

Productivity Commission
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Inquiry into Energy Efficiency

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23 November 2004

Energy efficiency inquiry
Productivity Commission
LB2 Collins Street East
Melbourne VIC 8003

Dear Sir / Madam,

Thank you for the opportunity to comment on the Productivity Commission's Issues paper for the *Inquiry into the Economic and Environmental Potential Offered by Energy Efficiency*.

The Energy & Water Ombudsman NSW investigates and resolves complaints from customers of all electricity and gas providers in NSW, and water customers of some water providers. We have provided comments on the inquiry in relation to our experiences with customers in NSW.

Please contact me if you would like to discuss this matter further.

Yours sincerely

A handwritten signature in cursive script that reads "Clare Petre".

Clare Petre
Energy & Water Ombudsman NSW

Introduction

The Energy & Water Ombudsman NSW (EWON) is pleased to respond to the issues paper for the *Inquiry into the Economic and Environmental Potential Offered by Energy Efficiency*.

While we are not in a position to comment on all areas raised in the issues Paper, we have provided comments in relation to energy efficiency issues for domestic consumers. We have provided these comments from the perspective of EWON's experience as an independent dispute resolution mechanism for customers of electricity and gas providers in NSW.

For ease of reference we have adopted the same numbering as the issues paper.

3. Are there barriers and impediments to improving energy efficiency?

To what extent do market failures create barriers and impediments to energy efficiency improvements?

We note that the issues paper suggests that split incentives may be an impediment in encouraging the use of more energy efficient technologies. The paper provides the example of where the owner of a property is not the occupier, and suggests that this may provide little incentive for investment in energy efficiency improvements.

Our experience with residential customers would support this conclusion. Many private and public tenants have contacted EWON to complain that their energy bills are too high, particularly after the summer or winter period. Often our investigation reveals that a customer's property is energy inefficient, for example - no insulation, inefficient heating or cooling systems or appliances. Lack of maintenance and repairs can also lead to energy inefficiency, for example leaking or faulty hot water services, poor wiring or other electrical faults.

EWON has also received feedback from a number of community workers who have identified these issues in relation to their clients. For example, EWON was contacted by a worker from a community agency who advised that the majority of their clients live in public housing and seem to have very high energy bills on a regular basis. They believe that much of the housing stock is not energy efficient, and generally properties are not insulated. This often means that their clients incur large energy accounts that are a significant financial burden.

EWON has also received similar feedback from agencies that assist Indigenous clients. A number of workers noted the relationship between inefficient energy use within their communities and the size of energy accounts for individual customers. There is general concern among Indigenous workers about the poor quality of some public/community housing, and the impact this has on energy consumption and high bills. One worker noted that the heating is so poor in some homes that people use their ovens to keep warm. In addition to the impact on energy accounts, this also has safety implications.

Do these barriers and impediments warrant government intervention?

Public housing

We suggest that governments that administer public housing need to ensure that their tenants are not financially disadvantaged by high utility accounts as the result of energy inefficient housing.

The majority of public housing tenants who contact EWON are facing difficulty in paying their bills, and many are either facing disconnection of supply, or have already been disconnected.

Our investigation of a number of cases has found that the electricity and gas bills for many tenants are continually at a high level because of the nature of their hot water systems. Department of Housing managers have advised us that they are aware of the situation, and that a replacement program for infrastructure such as hot water systems is in place, although this is over many years.

We appreciate that this is a complex area, in that there are significant tensions between the need for upgrading of existing housing stock, and the need for building or purchase of new stock to reduce long waiting lists. We are aware that maintenance, repair, and upgrading of ageing public housing stock is very costly. In New South Wales the Department of Housing has an ongoing maintenance program, but the demands on this program are high, and it will take a long time to address the energy efficiency needs of many residents.

EWON has suggested that the government may have a role in implementing new energy efficient technologies in public housing stock. In June 2004 EWON wrote to the NSW Minister for Energy and Utilities in relation to the trial of solar power to domestic residences which was proposed for Sydney and Adelaide under the Federal Government's White Paper on *Securing Australia's Energy Future*. We suggested that the Minister might wish to consider involving Department of Housing premises in the Sydney trial.

We believe that the trial of solar power arising from the White Paper could be most appropriately done in relation to NSW public housing for several reasons:

- the Department of Housing has a wide range of housing stock from single to multi-unit dwellings
- the trial could target different physical locations as well as different housing types
- the trial could be more readily monitored through one primary agency
- the benefits of a successful trial would assist a section of the community which has significant financial needs.

Private housing

Many private tenants have the same energy efficiency issues as those previously described for public housing tenants. Many tenants rent premises that are energy inefficient, eg

- no insulation or inadequate insulation
- poor hot water service, in particular systems that have a low capital cost to install but a high running cost, eg instantaneous hot water systems
- poorly maintained infrastructure, eg leaking pipes, leaking hot water service.

