



**Carbon & Consumers: Report on the 2009
Energy & Water Consumers' Advocacy
Program (EWCAP) Conference**

June 2009

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The Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit law and policy organisation that works for a fair, just and democratic society, empowering citizens, consumers and communities by taking strategic action on public interest issues.

PIAC identifies public interest issues and, where possible and appropriate, works co-operatively with other organisations to advocate for individuals and groups affected. PIAC seeks to:

- expose and redress unjust or unsafe practices, deficient laws or policies;
- promote accountable, transparent and responsive government;
- encourage, influence and inform public debate on issues affecting legal and democratic rights;
- promote the development of law that reflects the public interest;
- develop and assist community organisations with a public interest focus to pursue the interests of the communities they represent;
- develop models to respond to unmet legal need; and
- maintain an effective and sustainable organisation.

Established in July 1982 as an initiative of the Law Foundation of New South Wales, with support from the NSW Legal Aid Commission, PIAC was the first, and remains the only broadly based public interest legal centre in Australia. Financial support for PIAC comes primarily from the NSW Public Purpose Fund and the Commonwealth and State Community Legal Services Program. PIAC also receives funding from the NSW Government Department of Water and Energy for its work on utilities, and from Allens Arthur Robinson for its Indigenous Justice Program. PIAC also generates income from project and case grants, seminars, consultancy fees, donations and recovery of costs in legal actions.

Energy + Water Consumers' Advocacy Program (EWCAP)

This Program was established at PIAC as the Utilities Consumers' Advocacy Program in 1998 with NSW Government funding. The aim of the Program is to develop policy and advocate in the interests of low income and other residential consumers in the NSW energy and water markets. PIAC receives policy input to the Program from a community-based reference group whose members include:

- Council of Social Service of NSW (NCOSS);
- Combined Pensioners and Superannuants Association of NSW (CPSA);
- Park and Village Service;
- Ethnic Communities Council NSW;
- Rural and remote consumer;
- Institute of Sustainable Futures (ISF), University of Technology (UTS);
- Indigenous consumer representative; and
- Western Sydney Community Forum (WSCF).

Introduction to *Carbon & Consumers*

In July 2008 the Federal Government released the Carbon Pollution Reduction Scheme (CPRS) Green Paper that proposed the introduction of an emissions trading scheme to reduce greenhouse gas emissions, adapt to unavoidable climate change and help shape a global solution. Following consultation with stakeholders, the CPRS White Paper was released in December 2008.

The CPRS is designed to increase the cost of producing and consuming carbon-intensive goods and services. As such, Australian households will pay more for energy. The White Paper calculated that an emissions cut of 5 per cent below 2000 levels by 2020 would lead to an 18 per cent increase in electricity prices and a 12 per cent increase in gas prices.¹

PIAC recognises the urgent need to respond to climate change and advocates for strong cuts in carbon emissions. However, PIAC is also concerned about the impact of higher electricity and gas prices on low-income and other disadvantaged consumers.

The Federal Government has promised that low- and middle-income households will receive financial compensation to assist them to cope with initial price increases stemming from the CPRS. The Government has also advised that energy price increases will encourage households to reduce their energy consumption. PIAC is concerned that some consumers, including pensioners, tenants, people experiencing energy poverty, community organisations, and people living with a mental illness, may not receive adequate support and may experience difficulty responding to these price signals.

In February 2009 PIAC hosted *Carbon & Consumers* to discuss these issues. Specifically, the conference sought to bring together academic, community, industry, and government representatives to examine the impacts of the CPRS on disadvantaged energy consumers and explore their capacity to respond as expected.

This *Report on the 2009 Energy & Water Consumers' Advocacy Program (EWCAP) Conference* presents the conference proceedings including keynote and panelist addresses and outcomes from delegate workshops.

PIAC hopes this endeavour will assist in ensuring that low-income and other disadvantaged households are not adversely affected by climate change mitigation and that their amenity may be improved by initiatives that assist them to cope with rising energy prices.

¹ Australian Government, *Carbon Pollution Reduction Scheme Australia's Low Pollution Future White Paper Volume 1* (2008) [17-3] <www.climatechange.gov.au/whitepaper/report/index.html> at 18 May 2009.

Conference Program

Time	Session
09.15	<i>Arrival and registration</i>
09.30	Opening address - Robin Banks, Public Interest Advocacy Centre
09.45	Introduction to CPRS – Tony Westmore, Australian Council of Social Service
10.00	<i>Morning tea</i>
10.30	Keynote address – Ian McAuley, University of Canberra, Centre for Policy Development
11.15	Keynote address – Allan Asher, formerly of EnergyWatch
12.00	<i>Lunch</i>
01.00	Panel – Alison Peters, NCOSS; Maree O'Halloran, Welfare Rights Network; Jenna Wood, Country Energy; Deb Phippen, ACT Tenants Union; Karen Oakley, NSW Consumer Advisory Group – Mental Health
02.20	Workshops – Conference attendees
03.20	<i>Afternoon Tea with Celebration of the 10th Birthday of EWCAP</i>
03.50	Feedback from workshops
04.20	Closing remarks - Robin Banks, Public Interest Advocacy Centre
04.30	Conference close



Left to right: Mark Ludbrooke, Ian McAuley, Joel Pringle, Allan Asher and Robin Banks.

Opening address by Robin Banks

Robin Banks has been the Chief Executive Officer of the Public Interest Advocacy Centre since June 2004. Robin has a focus on the protection and promotion of human rights, including disability rights, privacy rights, and on consumer protection. Robin has worked as a lawyer, advocate and rights trainer in the private, government and not-for-profit sectors. In 2006 Robin was appointed as a member of the Office of the Privacy Commissioner's Privacy Advisory Committee, was a member of the Advisory Committee to the Australian Law Reform Commission's reference on privacy law, and is a member of the Consumer Consultative Council of the Australian Competition and Consumer Commission.

Good morning and thank you for joining us today for Carbon & Consumers – a conference of the Energy + Water Consumers' Advocacy Program. We're pleased to see so many people interested in the impact of the Carbon Pollution Reduction Scheme on households.

I would like to start today's proceedings by acknowledging the traditional owners, both past and present, of the land on which we stand today, the Gadigal people of the Eora nation.

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit, law and policy organisation that works for a fair, just and democratic society, empowering citizens, consumers and communities by taking strategic action on public interest issues.

PIAC has, as a key area of work, energy and water policy. The Energy + Water Consumers' Advocacy Program (EWCAP) is funded by the NSW Department of Water and Energy (DWE) to represent the interests of low-income and other residential consumers of electricity, gas and water in NSW. For ten years now it has worked to maintain access to and affordability of these essential services for all consumers. It also works to ensure that regulation and reform promote the public interest; ensure that sustainability policies and programs reflect the needs of low income and other residential consumers; and encourage community participation in energy and water market reform and related issues. It pursues these goals by writing submissions, commissioning research, holding public forums, participating in committees and working groups, promoting issues in the media, and lobbying Government. Later today, during afternoon tea, we'll celebrate EWCAP's 10th anniversary and acknowledge its achievements over the last ten years.

As suggested, one of EWCAP's core functions is to ensure that sustainability policies and programs reflect the needs of low income and other residential consumers. It is with this in mind that we have organised this event today.

Climate change, we all know, is here. We face higher temperatures, more prolonged droughts, rising sea levels, and more extreme weather events. It will adversely affect our food production, water resources and infrastructure, increase natural disasters including bush fires and floods, devastate ecological icons like the Great Barrier Reef and Kakadu, and displace communities here and abroad.

The Federal Government has settled on an emissions trading scheme as the cornerstone of our efforts to reduce our national greenhouse gas emissions. We've all heard at least something about emissions trading, certainly since Professor Garnaut was commissioned by the (then) Labor opposition to report on the likely effects of human induced climate change and recommend medium to long term policy responses. The Federal Labor Government then developed and released a Green Paper and a White Paper detailing its preferred emissions trading scheme – the Carbon Pollution Reduction Scheme. This included its emissions target up until 2020. The Government also signalled its intent to have the scheme up and running by mid 2010.

Acknowledging it has some way to travel yet, if the CPRS does come to pass, a key question for consumers, community workers, policy makers and others is: what will this mean for consumers?

Amongst other things, it means that we'll pay more for our household energy bills. I'll leave it for others today to explain why this is the case, how much the price of energy is likely to rise, and exactly what it is likely to mean for different types of households, but it'd like to spend just a moment broadly reflecting on why this is of concern to PIAC.

Electricity is, of course, an essential service. We use it to maintain our health and hygiene, cook and store our food, and clean, light, heat and cool our homes. Yet many households in NSW, and indeed across Australia, struggle to pay their electricity bills. Often enough, the bills do get paid but this is at the expense of other essential goods and services. Perhaps there are less groceries in the shopping trolley or the purchase of school books or medication goes on hold. In more dire circumstances, finances are so tight that the bills can't be paid and disconnection ensues. The most recent statistics from the Independent Pricing and Regulatory Tribunal suggest that there were over 18,300 disconnections of small residential electricity customers in NSW in 2006-2007 due to non-payment of bills and more than 22,700 disconnections of small residential gas customers in the same year. This is the equivalent of 100 disconnections every day in NSW alone.

As PIAC research into the experience of disconnections illustrates, disconnection leads many people to become anxious, distressed and isolated; to have trouble caring for their children including infants; to run out of clean clothes; to throw out food that has perished; to damage their property; and to injure themselves.

The point is that many households already struggle to pay their power bills. An increase in the price of energy courtesy of the CPRS could see even more households experience difficulty and, in some cases, go through the indignity of being disconnected.

Does this mean we should abandon attempts to mitigate climate change? Certainly not. PIAC actively supports vigorous action to reduce our greenhouse gas emissions.

What it does mean is that we must work to ensure that the disadvantaged households are not materially worse off as a result of the CPRS and other climate change policies. This is particularly important in light of the tough economic climate in which we now find ourselves.

We acknowledge that the Federal Government has announced that it will provide financial compensation to low and middle income earners to assist them to cope with rising prices stemming from the CPRS. But is this adequate? Will it compensate all consumers at risk of energy hardship? Is more required to assist households to respond to and cope with price rises from the CPRS?

Today we have a distinguished line up of guests to guide us through what the CPRS is likely to mean for our communities.

In a moment I'm going to hand the floor over to Tony Westmore, Senior Policy Officer at the Australian Council of Social Service, to introduce some of us, and remind others, about the whys and wherefores of the CPRS. Just what is it and what is it supposed to do?

After morning tea we'll then turn our attention to how consumers are likely to respond to the CPRS. As the price of energy goes up, will they, as the Government suggests, reduce their energy consumption and thus

lower both their household carbon footprints and energy bills? Ian McAuley, our first keynote speaker, from the University of Canberra and Centre for Policy Development, will employ, amongst other things, behavioural economics to explore this and related issues.

We'll then turn our attention abroad. We are not the first to entertain the idea of an emissions trading scheme. In fact, there are many schemes already in operation. Our second keynote speaker for the day, Allan Asher, former CEO of EnergyWatch, will share some lessons learnt from the European Union emissions trading scheme and his experiences in the UK.

Thereafter we'll invite our panel of experts including Alison Peters of the Council of Social Service of NSW, Deb Phippen of ACT Tenants Union, Jenna Wood of Country Energy, Karen Oakley of NSW Consumer Advisory Group – Mental Health, and Maree O'Halloran of the Welfare Rights Network, to discuss how the scheme is likely to influence and impact upon community organisations, tenants, energy customers experiencing hardship, people living with a mental illness, and pension and benefit recipients respectively.

We'll then invite everyone here to adjourn to workshops and share an idea to assist households to cope with rising energy prices. Should we reconfigure energy tariffs? Replace hot water heaters? Undertake energy audits? We'll ask you to assess the merits of your own ideas and discuss how they might be promoted and implemented.

It's worth briefly noting here that there is a chance that we won't end up with a CPRS at all. Of late there's been a chorus of concerns about the adequacy of the targets, the architecture of the scheme, the impact of the financial crisis, and other factors. On the assumption that the legislation makes it to and through the House of Representatives, we now know that there'll be a Senate inquiry. Time will tell what it uncovers and, indeed, whether the bill will ultimately pass through the upper house with support of either the opposition or the cross benches.

If the CPRS fails to gain adequate support and is replaced by some other scheme, rest assured that the lessons learnt today won't be wasted. Whether its from a CPRS or carbon tax or some other climate change mitigation policy, the consensus is that energy prices are on the way up. So our conversations today about assisting consumers, particularly low income and other disadvantaged households, to cope with price hikes, remain valid regardless of what our key climate change mitigation policy looks like.

Thank you again for joining us today and, on that note, it is with pleasure that I now hand over to Tony Westmore from the Australian Council of Social Service who will introduce us to the Carbon Pollution Reduction Scheme.

Introduction to the CPRS by Tony Westmore

Tony Westmore is a Senior Policy Officer at ACOSS, working on matters related to energy affordability in the National Energy Market. Tony's project includes work on the regulation of retail customer issues, the roll-out of smart metering and the impact of climate change policies, with a focus on low-income households.

Communities in a changing climate:

Social and equity impacts of climate change and the community sector

Tony Westmore
Senior Policy Officer
Australian Council of Social Service



The same page

- > urgent action: climate change is real
- > cost of inaction is greater than cost of action
- > climate change **and** responses
- > suite of responses: complementarity

- > abatement: reduce greenhouse gas emissions
- > mitigation: human intervention to reduce emissions
- > adaptation: the heat is on
- > mitigation = adaptation = mitigation

- > carbon price: internalising an externality
- > intended result is price increases (relative)
- > assumption is that prices eventually decrease



What do we want? CPRS? When...

