

FACT SHEET

The impact of green schemes on a typical residential electricity retail bill from 1 July 2013

17 June 2013

In recent years, the Commonwealth and NSW Governments have introduced a number of 'green schemes' designed to support renewable energy generation, reduce emissions from the energy sector (and wider economy) and reduce energy consumption.

The most significant Commonwealth policy developments have been the introduction of and amendments to the Renewable Energy Target scheme (RET), and the introduction of a carbon pricing mechanism. The NSW Government has also established a range of schemes designed to encourage individuals, businesses and their own agencies to reduce emissions by increasing energy efficiency, creating new low-emissions energy sources, or directly reducing emissions in the atmosphere (refer to Box 1 for the Commonwealth and NSW green schemes that contribute to electricity prices in NSW).

Retailers ultimately incur additional costs in supplying electricity to customers as a result of these green schemes. These costs must be passed on to consumers in the form of increased electricity prices, if the retailers are to remain financially viable.

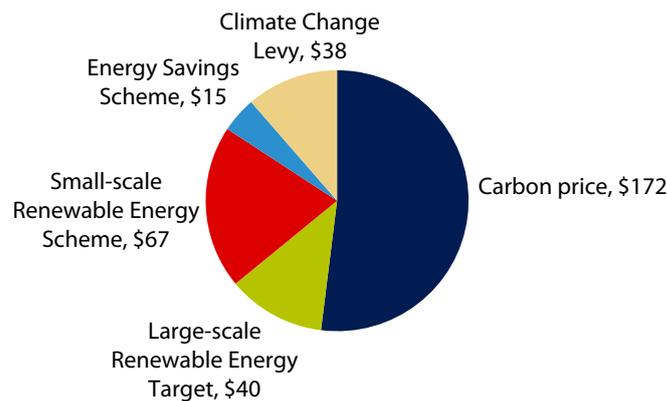
The Minister for Energy has requested that IPART report the costs of green schemes on a typical bill for a residential customer. This fact sheet provides our estimate of this impact for 2013/14.

Impact of green schemes on regulated retail electricity prices in NSW

We estimate that the cost of green schemes (including the carbon price, the Renewable Energy Target, the Energy Savings Scheme and the Climate Change Fund) on a typical NSW residential bill in 2013/14 will be \$332. This is largely consistent with our reporting of the costs under our draft determination, and reflects some minor cost estimate updates.

Figure 1 illustrates the breakdown of the \$332 into each scheme cost.

Figure 1 Annual cost of green schemes for a typical residential customer (\$ per annum, \$2013/14)



Note: Costs calculated for a typical customer using 6.5 MWh per year. Includes GST and energy losses. Forecast inflation is 2.5%.

The carbon pricing mechanism was introduced on 1 July 2012. The carbon price increases by 2.5% plus inflation on 1 July 2013. It is the largest contributor of green schemes to typical residential customer bills in 2013/14, costing around \$172 a year.¹

The next largest green scheme contributor to customer bills in 2013/14 is the costs of complying with the Renewable Energy Target scheme (costing around \$107). The Renewable Energy Target scheme is comprised of the LRET which costs around \$40 in 2013/14, and the SRES which costs around \$67 in 2013/14. The cost of complying with the SRES in 2013/14 also includes a 'catch up' component for additional costs incurred in 2012/13 due to updated liabilities published by the Clean Energy Regulator.

¹ This year we are reporting the costs of carbon based on our estimate of the market impacts of the carbon price. Last year we reported based on a theoretical long run marginal cost approach.



Our estimate for 2013/14 is not comparable with the estimate for 2012/13 for two reasons:

- ▼ Since we made our last determination in 2010, average consumption has decreased for residential customers on regulated prices from 7 MWh to 6.5 MWh. We have decided to use this new lower consumption because it better represents customers' current usage.
- ▼ Our final determination includes a different approach to setting prices, impacting on how we report the cost of carbon per MWh. In our 2012/13 estimates, we included a 'long-run' estimate of the impact of the carbon price.² Our new approach for 2013/14 relies on market based estimates, reflecting the cost of carbon over the shorter term.³

² In the long run, the fleet of generation changes to lower emission plant in response to the cost of carbon.

³ We have multiplied the carbon price by the average NSW emissions intensity. The carbon estimate is around \$26/MWh, including losses and GST.

Box 1 Green schemes that contribute to NSW electricity bills

- ▼ **Carbon pricing mechanism** – The carbon pricing mechanism requires around 360 entities in Australia to pay for their carbon emissions. These entities include electricity generators, who face higher generation costs as a result of this scheme. Generators seek to pass on some of these costs to the wholesale market in the form of higher pool and contract prices. Retailers must purchase electricity from the wholesale market and therefore face higher energy costs.
- ▼ **Large scale Renewable Energy Target (LRET)** – The LRET creates a financial incentive for investment in large renewable energy power stations, such as wind farms. It does this by allowing the owners to create certificates based on the amount of eligible renewable electricity they produce. Retailers are required to purchase a set number of these certificates each year at a rate designed to achieve the renewable electricity target of 45,000 GWh by 2020.
- ▼ **Small scale Renewable Energy Scheme (SRES)** – The SRES provides a financial incentive to install small-scale renewable electricity systems, such as solar photovoltaic (PV) panels and solar hot water systems. Households and businesses who install eligible systems receive certificates at the time of installation equivalent to the renewable electricity they generate over 15 years. As the scheme is uncapped, retailers are required to buy their share of all the certificates that get created over a year.
- ▼ **Energy Savings Scheme (ESS)** – The ESS reduces electricity consumption in NSW by creating financial incentives for energy savings activities. Electricity retailers must surrender certificates in order to meet legislated annual energy savings targets.
- ▼ **Climate Change Fund levy (CCL)** – This levy is charged to electricity distributors to provide financial support to the NSW Climate Change Fund. This fund is used to finance projects to help businesses, households, schools, communities and government save water, energy and greenhouse gas emissions. From 1 July 2012, the levy increased to recover the costs of the Solar Bonus Scheme.

For further information on these schemes, including our approach to determining the costs of complying with the schemes and their impact on regulated retail electricity prices, see IPART's final report.
