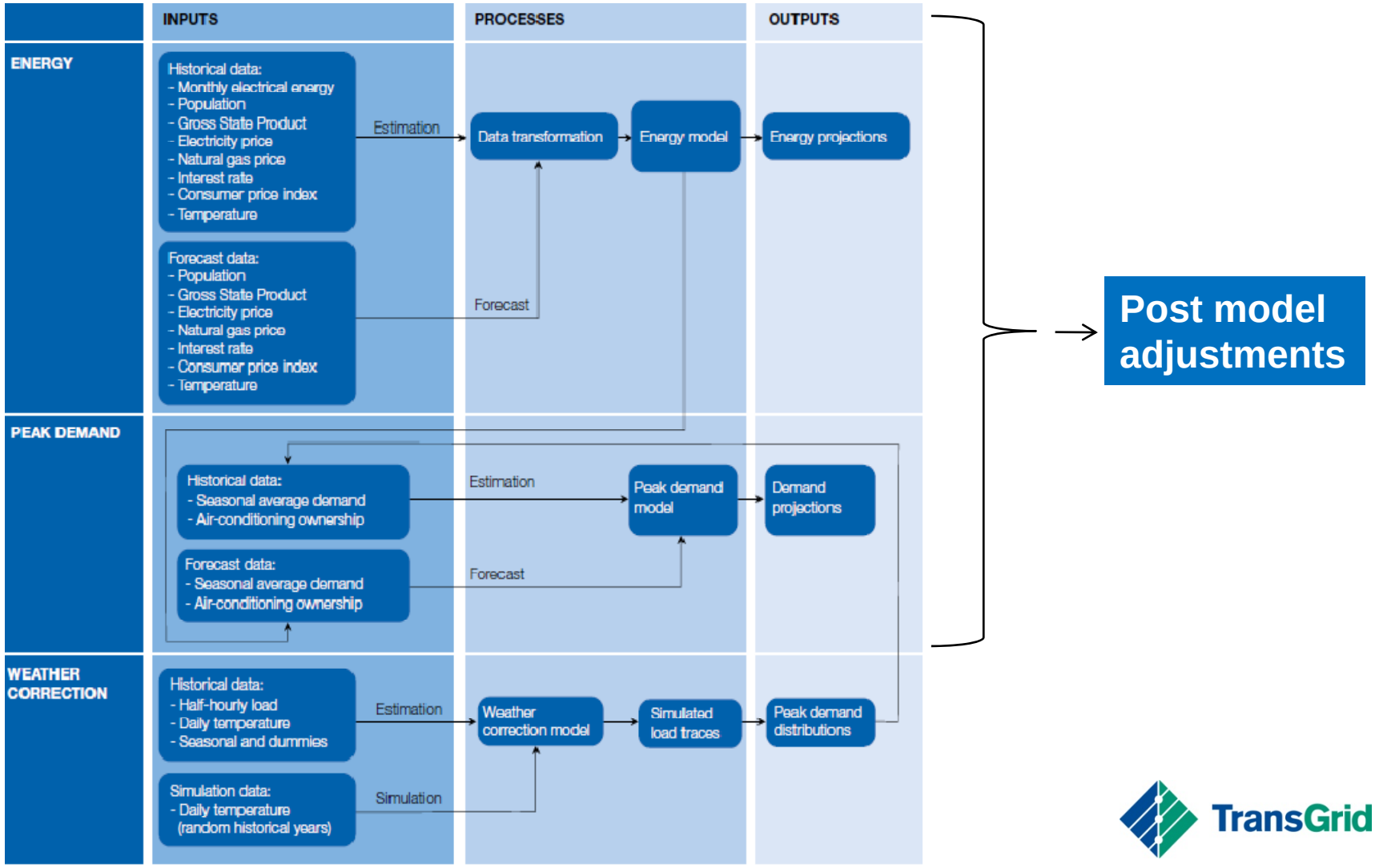
TransGrid's Models



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Definitions

- **Native Energy (Demand)**
  Load supplied by Scheduled + Semi scheduled + Non-scheduled generators

