GRATTAN Institute

Auctioning off a reduced carbon future

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Pricing carbon, through a market mechanism such as an emissions trading scheme turns an environment issue into an economic one. The objective is then for the market to deliver the necessary reduction in greenhouse gases at the lowest cost over the long haul. However, as shown in Grattan Institute's recent report, *No easy choices: which way to Australia's energy future?*, the market alone will not deliver this objective.

In the electricity sector, a major source of Australia's emissions, the market cannot work effectively and efficiently unless government removes barriers to deployment of new technologies. These barriers include transmission connection constraints and a playing field that favours incumbent technologies. Yet even if these barriers are removed, it is unlikely that enough capital will be invested in the short term to deploy new, low-emissions technologies that are likely to be the lowest cost source of emissions reduction in the future.

There are several reasons for this problem, the most critical arising from the high costs and low returns faced by new technologies in electricity and the inherent under-pricing of carbon emissions that follows the political uncertainty associated with climate change policy. This problem has been widely recognised by other analysts, including the OECD and the International Energy Agency. However, to date, no practical policy solution has emerged. Grattan Institute has today published a new report that delivers a solution: *Building the bridge: a practical plan for a low-cost, low-emissions energy future*.

This report describes a proposal for government to enter into long-term contracts with project developers to buy electricity at a price that makes low-emissions technologies commercially viable. It awards these contracts through a series of six-monthly reverse auctions held over 10 years. The contracts would have two key parts. The first part would be a contract-for-difference between the actual carbon price and a forward price to which the government could commit. This would address the carbon policy risk. The second part would be a premium on the wholesale electricity market price, determined by competitive bidding and paid on output. This would address the early mover technology risk.

Proponents under this proposal would be required to have shown technical viability, to have secured finance for their projects and to place a refundable bond. These mechanisms address weaknesses in capital grant and other auction programs where winning projects often fail to achieve commercial close.

Uncertainty and risk characterise climate change policy domestically and internationally and are also associated with forward projections of likely technology costs. Therefore, as is common in the world of private sector investment, it is important that the policy package delivers a portfolio of technology options. The mix of technologies in the portfolio will need to dynamically adjust as new information emerges and carbon markets mature. This proposal incorporates such considerations.

The reverse auction proposal uses the market to discover costs, the forward series of auctions to drive down costs, contracts to address key market and technology risks and the portfolio concept to deliver a lowest-cost set of options over time.

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In developing this proposal, three broad categories of policy were assessed. These programs were capital grants, feed-in revenue support and tradeable green certificate schemes such as Australia's renewable energy target. These programs were designed to meet various objectives related to climate change, but they were not intended to address the critical market and policy failures identified in Grattan Institute's report.

A market based approach to carbon pricing forms the central, essential platform for effective and efficient climate change policy. Other programs should be complementary to this platform so that the overall policy framework is made up only of the necessary and sufficient elements to deliver the overall objective of efficient climate change mitigation. Once emissions are capped through an emissions trading scheme, there is no case to support technologies beyond addressing the market and system failures identified in this report.

In the absence of carbon pricing, the renewable energy target (RET) has delivered significant abatement at reasonable cost. It has also contributed to "learning by doing" in regard to the technologies deployed, mainly wind. However, once a robust emissions trading scheme is in place, this role no longer exists, and the only question is what to do about commercial and contractual commitments that have been made under this program. Grandfathering of such arrangements is likely to be the best compromise to a difficult policy question.

Creating a portfolio of options, like buying insurance, is the best approach when uncertainty is high. However, there is always a cost to such approaches. Grattan's analysis suggests that the cost of the reverse auctions proposal could be of the order of $150-200 million per year. This is not insignificant, and is best funded through electricity prices, rather than directly from government budgets. However, the cost of this proposal is likely to be lower than the cost that could be incurred without such complementary measures and less than other programs.

It is best to implement proposals such as those described in Grattan's report without creating too much additional bureaucracy etc. In the case of the reverse auctions proposal, it is likely that it could be implemented through some combination of the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation (CEFC). This proposal could complement the objectives of these bodies and provide a practical vehicle for the achievement of those objectives.

The current Federal Opposition has indicated that, if elected to government, they would implement a Direct Action Plan to draw out lowest cost greenhouse gas abatement to meet climate change objectives generally consistent with those of the Labor government. Whilst this approach will establish a carbon price, albeit indirectly, it is not clear how lowest cost technologies would be deployed if they were still in early stages of commercial development. The reverse auction proposal of this current Grattan report could supply such a mechanism.

Driving towards the lowest cost solution to climate change requires market mechanisms such as emissions trading. It also requires complementary policies to deliver technology solutions over the long haul. The proposal described in Grattan's report provides such a policy.

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