- > leadership: home and away
- > linkages: global problem, global solutions
- > a line, a start
- > alternatives: tax, regulation
- > delays
- > rational / irrational
- > possible / impossible
- > responsible / irresponsible
- > 5% is 40% off 'business as usual' and not enough



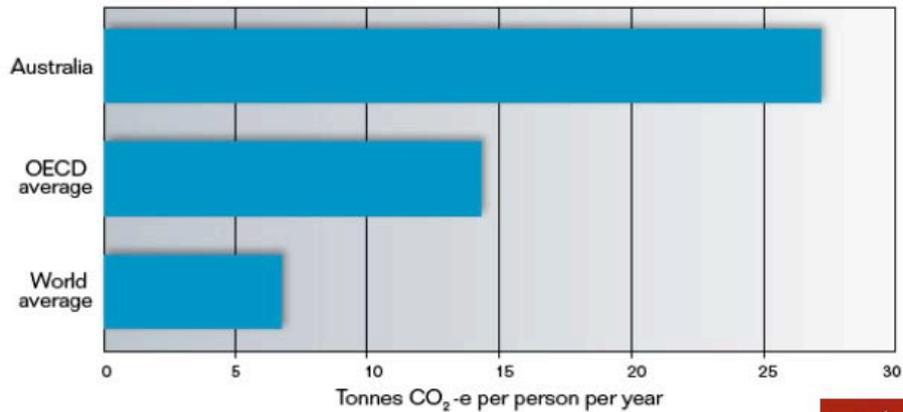
Our interests

- > low income households
- > the sector
- > strongly affected communities
- > the idea of 'transition'
- > "skin in the game"
- > partnerships
 - ACTU, Choice, ACF, The Climate Institute
 - The Southern Cross Climate Coalition
- > opportunities
 - investment, enterprise, employment
 - participation, inclusion, amenity



Aussie champions

Figure 8.1 Per capita greenhouse gas emissions, 2005



Source: DCC (2008b) and IEA (2007a).



Low income households

higher propensity to rent (either private or public) than own

“unable to raise \$2000 in a week for emergency”: of lowest quintile: 29%

“could not pay utility bills”: 21%, 19%, 17%

“unable to heat home due to shortage of money”: lowest quintile 5%

and climate change

generally less well equipped to cope, adapt, move

at higher risk of adverse impacts including health

more exposed to risks from economic transitions'



Low income households and energy

an essential service

tendency to consume less than 'average' and to under-consume

spend half the money, twice the proportion of income

prices increasing steeply regardless of carbon price

consumer protections including hardship programs under review

Treasury modelling

\$5/week increase in electricity prices

\$2/week increase in gas prices



Community services, low income households and climate change

community services provide critical support to low income households and vulnerable communities

share some characteristics of low income households:
relatively less capacity to cope, adapt, move

unlike businesses, in most instances can't pass through cost increases

responses; information, efficiency, investment, indexation

monitoring: changing patterns of demand



CPRS - Modelling impacts

Treasury *: worst case 1.1% CPI @ \$20/t [0.8%]

Garnaut: worst case 1.2% CPI @ \$20/t [0.8%]

Brain **: worst case 1.9% CPI @ \$20/t [0.3%]

* Treasury assumes start in 2010 at \$23/t = 1.3%

** CO2 only, some other qualifications

½ direct energy and fuel, ½ 'embedded' carbon

CPRS White Paper - Revenue

assumes permit price is \$25/t in 2010; revenue
\$11.5bn '10-'11, \$12.0bn '11-'12



CPRS - Expenditure

assistance for low income households
from 1 July 2010 (or Scheme commencement)

all pensions, benefits, allowances 2.5% increase

FTB A base rates per child increase

FTB B 2.5% increase

tax cut: LITO increases \$390

motorists: fuel tax adjustment

others: \$500 'transitional payment'

nb: the 2.5% increase includes 1.1% expected
increase on cost of living plus 1.4% buffer
ongoing plus ongoing indexation ex-post



CPRS: Climate Change Action Fund

\$2.15 bn over five years beginning '09-'10

- > **information** to business and community service organisations \$0.13bn
- > **grants and incentives** for business and community service organisations \$1.37bn
- > **structural adjustment** for workers and communities impacted by the scheme \$0.20bn
- > structural adjustment assistance for **coal mines w/ high fugitive emissions** \$0.5bn (plus 0.25 later)



CPRS - Expenditure

	\$bn 10-11	\$bn 11-12
assist low, middle income	3.9	6.0
fuel tax adjustment	2.4	2.0
e-intensive, t-exposed	2.9	3.1
strongly affected	0.7	0.7
cc action fund	0.7	0.7

CPRS - Efficiency

“the Government will deliver measures prior to the commencement of the Scheme”



Energy Efficient Homes Program

announced 03/02/09 \$3.9bn
funded from consolidated revenue ie NOT scheme

install ceiling insulation in 2.7 million homes
including 500,000 rental properties
to end 2011

increase solar hot water rebate from \$1000 to \$1600
not means tested
to mid 2011

opportunities for non-government organisations



Professor Garnaut

to work towards stabilising at 450ppm and a best chance of
minimising risk temperature increases ~2°C

1.6% decrease in GDP
2.0% decrease in GNP
2.4% decrease in consumption

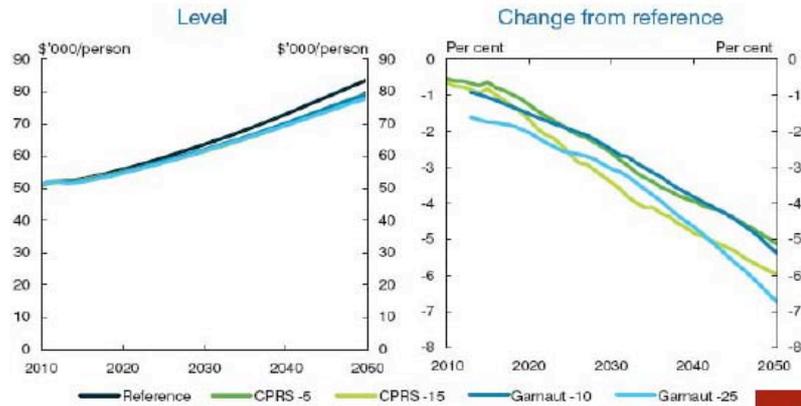
or a range of alternatives from second best (550ppm) to do nothing

What would this mean for you?
for your organisation?



The Treasury

Chart 3.1: Australian real GNP per capita



Source: Treasury estimates from MMRF.



Policy principles:

- > any action in response to climate change must be efficacious
- > the benefits must outweigh the costs
- > decouple programs from revenue (timing, quantum)

low income households should be better off

no group of low income households need be worse off

guaranteed protections to include

- > cash 'compensation'
- > real energy efficiency improvements
- > fair tariffs and community service obligations



Taking care of business

assistance to industry should be:
conditional to the extent of thoroughly documented assessment
processes, efforts towards abatement as appropriate and
a regime of monitoring, compliance and penalty.

all responses should be: evidence based; consistent and
coordinated; transparent in design and operation, held
accountable and thoroughly reported. benefits of action should
outweigh the costs and also outweigh the costs of inaction.

outcomes should be verifiable.



Next steps

- > Senate Inquiry - fuel and energy (in train)
- > Senate Inquiry - emissions trading (mooted)
- > exposure draft legislation - CPRS (released 10/03)
- > consultation on draft (until early April)
- > legislation tabled - May
- > Senate Inquiry - CPRS legislation (likely)

- > sector statement?
- > work in partnership
- > review modelling, bids for compensation
- > meetings with Ministers: efficiency, sector impacts
- > advocacy re: targets and trajectories
- > advocacy re: energy efficiency



Keynote address: Carbon & Consumers by Ian McAuley

Ian McAuley lectures in Public Sector Finance at the University of Canberra and is a Fellow at the Centre for Policy Development. His research and teaching interests are focused on economic policy. He has been active in helping consumer and welfare organisations become engaged in economic policy and his passion is to ensure social reformers and progressive thinkers are engaged in the nation's economic debates.

Summary

The focus of the conference is on the impact of a carbon pollution reduction scheme (CPRS) on low-income and other disadvantaged households. Because domestic energy is essential for everyday living, such households are already paying a high share of their income on electricity and gas. Also, the price of these utilities has been rising in real terms over the last ten years, and is expected to do so even more strongly under a CPRS.

While the Commonwealth has said it will provide financial compensation for low income households, they are likely to be constrained in making investments which will allow them to reduce their fuel consumption. In part, this is because all consumers, whatever their financial circumstances, find the necessary calculations difficult, and are subject to behavioural biases which tend to discount future savings. In addition, people in low-income households, particularly those who are renting, are generally constrained in their choices, and find that energy-saving appliances are priced out of their reach. Also commercial incentives on utility companies tend to favour consumption over conservation, and they do not make it easy for people to take advantage of lower-priced tariffs.

In helping people respond to the price signals in a CPRS, governments may be too reliant on market forces and on assumptions of "rational" consumer behaviour. Without distorting resource allocation (in fact improving environmental and equity outcomes), there are more active forms of market intervention governments can use.

Setting the context

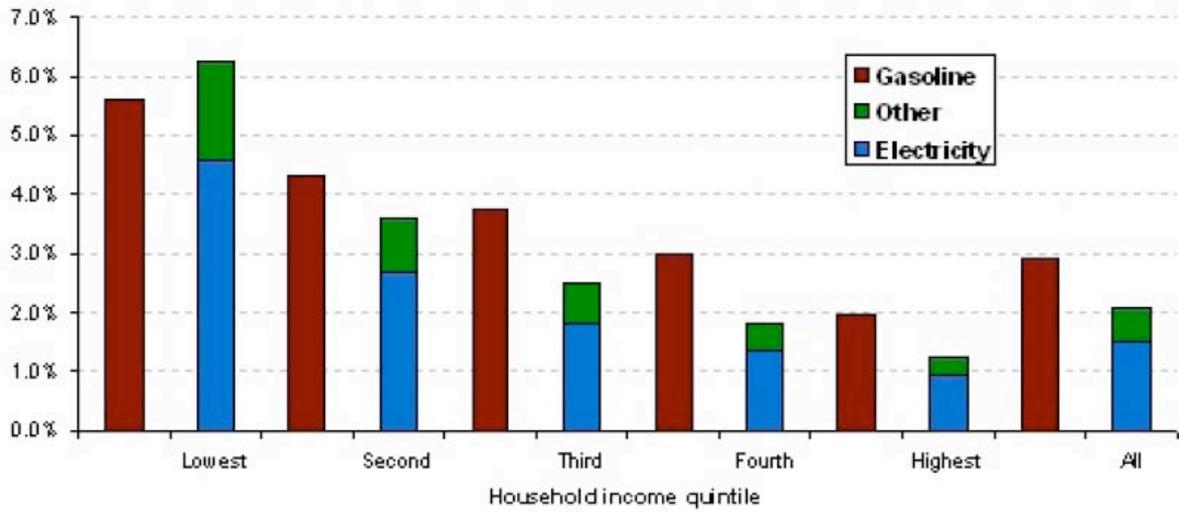
We know already that those with lower incomes are devoting a large share of their income to paying for energy. Well before we became aware of climate change and of measures such as carbon pricing, poorer households paying heavily for energy and prices were on the way up.

Fuel use by households

Although this conference is mainly concerned with electricity, in any discussion on domestic electricity use it is useful to look at the wider context of household fuel use, for electricity and gas are close substitutes for domestic heating. In some regions, particularly Victoria, gas is a major source of domestic heating. When we look at expenditure on energy as a proportion of household income, it is clear that energy outlays impose a particularly high burden on lower income households. The ABS household expenditure data is a few years old, but it reveals that domestic fuel accounts for just over six percent of income in lower income households, compared with just over one percent in highest income households. (Figure 1, drawn from ABS Household Expenditure data, shows this distribution.)

Use of fuel is not heavily dependent on income; we all need roughly the same amount for basic needs such as lighting, cooking, refrigeration, water heating, and space heating. In fact, when we look at outlays on domestic fuel per person on a household income basis, we find it is almost flat across income groups. (Although there is more fuel expenditure in higher income households, lower-income households tend to be smaller households; almost two thirds of households in the lowest income quintile have only one occupant, often an aged pensioner.)

Figure 1. Expenditure as percentage of household gross income, 2003-04



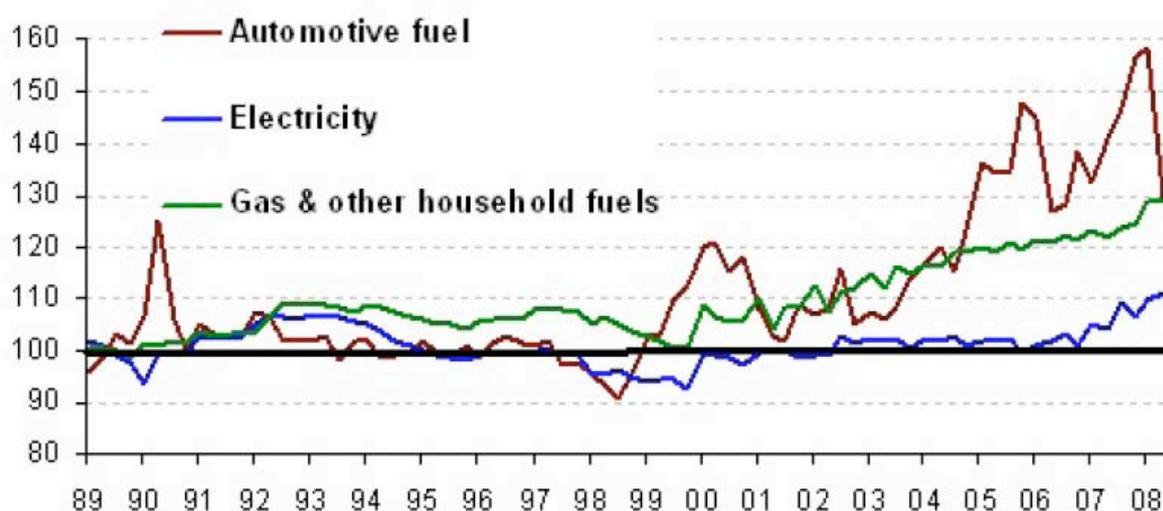
Ian McAuley

In Figure 1, I have included gasoline, as a reminder that it is not only in household fuel that lower income-households bear a disproportionate burden, but also in transport fuel. We live in cities where restrained housing and employment choices make many people on lower incomes highly car dependent, and where much public transport serves the relatively well-off with regular employment in city centres. This is not an argument against investing in public transport, but it is a warning that in the debates around climate change policies there will be calls for increased subsidies for public transport, which translate into demands for more transfers from all taxpayers to the already well-off. In Australia the thinking of some transport advocates is rooted in a time when cars were the playthings of the rich and public transport was for the poor, almost the diametric opposite to the current reality.