- **Scheduled Energy (Demand)**
  Non-intermittent generators > 30MW capacity included in NEM dispatch process

- **Semi-scheduled Energy (Demand)**
  Intermittent generators (mainly wind) > 30MW capacity

- **Non-scheduled Energy (Demand)**
  Generators < 30MW capacity

- **90%, 50% & 10% POE (Probability of Exceedence)**
  Probability of demand being exceeded (in a scenario)

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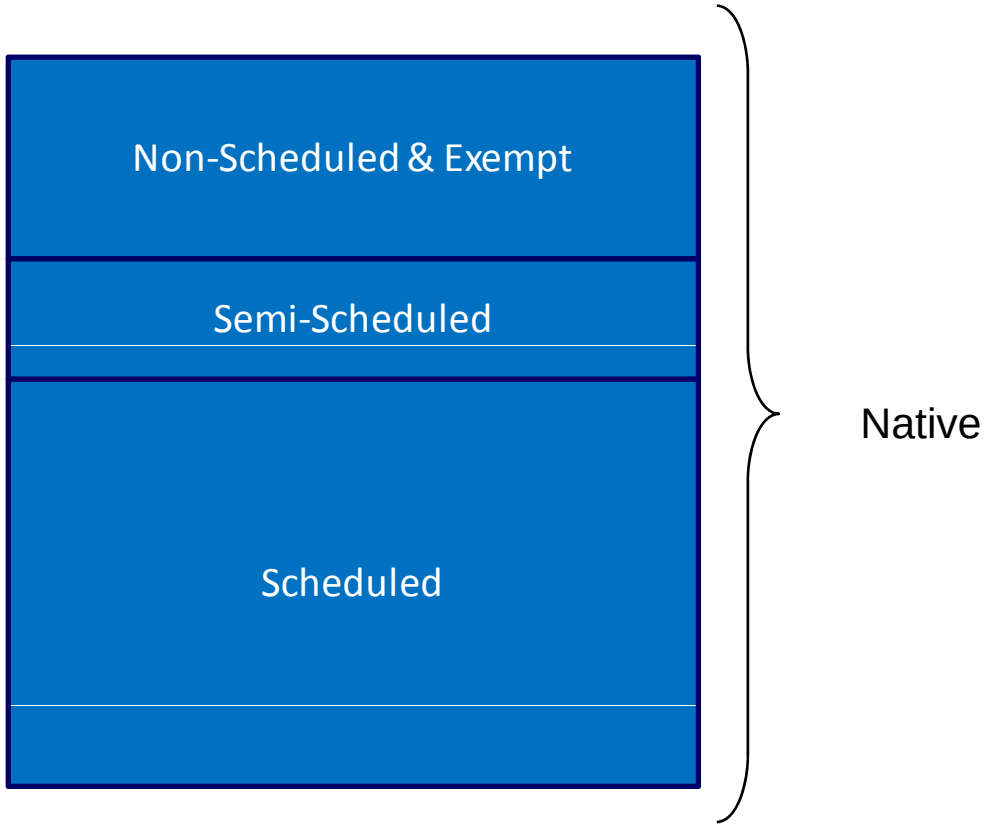
Components of Native Demand and Energy



