



## **Deloitte – Assessing the Impact of the Renewable Energy Target**

### *Background*

The Deloitte report assesses the impact of the Renewable Energy Target (RET) on electricity prices and the economy and runs three scenarios for comparison with the existing legislated scheme, namely:

1. RET 'abolished' scenario, as if the RET were never introduced.
2. RET 'grandfathering' scenario where requirements of the RET cease from 1 July 2014.
3. RET real 20% scenario with revised demand forecasts to 2020 and a smaller fixed GWh Renewable Energy Target.

### *Key findings*

- Australia's electricity demand has fallen, with the RET in its current form expected to overshoot the intended 20% target, leading to an estimated 28% of demand being met by renewable energy generation by 2020.
- Deloitte estimates the cost to the economy of the current RET remaining in place at \$28 billion and over 5,000 jobs.
- Deloitte estimates that the effective cost of carbon abatement to GDP due to the RET is estimated to be \$103 per tonne of CO<sub>2</sub>-e – more than four times the \$25.40 carbon tax before it was repealed.
- Deloitte modelling shows that continuation of the RET would see annual household electricity costs rise in the range of \$47 to \$65 per annum by 2030. This compares with an increase of around \$54 per year through to 2020 as forecast by ACIL Allen, commissioned by the Australian Government, followed by a decrease in electricity prices by an average \$56 per year to 2030.
- The differences in modelled forecast of retail electricity prices beyond 2020 are difficult to pinpoint and are likely to be due to a range of factors, including:
  - Differences in forecast capital cost, such as the cost to build new wind turbines. ACIL Allen has used the BREE AETA 2013 capital cost forecast, which forecasts significant reductions in capital costs for onshore wind leading up to 2020 and beyond. In contrast, Deloitte have used AEMO's 2013 capital cost assumptions. BREE forecast wind costs to plateau at around \$1,800 per kW in 2020, while AEMO expects these costs will plateau in 2025 at around \$2,500 per kW. A fivefold increase in the build rate of wind energy will be needed to meet the legislated RET; this is likely to put upwards pressure on wind energy capital costs as projects compete for resources.
  - Differences in expected contracting and market response of the existing generators to falling demand and supply variability caused by increased penetration of intermittent renewable energy generation. The expectation is that existing generators may reduce the level of electricity supplied when the market prices are below their costs.
- Due to the differing assumptions, Deloitte estimates that wholesale electricity prices will reduce by around \$4/MWh from 2020 to 2030, compared to ACIL Allen's estimate of a \$10/MWh reduction.
- Deloitte projects that moving to a true 20% by 2020 RET could generate annual reductions of:
  - \$21 to \$36 per year for household electricity consumers
  - about \$11,500 to \$18,500 for commercial customers of electricity with an average annual electricity bill of around \$600,000
  - about \$31,100 to \$51,700 for industrial customers of electricity with an average annual electricity bill of around \$1.1 million per annum.