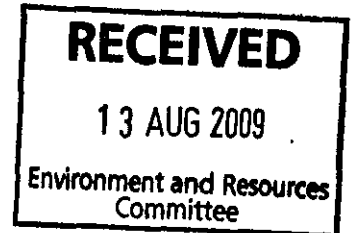


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29 July 2009

Rob Hansen
Research Director
Environmental and Resources Committee
Parliament House
BRISBANE QLD 4000



Dear Mr Hansen

PARLIAMENTARY SERVICES ENERGY EFFICIENCY INQUIRY

Please find attached Sunshine Coast Regional Council's submission to the Parliamentary Services Inquiry into Energy Efficiency Improvements.

Council's response is based upon the Inquiry Terms of Reference and addresses energy efficiency improvements for households, communities, industry and government.

I trust this submission will assist in refining energy efficiency policy and programs as a measure to mitigate the impacts of climate change.

Yours sincerely



JOHN KNAGGS
Chief Executive Officer

Enc.

cc. Cr Keryn Jones
cc. Cr Lew Brennan

Inquiry into Energy Efficiency Improvements

A Submission to Queensland Parliamentary Services- Environment and Resources Committee

Sunshine Coast Regional Council's Responses to the Terms of Reference are detailed below.

1. HOUSEHOLDS

What have been the economic and environmental costs and benefits of energy efficiency initiatives?

Energy economics is generally poorly understood, and it is difficult to accurately estimate the true cost of energy efficiencies. The economic cost of energy efficiency initiatives has largely been through funding programs such as grants and rebates. At the same time, these rebates and grants stimulate economic activity and encourage the manufacture of energy efficient products. The costs to consumers for energy efficient products and services are often reduced through the creation of competitive markets.

Environmental costs are incurred through the manufacture and supply of energy efficiency products as they are with any product. For example, the manufacture of compact fluorescent light bulbs may produce toxic waste in the manufacturing and disposal stage and therefore requires a thorough whole of life cost benefit analysis to identify these environmental costs.

Environmental benefits are gained because the energy consumed in manufacturing these products is generally offset by the amount of energy saved early on in the operation of the product.

What energy efficiency initiatives have been effective?

The following programs appear to be economically and environmentally cost effective (without examining quantitative data on these programs).

- Lighting retrofits through EPA's Climate Smart program;
- More efficient shower roses through the Climate Smart Program and Water Wise initiatives have been very effective in reducing water heating loads;
- Energy labelling for electrical and gas appliances;
- Energy Star labelling for office equipment;
- The Australian Government Energy Efficiency Home Package for insulation;
- The Australian Government 'Your Home' Technical Manual and 'Global Warming Cool It' information resources;
- The Qld Governments 'The Big Light Switch' offering free compact fluorescent light bulbs;
- Canberra's Energy Efficiency Ratings developed for the sale of homes;
- The Building Code of Australia (BCA) Section J Energy Efficiency for buildings and energy efficiency standards for air conditioning units.

The role of Commonwealth Government and the Carbon Pollution Reduction Scheme (CPRS)

The Commonwealth Government plays a role in stimulating demand for energy efficient products and services through provision of grants and rebates, and through education and fostering more environmentally conscious behaviour by consumers. The Commonwealth Government also has a key role in delivering climate change policy and strategies such as the CPRS. The intended role of the CPRS is to encourage, through financial drivers, Australia's largest emitters to reduce carbon emissions through a number of measures including improvements in energy efficiencies. It is anticipated that additional costs for manufacturers and producers associated with the adoption of the CPRS will filter down to householders. The Australian Government is also responsible for energy efficiency standards for buildings through Building Codes Australia (BCA), sections of which are adopted by the State through their Building Regulations.