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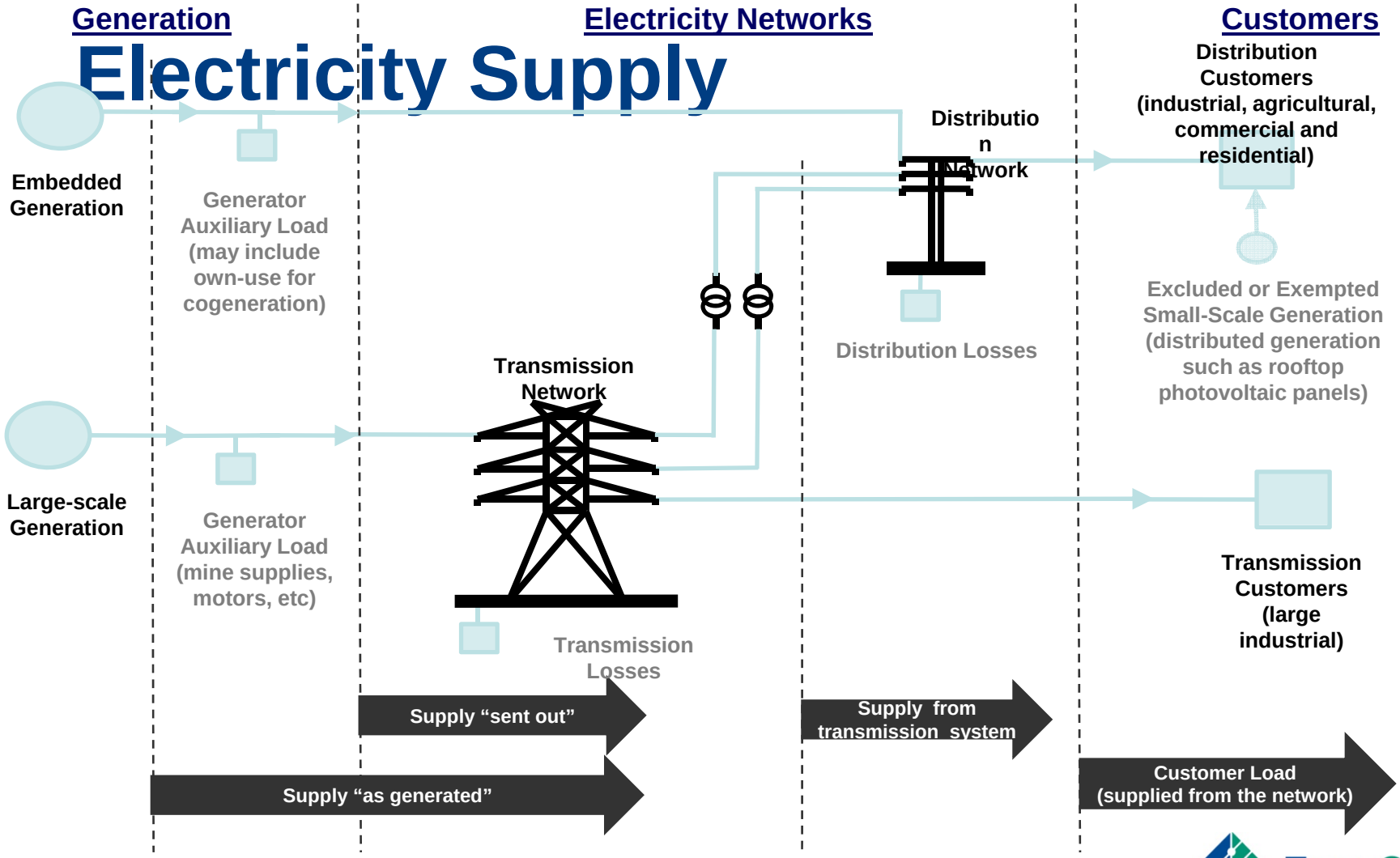
Electricity Supply



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Model Performance Check 2011

- Hot Weather
  - Week commencing 31 January
- North Parramatta
  - 41 Deg C – 34%POE
  - Weighted average temp 38% POE
- Native Demand
  - 14,945MW at 4:30pm
  - 33% POE
- Reasonably good alignment

