The rise of energy poverty in Australia

Census Insights Series

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The rise of energy poverty in Australia

The Australian Census is a demographer’s dream releasing detailed information on Australian residents since 1911. Conducted every 5 years, the data sets trickle out over many months.

This publication is the first in our series of Census Insights. Written in collaboration with demographer, Bernard Salt, Special Adviser to KPMG each will address a current business or social issue.

The rising cost of energy is of concern to all Australians. According to the Energy Poverty Action Initiative of the World Economic Forum “Access to energy is fundamental to improving quality of life and is a key imperative for economic development.” Access to affordable energy is fundamental to sustain the wellbeing of all Australians whether it is to drive manufacturing plants or just to keep their workers and their children warm at night.

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Household expenditure

In September 2017, a new dataset was released by the Australian Bureau of Statistics that provides real insight into the operation of Australian households. Based on a survey of 10,000 households, the Household Expenditure Survey (HES) tracks money flows into and out of households over the 2016 financial year. Even better is that this dataset continues a methodology that goes back 30 years. Thus, it is now possible to compare how Australians spent their income at different times in history.
The Increasing Trend of Energy Poverty

Is the cost of living rising or do we expect to get more out of the income we do earn? This question could be applied to cost of housing or to the cost of raising a family.

In this paper, we look at the cost of energy or more precisely at spending on domestic energy.1 Who is most affected by rising energy costs and what is the quantum of this group within Australian society? And perhaps even more importantly what can be done to ameliorate the rise of what might be termed ‘energy poverty’?

The HES shows that the average Australian household spent $40.92 on domestic energy every week during the 2016 financial year.

The previous survey placed this figure at $32.52 in 2010 which means that there has been a 26 percent increase in this category of spending over 6 years. These figures are of course muddied by inflation (about 13 percentage points) and changes to average household size. Generally, over time, Australian households are getting smaller and are becoming more energy efficient which means that there is not a direct and fair comparison between 2010 and 2016 households.

Weekly household spending on domestic energy

Source: ABS Household Expenditure Survey

1. Domestic energy is defined as electricity, reticulated & bottled gas and wood. This excludes expenditure on petrol or other fuel sources
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The better way to approach this is to show this category of spending as a share of household income. In 2016 spending on energy comprised 2.9 percent of household income up from 2.6 percent in 2010. Although the surveys show that back in 1984 this proportion was also 2.9 percent. By this measure Aussies have for 30 years allocated between 2.6 and 2.9 percent of household income to energy costs. But again these figures are distorted because household size is continually contracting and energy use is changing through more efficient appliances and solar PV generation.

The best way to get a fix on this issue is to measure household spending per-capita on domestic energy. In 2016 the $40.92 which is allocated to weekly energy costs by the average household must be divided by 2.6 which is the average household size. The survey shows that Australians spent $15.74 per-person-per-week on domestic energy. This per-capita cost ranged from $15.57 for households in the lowest income quintile (20 percent of households ranked by income) to $18.91 for households in the highest income quintile.

Share of wallet: household spending on domestic energy

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>2.4</td>
</tr>
<tr>
<td>1988-89</td>
<td>2.4</td>
</tr>
<tr>
<td>1993-94</td>
<td>2.5</td>
</tr>
<tr>
<td>1998-99</td>
<td>2.6</td>
</tr>
<tr>
<td>2003-04</td>
<td>2.7</td>
</tr>
<tr>
<td>2009-10</td>
<td>2.7</td>
</tr>
<tr>
<td>2015-16</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Source: ABS Household Expenditure Survey
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What this shows is that as household income rises only a modest part of the additional spending capacity is directed to energy. High income households are more likely to spend wealth on housing, motor vehicles and restaurants rather than on more energy consumption per-capita. There is some additional spending – about $3 per-person-per-week – between the lowest and highest quintile, but not a lot. Rich households may have so many other ways to express their wealth and have the means to invest in domestic generation or efficient smart appliances.

This raises the issue of who within Australian society would be most affected by the rising cost of energy. The answer, based on per-capita spending insight gleaned from the 2016 HES, is large families on a low income. Specifically this would comprise large families on welfare where households comprised no less than five people. This might include mum and dad and three-or-more kids or a single parent with four-or-more kids. The real victims of energy poverty are large families on low incomes.