Fuel price movements

When we look at price movements it is unsurprising that fuel prices have been rising faster than inflation. (Figure 2.) Both gas and electricity prices started to rise in real (inflation adjusted terms) about ten years ago, and have been rising ever since, particularly over the last few years.

Figure 2. Fuel prices relative to CPI (base 1989-90 = 100)



The impact of electricity price rises on low-income households is illustrated in a 2004 study in South Australia, which surveyed the way twelve households, already in financial stress, coped with a sudden price rise of around 25 percent, following introduction of "full retail contestability". All respondents reported additional stress, all reported that they were unable to heat or cool their home to a comfortable level, and many reported that they were bearing debt for electricity bills.¹

Households' contribution to fuel use

Another point relevant to public policy is to remember that, although there is always a great deal of pressure on households to do their part, the household sector accounts for only about 12 percent of national energy use, or about 17 percent of greenhouse gas emissions according to 1995 data. (The imbalance in these percentages is because households are heavy users of electricity, which is generated mainly from greenhouse gas-intensive coal-fired power stations.²) Some later data suggests a higher percentage, but it includes travel to work.³

Within households at least three quarters of energy use is for heating – space heating, water heating and cooking, as shown in the table below.

<u>Household energy use 1995</u>	
Space heating	40%
Water heating	27%
Cooking	8%
<i>Sub total heating</i>	<u>75%</u>
Refrigeration	9%
Lighting	4%
All other uses	13%
<i>Total</i>	<u>100%</u>

The data in this table relates to 1995. Since then there has been a large growth in household air conditioning and in other appliances which were once considered to be luxuries. In 1994 only 33 percent of houses had air conditioning; by 2008 this had doubled to 66 percent, and most growth has been in refrigerated rather than evaporative units. Over the same period the proportion of houses with two or more refrigerators rose from 24 percent to 34 percent.⁴ Appliances such as dishwashers and clothes dryers have moved from discretionary items to “must haves” in many households.

This breakdown by heating and other uses is important, for heating applications are suited to substitution away from electricity, particularly natural gas, which has a much lower carbon contribution than electricity. Also, even if the economics of photovoltaic solar electricity are marginal, there is a strong economic case for solar water heating in most of Australia.

A CPRS will have effects beyond the normal rise in fuel we have witnessed over recent years, because different fuels have different carbon contributions. Our electricity is generated from four sources – brown coal, particularly in Victoria, black coal in most other states, natural gas as a supplement, and small amounts of renewable sources such as solar, and hydroelectric in Tasmania. Because of brown coal dependence, for each KWH hour of electricity delivered, Victoria’s electricity contributes about 40 percent more carbon to the atmosphere than the electricity generated in NSW.⁵ Also, at peak times, power utilities tend to swing older, less efficient and more polluting power stations into action. This means peak carbon credits (or taxes) could be very expensive for such stations, and wholesale peak prices will be correspondingly expensive.

While a CPRS will impose higher costs on Victoria than on other states, it is unclear whether the costs will be passed on locally or will be distributed to all users through the interstate grid. It should be noted that in spite of the claims that in the eastern states there is a national electricity market, there is wide price dispersion in electricity prices between different states.

Public policy – faith in markets

While we do not know the exact shape of the Government’s CRPS we do know that it will be modest, almost certainly based on a “cap-and-trade” system (rather than a carbon tax), and will largely rely on pricing rather than more intrusive interventions.

The guidance so far from the Government is:

In the CPRS scenarios (in which emission pricing is introduced in 2010), a one-off rise in the price level of around 1-1.5 per cent is expected, with minimal implications for ongoing inflation. For the average household, this corresponds to an extra \$4-5 per week spending on electricity and \$2 per week on gas and other household fuels. Prices of petrol and emission-intensive meat products will not be affected initially, due to reductions in fuel taxes and agriculture’s initial exclusion from the Carbon Pollution Reduction Scheme.

Emission pricing will have a slightly greater impact on low-income households as they spend a higher share of their income on emission-intensive goods. The Government, as it outlined in the Carbon Pollution Reduction Scheme Green Paper, is committed to helping households adjust to the scheme, including by increasing benefit payments and other assistance to low-income households through the tax and payment system.⁶

The Commonwealth has pledged that most assistance will go to low and middle income households, with weighting for larger families.⁷

Allan Asher, drawing on his experience in the UK, will go further into some of the design principles, in particular some of the shortcomings of a “cap and trade” system. While, in pure economic theory, a carbon tax and a “cap and trade” system are similar (one uses a set price to determine the quantity of carbon, while the other uses a set quantity to determine a price), there are important practical differences.

Already environmental advocates have voiced some criticism of the proposal to compensate low-income households through money transfers, rather than through other means, on the basis that this will simply allow people to continue their established consumption habits and have no effect on energy use.

As every Economics 1 student knows, however, if some prices rise relative to others, there will be some degree of substitution. In its reliance on markets, the government will be expecting substitution to occur such as investment in more energy-efficient appliances, solar hot water, insulation, etc.

The path to adjustment probably lies between these two scenarios – between zero adjustment and a market-determined “rational” response. People’s behaviour in markets does not comply fully with the “rational” models held by economists and policy makers. There are reasons to believe adjustment will be most difficult for low-income households. I will dwell mainly on consumer behaviour, but will also touch on supplier behaviour.

Consumer behaviour

There are at least two conditions to be met before people can make rational responses to price signals such as a rise in the price of electricity. First they must understand the consequences of making a choice. Second, they must have options open to them and the means to act on those options. I will suggest that, when it comes to electricity (and by extension other utilities) we are all somewhat impaired in making a wise choice – either because of computational difficulties or because of biases in our behaviour. And people with low incomes often do not have the options or the means open to them to make wise choices.

I will dwell mainly on the first set of impediments, bringing in some of the findings of behavioural economics. Alison Peters, Deb Pippen, and Maree O’Halloran, from the perspective of welfare groups and Jenna Wood from a supplier’s perspective, will undoubtedly emphasise the limited choices faced by people with low income.

One problem with electricity, gas and water is that most people do not have the slightest idea of the units they are dealing in or their prices. It’s always a revealing exercise to ask a group of students to write down the price of a liter of gasoline, a litre of milk (beer for undergraduates), and a KWH of electricity. It’s even more revealing to ask them to estimate their usage.



It's OK if you can read backwards

The way we measure and charge for utilities makes it very difficult for consumers to exercise rational choice. The newer electricity meters, designed to handle time-of-day tariffs offer a slight improvement on the old Heath-Robinson contraptions with counter-rotating dials, but it is still hard for any but the most disciplined and obsessive of users to monitor and evaluate use. (Imagine the outcry to the ACCC if gasoline pumps had no displays, and all we got was a quarterly bill for our usage.)

For all the rhetoric about developing a “market” for electricity, consumers are denied one of the basic elements of a market – the feedback of timely and legible price and quantity information. It is therefore very difficult for most consumers, poor or prosperous, to manage their electricity consumption through making wise investments in energy matters.

An example of what should be an easy choice is between florescent and incandescent light bulbs. A “rational” calculation may go something like the one below:

Data:

Purchase price	60 W incandescent bulb	\$1.20
	13 W equivalent florescent	\$6.00
Electricity price		\$0.15 per KWH
Daily use		5 hours

Analysis:

Difference in purchase price	= \$4.80
Difference in power	= 47 Watts
Difference in energy used a year = (47 x 5 x 365)/1000	= 86 KWH
Annual saving using florescent = 86 x 0.15	= \$12.90

That’s one of the easiest energy calculations, and the result gives a clear guidance; not even the most unethical financial spruikers of the boom times were offering an assured 270 percent return on investment. But it isn’t an easy calculation to do on the spot, when one is in a supermarket looking for a replacement light bulb. And, of course, if the shopper has a severely constrained budget, where that \$4.80 could be spent only by foregoing food basics, the more expensive light bulb does not warrant consideration. The electricity bill will come in two or three months; the family needs to be fed now.

One finding from the South Australian project mentioned above, was that for heating, people in low-income households tended to rely heavily on bar heaters. These are cheap to buy, but they can be extraordinarily inefficient and expensive to run; if electricity costs 15 cents per KWH, a two KW heater will cost 30 cents an hour, or \$270 if run for six hours a day over 150 cold days – and that’s to heat one corner of one room. One problem, I suspect, is that people are reluctant to part with a working appliance. There is a behavioural phenomenon known as the “endowment bias”; we hang on to things we would not choose to buy if given the option again; I may know my old heater is costly to run, but I do not want to part with it while it’s in working order. Jenna Wood, I am sure, has some stories to tell in this regard.

For most energy choices the calculations are more difficult than choosing a lightbulb or a room heater. A rigorous process is life cycle costing, which requires not only knowledge of consumption and prices, but also familiarity with reasonably advanced (Year 12) math and the concept of discounted cash flow analysis. For purchases such as solar hot water and photovoltaic systems it requires knowledge of energy credit schemes, local insolation, and of State and Commonwealth subsidies.

It is hardly surprising, therefore, that few consumers undertake these calculations.



A good deal if you have an idle \$20K

In fact, in most decisions involving present outlays and deferred benefits, the present dominates our thinking. Of course it is quite rational to discount future benefits in such decisions. If I am considering making an outlay of, say, \$20 000 on a photovoltaic system which will save me \$800 a year in electricity bills (an after tax inflation-indexed return of 4.0 percent), I will look around and ask what other investments may make a higher return. Economists refer to the “opportunity cost of finance” or to the “personal discount rate”, being the percentage by which we “discount” future benefits. But when economists analyse our decisions, they find we use extremely high personal discount rates, and opt heavily for present savings over future benefits. We reveal biased decision-making behaviour which can be described as “myopia” or “frailty of will”.⁸ We tend to consider the outlay today, not the stream of outlays into the future.

When the ABS surveyed the considerations people took into account in installing a heater, the initial price was a more important factor than saving on energy bills. For all other appliances initial price was the most important consideration, ranging from 35 percent for washing machines up to 44 percent for clothes dryers – one of the more energy-hungry appliances.⁹

We may be tempted to believe that such short-sighted behaviour is confined to the poor or the uneducated, but behavioural research suggests that education and income are poor indicators of our tendency to impulsive or myopic decision-making. The poor and the well-off tend to make the same errors, but for the well-off the consequences are less severe, for they generally have the resources to cope with their mistakes.

What others at this seminar will point out is that, besides these biases which we all share, the poor have other constraints which force them into sub-optimal decisions. Someone with cash to invest may be very attracted to an investment in photovoltaic power with a return of 4.0 percent: it is certainly better than most other investments made in recent times. But someone using credit cards to extend their finances has an opportunity cost of finance of 15 to 20 percent. An investment in anything with a lower yield would be financially dumb.

More basically if one lives in rented housing, there is little choice to be exercised. Choices such as the type of insulation, window treatments, water heating and room heating, are generally made by the owners, who know that they are unlikely to suffer a lower market rent if they fail to make energy wise investments. Even public housing authorities can be poor landlords in this regard. The South Australian study found that both private owners and the State Housing Trust provided housing which saddled renters with unnecessarily high energy costs. Poor building design and inadequate insulation were particularly common problems mentioned in the study.¹⁰

People are in a particularly difficult situation when rental markets are tight, a point Deb Phippen will undoubtedly cover. Others have pointed out that energy saving features in appliances often command a high premium, or are available only on the most expensive brands. And, as Maree O'Halloran said to me "It's hard to save the planet when you're desperate".

What works

This all sounds rather dismal. We may be heading towards a society in which the well-off, with their hybrid cars, short bicycle commutes to their CBD jobs, solar hot water, double glazed windows and (subsidised) photovoltaic self-sufficiency, will be able to look down on the less fortunate whom they charge with environmental irresponsibility, even while they pay for the environmental choices of the well-off.

But it need not be so dismal. Governments can, and do, intervene when private markets fail. There is a hierarchy of measures which can be deployed, ranging from moral suasion through information provision up to prescription with penalties.

Moral suasion through messages such as "think globally, act locally" have a certain appeal, but, on their own, they are likely to be ineffective, for, in the absence of other incentives, one person's responsible action can make room for someone else to act irresponsibly. This is most vividly illustrated in the case of use of public transport: if you decide, in order to save the planet, that you will leave your car at home and use the bus, you will have made the road a little less congested for me to use my car, and I probably won't even send you a thank-you note. Similarly if you choose to pay a premium to use "green energy", you free up a little demand on the coal-based generators and in so doing reduce its price a little. (This is one of the criticisms of a "cap-and-trade" system, for until such a system is reset with a new cap, it simply re-distributes sources of pollution.)