Additional Queensland Government policy requirements

Stronger policy on standards for new residential buildings could be considered. Australia generally lags behind other countries in the environmental standards for housing. For example the UK government has set a 2016 target for all buildings to be carbon neutral. More stringent requirements for building to be correctly orientated and designed to take advantage of local climatic conditions would improve energy efficiencies. Consideration could also be given to allow for extremes of weather as a consequence of climate change such as higher temperatures and increased wind loadings. There could be more home owner incentives and industry training for 'greener' houses. Domestic energy use has increased dramatically in the last decade largely because of the uptake of air conditioning, wide screen televisions, swimming pools and spas and greater computer processing requirements. Consideration could be given to require that purchasers of luxury appliances be required to pay a component of green power or a luxury tax to offset carbon emissions generated from such items.

The Queensland Government Climate Smart Service includes a household energy audit and a smart meter to monitor energy use. Although a good initiative, the program needs to follow up with householders to ensure ongoing support especially around the Energy and Water Efficiency Plan. Secondly, encouraging behaviour change needs to be delivered over a long term rather than just a one-off event. A potential initiative could be to include energy efficiency hints in quarterly energy bills. A long term plan is needed to increase the stringency for all energy efficiency initiatives over time. The BCA has improved energy efficiency standards for new housing, but there is also a large proportion of older building stock which requires energy efficiency improvements. Policy could also be strengthened for greater energy efficiency at operational and renovation stages of a buildings life cycle. Mandatory declaration of energy efficiencies upon sale of buildings would also act as an incentive to improve energy efficiencies.

Barriers and impediments to energy efficiency improvements

Financial restraints are often cited as the main barrier and impediment to improvements in energy efficiencies. Often capital costs are considered over life cycle costs given the frequent turnover of housing stock. That being said, average dwelling size has increased even though the average numbers of household occupants has decreased, and people are purchasing more luxury (and energy intensive) items such as pools, spas and air conditioning. Generally consumers do not consider that improved energy efficiencies are a priority over luxury items. Similarly large fuel inefficient vehicles continue to be purchased. In an age of dwindling oil reserves a policy around vehicles may require review. As it is, current Fringe Benefit Tax (FBT) rules for motor vehicles actually encourage people to drive more to receive a cheaper tax rate.

Policies to overcome barriers and impediments

Some of the financial barriers and impediments are already overcome through Australian Government grants and rebates. Queensland Government might consider implementing greater financial support for rebates and programs through its Climate Smart 2050 Strategy. In the Australian Capital Territory, householders who undertake energy efficiency improvements to their house are entitled to a \$500 rebate.

In terms of policy, consideration could be given to addressing luxury appliances with the requirement for users of luxury appliances to contribute to green power. Likewise a tax on new fuel inefficient cars could be used to fund research and development of green vehicles. In addition, concessions could be applied to 'green vehicles' meeting a certain energy efficiency standard as stated in the Australian Government Green Vehicle Guide (GVG) and FBT rules changed to discourage excessive vehicle use.

How can governments make information on energy efficiency more accessible?

Energy efficiency information is quite comprehensive and currently accessible on-line. People need to be motivated to access such information and will only do so if they deem it to be important. Residential energy bills are an excellent medium for disseminating information on energy efficiencies and carbon emissions because they are delivered over a long-term rather than a one-off event. Energy bills could have an energy saving hint which highlights ways of reducing energy and greenhouse gas emissions for householders.

2. COMMUNITIES

Generally at a community level there is a shortfall in guidance and support for energy efficiency initiatives. CSIRO's 'Your Development' website is an excellent resource on sustainable urban development and provides information on 'Neighbourhood Efficiency'. TravelSmart Australia aims to reduce community car dependence and greenhouse gas emissions and is administered through Local, State and Federal Governments. Local Government planning schemes attempt to capture community energy efficiencies through northerly lot orientation, convenient and accessible communities, public transport infrastructure and developer contributions for pathways.

What have been the economic and environmental costs and benefits of energy efficiency initiatives?

Again the costs are largely generated through funding programs such as TravelSmart, with few environmental costs but many benefits. Developers may argue that some sustainable initiatives such as ensuring lots are correctly orientated, additional bikeways, and medium density developments may not yield as much profit, however, the energy efficiency opportunities that this creates are substantial.

What energy efficiency initiatives have been effective?

At a community level the TravelSmart program has been very effective in some communities, changing travel behaviours and being a driver for improved infrastructure for bikeways, paths and public transport. Some of the on-line resources such as 'Your Development' are an excellent information repository.