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Fortunately, another new dataset was released earlier this year by the ABS, the 2016 Census results, which provides a unique and timely insight into this segment of the Australian people. There are 8-9 million households in Australia including 1.5 million where household income was less than $34,000 in 2016 or about $650 per-week. The vast majority of these households are older couples and singles living on an aged pension. The figures derived from the HES suggest that a pensioner couple would have spent about $31 per-week on energy last year while a single pensioner would have spent $15.57 per-week.

The issue is that 42,000 households are both low-income (less than $650 per-week) and large (5+ persons) which means that the fixed cost of energy rises as a proportion of household income. A pensioner couple’s weekly energy costs of an estimated $31 is 5 percent of a weekly income of $650. A low-income family of five has an estimated weekly energy cost of $77.85 which is 12 percent of a weekly income of $650. All low income households, including pensioners, struggle with energy and other costs but on average large families are especially vulnerable because of the fixed per-capita costs of energy.

### Average weekly household spending by income quintile

<table>
<thead>
<tr>
<th>Domestic energy</th>
<th>Lowest</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Highest</th>
<th>All households</th>
</tr>
</thead>
<tbody>
<tr>
<td>$34.25</td>
<td>$38.09</td>
<td>$40.55</td>
<td>$43.83</td>
<td>$49.16</td>
<td>$40.92</td>
<td></td>
</tr>
<tr>
<td>Average number in household</td>
<td>2.2</td>
<td>2.7</td>
<td>2.8</td>
<td>2.7</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Spending per person</td>
<td>$15.57</td>
<td>$14.11</td>
<td>$14.48</td>
<td>$16.23</td>
<td>$18.91</td>
<td>$15.74</td>
</tr>
</tbody>
</table>

*Source: ABS Household Expenditure Survey*
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So, where are the 42,000 low-income large-family households most exposed to the concept of energy poverty? And how many Australians are in this situation? The average household size must be above five so the absolute number of Australians in these households must be around 240,000 or close to one percent of the Australian nation. About 200,000 of this number would be children. The greatest victims of energy poverty are Aussie kids. This might find expression through kids being cold at night or by households having to divert funds from other areas such as medical bills, food and clothing. Even worse, such families may have already gone through the stress of being disconnected for failing to pay their utility bills.

Most of Australia’s low-income large-family households are based in Sydney (10,100) and especially in the city’s southwest through Liverpool and Fairfield but also in Melbourne (9,700) in the north at Hume and in the southeast at Dandenong. There are other clusters in Brisbane (3,700) around Logan, in Perth (3,000) around Gosnells and in Adelaide (2,400) around Salisbury.

Low-income large-family households most exposed to the concept of energy poverty comprised the greatest proportion of households in Indigenous communities. Less than one percent of Australian households could be described as large and low income. However, in the Tiwi Islands this proportion is 13 percent while in Cherbourg off the Queensland coast it is 8 percent. Indeed there are 25 Indigenous communities across Australia where large low-income households are more than double the Australian average. The largest concentration of energy-poverty exposed households might be in Sydney and Melbourne but these households also wash across Indigenous Australia.

Other profiling from the census shows that of the 42,000 large low income households in Australia 24,000 are renting while a further 11,000 have a mortgage. Only 5,000 own their house outright. Interestingly about 600 live rent free. And the vast majority of this accommodation (34,000) is comprised of a separate house on a separate block of land, which naturally requires high levels of energy to maintain. Large low-income households, most exposed to energy poverty, live in the struggle-town suburbs of our biggest cities.

The most common family arrangement for this group is mum, dad and the kids (53 percent) and one-parent families (27 percent). About 13 percent are Indigenous.

Large low-income households, most exposed to energy poverty, live in the struggle-town suburbs of our biggest cities.
Implications

The rising cost of energy is of concern to all Australians. It forces a reconstitution of budgets and priorities. It can affect a household’s quality of life in a very real way since energy is a fixed as opposed to a discretionary cost. Indeed, so fixed are energy costs that the Household Expenditure Survey shows that there is barely $3 per-week difference between per-capita spending in the lowest and highest quintile households on energy. The bigger the household the bigger the energy costs. It’s a simple but devastatingly effective equation.

And the reason why it is devastating is because it exposes no less than one percent of the Australian nation, including no less than 200,000 kids, to the bruising effects of energy poverty. Poor households with big families in the public housing estates of our biggest cities are most exposed. For these Australians there is no defence. There is no option but to rejig priorities and make difficult choices about household spending. Indigenous communities are also almost universally exposed to this issue.