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PROJECTIONS FOR 2011

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Scenarios and Data

- Five NTNDP scenarios based on
  - Carbon price
  - Economic growth
  - AEMO did not assign probabilities
- AEMO engage KPMG to provide inputs
  - Scenarios A, C and E
- TG engaged KPMG to provide inputs
  - Scenarios B and D

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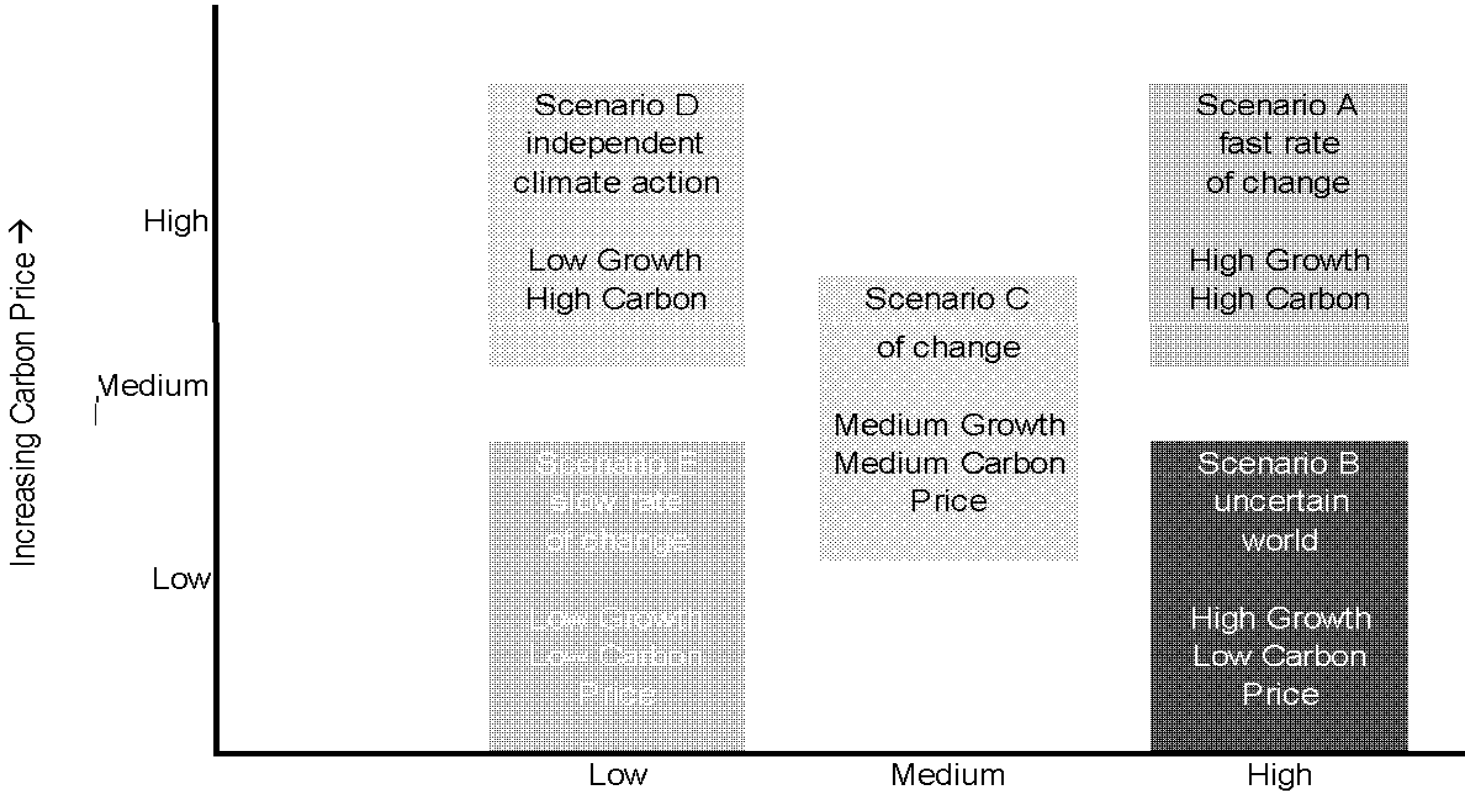
AEMO Scenario Map



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Energy Projections

- Energy Sent Out – average growth 1.6%pa
  - Down from 1.8%pa in APR 2010
  - Higher than may have been expected
  - Driven by KPMG economic inputs
- 6.0 percent lower for the 2011-12 financial year compared to last year; and
- An average of 5.0 percent lower over the forecast period.