In February 2009 the ACT Government announced a feed in tariff for small domestic photovoltaic systems (up to 10 KW). They will be paid 50.05 cents per KWH generated, on a gross basis (i.e. even if the power is used in the house rather than put into the grid). This is a strong incentive; it gives investors returns of around 10 percent a year. But it is to be financed by raising the price of electricity paid by other users. That means the benefits are not available to renters or to those without a spare \$20 000 to invest, and, worse, as more people take up photovoltaic systems, the price paid by others will rise. Environmentally it is good policy, but it fails on any reasonable set of equity criteria. It is hard to know how such poor design arises. It may result from the decision-making processes in government, which have different and isolated agencies considering different policies – environmental and social welfare policies in this case – rather than close policy integration.

What behavioural research suggests, however, is that establishment of norms of behaviour may be more effective than mere moral exhortation in eliciting compliance. This may appear at first sight, to be another way of packaging moral suasion, but there is a difference in the messages "go out and be the pioneer in saving the planet; others may follow" and "do it because

The ACT feed-in tariff

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everyone else is doing it". Unless I place a high value on martyrdom, I don't want to be the one who makes sacrifices so others can harvest the rewards from my efforts. But, conversely, if everyone else is acting responsibly, or even if I merely *believe* everyone else is behaving responsibly, I may feel uneasy about free riding on their contributions.

To illustrate the power of norms, one example is the six cylinder "family car", which has a legacy going back to the 1940s. In spite of its high running costs, it's proving to be an enduring tradition, perhaps only now being weakened. We may see such resilience as a problem, but once a new norm is established it develops its own inertia and resilience, becoming an asset. Our success in AIDS campaigns is a case in successful behavioral change, and Alison Peters, I believe, will refer to work by the Cancer Council in changing smoking habits.

One way norms can be established is through use of defaults. International studies of organ donation provide an example. Countries with assumed consent for organ donation, where everyone is assumed to be a donor but can opt out, have much higher rates of organ donation than similar countries with "opt in" provisions, where one has to make a definite election to donate organs. Consent rates in Denmark, Netherlands, UK and Germany, all "opt in" countries, are all below 30 percent, while in Austria, Belgium, France and Hungary, which have "opt in" systems consent rates are all above 90 percent.¹¹

Such policy instruments which direct but do not constrain choice are known as "soft paternalism". When the decision-maker is presented with options, a default (such as donating organs) has two effects.¹² First, it aligns with our tendency to procrastinate; that is, not to make a decision unless we have to. Second, it implies a norm of behaviour – "In general, everyone donates organs, but you can choose to opt out." It would be simple, for example, to have green energy as a default for new electricity consumers, with an "opt out" provision to preserve consumer choice. (Presumably, green energy will become relatively more attractive if Australia has an effective emissions trading scheme.)

Information provision is another area where governments can intervene lightly. As illustrated, it is difficult for consumers to make decisions on energy matters. But they do seem to be willing to be guided by trusted parties. For example, even if people cannot make energy calculations for themselves, many do take the energy star rating into account when buying appliances. For up to 50 percent of appliance purchases, consumers consider energy star ratings, and for most appliances that proportion has been growing. (See Figure 3.) It is surprising, however, that energy star ratings do not feature so strongly for heaters, which are the most power-hungry of appliances.

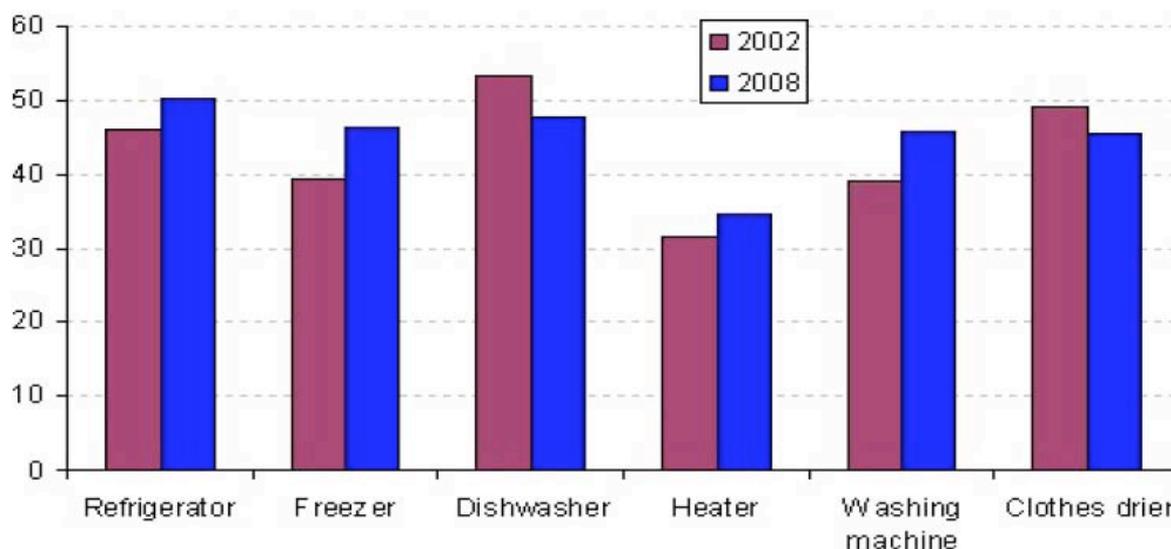
Energy star ratings have the advantage of being inescapable; they are displayed prominently on appliances. Other trusted sources, but which require some effort to find, include consumer organizations, such as Choice (which has an energy comparison and switching website)¹³, and state and Commonwealth websites, but we can be reasonably assured that because of limited access to computers and language difficulties, many low income consumers will not be making full use of these sources.

One message from behavioural economics is that when people are being persuaded to change their behaviour or to absorb information which will influence their choice, they are more likely to respond to options which are presented in concrete rather than abstract terms.¹⁴ A message such as "check your front door for drafts" is more likely to promote action than one such as "make sure your house is well sealed".

While persuasion and information provision have their roles, governments can go further on the consumer or demand side of markets, particularly for low-income consumers. They can develop schemes to buy back old and energy-inefficient appliances and to provide vouchers for new appliances meeting certain standards. They can prohibit the sale of some energy inefficient appliances and devices, as is occurring with

lightbulbs. (The very fact that the government has to mandate the abandonment of incandescent bulbs shows how difficult it is for consumers to make a rational choice.)

Figure 3. Percentage of buyers nominating energy star rating as a factor considered in purchasing appliances



The Commonwealth’s announcement that it will subsidize household insulation may be criticized on the basis that installing insulation, because of its high return, is a no-brainer, but up to 40 percent of our houses are uninsulated. The benefit of the initiative is that not only will there be an improvement in energy efficiency, but also that it carries a strong message, that insulating one’s house is the universal practice.

But perhaps the most effective interventions are to be found on the supply side, where governments have tended to rely too heavily on the operation of the “invisible hand” of competition.

Supplier behaviour

In 1970 Nobel-Prize winning economist George Akerlof wrote what has become a seminal essay, “The market for lemons: Quality uncertainty and the market mechanism”.¹⁵ This essay establishes that in markets where buyers cannot establish the quality of a product, sellers cannot establish a premium for quality. Therefore price and quality fall to the lowest level that will sustain a market. The clearest application is in the used car market (from where Akerlof drew the word “lemons”) because it’s hard for a seller to establish in the buyer’s mind the quality of a used car. There is a credibility problem.

In order to overcome this limitation, governments have established mandatory guarantees, which not only protect consumers, but they protect sellers of quality used cars who can convey their credibility through use of the warranty. It’s an intervention which works in the interest of all but the least ethical suppliers.

For attributes such as energy efficiency, the market failure in the rental sector is similar. An easy approach, used in some jurisdictions, is to require property owners to provide a star rating, but desperate renters may not take heed of such information. A stronger approach is to mandate certain standards, which is already done for new properties, but is not done for older properties. Rather than waiting for old stock to be replaced, there could be a requirement for properties to be brought up to standard, say, within 30 years of their construction, which is around the time owners undertake a complete renovation. Owners of rented

property could be required to install solar water heaters and photovoltaic systems or face a penalty (in the form of a tax or a requirement to buy carbon credits).

There is still the problem of poor landlords/poor tenants, which has been a US phenomenon for many years, and could well emerge in Australia; if it does, other measures may be needed.

Most intervention, however, has to be directed at the utilities themselves. Utilities have been subject to privatisation, corporatisation, and structural separation into generating, transmitting, distributing and retailing components.

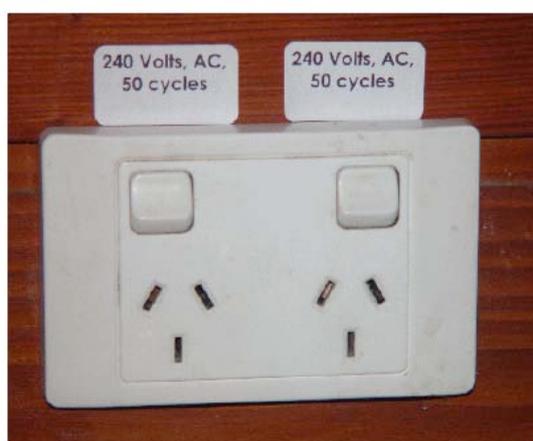
It has never been clear what public interest these “reforms” were supposed to serve, for they have added massively to transaction costs, and when the utilities have been privatised they have had to bear a higher cost of capital, for governments have always been able gain access to finance at a lower price than private investors. Politically there is no evidence we ever sought these “reforms”; there was no public pressure as there had been for shopping hour deregulation or tariff reductions. Rather, in an act of extraordinary paternalism, these changes were imposed on us, on the basis that they were inevitable and beyond question.

Admittedly many of the utilities were overstaffed and under-capitalized, but governments made no serious attempt to address these deficiencies directly. Rather, in a faith akin to religious fundamentalism, there has been a belief that the market alone, with just a little regulation, would bring a cornucopia of economic benefits. We have learned the consequences of this faith in the realm of financial markets, but we are still to learn it in the case of utilities.

As a result of the introduction of retail contestability, consumers have been left with a bewildering array of “choice”, for what is a standard, fungible commodity. This choice is not only between “suppliers” (a misleading term in itself, for all supply the one product; the “suppliers” are only billing agencies), but also between the “plans” offered by suppliers.

In most markets consumers enjoy choice in the forms of lower prices, variety, and innovation. In electricity, however, variety and product innovation are not only irrelevant; they are also undesirable. Any departure from the “vanilla” supply of 240 volts at 50 cycles is undesirable. There is little scope for process innovation, for electricity is a very mature product; there are no great technological breakthroughs on the horizon.

That leaves price as the only feature on which utilities can compete, but as any marketing expert knows, firms will do anything to avoid price competition. One way is through presenting complex tariff structures, often with bundles of other distantly-related services.



Choice without variety

Professor Joshua Gans of the Melbourne Business School has borrowed the term “confusopoly” from the cartoonist Scott Adams to describe this practice. The definition is “a group of companies with similar products who intentionally confuse customers instead of competing on price”.¹⁶

In 2005 Catherine Waddams of the University of East Anglia and a member of the UK Competition Commission, presented to the OECD a paper showing how low income UK consumers coped with

switching opportunities. That research revealed that most consumers did not switch even though there were considerable possible benefits from doing so; some switched to a more expensive supplier and very few switched to the cheapest available. Some specific findings were that:

- 32 percent of switching consumers changed to a plan charging more than the firm they were switching from, creating an average annual loss of £16.53 per household;
- while the average maximum gain available was £53.91 (switching to the best available plan), the annual average gain was only £12.55;
- only seven percent of consumers achieved the maximum saving from their switch of electricity supplier;
- the decision to switch (once the consumer was aware of the ability to switch) was not responsive to the maximum savings available. It also appeared unresponsive to the number of competitors. However, an increase in the number of firms reduced the gains made by switching consumers relative to the maximum available.

This last finding seems counter-intuitive – surely the more firms and the more products competing for consumers’ attention the better – but it aligns with the findings of behavioural economics. Past a point, the more choice is offered, the less likely is a consumer to make any choice. This has been demonstrated in products ranging from varieties of jam through to pension products.¹⁷

Waddams concluded that switching mistakes by consumers are caused by complexity rather than by factors explained by conventional theories of rational decision-making.¹⁸

While this research was done in the UK, a country with many cultural differences from our own, it is a warning that reliance on consumers exercising their market power by switching between suppliers does not necessarily produce the competitive results modelled in the textbooks – a point I am sure Allan Asher, with his first-hand experience of the UK market and of this study, will take up.

What is particularly revealing about Waddams’ research is that it relates to a capital-intensive industry where overall profits are kept to a reasonably competitive level by a combination of specific regulation and competitive market forces. In aggregate, the utilities are unlikely to be extracting monopoly profits from consumers. That means that one consumer’s gain in switching to a lower tariff almost certainly has to be offset by reducing the gains available to other consumers. In other words, there are cross-subsidies to the benefit of savvy consumers who switch to cheaper tariffs, paid for by others who do not switch or who switch to more expensive tariffs.

Competition authorities tend to see switching as an unmitigated benefit, but a market with high switching may simply be one in which there is a rotating re-distribution of costs and benefits between different consumers, all imposing high transaction costs on one another. For any individual the advice to switch to a better tariff is useful, but this outcome cannot be scaled up. It’s an example of what economists know as the fallacy of composition, or, more colloquially, “good for one, dumb for all”.