The role of Commonwealth Government initiatives

The role of the Commonwealth Government is to support, through funding and advocacy, programs such as TravelSmart. The Commonwealth Government also acts as an information resource for on-line and technical resources.

Additional Queensland Government policy requirements

Historically, settlement patterns have not necessarily be designed for greatest energy efficiency. Policy on energy efficient communities addressing densities, lot orientation, provision for community gardens in developments, Transport Orientated Developments (TODs), Pedestrian Orientated Developments (PODs), localisation of food resources, community gardens and planning for communities to be resilient to peak oil and climate change through the SEQ Regional Plan and other planning mechanisms would be an advantage. Policy could to be strengthened to require provision for alternative and energy efficient forms of travel such as T3 car park spaces and bike rental schemes. Public transport, particularly in regional areas needs to be convenient to build patronage.

There may be the advantage of having a 'Green Lottery' where funds that are raised are used on community carbon reduction strategies.

Barriers and impediments to energy efficiency improvements

The main barriers and impediments are lack of SEQ case examples of energy efficient communities, a lack of resources for funding and education and a lack of awareness in the development industry. There may be an expectation of low returns and high risk for developers in investing in energy efficient developments.

Policies to overcome barriers and impediments

Policies based on sound empirical evidence need to be developed to deliver energy efficiency communities. Indicative evidence suggests that medium density developments are the most energy efficient, and will necessitate a shift away from high ecological footprint single dwelling developments. State Planning Policy could require that a percentage of all developments to be medium density. Developments also need to be designed for the climate, for example using principles developed by the Centre for Sub-Tropical Design in SEQ. The SEQ Regional Plan needs to ensure

that settlement patterns are based on energy efficient communities and do not encourage urban sprawl.

How can governments make information on energy efficiency more accessible?

Governments need to provide case study success stories of energy efficient communities that can be applied in Queensland. This information would need to be target marketed to developers, training and education institutions, local governments, and communities and be made accessible online.

3. INDUSTRY

What have been the economic and environmental costs and benefits of energy efficiency initiatives?

Funding and administration for projects such as EcoBiz comes at a cost to government through taxes and must have facilitation support. The benefits of such a program are improved cost efficiencies for business, reduced waste and less consumption of energy and water resources. The SEQ Energy Efficient Street Lighting Trial, which the Sunshine Coast Regional Council is a participant, also comes at a cost to State and Local Government, but will provide policy and direction for future street lighting developments and potentially reduce energy costs and greenhouse gas emissions.

What energy efficiency initiatives have been effective?

Without quantitative data, generally the following programs appear to be environmentally and economically effective:

- EPA's EcoBiz program with substantial savings in energy, water and waste;
- The Commonwealth Low Emission Technology and Abatement (LETA) Grant in support of EcoBiz programs;
- Australian Governments Energy Star labelling program;
- Some sections of the BCA's Part J Energy Efficiency provisions.

The role of Commonwealth Government initiative

The Commonwealth provides funding and support for various programs such as appliance energy labelling, Retooling for Climate Change Grants Program, the Climate Ready Program, the Green Building Fund and guiding documents such as the National Energy Efficiency Initiative. The Commonwealth Government also provides on-line information resources for business and industry. It will play a lead role in developing the CPRS and emissions trading and sets policy on energy reporting requirements for larger companies.

Additional Queensland Government policy requirements

Under Climate Smart 2050 Queensland Government has set a target for 4 star Australian Building Greenhouse Rating (ABGR) energy efficient for new commercial buildings. Consideration could be given to raise this standard to at 5 star ABGR and above. Secondly, a large proportion of our building stock are relatively older buildings. Consideration could be given to requiring green leases for owners and tenants of existing commercial buildings. Policy could also be developed to improve

the environmental performance of heating ventilation and air conditioning (HVAC) systems which place the largest energy loads on our commercial buildings. New policy could be backed up by grants and rebates for building energy audits and energy management plans. The Australian Government Green Building Fund offers 50 per cent funding towards retrofitting commercial buildings and operational training for building managers. The BCA energy efficiency provisions are designed for buildings with air conditioning, rather than designed for the climate. Policy may need to be reviewed to consider air conditioning as secondary to good building design.