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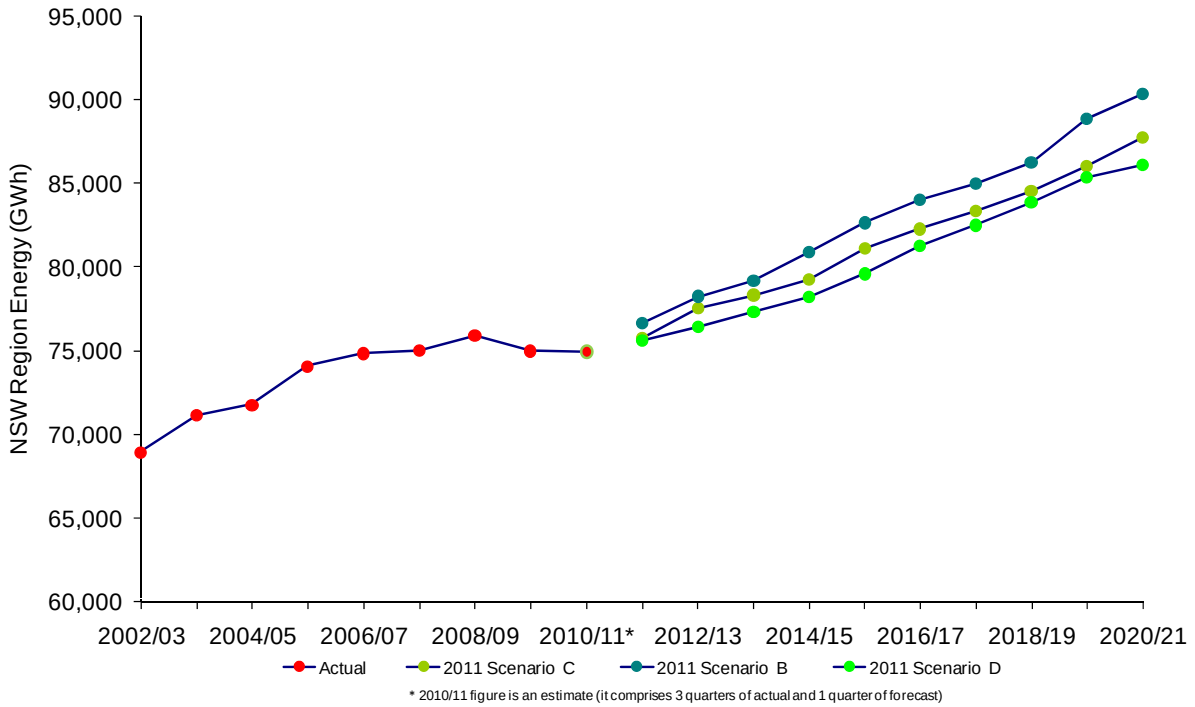
Energy Projections



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Summer Demand

- Compared with the 2010 projection the 2011 10 percent POE summer demand projection is:
  - 341 MW, or 2.1 percent lower for the 2011/12 summer; and
  - 672 MW, or 3.5 percent lower for the 2019/20 summer.
- Growth rate of 2.0%pa over the forecast period (was 2.3%pa in APR 2010)