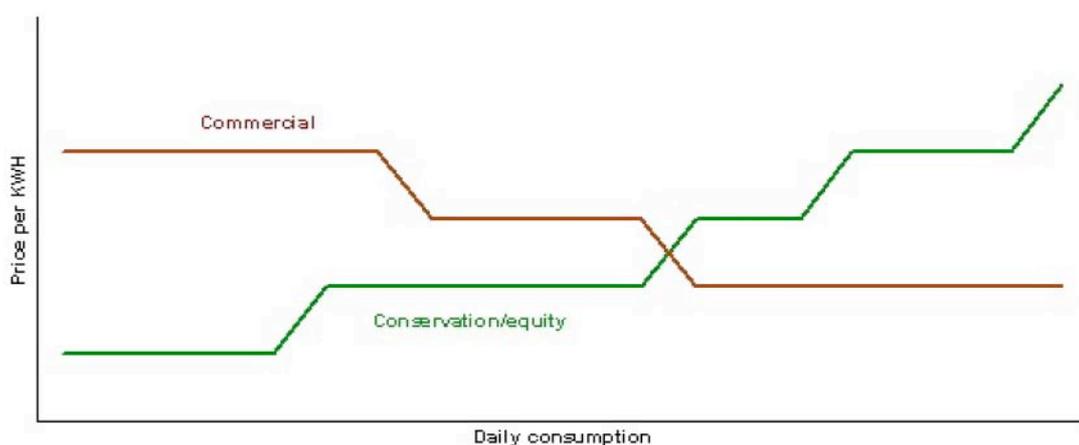
While some of those savvy consumers who switch to cheaper plans may be in low-income households – pensioners with spreadsheets – it is probable that those who get most benefit from switching will be in higher income groups. (In confirmation of the UK findings, the South Australian study found that the low-income people surveyed were generally unaware of the gains to be made from switching.)

If we are to persist with the absurdity of electricity privatisation and structural separation, then the least that can be done by government regulators is to require utilities to restrict their offerings to simply structured tariffs, and presenting consumers with models for “typical” households.

But perhaps the greatest problem with privatisation and corporatisation is the set of incentives in setting tariff structures. The tariffs that an authority concerned with energy conservation and distributive justice, and an authority concerned with profit maximization, are radically different.

A commercial entity has a strong incentive to charge more for those services where demand is unresponsive to price (price inelastic) and less for those services where demand is price responsive (price elastic). In electricity, the basic connection (usually called a “supply charge”) is a “must have”. So too are the first seven or ten KWH a day, used for lighting and refrigeration. But for heating applications, gas is a competitor, and solar water heating is a contender for water heating (low off-peak tariffs reflect not only cheaper supply, but also greater competition from gas and solar). For high users, it makes commercial sense for a provider to reduce price so as to maximize consumption, provided at least marginal cost is covered. (Obviously the commercial suppliers have to beware of high peak loads, when marginal costs rise steeply, but they will want to encourage high off-peak usage.) Hence, it is probable that under a commercially structured tariff, consumers will pay less per KWH to heat a swimming pool than to run the refrigerator or the lights over children’s desks.

Figure 4. Tariffs compared



A tariff structure concerned with conservation and equity would be almost a mirror-image of a commercial structure (See Figure 4). It would charge lightly for the basic supply and initial units, possibly recouping some of the cost from general revenue. And it would charge heavily for more discretionary consumption. Such a tariff would need to be mandated, or built into the charter of a publicly-owned utility, and there would have to be a similar treatment for gas (but with more leniency to encourage substitution to the lower carbon source).

In Australia we have moved from retail price regulation to one where there is “retail contestability” through choice of “supplier”.¹⁹ Price regulation is maintained only for what can be considered to be the natural monopoly aspects of electricity. Most “suppliers” do offer stepped-up tariffs, with the steps applying from around 10 to 20 KWH daily consumption (probably well above what would be considered as essential consumption). In Sydney the step is generally steep, in the order of 50 to 70 percent, while in Melbourne the step is more modest, in the order of 10 percent. In some other markets “suppliers” offer no steps, and in Hobart for example, there is on offer a stepped-down tariff. In a short research of websites I could find no examples of higher steps for very high electricity users. Industry representatives defend de-regulation vigorously, but seldom acknowledge the conflicts between commercial and environmental incentives.

Some economists may suggest that mandated tariff structures distort resource allocation. For those “must have” (inelastic) services, however, there would be no change in resource allocation. In fact, provided we could find the revenue from our taxes, we could provide all households with a free connection and the first few KWH free, with no departure from what would occur in an unregulated market. In fact, the “suppliers” would have the benefit of fewer bad debts and of not having the unpleasant task of disconnecting people’s electricity. Disconnection imposes high costs on those least able to bear it – financial costs associated with re-connection, spoilage of food, discomfort and a loss of hygiene, and a loss of dignity. And it imposes transaction costs on the “suppliers”.²⁰

A mandated tariff structure designed to meet conservation and equity objectives, with or without a free base component, would produce a different resource allocation from one which is left to market forces, but that is the very point of a conservation-oriented tariff. Also, such a tariff would also go some way to discouraging peak usage, in a much more simple way than peak pricing, which would work only with a radical change in electricity metering.

Another option to governments is to require suppliers to apply quantitative consumption limits, so that once a household exceeds a certain current, a circuit breaker trips (with appropriate warning). Clearly such limits would have to take into account household size and the type of fuel dependence. The inconvenience caused would be minor compared with the inconvenience of sudden and unannounced blackouts (now euphemistically called “load shedding”) which are becoming common on hot afternoons. Such limits, too, would go some way to reducing the requirement for investment in and use of peak power, for peak power is costly on the community. The capacity to provide peak power has to be paid for by all consumers, and, environmentally, the last few GW of power are generally provided by the oldest, least efficient and dirtiest power stations, incurring high carbon credit costs.

Issues surrounding peak power are undoubtedly contentious. On one hand there are people with environmental concerns and a strong belief in market solutions who believe that smart metering will allow consumers to respond to instantaneous price signals if “suppliers” are allowed to vary tariffs over the dynamic course of a day’s demand (and the dynamic load on the system). On the other hand there are those who fear that inattentive consumers, and those who have no discretion in their use, could face horrendous charges, because some peak prices can be extremely high, not just because of the cost of carbon credits, but also because a market at capacity is a market in which suppliers have a lot of pricing power. Some even go so far as to oppose modernization of meters.

It’s an unfortunate conflict, for it obscures many innovative solutions which are technically feasible provided there is enough leadership and appropriate regulation from governments. For example, peak tariffs, rather than being spread across all users, could be applied only to very high users, with the first X KWH subject to “normal” tariffs. There are exciting energy saving technologies involving smart appliances talking to smart meters. And even within a market system, peak tariffs can be regulated, for, by very definition, when the marginal supplier is in an effective monopoly position, the market has failed.

Of course any interventions as mentioned above would be resisted by the industry, but our governments have been extraordinarily generous to this industry; it has become accustomed to an easy time. For example, where natural monopoly aspects have been subject to control, governments have allowed a very high return on assets, through a weighted average cost of capital (WACC) formula which is biased towards very high returns. It gives the industry an inflation-indexed return of around nine percent. Part of the justification is a technical one, for the WACC formula includes a premium for risk, but this is an industry with very low risk, even in these troubled times.²¹ In those areas where there is not a natural monopoly, particularly retail “supply”, governments have allowed the firms to bamboozle consumers with choice

overload for some, and to rely on consumers' disinclination to spend their precious free time browsing websites to find the best out of constantly-changing plans on offer.

Conclusion – “We’re all in this together”

Governments have been overly confident in the power of passive market mechanisms, particularly pricing, to help consumers adapt to the higher energy costs which will result from a CPRS. In particular, they have not taken into account the behavioural biases which get in the way of wise decision-making, and they have not considered the constraints of people who, through lack of financial resources, or through other situations (such as renters), have little discretion in their decision-making.

This means that, without more market intervention, a CPRS may be less equitable than it could be. In looking at government policies I have wondered why equity has tended to be neglected, or tacked on as an afterthought. Perhaps it has to do with the set of administrative “reforms” embraced by governments around 30 years ago, in which each agency tends to look after its own portfolio, and where policy coordination takes place only at cabinet level. (The procedure before these “reforms” was for far more design integration before proposals made it to cabinet.) Also, from my experience with public service departments, I find that there has been a loss of analytical skills in the public service.²² This is particularly so in some of the welfare-oriented departments.

This adversarial method of policy-making is costly, and is leading to poor outcomes.

Once when I was visiting the Netherlands I asked a Dutch academic a rather dumb question. I asked why I had found the Dutch – old and young, rich and poor, left and right – to be so environmentally conscious. She pointed out her window to the flat landscape, and reminded me of the nation's relation to sea level, and of the climate change predictions. “We are all in this together”, she said.

Such a consciousness has not yet reached our shores. We still see the task of coping with climate change in terms of conflicting interests. We seek excuses for doing nothing, or for confining our activities to token efforts, which make few demands on us and do not conflict with established beliefs, particularly our belief in letting unfettered markets allocate our scarce resources.

Helping those who are disadvantaged or vulnerable adjust to climate change will be costly if it is to be effective, and that cost should be borne by those who are more fortunate. Such a redistribution is not because of some socialist or equalitarian zeal (though some may see it in such a way). Rather, it is because we're all in it together.

Notes:

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3. Australian Greenhouse Office “End Use Allocation of Emissions” 2002.
4. ABS Environmental Issues: Energy Use and Conservation Cat 4602.0.55.001 November 2008.
5. Australian Greenhouse Office 2002 op. cit.
6. Australian Treasury Australia's low pollution future <http://www.treasury.gov.au/lowpollutionfuture/>
7. Commonwealth Treasury “The Carbon Pollution Reduction Scheme and You” 2008.
8. In the field of behavioral economics there is a large amount of published research on this phenomenon, generally under the heading of “hyperbolic discounting”. For a rigorous approach, see David Laibson “Golden eggs and hyperbolic discounting” Quarterly Journal of Economics, May 1997.
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18. A summary of this research is in the OECD Roundtable on Demand-Side Economics for Consumer Policy: Summary Report. OECD 2006.
19. Australian Treasury "Price Regulation of Utilities".
20. See, for example "Cutoff II: The experience of utility disconnections Final Report" Prepared by Urbis for the Energy and Water Consumers' Advocacy Program, Public Interest Advocacy Centre, January 2009.
21. See the reales of the Australian Energy Regulator www.aer.gov.au . The standard WACC formula is influenced by a figure called a "beta", which is a measure of volatility of returns in a market. In the WACC methodology, volatility is assumed to indicate risk, but that is a generous assumption.
22. A point reinforced, with evidence, by Gary Banks, Chairman of the Productivity Commission, in an address "Evidence-based policy-making: What is it? How do we get it?", 4 February 2009. See the PC website www.pc.gov.au

Keynote address: Impact of the EU/UK emissions trading scheme on consumers by Allan Asher

Allan Asher is a former deputy chairman of the Australian Competition and Consumer Commission (ACCC). He was, until recently, a board member of the United Kingdom Office of Fair Trading and CEO of the consumer watchdog organisation EnergyWatch. During his time at the ACCC he had a direct approach to seeking resolution of both competition and consumer protection issues. He joined EnergyWatch from the UK Consumers Association where he was Director of Campaigns and Communication and a member of the senior management group. He has also previously worked for Consumers International, which is a global NGO made up of 240 groups from 110 countries.

Introduction

Climate change policies provoke debate around the world. I am in the 'must do something but make sure it doesn't cause problems elsewhere' lobby. We have the absurdity in the UK and Europe of implementing measures to defeat global warming which are implicated in people dying from cold.

Fuel poverty in Britain is rising again after many years of effort to reduce it. The reason is easy to find but extremely difficult to work out. Price rises in an imperfect energy market have soared over the past two years. This has had a devastating impact on low income families who have either been disconnected from electricity and gas, or have disconnected themselves to reduce their debt to energy companies. The UK's competitive market has given many consumers just one choice: heat or light. Britain's poor are saving energy but only because they can't afford it. To a degree this is due to the emissions trading system introduced by the EU following the 1997 Kyoto Protocol.

The European Carbon Trading Scheme (EU ETS) allows power generators to pass on cost of the scheme to consumers. At the same time it has put substantial new profits into the companies' pockets. A flawed policy has ensured that the energy industry becomes richer and the poor become poorer.

Ofgem the market regulator, reported to the government in 2008 that: "Bills are being driven up by rising global energy costs (oil, coal and gas), the cost of curbing climate change, increased investment in the energy networks to ensure safe and reliable energy supplies for customers and a lack of market liberalisation in the rest of Europe..."

The regulator identified a windfall to the electricity industry worth the equivalent of £9billion (A\$20billion) arising from the free allocation of tradeable emission permits. Analysts have estimated that emissions trading has caused a 10pc rise in wholesale electricity prices, adding between 5% to 8% to electricity bills which are currently averaging £1000 a year (A\$2,232). Current environmental measures introduced by the UK government (the Renewables Obligation, EU ETS, and CERT) account for 14% of average domestic electricity bills and 3% for gas. The overall cost of energy to domestic consumers rose by 22% in real terms between 2005 and 2006, with gas prices rising by 29% and electricity prices rising by 19%. Latest figures show that the overall price paid for fuel and light in real terms rose by 23.6% between Q3 2007 and Q3 2008. In that period domestic electricity prices rose by 17% in real terms and gas by 27%.

This kind of price hike does one thing very well: it ensures millions of families live in fuel poverty.



Allan Asher

European Union Emissions Trading Scheme (EU ETS)

The EU ETS was introduced with the aim of persuading industry to reduce carbon emissions. It was going to force companies to pay for the right to pollute and, as a consequence, push them into a rush for cleaner methods of production. Polluters were required to obtain permits to emit a specific amount of carbon emissions. As the total amount of allowances and credits cannot exceed a cap on total emissions, those companies needing to increase their emission allowance must buy credits from those willing to sell their allowances. Creating a market for pollution allowances was expected to create competition for finding cleaner and cheaper energy sources. It has not quite worked out that way.

Initially many of the permits were given away free on the basis of business-as-usual. Power generators in particular gained from the scheme because their free permits have a market value and this is reflected in the wholesale price of power. The winners in emissions trading tend to be polluters who sell credits and brokers who charge fees when credits change hands. The central aim of the policy is further subverted by polluters in the developed world paying companies in the developing world to make emissions reductions.