Barriers and impediments to energy efficiencies

Barriers to energy efficiencies include developer financial concerns, high turnover of building stock, expectations of little return on investment, funding for grants and facilitation support.

Policies to overcome barriers and impediments

Policies that include funding for energy audits and energy management plans including guaranteed returns on energy efficiency investments would improve energy efficiency uptake. Sustainability Victoria offers a rebate to contribute to energy audits and environmental improvements to commercial buildings. A continuation of funding for coordination of programs such as EcoBiz would also be an advantage.

The emphasis of the BCA towards design for air conditioning as opposed to design for the climate could be reviewed.

How can governments make information on energy efficiency more accessible?

There is comprehensive energy efficiency information on-line. A resource kit with success stories and case studies would help to inform industry of potential energy efficiency initiatives.

4. GOVERNMENT

Under the Australian Government Energy Efficiency in Government Operations (EEGO) policy, minimum energy performance standards of 4.5 star ABGR are required for new, refurbished or new lease Commonwealth Government buildings. Queensland State Government within its Climate Smart 2050 initiative will be requiring 4 Star ABGR for new commercial buildings and 4.5 star ABGR for new government buildings by 2010. There is already a move towards more energy efficient buildings such as the recently built and award winning Department of Primary Industries Building at Nambour.

Under the QFleet Climate Smart Policy Government vehicles must meet a minimum GVG greenhouse rating of 5.5 for passenger vehicles and 3.5 for light commercial vehicles. QFleet's target of a 15 per cent reduction in greenhouse gas emissions is to be achieved by 80 per cent of the light commercial fleet to be diesel or LPG and 50 per cent of the passenger fleet be diesel, hybrid, micro, light and small vehicles.

What have been the economic and environmental costs and benefits of energy efficiency initiatives?

For the Commonwealth there would have been additional financial costs to retrofit existing government buildings to a 4.5 star ABGR standard. Environment benefits include less energy consumption and emissions compared with sub-standard buildings.

Costs associated with changes to vehicle fleet could be substantially less in terms of capital and running costs, with the obvious benefit of reduced emissions.

What energy efficiency initiatives have been effective?

The Energy Efficiency in Government Operations (EEGO) policy has been effective in raising the environmental standards of Australian Government buildings. EEGO provides a policy framework including standards and targets, a framework for green leasing, energy monitoring, reporting and communication strategies.

The role of Commonwealth Government initiatives

The Commonwealth plays a leadership role and provides incentives for energy efficiency in government operations.

Additional Queensland State policy requirements

The Australian Government Energy Efficiency in Government Operations (EEGO) policy could be considered for adoption at all levels of government. Consideration could also be given to raise all government building policy standards to 5 Star ABGR and above. A similar policy to QFleet's Climate Smart Policy could be considered for adoption at all levels of government.

Barriers and impediments to energy efficiencies

Financial impediments are often cited as a barrier for higher environmental standards for government buildings. There are marginal cost differences in the construction of new green buildings, but there can be substantive costs in retrofitting older buildings. Vehicle fleet policy could be strengthened at all levels of government to achieve emission reduction targets. The size and power of a car is sometimes seen as a symbol of prestige and there may be some resistance to smaller vehicles with certain salary packages.

Policies to overcome barriers and impediments

There could be increased awareness of the sound economics of new green buildings and 'greener' cars. Financial support for energy audits, energy management plans and retrofitting existing buildings would improve the energy efficiency of older building stock. There can be quite good payback on investments on energy management practices and energy efficiency retrofits to older buildings and policy could set a clear direction for Government sectors. Similarly vehicle fleet policy at all levels of government could be strengthened with the introduction of 'Energy Wise Driving' programs to achieve emission reduction targets.

How can governments make information on energy efficiency more accessible?

Energy efficiency programs can be distributed to government organisations through email alerts similar to the Building Code Newsflashes.