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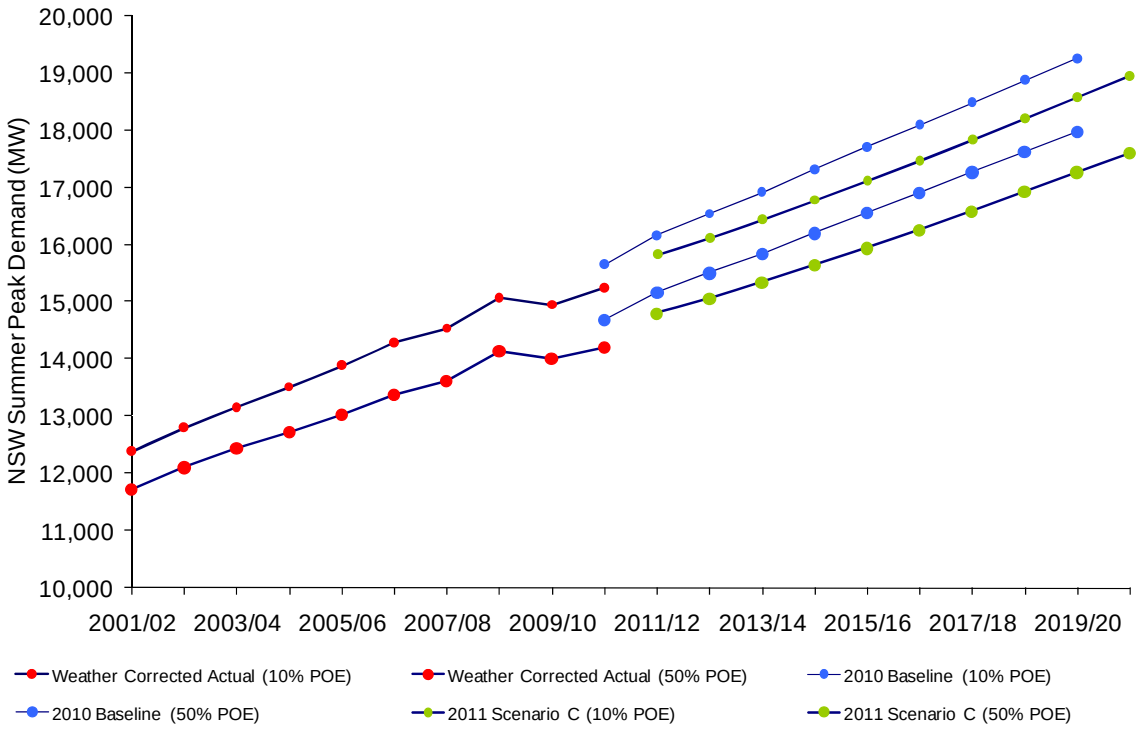
Summer Demand Projections



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Winter Demand

- Compared with the 2010 projection the 2011 10 percent POE winter demand projection is:
  - 509 MW, or 3.4 percent lower for winter 2011; and
  - 996 MW, or 5.4 percent lower for winter 2020.
- Growth rate of 2.0%pa over the forecast period (was 2.2%pa in APR 2010)