The scheme was also expected to persuade the power industry to turn its profits from emissions trading into investment in new technologies. This has not happened. A House of Commons Parliamentary Committee in 2007 reported that the power industry was holding onto its profits rather than investing them in low carbon energy generation. It also noted: "These profits have arisen because power companies have raised their prices to incorporate the market value of all the ETS allowances they have used to cover their emissions, even though the majority of these allowances were not purchased on the market but given to them, in their original allocations, entirely for free."

Critics say that emissions trading has probably diverted investment away from renewable-energy technology. A study published in the scientific journal *Nature* (Dec 08) claims that nearly \$6 billion (A\$9.2billion) already spent on projects to curb emissions of HFC-23, a greenhouse gas, had the same impact on the environment as would \$132 million (A\$ 203.7million) worth of equipment upgrades.

As recession bites, emissions trading will become less of an incentive to stop polluting. The market value of carbon credits is dropping as companies reduced manufacturing and send their permits rather than products off to market.

The cost to UK consumers of emissions trading and other climate change policies has been significant. In 2008 the UK government reported that policies to reduce carbon emissions such as the EU Emissions Trading Scheme, the Renewables Obligation and the Carbon Emissions Reduction Target, have played a part in increasing the cost of energy to consumers. It estimated that the EU ETS alone was responsible for a quarter of the rise in wholesale electricity prices between 2004 and 2005.

Impact on consumers

Consumers are paying for emissions trading without having influence on either the policy or the impact. Power generator profits have been exceptional but their response to fuel poverty has been grudging and minimal. We have an industry in the UK which is efficient at making money and deficient in customer care. Over a decade of liberalised markets and regulation the consumer experience remains grim. After mis-selling, debt management by disconnection, poor billing, erroneous transfers of customers between suppliers and practices which ensure people are in debt and unable to move to cheaper supplier, UK consumers have been hit with soaring price increases. Suppliers blame increased wholesale prices for this, but even when those prices have fallen the companies have been extremely slow to pass on price cuts. A few powerful suppliers have emerged in the retail market with vertical links to the power generators; the regulator may insist that the market is competitive but the choices available to consumers are compromised and virtually negligible. This matters a great deal because energy is not just a commodity, it is essential. No-one has a choice about buying it and in the UK they have a very poor choice about who supplies it.

Low income families in particular have borne the brunt of the industry's failings and are now picking up the bill for carbon trading. A range of indices show that they are disproportionately affected by high prices and price rises. This fact is well made in the *Energy & Equity* report published by the Australian Conservation Foundation (ACF), CHOICE and the Australian Council of Social Service (ACOSS). Research published by energywatch in 2008, revealed how low income households are affected in markets

for seven essential services: food, housing, water, telecommunications, public transport, financial services and the energy sector. Led by Professor Steve Thomas of the University of Greenwich, the study concluded that the markets are stacked against low-income households. In many cases the best deals are only available to those who have full-service bank accounts and the skills and equipment to search the internet.

Low-income households get the worst service in the energy sector where those unable to pay by Direct Debit or operate their account on-line, pay on average 20% more than those who can. On average, low income earners spend a greater proportion of their total weekly household budget on electricity and gas than wealthier families - and consume less energy.

An overview of energy debt in the UK shows that 5% of all domestic consumers – 1.2 million households – are paying an energy debt. energywatch calculated that between them the average debt owed to energy suppliers by these households is £214. Some of the most vulnerable consumers are unable to access the cheapest tariffs in the market as they pay by prepayment meter.

Price increases in 2008 alone have added an extra half a million households to the four million already in fuel poverty, defined as households needing to spend in excess of 10% of household income in order to maintain a satisfactory heating regime as recommended by the World Health Organisation

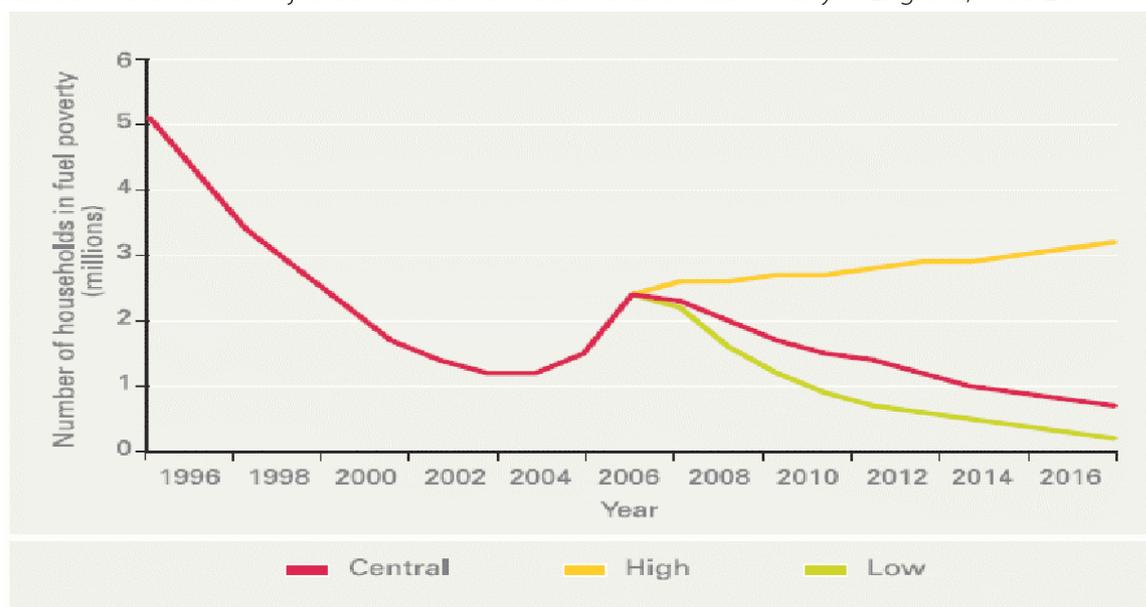
Fuel poverty arises when three factors conspire to put thermal comfort beyond the reach of the household affected:

- poorly insulated, energy inefficient homes with sub-optimal heating systems;
- low disposable household income; and
- price of fuel.

The Government department responsible for energy policy estimates that in England every 1% increase in prices forces an additional 40,000 households into fuel poverty. This means that fuel poverty is now at a higher level than when the UK Fuel Poverty Strategy was published in 2001 with legally binding targets for the eradication of fuel poverty in all vulnerable households by 2010; and in all remaining households by 2016. These targets are now unattainable.

The effect of price increases is compounded by having less disposable income to spend on energy efficient appliances and measures, such as home insulation, which would reduce domestic energy consumption. The reality is that faced with huge power bills and energy debt, families are disconnecting themselves from electricity and gas – or rationing its use – there were 23,900 excess winter deaths in 06/07 (the last date for which figures are available) . The poor can't actually afford to 'go green' and certainly not on the green tariffs being offered by UK suppliers. Low income families are being disproportionate affected from policies intended to reduce dirty energy production and consumption. Feeding power companies' profits while families are starved of essential services is an extraordinary achievement from a policy intended to reduce pollution.

Table 3 Historic and Projected Numbers of Households in Fuel Poverty in England, 1996-2016



Source: DTI, 2007

- Positions in 2005 and 2006 are based on the modelling of the impact of income, energy prices movements and energy efficiency measures on the number of vulnerable households in fuel poverty.
- Positions from 2007 to 2016 are based on modelling and show central, low and high price scenarios. These are based on the fossil-fuel price assumptions published at the same time as the White Paper.

UK government responses

The government has tried to tackle fuel poverty and climate change in numerous initiatives that suggest panic rather than panacea. Not all of them have been mutually supportive and, as indicated, emissions trading has helped to push people further into debt and deprivation.

Another cost passed on to consumers was the energy efficiency commitment which required suppliers to spend a certain amount of money per consumer each year on improving energy efficiency. This has now been replaced by the carbon emissions reduction target scheme (CERT) which will run until 2011. CERT's aim is to reduce carbon dioxide emissions in the domestic sector by improving housing stock. Suppliers are required to deliver at least 40% of their carbon savings from energy efficiency measures in households of low income consumers. A proposed 20% increase in the existing CERT target will require additional expenditure by the energy suppliers of an estimated £ 560 million (A\$ 1.2billion) of which an estimated £300m (A\$669million) will go to the priority group of low income and elderly customers.

The Renewables Obligation (RO) requires licensed electricity suppliers to source a specific and annually increasing percentage of the electricity they supply from renewable sources. The current level is 9.1% for 2008/09 rising to 15.4% by 2015/16. This policy also increased costs to the consumer and a 2007 report by Ofgem concluded: "The way the RO operates means that customers end up paying even if renewable generation doesn't get built...It also fails to link the level of support to the price of electricity or the price of carbon emission allowances...So existing and future renewable generators will benefit, at customers' expense, from much higher electricity prices."

A range of measures have been introduced in the UK to improve fuel efficiency, particularly in low income households. They include:

- The Home Energy Saving Programme, a £1 billion (A\$ 2.2billion) package of measures to help families cut their energy bills.
- The Community Energy Saving Programme, offers communities in 100 fuel-poor areas free and discounted central heating, energy efficiency measures and benefit checks.
- The warm front scheme provides £1700 (A\$3,800) to eligible householders for central heating work.
- Winter fuel payments and the augmented winter fuel payments for those over 80 years old. Cold weather payments were also made this year to those in receipt of some social benefits around 12 million people.
- Individual agreements with the six largest energy suppliers to increase their collective expenditure on social assistance to a level of at least £150 million (A\$334million) by the financial year 2010-11 – an increase of £225 million over the next three years. Each supplier offers a different form of assistance – for example, social tariffs, assistance with clearing debt, rebates, and fixed tariffs.
- An expectation that 95% of all social housing in England will meet or exceed the Decent Homes standard by 2010. Social landlords must agree specific deadlines for the remaining 5%.
- Through the CHPQA scheme the government has put in place three main incentives to encourage the take-up of 'good quality' Combined Heat and Power (CHP):
 - Investment in a CHP plant may qualify for an Enhanced Capital Allowance (ECA). This enables a business to claim 100% first-year capital allowances of their spending on qualifying plants and machinery. Businesses can write off the whole of the capital cost of their investment in these technologies against their taxable profits of the period during which they make the investment.
 - Exemption from the Climate Change Levy.
 - Exception of Power Generating Plant & Machinery from Business Rates.

- Government funding has enabled Warm Zones, a not-for-profit company to deliver affordable warmth to low-income and other vulnerable households, as well as energy efficiency measures for the able-to-pay.
- A new pilot project will create a fuel poverty workstream within the Low Carbon Buildings Programme - £3 million (A\$6.7million) will be made available in Wales and three English Regional Development Agencies, to fund the purchase of microgeneration technologies and their installation in households in deprived communities between 2008 and 2010.
- The Green Neighbourhoods initiative is now being developed by the Energy Saving Trust will give up to 100 neighbourhoods in England a 'green makeover' with the aim of reducing their carbon footprints by more than 60 per cent.
- In Scotland, Aberdeen City Council have invested in the Stockethill multi-story CHP project where tenants pay for the heating through a flat rate of £4.75 (A\$10.5) a week. The National Federation of Housing Associations (NH F) has established an energy alliance with EBiCo , a not-for-profit social enterprise, whereby social housing providers can access cheaper energy for their tenants.
- Some housing associations have set up their own energy supply companies which buy wholesale energy and resell it to their tenants saving money for them. One example is Energyextra , which offers free home energy advice and visits to help tenants to be as energy efficient as possible.
- Energy suppliers have set up trust funds to help the poor. The EDF Energy Trust and the British Gas Energy Trust, which incorporates the Scottish Gas Energy Trust, makes grants available to help individuals and families to meet arrears of energy charges and other household bills). The Trust also funds voluntary sector organisations to provide money and debt advice services.

Conclusion

Governments around the world agree that cutting the production and consumption of energy from fossil fuels is necessary if we are to slow up climate change. The challenge involved in getting this right should not be underestimated, but nor should we underestimate the impacts of climate change policies on individuals. Those trying to achieve change should expect social responsibility from all of us and in return we should expect a measure of social responsibility to feed through into protections for vulnerable consumers.

Relying on pricing mechanisms to cut carbon emissions is an extremely blunt instrument. If Australia is to go down this route then it should be prepared to avoid the mistakes of Europe. One avoidance mechanism would be to ensure that profits from carbon trading are offset against mandatory industry spending on social programmes, energy efficiency measures at customer level and renewable energy sources. This should also apply to governments involved in permit auctions: money gained from emissions trading should be used for fuel efficiency measures and reduction of fuel poverty.

More sophisticated methods than the emissions market need to be found to persuade or coerce the companies to invest in cleaner generation and customer care. The industry may complain that no manufacturer should be expected to spend money on advising customers how to use less of its product but the consequences of greater consumption could be zero sum.

Governments must focus on co-ordinated policies that encourage individuals to reduce energy consumption. There is considerable consumer confusion about suppliers' green marketing, not just with respect to so-called 'green tariffs' but more generally to claims about investment in renewable generation, energy efficiency and other environmental initiatives. As a result of an energywatch campaign, Ofgem was persuaded to update its green tariff guidelines to suppliers and is working with the industry to introduce an accreditation scheme to monitor and vet claims. There has been a trend to self-regulation in Britain which has delivered some improvements but not enough. Consumer confidence may require a mandate for suppliers to reveal the renewable and carbon content of every electricity tariff.

Smart metering is available but currently does not have sufficient government backing to get it into mainstream use. Smart meters enable consumers to make savings on their bills by giving clear real-time information on consumption. They allow suppliers to introduce 'time of day' tariffs that encourage consumers to make savings by reducing energy use during peak periods or move energy demand to more efficient times of the day. This helps to de-carbonise energy generation because generators used for peak time production tend to be the highest carbon producers. The two way communication capability of smart meters also enables companies to monitor consumption patterns and identify consumers who are self disconnecting or are at risk of fuel poverty. The industry will complain about the cost of installation but this is where emissions trading could produce a positive outcome for company and customer.

