

Energy efficiency and affordability for Australian households

May 2011

Improved energy use-efficiency presents significant opportunities for individual households and for the wider community. This document outlines proposals for two national projects that would increase residential energy efficiency and bring a range of benefits.

Objectives

- To minimise energy bills for Australian households
- To increase energy efficiency and thereby reduce the need for new generation and network investment
- To incentivise greater uptake of energy efficiency by low-income and financially stressed households and by the owners of rental properties (public and private)
- To provide specific support for low-income and financially stressed households that are at risk of fuel poverty
- To implement efficient, effective and safe programs for energy efficiency

Background

Energy prices are rising much faster than households' incomes and the Consumer Price Index (CPI). They have risen 87.4% since 2000 compared to a CPI increase of 34.4%. It has been estimated that electricity prices are likely to rise by more than 100% between 2008 and 2015. The main contributor to these price rises is increased network costs associated with increased demand and peak load. Financial compensation proposed in response to a carbon price will not address most of the increases in energy costs. Energy efficiency can not only help manage energy bills in light of carbon pricing, it can also help manage price rises from other factors as well.

Low-income households spend a higher proportion of their income on energy bills than other households. Low-income private tenants and households with mortgages are particularly at risk.

Some middle-income households are financially stressed and likely to be significantly affected by energy price rises. Households with high mortgage payments, and households with high non-discretionary electricity use are most at risk.

There is a wide spread of energy use among low-income households. A significant number (more than 10% of low-income households) are likely to be at risk of fuel poverty.

Energy efficiency has the potential to reduce exposure to rising energy prices in two distinct ways:

- 1 Improving household level energy efficiency and thereby reducing exposure to rising energy prices, from all causes, for an individual household.
- 2 System-wide improvements in efficiency, which offset future infrastructure costs and reduce wholesale energy prices, leading to system-wide savings. These savings ultimately flow through to all energy users.

Issues

Energy efficiency has the benefit of minimising the impact from all causes of energy price rises, not just a carbon price. It also reduces the risk that assistance for low-income households, in response to a carbon price, will be eroded over time or lead to significant fiscal risk.

Given the limited resources available, it is sensible to prioritise low-income households that are most at risk from energy price rises for immediate energy efficiency support. These would be households that have:

- low disposable incomes (e.g. after paying rent or mortgage)
- high electricity use
- higher numbers of dependents
- high electricity cost areas (e.g. regional and country).

Further work needs to be carried out to determine the number of households in this category, but it is likely to be in the range of 400,000 to 500,000 households Australia-wide.

A broader scale energy efficiency scheme covering all sectors of the economy – industrial, commercial and households – has the potential to drive down overall energy costs. Low- and middle-income households would benefit from this general reduction in costs as well as from direct participation in such a scheme.

Accordingly, it is appropriate to adopt a two-track strategy to increase the uptake of energy efficiency in households:

- **Track 1:** Targeted support for high-needs households funded through carbon price revenue
- **Track 2:** A National Energy Saving Initiative (NESI) – that harmonises existing state-based initiatives – with a specific obligation to achieve a proportion of savings in low-income households.

It is understood that the Federal Government may be disinclined to manage and operate energy efficiency programs. State government agencies, local government, energy retailers, and the community and welfare sector, all have experience in running energy efficiency programs and should be engaged in discussions about the most appropriate scheme designs.

Track 1: Targeted support for high-risk households

A specific program should be established to assist low-income and financially stressed households that are at risk of fuel poverty. The program could target individual households at risk (e.g. households that are having difficulty paying their energy bills, or with very high electricity use) or high-risk communities (e.g. high electricity charges, no access to gas, high transport costs at urban fringe). The program should commence with an initial establishment, research and evaluation phase to ensure the most effective delivery. It could then be scaled up to reach between 250,000 to 500,000 homes by 2020. The program needs to be coordinated with the not-for-profit social welfare sector and state agencies. (Refer to the proposal by not-for profit organisations.)

Existing state- and community-based programs have developed successful implementation and risk management frameworks that could be utilised (e.g. the NSW Home Power Savings Program, and the UnitingCare Kildonan model).