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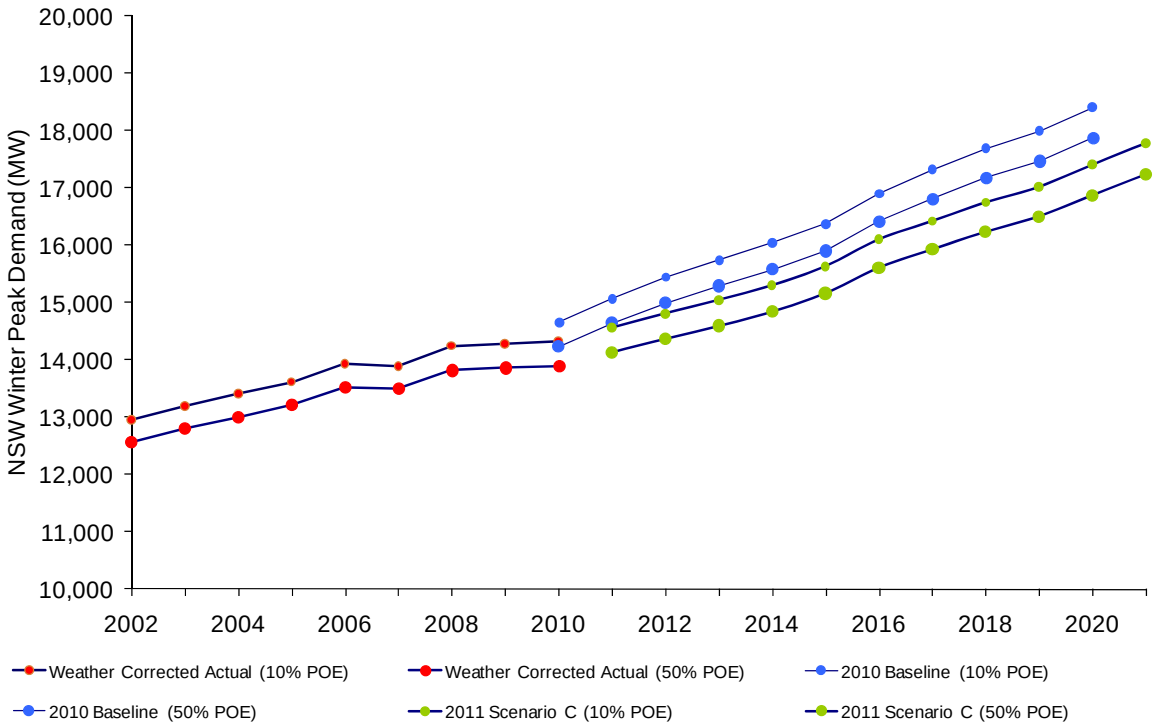
Winter Demand Projections



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DISTRIBUTOR CONNECTION POINT FORECASTS

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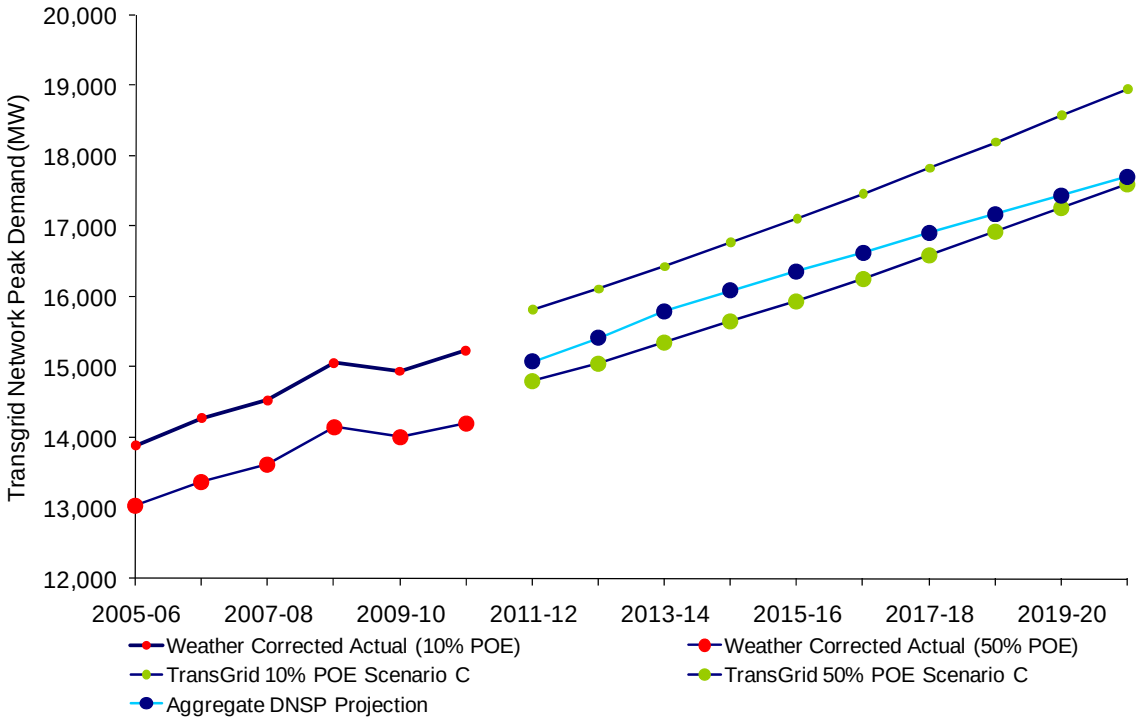
Summer