It would be wrong to work from the assumption that carbon reduction and energy efficiency are essentially a problem for solution by government and industry. As seen in the UK, local and not-for-profit initiatives can make valuable contributions to energy efficiency and reducing fuel poverty. In many instances, vulnerable consumers look for help at community level. This is where collaborative working is most effective. A paper produced by Help the Aged's Mervyn Kohler illustrates how voluntary and community agencies working within and for communities, enjoy established and often in-home contact with those that are always likely to remain "hard to reach", if not beyond reach, for utility companies. energywatch urged all the major energy suppliers to grasp the opportunities for collaborative working.

Social responsibility is not a natural fit with the profit-making strategies of business but it is – or should be – the natural environment of governments and regulators; until they understand and accept this public policy will lag behind the drive for economic growth.

Panel Discussion: Community organisations by Alison Peters

Alison Peters is the Director of the Council of Social Service of NSW (NCOSS), a position she has held since November 2007. Prior to this Alison was the Deputy Assistant Secretary of Unions NSW for seven years. Alison is currently a director of the Public Interest Advocacy Centre and has been a director of Sydney Water and the NSW Working Women's Centre. She has been a member of the Premier's Council for Women, the Cooperatives Council, the Privacy Advisory Committee, the Advisory Council for the International Year of the Volunteer and the Sydney University Work and Organisational Studies Advisory Board.

Two considerations:

- Community organisations
- Clients and communities

Community Organisations

- We are "low income" businesses
- We are also diverse – very small, small, big and enormous
- Whatever our size we also have different capacity – some rent, some own property but have limited cash flow while others own property with better cash flow – so consequences will vary
- Most community organisations, though, run on very tight budgets and cash flow
- This affects capacity to adapt to changes in energy costs resulting from Greenhouse policy
- "Cost increases" for most community organisations this means reduced capacity to deliver services
- UNLESS funding changes
- Possible compensation for increased costs – issues of equity across "businesses/organisations"
- These issues raise broader questions about the sustainability of the sector

Clients and communities

- These issues often viewed as not our "core" work
- Seen as important but not vital or crucial
- Yet building capacity for low income people and households to speak out on their own behalf is part of our core work
- Community organisations – "trusted" providers of information to their clients – useful way to talk to people who are pretty marginalised in these debates about their needs
- Advocacy is important but not enough – need to turn policy into effective practice
- Affordable Water & Energy Efficiency Project (AWEEP) provided training to workers in community organisations about water and energy efficiency measures – idea was to encourage workers to implement efficient practices in their workplaces and work with clients on how they could achieve changes in their own homes – program well received – but evaluation suggested that the behaviour change achieved was workers in their own homes rather than for clients or their workplace
- Cancer Council "Tackling Tobacco" program – seeks to change behaviour by integrating smoking cessation strategies into the day to day work of community workers regardless of the focus of their service

Lessons

- Piecemeal approaches are to be avoided – every bit helps but need to be integrated
- As a sector we need to build our capacity to advocate and deliver services and programs
- This requires education and support for the sector to understand the issues and to build ways to incorporate strategies into our everyday work
- Need a broader consideration of how we live – planning, housing, transport and jobs

Panel Discussion: Pensioners by Maree O'Halloran

Maree O'Halloran is the Director of the Welfare Rights Centre. She also practices as a solicitor at the Centre which specialises in social security law and policy development. The Centre provides assistance to people living on very low incomes. Maree was the President of the NSW Teachers Federation for almost 7 years and taught in NSW public schools and the TAFE system for a decade. Maree was also an education officer and teacher at Long Bay Correctional Centre for two years.

- The view that “we are all in this together” cannot be imposed particularly on people that have not been able to participate in the full life of society because they are on low incomes. All around them have been signs over the last decades of neo-liberalism that we are not “all in this together”.
- The “trickle down effect” in times of economic prosperity does not encourage a view that we are all together or that the common good is paramount.
- People on high incomes are easily able to conform at a lower proportionate cost or at least create the illusion that they are conforming. People on lower incomes do not have this option and we may create a new class barrier.
- There are 3 reasons we must ensure that people on low incomes are able to reduce their carbon foot print:
 - the clear urgency of the issue for the planet
 - the increased amenity it may provide people on lower incomes
 - the opportunity to participate may become emblematic of good citizenship and normative behaviour – we don't want further alienation and marginalisation.



Left to right: Karen Oakley, Maree O'Halloran, Deborah Phippen, Jenna Wood, Alison Peters and Robin Banks.

Panel Discussion: Energy hardship customers by Jenna Wood

As Country Energy's Group Manager Customer Affairs, Jenna Wood is responsible for the overall management of Country Energy's customer complaints, under-excess customer claims, Ombudsman relations and Guaranteed Service Standards. Country Energy is a leading Australian energy business owned by the NSW Government, operating Australia's largest electricity network spanning 95 per cent of New South Wales and providing reticulated natural gas to around 25,000 customers in southern New South Wales, and water and sewerage services to 10,000 customers in the Broken Hill area. Country Energy offers retail electricity in six states and territories.

Electricity retailers do understand the impacts of disconnection on our customers; we do not want to see customers disconnected for non payment. We would much rather customers have consumption that they can afford to pay. It just makes good business sense – credit control and written off costs are a huge hidden cost.

In today's world, electricity is unquestionably considered an essential service. But in our current economic climate, it could be considered an expensive one - expensive to produce, expensive to deliver and therefore expensive to use.

It is also considered an expense on our environment, which is why there is no doubt that there needs to be a Carbon Emissions Reduction Program.

I can recall many years ago when working in Country Energy's supply interruption team, being amazed that some of our rural customers would literally take days to realise they were without power. As Alan alluded to - how our lifestyles have changed. Everything we do now in the home involves electricity – even the basic appliances require it – and many homes now can't tell the time without it!

The progress we've made in the last decade is great - more sick people can stay at home instead of having to be hospitalised to receive their oxygen or their dialysis (air conditioners for MS) - but it comes at a cost - and that is not just the increased reliance on electricity it's also extra dollars.

Traditionally we think of our hardship customers as being unemployed or on benefits, but more and more we are seeing a new poor who don't even have that minimal fixed income and are struggling to pay off a mortgage after locking their loans a year ago as security against increasing interest rates.

The PIAC report *Cut Off II* revealed this, and showed that these new working poor do not have the knowledge or access to assistance available and would be the last to let agencies or even their electricity retailer know of their plight from pure pride and embarrassment.

They are the ones who will reconnect shortly after disconnection by paying their account with credit cards. I share the concern of what will happen in the following months when they cannot make their repayments on these.

And what about our pensioners, who have worked all their lives, always paid their bills on time, proud of their ability to pay and provide? They are unlikely to miss a payment on their electricity account, what will they go without instead? When I asked our hardship team, the answer was simple – food.

So when we talk about our 1000 customers who are currently on Country Energy's hardship program, Country Support, and the 9000 who have used it in the past– you can probably triple it to cover the people who should be on it and 20 times it to capture those who just make ends meet.

I am very proud of Country Energy's hardship program. When people want to pay but can't, we will help them out. Whether it be short or long term, we are there to help.

Extension of time can be a month to 10 years - while ensuring they have the capacity to pay by cutting down on energy consumption. In some cases we assist with the debt itself. We have had such amazing success stories of customers who have got out of the debt cycle by being educated and taking charge of their energy consumption.

But, I also see the reality of customers who have done this and are currently asked to pay \$55 per fortnight on payment plans to cover their consumption and who can only afford \$50.

These customers are will be asked to pay a further \$4-6 a week under this scheme - along with increased electricity, food, rent and petrol prices - we will see a large proportion of consumers giving up on other essentials to keep the power on.

A big help to such customers is the Governments attempts in the White Paper to compensate up to 50% of this through FBT of their yearly tax return and through Centrelink payments to assist them with their share of the emissions payment. But Country Energy has concerns with this method of payment – a once yearly payment that has no direct association with their electricity account!

In order for this assistance package to work this needs to be a direct rebate off the electricity account and we need customers to see that they are also helping the environment and take pride in the contribution they are making – to see the impact that reduced energy consumption is having on their pocket and their environment.

It's crucial that we follow this up with a real and consolidated approach to education programs that reach rural and disadvantaged customers - the Government working hand in hand with electricity companies, with appliance manufacturers, retailers and landlords – to educate everyone on the benefits of reducing electricity consumption to allow all people access to an essential service - and help save our environment.

Panel Discussion: Tenants by Deborah Phippen

Deborah Phippen is the Executive Officer of the Tenants' Union ACT, and has been with this organisation for the past 15 years. She holds Executive positions on the boards of the Welfare Rights and Legal Centre and the Youth Law Centre and represents the ACT Community Legal Centre network on the Board of the National Association of Community Legal Centres. Deborah also holds representative positions with the National Association of Tenants Organisations, an association providing networking and support for tenant advocates across the country and National Shelter, the peak consumer body for housing for people on low incomes.

Good afternoon, I will be talking about tenancy matters initially giving an idea of issues and can then highlight about some actions that have been taken to address the issues.

Tenants make up a sizeable proportion of our population, most people will rent at some time in their lives, and for more and more people it is the housing that they will be in for their lifetime. The control or lack of it that they have over their homes will have a significant impact on how a Carbon Pollution Reduction scheme affects their lives.

Nationally there are about 2,064,000 rental households (or 27.2% of the population). In NSW there are well over 700,000 rental households (or about 28%) with 124,000 public rental households and over 317,000 people receiving rent assistance. Renters make up 27% of all households and do cover the range of demographic groups; however they make up 55% of single parent households and 34% of single person households. In NSW there are 156,000 lower-income households in housing stress living in private rental.

These are important considerations when determining the impact of an increase in the price of energy. The Treasury report points to household income growing at a rate of about one percent. For homeowners and purchasers generally this is combined with drops in interest rates and decreasing house prices. However rents have continued to increase with Sydney rents increasing an average of about 17% over the past 12 months. Another indication is the increase in the general CPI has been 3.7% while that for private rents has been 8.4%

So that's costs for tenants. Another major issue is control. I have to point out that when discussions started about reducing energy consumption by improving and retrofitting properties I know that our initial reaction was – "but tenants can't even get urgent repairs done let alone have landlords improve the properties" Tenants also have restrictions on what changes they can make to their home even if they do wish improve the property themselves.

Tenants' responses in the first instance are limited to actions where they maintain control; this is in relation to the use and standards of portable appliances, also in the way they consume energy such as turning off appliances and lights, changing light bulbs (where they can be changed). Of course these actions can reduce consumption, but when it comes to making changes to the premises they are living the obvious problems arise.

For tenants it is not a matter of whether they can afford to install better heating, cooling, insulation or window coverings. It is a matter of either encouraging the landlord to make the changes or permitting the changes. For governments it is about incentive or regulation.

There is no incentive for a tenant to try to get permission to install or improve something that will be a cost to them that they will not be able to recoup unless they stay on in the property for a significant amount of

time. On top of that there is always the risk of a rent increase because the premises have been improved or even termination of the tenancy because the landlord wants them out so they can charge higher rent to a new tenant.

The incentive for the landlord is even less. We as advocates know that it can be very difficult for tenants to have the basic standard of the home maintained, and this is something they are required to do by law and that they can be reimbursed for in terms of negative gearing. Here we are talking about improvements, effort and expenditure. While there is the incentive related to some capital gain and some costs being covered, is this enough? In addition to this the landlord has no direct benefit in terms of energy cost saving because they don't pay those costs.

We do not have any data in relation to the take up of the Federal Government's incentive for landlord's installing insulation that was introduced in May last year. It would be interesting to see the figures. We know that measures such as energy efficiency ratings only work to improve standards where there is competition and choice, and in the current rental market tenants are not in the position to make choices; they take what they can get.

In the ACT the public housing authority is retrofitting properties and this is improving the situation for public tenants. It is good to see government housing leading the way. Around the country there are few examples of projects assisting people with managing energy and improving their homes. In the ACT we have had positive results with a project called WEST - Water and Energy Savings in the Territory. The project identifies people having difficulty paying utilities bills and provides them with an energy audit of the property, working with the households to change their energy use and there are some limited funds to make improvements to the properties. The project has had some very good outcomes in public and community housing and people who own their homes but no success in private rental. Because of this there has been some initial work on developing a new project aimed specifically at assisting private renters.

In a recent stakeholder meeting aimed at developing the project we identified the problems I have already alluded to. We also agreed that there needs to be a range of assistance that recognises the lack of control that tenants have over their homes. A range of ideas were discussed:

- Education for tenants ensuring that information on changing energy consumption recognises the restrictions on them and does not talk about changing things they have no control over;
- Education for real estate agents and others managing properties.
- Projects and assistance for disadvantaged tenants that adapts to how much they feel they can change their behaviour and their home, in terms of range of assistance from funds to purchase portable appliances to identifying what repairs and maintenance might be necessary and reports that will assist tenants to ensure they are done, to providing landlord's with funds to make improvements (but such assistance being tied to securing the tenancy and the rent level)
- Developing housing manuals to ensure that tenants are told how appliances work and are maintained; and
- Developing standards for rental properties and even looking at tenancy law issues such as security of tenure and penalties.

When you don't have control over the condition of your home, when you don't have control over the tenure of your home energy efficiency can be well out of reach.

Panel Discussion: People living with a mental illness by Karen Oakley

Karen Oakley is the Executive Officer of the NSW Consumer Advisory Group – Mental Health Inc. (NSW CAG). NSW CAG is the state-wide, peak organisation representing views of mental health consumers at a policy level to achieve and support systemic change. NSW CAG's purpose is to ensure that mental health consumers' views are heard by policy makers, service providers and the community, through promoting consumer participation in relevant state level policy making and service development decisions, implementation and evaluation. NSW CAG regularly consults with its network of consumers and undertakes consultation with local consumers throughout the state.

