

4 March 2009

Setting the penalty price for the expanded renewable energy targets

Issue

To advise the Minister of Climate Change on the recommended level for the penalty price to be set for the proposed renewable energy targets (RETs).

Background

In 2008 the COAG working group on climate and water released a consultation paper for renewable energy certificate (REC) pricing and production entitled *The Design Options for the Expanded National Renewable Energy Target Scheme 2008*. It proposed that “the shortfall charge would be set above the projected maximum RECs price to encourage compliance, that is, the charge would seek to encourage liable parties to meet their targets every year by surrendering RECs rather than by paying the shortfall charge. The shortfall charge would not be indexed.”

Discussion

The purpose of a penalty price for the government’s Renewable Energy Target (RET) legislation is to ensure it achieves its objective of delivering 20 per cent of Australia’s stationary energy from renewable sources by 2020. It provides a regulatory safety net in the event of an unforeseen shortfall in the supply of RECs, ensuring all electricity retailers are encouraged to investment in renewable energy and are discouraged from opting for the payment of a penalty price as an affordable or convenient option.

Retailers are required to surrender their estimated share of RECs each year based on projected electricity sales. They can either invest in projects or establish a commercial relationship with projects that generate RECs, they can buy surplus RECs on the spot market or they can pay the penalty price.

The key principle guiding the setting of an effective penalty price is to make it as low as possible to avoid becoming unnecessarily punitive if an unintended shortfall in REC supply occurs, whilst ensuring it does not interfere with the effective operation of the REC market or the primary intent of the legislation.

The price of RECs is influenced by many factors, but principally by changes in electricity prices. Increases in electricity prices decrease the price of RECs. If electricity prices increase sufficiently the market will provide sufficient incentive to deploy renewable energy generation without intervention. This will drive the value of RECs towards zero.

REC market uncertainty is likely to be exacerbated by a range of factors: the introduction of a carbon price, continued volatility of global oil prices, the exposure of east coast energy markets to world gas prices with the deployment LNG export facilities in Queensland and the increased deployment of gas fired electricity generation technology.

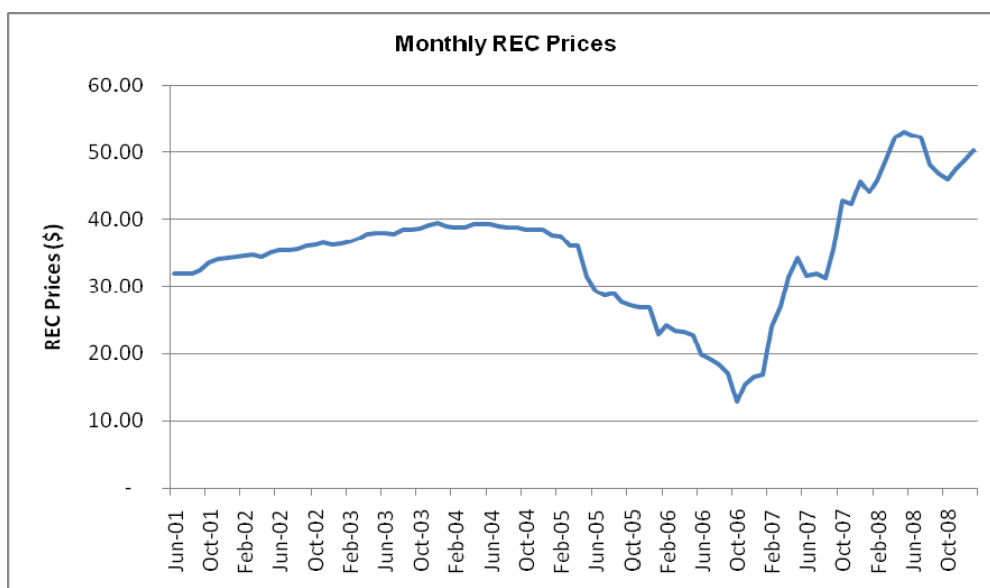
Therefore the penalty price needs to be set high enough to sustain the primary objective of delivering the renewable energy target in the face of this uncertainty and volatility. Crucially, it needs to be set high enough to ensure there are no incentive for retailers and other agents to speculate against the REC penalty price.

The draft RET legislation currently proposes only to set the penalty price marginally above the projected peak REC price. The CEC believes this is too low as it will encourage this type of

speculation in a volatile and uncertain REC market and, by default, discourage investment in clean energy generation.

Because the REC penalty is not tax-deductible, retailers will need a relatively higher penalty price for incentive investment rather than speculate against the REC price.

Figure 1: Monthly spot-price for RECs, 2001-09



Source TFS Brokers

Modelling of the proposed RET trajectory by Independent Economic Systems (IES) found that at a nominal (pre-tax) penalty price of \$40 collapsed investment in renewable energy generation and subsequent REC creation. A nominal REC price of \$40 delivers a real post-tax price of around \$57.

The IES modelling concluded that these problems would be averted by increasing the real (post-tax) penalty price above \$100.

The IES modelling indicated a flat target and flat penalty price in a full banking and borrowing model performed best overall. The flat penalty and flat target results in a robust scheme that is less influenced by energy prices or capital expenditure costs with regards to meeting the renewable energy target.

The Council has reviewed and noted the economic modelling on the design of the draft RET scheme commissioned by the Government and prepared by McLennan Magasanik and Associates (MMA). This modelling assumes a linear trajectory for the value of RECs which starts at real number of \$70 for a certificate in 2009 and falls steadily to around \$20 by 2030. This assumes a relatively stable and predictable carbon price in Australia and internationally over the next decade. In practice this is unlikely.

MMA noted that under the expanded RET scheme, REC prices commenced at around \$70/MWh and then decreased over time. The high initial price was the result of the price required for the additional scale of renewable generation in the early years of the scheme.

Recommendation

In the current uncertain financial climate it would be prudent to apply a CPI escalator on the shortfall charge to ensure that the real value is maintained over time. The Council recommends that the penalty price be set at a level to ensure compliance and should be escalated with CPI.

The CEC therefore recommends a minimum \$80 pre tax penalty price equal to a real penalty price of \$114.

This figure is moderately above the modelled IES number for REC prices to ensure there is no incentive for speculation, full incentive for compliance while at the same time not setting an unrealistic or punitive penalty in the event of unforeseen REC shortfalls in any given year.

Regards,

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