



Synergies Economic Consulting and ROAM Consulting – The Impact of Green Energy Policies on Electricity Prices

Background

The Synergies report provides an assessment of the impact of the Renewable Energy Target (RET), the carbon price and state-based energy schemes on mainland National Electricity Market (NEM) electricity prices over the past 10 years for household and business customers.

Key findings

- There has been a proliferation of green energy policies over the last decade both at the federal and state levels. They have similar underlying policy objectives – essentially encouraging renewable energy, reducing carbon emissions and encouraging greater energy efficiency.
- The gross cost of green energy policies, in total, is comparable to the wholesale cost of electricity (absent the cost of carbon). The cumulative impact of these policies is very significant for large business customers.
- For the purpose of the analysis, a large business customer is defined as a business that consumes more than 5 gigawatt hours per annum of electricity. This includes thousands of businesses, some that qualify for government assistance under the RET and carbon price, and others that do not, such as non-trade exposed manufacturing (i.e. bricks), dairy farms, office buildings and large commercial outlets.
- The analysis shows that green energy policies (including the RET, the carbon price and state-based energy schemes) accumulatively amount to approximately 4c/kWh, this represents:
 - up to 40% of the total electricity bill for a large business customer that does not qualify for government assistance
 - 17% for a highly emissions-intensive activity exempt large business customer's electricity bill
 - 25% for a moderately emissions-intensive activity exempt business customer's electricity bill
 - 11% of a household electricity bill.
- Currently, the carbon price represents approximately half of the total green energy costs faced by both residential and business customers, this equates to:
 - about 6% for an average household customer's electricity bill (noting that a portion of this cost is returned to some residential consumers through the tax and transfer payment system) and
 - 20% for a large business (noting this is less for those businesses that qualify for government assistance).
- The RET is estimated to comprise:
 - almost 10% of a typical electricity bill for a large business (less depending on its eligibility for partial exemption certificates)
 - 3% of a typical household electricity bill.
- The state-based energy policies impose comparable or higher costs than the RET and comprise mainly state-based feed-in tariffs. State-based green energy policies account for:
 - 2% of a typical households electricity bill,
 - up to 12% for a large business, as there is no government assistance for state-based green energy policies.
- These costs can vary significantly between regions, with feed-in tariffs being the most significant in Queensland where they account for about 4% of a typical household electricity bill.