We have all probably heard that “one in five people” will experience mental illness in a year.

Some things you may not know about people with mental illness (from the National Survey of Mental Health and Wellbeing ABS 2007):

- Women are more likely to experience mental illness than men
- Over a third of people living in one parent families had a mental disorder compared with 19% of people in couple families with children
- Over half the people involved in the National Survey of Mental Health and Wellbeing who had ever been homeless had a mental illness, nearly three times the rate of people who had not
- Mental illness is more common in unemployed people and those who have ever been in prison

Many people with mental illness have a low socio-economic status; people with long term mental illness may be unable to work, and therefore reliant on the Pension, and many are in public housing. Many people with mental illness may also be more greatly represented in the private rental market.

People with mental illness often have a co-existing physical health problem. Indeed, a link between mental illness and physical illness is well acknowledged.

On top of the lack of economic resources people with mental illness may have additional costs that relate to:

- Accessing GPs
- Purchasing medication
- Accessing other treatments and therapies with psychologists and psychiatrists.

The implications of the CPRS on mental health consumers may therefore be considerable. When we think of price increases related to the CPRS, we often stop at thinking about increased costs of heating and electricity. But, increased costs to service providers including health providers are also likely to flow onto consumers. Thus, mental health consumers may be faced cost increases in addition to those experienced by those without mental illness. Choices may have to be made about what the limited income is spent on, and it may be that people cannot afford to seek the help and support they need. This poses a considerable risk to the ongoing health and mental health of individuals in such a situation. The cost to the government may be an increased pressure on public, and particularly acute services that are, as highlighted by the Garling report, already overstretched. Although it has been said that the government will provide financial compensation to low income earners so they will not be worse off, the question is whether this will be an

actuality. Further, will the government have taken into account all costs incurred particularly by those with mental illness that will increase and will compensation be adequate?

Financial pressures create an additional stress and burden to all. This stress can exacerbate an individual's mental illness, for example creating greater anxiety or sense of hopelessness. This could happen both at a time when budgeting and trying to ascertain how to allocate limited finances, or when bills are received that are greater than expected and that cannot be paid.

When budgeting under the current economic climate, and in doing so if and when the CPRS is implemented, all individuals and families will need to reassess expenditure and make cut backs or sacrifices. For people living on low incomes, including many with mental illness this is a more difficult challenge; often people are living with the bare minimum – how then do they make the decision on what to cut back on – Food? Health services? Medication? Heating? All things that we would see as necessities.

When looking at the current initiatives or options for individuals to reduce their carbon emissions or to reduce the running cost of appliances and such, we can see that these are targeted towards those with higher economic status. Initiatives are in place to assist homeowners to reduce electricity costs, for example reimbursements for the purchase of solar hot water systems. These options are not available to those in the rental market or those in public housing. Energy efficient appliances and cars, whilst saving money in the long run are considerably more expensive to purchase. Many consumers on fixed incomes are unable to invest in such appliances as they do not have the up-front funds required for the purchase. Even the cost of energy efficient light globes start in Woolworths at around \$8 each. For someone on the DSP this is 1.4% of their fortnightly income – for one light globe. And, the non-energy efficient globes are becoming less and less accessible. Indeed, the less energy efficient appliances are also becoming less available. So, where people are able to purchase the cheaper appliances as a result of not having the income to purchase the more expensive ones, they are then facing greater electricity costs.

Another facet for people with long term mental illness who are not employed is that they spend more of their time at home. Therefore in winter while those with jobs go to work and have their heating provided in the workplace, those unemployed either have to feel the cold or pay to heat their own environments. This cost is exacerbated by the low energy efficiency rating of public housing and cheap rental.

An option for people will be to not have heating on, or reduce the temperature it is set at. Indeed, some people with mental illness already cannot afford to connect electricity and have only cold showers. These strategies while cost saving on the electricity bill has the potential to negatively impact physical health. And, given that those with mental illness are more likely to have greater physical health problems than the broader population, this is a particular health risk for those with mental illness.

The potential cost increase for accessing public transport under the CPRS also will negatively impact on those with mental illness. It will impact on access to health services and access to community and social activities. This will further increase the social exclusion of those with mental illness.

The government also needs to ensure that people with mental illness are adequately informed of the CPRS and any additional finances they may receive to manage price increases. An increase in the DSP without notification of why or with the knowledge that this is because the price of the electricity bill that will come in in three months will be greater than normal may result in people feeling relieved that the government has finally responded to the public that the DSP is not sufficient and therefore expend on other things; only to find that when the electricity bill comes in there are not the funds to pay it. This knowledge is imperative to budgeting.

There are many disparities of equality already facing those with mental illness. These inequalities and the social exclusion of those with mental illness are set to increase under the CPRS unless the government implements strategies specifically for this and other populations that experience low socio-economic status.

Some initiatives that are needed should the CPRS go ahead are:

- Bulk billing of doctors, psychologists and psychiatrists for those who need it
- Increases to the DSP that enable people on this pension to keep abreast with cost hikes
- Ensuring the Pharmaceuticals Benefits Scheme continues in line with cost increases of medications
- Schemes such as free conversion to energy efficient light globes and shower heads reaching those in low cost rental and public housing
- Provision of training in how to budget
- Ultimately, a reassessment and redevelopment of public housing to increase the energy efficiency rating of housing, including insulation and updating and installing energy efficient systems including hot water and heating
- Incentives for private landlords to increase the energy efficiency of housing and systems such as hot water and heating

Information about the CPRS and the initiatives implemented by the government to assist the public needs to be made available in a variety of formats and in a variety of contexts. Informing people via the internet or media alone is insufficient – many with mental illness do not have access to the internet or may not access or understand what is being communicated through the media. The information needs to be available at public facilities such as inpatient and community health services. Further, it will be important for many with a mental illness to have their case worker explain to them in everyday language what is going to happen and assist the consumer to plan. However, given the excessive case loads and lack of resources for case workers, this is unlikely to be an option. Further, many people do not have a case worker. The government therefore needs to consider HOW they are going to inform people with mental illness about the CPRS and HOW they are going to assist people to plan for its implementation.

Workshops

Following the keynote addresses and panelist presentations, conference delegates adjourned to workshops to develop and debate programs and policies to ensure households do not experience energy hardship because of climate change mitigation measures. Each delegate proposed a policy or program that was then compared with and ranked against the other suggested courses of action. Delegates then discussed their favoured proposals and presented these to back to the conference proper.

The following policies and programs were well regarded by a majority of participants in multiple workshops.

Free energy allocation

Delegates supported the idea of employing government monopsony power to buy and then provide a quantum of free or low- and fixed-price energy to households to assist in ensuring all consumers maintain access to a supply of energy necessary to achieve a socially acceptable level of amenity. The introduction of a green inclining block tariff to discourage energy usage above the free or low-cost allocation was also proposed.

Energy audits

Delegates agreed that revenue from the sale of CPRS permits should fund the roll out of a comprehensive energy audit scheme targeting low-income earners. It was noted that various energy audit schemes already exist but neglect to focus on low-income earners. A national body was proposed to oversee local implementation through councils, energy retailers and community organisations. There was agreement that audits need to be accessible to rural communities, tenants, people from non-English speaking backgrounds and people living with a disability. Public housing tenants should also be eligible for audits coordinated by Housing NSW. To promote accessibility, it was agreed that households should have the choice of in-home or by-phone audits.

No Interest Loans Scheme (NILS)

There was strong support for the No Interest Loans Scheme (NILS) to assist households to replace old and inefficient appliances and equipment. Delegates concurred that the scheme needs additional funding and also promotion to households, community organisations and retailers. Delegates suggested the scheme would be more accessible to private and public tenants if it could be employed to purchase essential portable goods such as washing machines and fridges, rather than just solar heating or insulation.

Co-funded energy efficiency assistance

The introduction of a coordinated program that offers a range of energy efficiency measures including NILS, energy audits, and white good replacement to energy customers experiencing hardship received support. It was recommended that this program be jointly funded – dollar for dollar – by government and energy retailers.

Appliances

Delegates advocated a ban on the manufacture, import and sale of energy inefficient appliances and the introduction of mandatory energy efficiency ratings and labels for all new electrical appliances. Acknowledging that this may place upward pressure on the price of appliances, rebates were proposed to assist low-income households to access energy efficient goods.

Local generation

Delegates suggested that community-led energy generation and purchasing could play a valuable role in delivering affordable energy to residential consumers.

Community education

Conference participants saw value in the implementation of an information and education campaign explaining carbon pollution, carbon mitigation, and the measures that individual households could take to alter their energy consumption, curb their emissions, and reduce their power bills. The availability of specific rather than broad messages was deemed crucial to getting consumers to amend their behaviour. Delegates also contended that front line providers in direct contact with energy customers such as sales people, customer service officers, council staff, and community service providers should receive education about energy efficiency programs and practices to enable them to impart information and advice to customers. It was noted that the availability of information at the point of purchase is essential for influencing purchases of appliances.

Improving the Building Sustainability Index (BASIX)

Enhancing the NSW Government BASIX energy (and water) reduction targets for houses and units received support. However, it was also recognised that strengthening BASIX could generate housing price and rental increases that could adversely impact upon low-income households in particular.

Incentives for landlords

Delegates approved of financial incentives and penalties to persuade landlords to improve the energy efficiency of their properties. Rates and property tax rebates for rental properties were considered particularly useful tools to encourage landlords to implement energy efficiency measures. So too, the introduction of obligations on landlords to achieve energy efficiency gains for all rental properties, as per BASIX.

The following proposals were also favoured by some participants.

Public housing

Workshop participants recommended that the NSW Government implement energy efficiency programs in the social housing sector. Refits to improve the thermal efficiency of buildings and upgrades to essential appliances were deemed essential.

Prepaid energy meters

Prepaid energy meters were considered useful for assisting some customers to check and curb their own energy consumption. Countering this, concern was expressed that the introduction of prepaid meters would lead disadvantaged consumers to self-disconnect without access to standard consumer protections and social support.

National competition

A national competition that compares and funds programs and projects that reduce energy consumption was recommended. Councils would develop ideas suitable to their region and receive CPRS revenue to implement approved projects. The winner(s) would be determined based upon energy consumption reduction and cost savings achieved over twelve months.

Closing remarks by Robin Banks

That brings us to the end of proceedings today. I'd like to thank everyone for your attendance and participation. I hope that we've been successful in sharing some valuable insights about what the Carbon Pollution Reduction Scheme is likely to mean for households and what we need to advocate for to ensure that our vulnerable communities in particular are not adversely affected. PIAC will be compiling a report of today's proceedings which everyone will be able to access on the PIAC website. It will include copies of the addresses we have heard today and suggestions from the workshops.

PIAC will also present today's findings to the Federal Minister for Environment, the NSW Minister for Environment and Climate Change, and any other Minister we think appropriate. We encourage you to distribute this where you think there is some advantage to doing so.

I'd like to take this opportunity to once again thank all our speakers today – Tony Westmore from ACOSS; Ian McAuley from the University of Canberra and Centre for Policy Development; Allan Asher formerly of the UK EnergyWatch and now here in Australia working on a project 'Attaining optimal carbon abatement rules through consumer advocacy: Learning from European Experience on the Regulation of Energy'.

I'd also like to thank our panelists, Alison Peters of NCOSS, Deb Phippen of ACT Tenants Union, Jenna Wood of Country Energy, Karen Oakley of NSW Consumer Advisory Group – Mental Health, and Maree O'Halloran of the Welfare Rights Network.

And thank you all too for your attendance and contribution today.

As said at the beginning of the day, Climate Change is here and we must reduce our carbon emissions to minimise the impact on our ecology, society and economy. But in so doing, we must be mindful of the implications for disadvantaged communities in particular. We hope that today, both the conference proceedings and advocacy to follow, will go some way to ensure that low-income and other vulnerable households and communities, are not adversely affected by climate change mitigation and, indeed, that their amenity may be improved by initiatives that assist them to cope with rising energy prices and indeed reduce their consumption.

Conclusion

The introduction of an emissions trading scheme will increase the price of emissions intensive goods and services including electricity and gas. PIAC is concerned about the impact of CPRS-induced price increases on low-income and other disadvantaged households. PIAC also harbours doubts about the capacity of some households to respond to price increases by reducing their energy consumption.

The *Carbon & Consumers* conference brought together community, government, academic and industry representatives to develop and share views on the risks posed by carbon mitigation strategies for disadvantaged consumers.

Keynote speakers and panellists advised that residential status, ill health, poor access to information, the inclination to keep old and inefficient appliances, and the preference for immediate savings over future benefits each impede consumer response to price signals. Delegates were also warned that the European emissions trading scheme generated higher electricity bills for consumers and windfall gains for power generators but limited investment in low-carbon energy generation.

Recognising the potential for adverse outcomes, conference delegates proposed policies and programs to assist tax and transfer adjustments to ensure consumers are not left worse off by the introduction of carbon pollution mitigation schemes.

Participants recommended that unfavourable results could be overcome by introducing a free or low-cost allocation of energy to ensure all consumers maintain access to an adequate supply of energy. The availability of energy audits; appliance rebates; NLS for whitegoods; educational programs that prompt specific behavioural change; the establishment of social norms; and incentives for landlords to improve household energy efficiency were also deemed valuable tools to assist consumers to cope with rising energy prices. Delegates agreed that community organisations are well placed and should be resourced to assist with the provision of these services.

PIAC submits the abovementioned concerns and proposals for the consideration of government, industry, consumer advocates and community organisations. It is hoped they will advance the development of policies, programs and practices that ensure low-income and other vulnerable households are not further disadvantaged by the CPRS or any other carbon mitigation induced energy price increase. Indeed, as stated, PIAC hopes that lessons learnt from *Carbon & Consumers* can be employed to assist households to improve their amenity and well-being.