This program should be funded through carbon price revenue. This program could incorporate:

- home visits to assess energy use awareness and efficiency
- provision and installation of Power Saving Kits

- peer to peer advice
- energy efficiency retrofits and advice on use
- financial assistance in purchase of energy efficient appliances (e.g. refrigerators) and/or referral to programs to assist purchases (e.g. state, territory rebates, no interest loan schemes)
- assistance in finding and transferring to appropriate retail energy package
- referral to financial counselling where appropriate.

Track 2: A National Energy Savings Initiative with specific requirements to assist low-income households

Currently three states are operating energy savings schemes: New South Wales, Victoria and South Australia. A parliamentary committee has recommended Queensland commence a similar program.

A National Energy Savings Initiative (NESI) – one of the central recommendations of the Prime Minister’s Task Group on Energy Efficiency – could directly accommodate these schemes in a nationally consistent framework and deliver economies of scale.

A NESI would provide benefits for households, including lower overall electricity costs for the community, and even lower costs for individual households that participate. It would reduce the need for new network and generation investments and lower scheme costs by integrating state-based schemes into one national scheme.

However, energy efficiency schemes, including a NESI, are likely to provide more support for middle- and upper-income households than for low-income households unless they incorporate specific design factors. The reasons for the under-provision of NESI energy efficiency services for low-income households include:

- low-income households have a limited ability to contribute to the purchase price of energy efficient appliances and measures (e.g. refrigerators, solar hot water, insulation, efficient space heaters)
- landlord–tenant issues (i.e. the split incentive)
- suspicion of government programs
- information and services not targeted to low-income, disadvantaged or culturally diverse households.

A National Energy Savings Initiative should be designed so it ensures greater uptake of energy efficiency by low-income and financially stressed households.

A NESI should have the following characteristics to facilitate efficiency, innovation and equity:

- **Methodologies to ensure that low-income households benefit**

To ensure equity, a significant proportion of activities should take place in low-income and disadvantaged households. The proportion of savings in low-income households should be stipulated in the scheme design. In the UK’s Carbon Emissions Reduction Target (CERT) scheme, 40% of savings must occur within the priority group. Within the priority group, a further 12% of savings must come from a super-priority group of households that are vulnerable to fuel poverty. Such a mechanism will be particularly important as the lowest cost measures, such as installing efficient light bulbs, are exhausted.

- **Multi-sector coverage**

Residential energy consumption accounts for only one-third of electricity load. Incorporating commercial and industrial energy efficiency will maximise energy efficiency savings and increase the size of the overall reduction in electricity bills for households. It will reduce energy costs across all sectors providing net economic benefit.

- **Effective and efficient scheme design**

A single national tradable scheme would reduce costs, encourage competition in the provision of energy efficiency services, facilitate new entrant energy retailers, and ensure there is a transparent price signal.

- **Liability on retailers**

An obligation to pursue and facilitate energy efficiency projects should be placed on holders of electricity and gas retail licenses. Retailers have existing relationships and obligations with customers, and optimally these would be capitalised on.

- **Flexible methodologies**

Approaches to evidencing energy efficiency outcomes should be adopted that are reflective of the scale of take up and the individual savings or load of each project. It is considered that in separate conditions both metered baseline and deeming methodologies should be eligible.

- **Data sharing**

Agreement should be sought on the provision of consistent and relevant energy consumption data at the local level to plan and measure progress in the transition to a low-carbon economy.

- **Audit, verification and evaluation**

To ensure safety, efficiency and effectiveness and to ensure that benefits flow equitably to all households including low-income households.

It is understood that considerable effort will need to go into the detailed design of a NESI. This should include design factors to provide confidence that a NESI will result in actual reductions in energy prices. Given that similar schemes are operating in some states and territories, it would be sensible to plan commencement of a NESI for 2013.

Recommendations

- 1 That the Federal Government commit to significant investment in energy efficiency improvements as part of the assistance package for low-income households to accompany the introduction of a carbon price.
- 2 That funds from the carbon price revenue be allocated for energy efficiency programs for low-income households.
- 3 That the Federal Government commence discussions with the states and territories, local government, energy retailers and the community and welfare sector regarding approaches to the most effective and appropriate delivery of a targeted energy efficiency improvement program for high-risk households.
- 4 That within this term of government, the Federal Government commit, in principle, to the implementation of a National Energy Savings Initiative (NESI) with consideration of specific requirements to assist low-income households. The Federal Government should commence modelling and scheme design to maximise its effectiveness.