Private tenants in these circumstances often experience higher than normal energy accounts, but they are not in a position to remedy the cause of the high bills.

While the government is limited in its authority in relation to private property, some government intervention along the following lines might be of assistance:

- targeted information for private landlords about the benefits of energy efficiency measures such as insulation, energy efficient hot water services
- further investigation of building codes with a view to establishing minimum standards of energy efficiency such as insulation and hot water services
- consideration of greater use of energy efficiency advice/labelling of housing, infrastructure, and appliances
- support for community programs such as NILS – No Interest Loan Schemes, to assist tenants to purchase energy efficient appliances, and Refit programs
- coordination of greater discussion of these issues by relevant stakeholders, eg groups representing tenants and property owners, and real estate agents.

4. Policy options for cost-effective energy efficiency improvements

What are the costs and benefits of demand management and time of day pricing?

Demand management has become an important issue in the energy market. EWON is concerned, however, that a number of the proposals being suggested for demand management are based on assumptions about residential consumers and their usage patterns that appear to conflict with our experiences.

There appears to be an assumption in the issues paper that more cost-reflective tariffs will assist in demand management by encouraging consumers to use energy in a more efficient manner. This assumption seems to be based on a belief that consumers will understand the pricing signals and be able to respond by changing their usage patterns. We are concerned that pricing indicators lack the immediacy necessary to influence consumers' consumption.

The paper also appears to assume that energy usage is discretionary. EWON's experience indicates that this is not the case for many residential consumers.

EWON receives a number of complaints from customers who believe that their bill is too high. Our experience in investigation of these matters suggests that there is a lack of understanding by many customers about how their own consumption impacts on

their bills. While most customers understand that high usage can cause a high bill, many customers cannot identify which appliances cause the highest usage, or the running costs of their different appliances. For example, many customers are surprised that a small bar heater can contribute to high consumption in the winter months, as there appears to be a belief that a small appliance will be cheaper to run than a large one.

Many customers do not know how to monitor their own usage by checking their meter. In fact, many customers do not know how to locate their meter. We have also found that many customers significantly underestimate their consumption.

We suggest that customers would benefit from more information / education in the following key areas:

- their consumption habits and the running costs of their appliances. This is important not only in relation to demand management, but also to enable customers to better manage their own usage and the payment of their accounts
- the nature of the network and retail charges. Our experience suggests that customers do not fully appreciate what constitutes the network element of their bill, nor the basis on which it is charged.

For many customers, the financial impact of their high consumption occurs well after the event. Most retailers bill quarterly, so that customers receive their bill weeks after their high usage. Demand management that relies solely on billing to signal prices to customers lacks the immediacy necessary to impact on consumption habits. EWON suggests that demand management based on pricing signals alone may not sufficiently link consumption with charges in the customer's mind, and may not have the desired effect.

EWON believes that promoting greater awareness among residential customers about their consumption patterns and their effects is an essential element of any demand management initiatives.

What is the rationale for government involvement in education and awareness raising?

As noted above, our experience with residential and small business consumers suggests that greater awareness is needed among small consumers about energy efficiency measures.

This position is supported by feedback from community workers consulted as part of EWON's *Aboriginal and Torres Strait Islander Information Exchange* project. A number of stakeholders noted that their clients needed, and sometimes requested, information about energy efficiency to enable them to reduce their consumption. One stakeholder suggested that providing information to customers about how to reduce bills is a key means of empowering people to "stay on top" of their energy accounts. One stakeholder suggested that all DOH clients should have an energy efficiency audit.

EWON notes that a number of electricity, gas and water providers in NSW have taken an active role in increasing awareness in the community of energy efficiency measures in the home. For example, some providers have developed brochures that outline running costs of appliances, some conduct energy audits in customers' homes and most provide energy efficiency advice on their websites. EWON is encouraged by these initiatives and supports providers in taking these initiatives.

We also note that a number of providers have become involved in "Refit" or "Retrofit" programs in NSW. For example, Newcastle City Council in partnership with EnergyAustralia and Hunter Water have been conducting a REFIT service in the Newcastle area. The service involves customers receiving an energy and water audit and the fitting of energy saving devices, such as energy efficient light bulbs. Newcastle Council have estimated that "each household stands to save an estimated \$100 or more on their energy and water bills every year."¹

EWON has received positive feedback from community workers about these programs, and we encourage the Government to support these initiatives.

5. Sectorial issues

What barriers and impediments prevent consumers from achieving these improvements?

As outlined in earlier sections of this paper, there are a number of barriers impeding residential consumers from achieving greater energy efficiency in the home. These include:

- inability of tenants to make changes to the infrastructure of their home to make it more energy efficient, such as installing insulation, solar panels or off-peak hot water
- costs of upgrading appliances to more energy efficient models, particularly for low-income consumers
- lack of understanding among consumers about energy efficient technologies and the impact of energy consumption.