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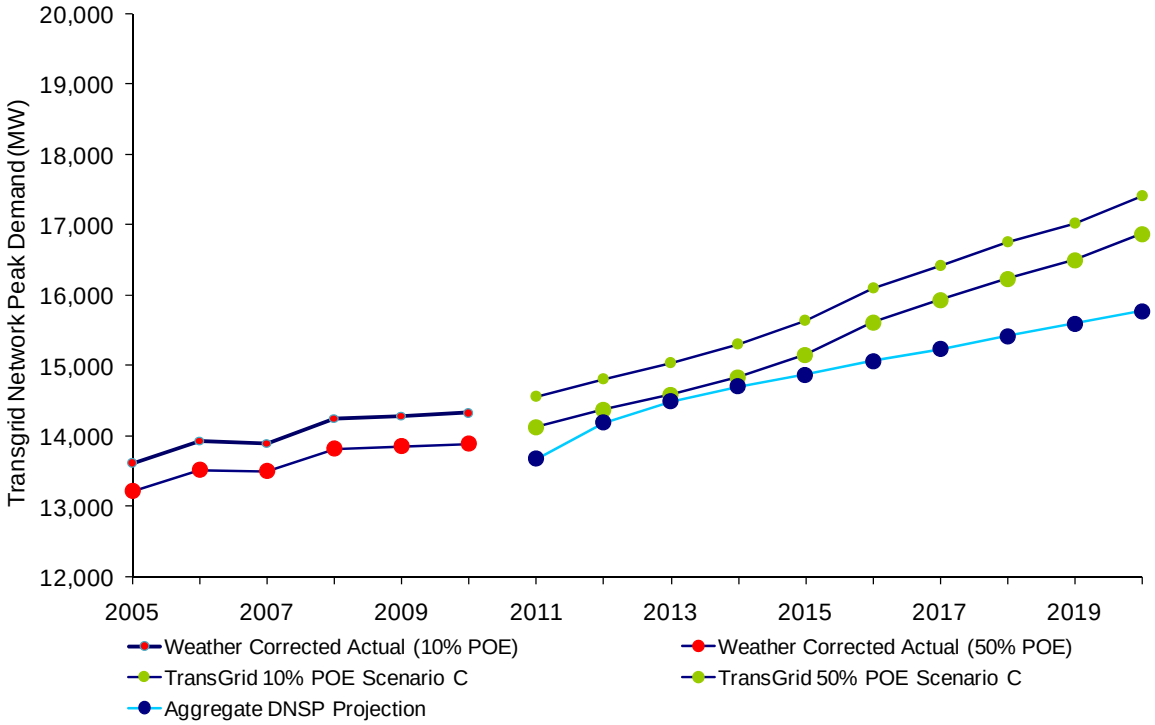
Winter



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TransGrid – DNSP Working Group

- Exchange of information
  - Common inputs
  - methodologies
- Closer alignment of global forecasts
- Reconciling individual global and connection point forecasts
- Seeking much closer alignment of forecasts for APR 2012

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Questions

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