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There are a range of factors leading to increased electricity prices, and a range of interventions that are possible to either reduce prices broadly or empower consumers to reduce their own electricity costs.

This submission outlines relevant research undertaken by ClimateWorks, and its implications for electricity prices.

Reducing energy costs through energy efficiency

ClimateWorks' *Low Carbon Growth Plan for Australia*[1] identified 28 opportunities to improve energy efficiency across the residential, commercial and industrial sectors (see Attachment 1 – Energy Efficiency Fact Sheet – for further information). If all those activities were implemented, it could reduce electricity consumption by 60 TWh, or the equivalent of around 8000MW of base-load generation capacity.

Energy efficiency has a downward impact on electricity prices in two ways. First it defers the need to invest in new generation and network capacity. Second it has a downward impact on wholesale electricity prices due to a reduction in demand.[2] Energy efficiency is also likely to lead to a reduction in peak demand[3].

In addition, the households and businesses that implement the energy savings opportunities gain additional benefits by experiencing lower electricity bills through lower usage. Energy efficiency could alleviate some of the financial pressure that households and businesses are currently facing because of the steep rise in electricity prices. The *Low Carbon Growth Plan* concluded that businesses and

[1] Available via www.climateworksaustralia.org/Low%20Carbon%20Growth%20Plan.pdf.
[2] Prime Minister's Task Group on Energy Efficiency 2010 DCC&EE Appendix F and see Department of Primary Industries Victoria Regulatory Impact Statement Victorian Energy Efficiency Target Regulations March 2011
[3] Prime Minister's Task Group on Energy Efficiency 2010 DCC&EE Appendix F

households could save approximately $5 billion on their energy bills by implementing the energy efficiency opportunities identified in the Plan.

These profitable opportunities are not currently being implemented due to a range of barriers, some of which have the potential to be overcome by the Clean Energy Future package (including carbon price and complementary mechanisms), but others will require further policy interventions.

Providing improved information to electricity consumers about the costs and benefits of energy efficiency opportunities can help overcome barriers. An example is our recent *Low Carbon Lifestyles* project[4] with CSIRO and Origin Energy, provides accessible and practical information for households to make informed decisions in trying to reduce their energy consumption.

Increasing the use of dispatchable distributed energy

Distributed generation technologies such as cogeneration have the potential to deliver broad savings across the electricity network, by reducing network congestion and avoiding or deferring the need for expensive network infrastructure. Our *Unlocking Barriers to Cogeneration*[5] project (see Attachment 2) identified a series of regulatory reforms which would immediately remove a number of obstacles preventing cogeneration projects from proceeding. The report was published in partnership with The Property Council of Australia, and its recommendations were developed in collaboration with regulators, project proponents and network operators. The recommendations have been turned into a rule change proposal, which is currently being considered by the Australian Energy Market Commission.

Making the most of interventions

Considerable attention has been given to the impact of peak demand and associated electricity network investment on electricity prices. Demand management offers a potentially cheaper alternative to expensive network investments. Several programs have already been implemented in the past, and discussions are ongoing on what could be implemented in the future. Before too much money and effort is invested in those programs, it will be critical to understand what works and what doesn't work – what are the program characteristics that lead to the best outcomes, and especially the lowest cost per kW reduced.

Our report *How to Make the Most of Demand Management*,[6] undertaken in partnership with Ergon Energy, analysed a series of demand management programs conducted by Ergon Energy and assessed their respective cost per kW reduced. In particular we found that:

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[4] Not yet published.
[5] Available via www.climateworksaustralia.org/ClimateWorks_Unlocking_Barriers_to_Cogeneration_Report.pdf
[6] Available via www.climateworksaustralia.org/Improving_impact_measurement.pdf

- Demand management proponents need to ensure that there is a focus on measurement from the program development stage in order to ensure quality data is collected to quantify program success
- It will be key to gather information about the context in which the programs are run to understand which factors are more impactful (eg. program design factors or community characteristics)
- There is potential to improve the understanding of demand management programs in Australia by fostering data sharing between organisations and by developing voluntary data collection protocols for consistency and comparability across programs.

Yours sincerely,

John Thwaites
Chairman, ClimateWorks Australia