Other comments

We attach an article written by the Energy & Water Ombudsman NSW following a meeting with domestic customers in Tasmania who have used pay-as-you-go (prepayment) meters for some time.

EWON has supported a trial of prepayment meters in New South Wales, as we believe that as is the experience for many Tasmanian customers, these meters would assist many consumers to better understand and manage their electricity usage. We have written separately about the consumer protection measure that would be required for prepayment meters, eg:

- installation to be strictly at the voluntary request of customers
- meters must allow two way information exchange
- meters not to disconnect overnight

¹ Newcastle Council, "Community Refit Project" brochure, July 2003

- emergency credit arrangements to allow customers time to top up the meters
- accessible outlets or arrangements for customers to top up their meters.

We acknowledge the reservations about prepayment meters among some groups in the community sector. However, our discussions with many community workers in NSW indicates strong support for a trial of a system that allows consumers to better understand their energy consumption through direct and immediate information from the meter, and pay for their electricity consumption in smaller, regular amounts of their choosing.

Attachment 1

Energy – up close and personal

I recently had some conversations with electricity customers in Tasmania that I have rarely had with New South Wales customers in my five years as NSW Energy & Water Ombudsman.

During a visit to Hobart, I talked with domestic consumers who could describe exactly how much electricity they use each day, how much they need to budget for their power, and even how they can save money by choosing to use some appliances outside peak consumption periods.

Why are these Tasmanian customers so different from customers in New South Wales (as well as the rest of Australia)? Their detailed knowledge of electricity consumption is the direct result of their choice to use prepayment or pay as you go meters.

My taxi driver from the airport overheard me and my fellow passenger talking about electricity accounts and suggested that we were behind the times if we were still receiving electricity bills. He said he had a prepayment meter installed, he knew that his electricity cost \$5 per day, and he put enough on his smart card each fortnight to keep his electricity meter running. He said he would never go back to any other system, certainly not to any system where he received bills.

About 10% of electricity customers in Tasmania are using prepayment meters, with around 6,000 meters installed each year. These customers are provided with a special meter and a card. They ‘fill up’ the card with a dollar amount of their choice at a point of sale outlet such as a service station, newsagent or convenience store. The card is inserted into the meter, the amount downloaded, and the available electricity adjusted accordingly.

My taxi driver’s unsolicited enthusiasm was shared by two families I met during more formal visits arranged by the local electricity provider.

Like most families, they needed to be careful with their finances, but unlike most, their knowledge of electricity consumption was extensive. They spoke eloquently and knowledgeably, and were clearly in control of their electricity usage.

One customer had found that her bread maker and iron both used reasonably high amounts of electricity, and as the meters operate on a time of use basis, she said she saved money by using these appliances outside peak periods.

One man was leaving a friend to house-sit for some weeks over Christmas. He was not concerned about returning to a large electricity bill, as he would leave his meter card with the house-sitter, and tell him how much he needed to budget for power each day. On his return from holidays he knew he would not be stuck with a high bill for someone else’s usage.

The more sophisticated prepayment meters of today are far removed from the coin in the slot meters of many people's memories. The meters that we saw are smart meters, capable of two way information flow between the meter and the supplier. Most importantly, they have the capacity for built in protections for customers such as no disconnection overnight and an emergency credit facility.

However, prepayment meters are not a universal panacea, nor the answer to every energy customer's prayer. There are issues about whether there is a higher tariff for prepayment meters, and whether there is a hidden rate of 'self disconnection' by customers in financial difficulty.

Prepayment meters should be one of a range of options to assist customers with energy management and payment of accounts. If the Tasmanian experience is any indication, prepayment meters would suit customers who want to closely manage their consumption, as well as customers who need to budget carefully. They might also be useful for holiday houses or some types of shared housing arrangements.

One of the most common customer complaints to the Energy & Water Ombudsman NSW concerns disputed accounts. In a number of cases our investigation reveals that errors have occurred at one of the stages between the meter reading and the issuing of the bill.

However, in some other cases, our investigation indicates that there have not been any errors and the bills appear to be correct. Instead, it seems that customers have underestimated their consumption, or are not aware of how much energy is used by various appliances. There is simply too much distance between, for example, the many hours a heater runs during a spell of particularly cold weather, and receipt of the bill for that consumption two or three months later.

Prepayment meters remove this distance and bring customers face to face with their consumption. The Tasmanian customers reported that when their meters were first installed, they put far more money on their smart cards than needed. They quickly learned the consumption rates for their appliances, and were then able to top up their cards to match their usage almost exactly.

Interest in prepayment meters has moved from Tasmania to the Australian mainland, and some trials are either under way or under consideration. As long as these meters are strictly a customer choice, they appear to be a positive initiative for both demand management and financial management.

And yes, the Electricity Ombudsman Tasmania has received some complaints about prepayment meters. I'm told that the primary complaint from customers is about the delay in obtaining them!

Clare Petre
Energy & Water Ombudsman NSW