The issue of energy poverty is both an economic and a moral issue. It is the most critical issue in the current energy ‘trilemma’ for consumers. There will continue to be pressure on electricity prices for the foreseeable future which will place continued pressure on electricity affordability on Australian households.

What can we do as a nation to mitigate the effects of energy poverty to ensure that all Australians, rich and poor, Indigenous and non-Indigenous, get fair access to the energy needed to operate a household? The issue of energy affordability is complex and requires the government, industry and the consumer sector to work together to provide a better way forward.

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How do we better manage energy affordability?

The Independent Review into the Future Security of the National Electricity Market led by Dr Alan Finkel highlights that consumers are at the centre of the energy transition process. If they are properly empowered and financially incentivised they can make a key contribution to lower energy prices through effective demand management; to reduce future network and generation costs and put power back in the grid.

To realise this, consumers will increasingly look at new technologies (e.g. battery storage, home energy management systems, smart energy efficient appliances) in sourcing and using their electricity. However, while consumers do have choices for electricity supply (e.g. solar) or demand reduction (efficient appliances etc) the same cannot be said for gas which is an increasingly large proportion of household energy usage, especially in the cooler months.

An important focus in the report is the need for greater access to data and information which will enhance, enable and inform greater consumer choice and control, as a key element to bridge the gap between consumers who are highly engaged with their energy choices to consumers who are less engaged. While some retailers are actively experimenting with measures in this regard – such as proactive usage alerts, portal and apps for viewing usage and forecast bill amounts – the uptake is limited.

This is a function of both awareness and insight: it is one thing to know that you are on track to a larger than usual bill, another thing to be able to change your behaviour to reduce usage. This is because even in households with smart meters – mainly in Victoria for now – it is difficult for consumers to understand specifically which appliances are driving the usage changes.

Only when the use of digital tools like mobile apps, smart meters and services that enable specific appliances to be identified as part of the total household energy consumption are available and applied broadly will consumers have the choice and control they need.

Awareness and insight through new technologies is a positive step forward, however, accessibility to that technology and its ease of use will be key determinants of uptake, particularly so for low-income families and pensioners, and persons living in rental or public housing properties.

However, it is critical that customers who cannot afford or engage with such technologies and/or simply just want low cost power to light, heat and cool their homes, are able to participate in this evolving energy market.

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Consumer protection must keep pace with technological change and the needs of financially vulnerable consumers must be specifically addressed.
Vulnerable consumers

Australian policy makers must rethink how vulnerable customers are able to access and stay connected to a service that is essential to the way we live.

Whilst energy retailers offer payment plans and hardship schemes, and there are current government schemes aimed to support customers experiencing financial hardship, these are not as well targeted or accessible as could be the case if a more coordinated approach was taken. The Victorian energy regulator, has recently introduced arrangements to provide new entitlements for customers who are at risk of falling into debt and being disconnected.

Transparency and accessibility are key principles for consumer protection in the energy sector. It is critical that all consumers can easily access information in order to make informed decisions about their energy usage/plan and that they can easily act on this knowledge.

Customers will also benefit when retail offers are presented in a way that is easier to understand and compare on a like for like basis.

So what measures can governments and energy retailers take to alleviate energy affordability? Solutions to this issue can be distinguished into 3 broad areas:

1. **Subsidise the vulnerable customer through concessions/grants or via the retailers through making it harder for retailer to disconnect.**

2. **Lower the electricity costs facing such customers individually, through energy efficiency initiatives, better information to allowing customers to benefit of most cost effective tariffs and technology enabling customers to adapt energy usage pattern to lower cost.**

3. **Take action to lower overall system costs so that all customers are better off and the prospect of affordability concerns is lower consistent with the ACCC recommendations.**
Significant attention is being applied to lowering the overall system cost, through a range of initiatives led by the Federal and state governments. However, these initiatives will take time to take effect and provide noticeable price relief.

Customers struggling with energy costs need access to effective forms of assistance which can be adapted to their own circumstances plus information which is easy to understand and act on.

In the interim it is critical that households at risk of energy poverty are being given a special focus, including responding to the proposal put forward by Energy Consumers Australia for Energy Retailers to:

- Automatically place hardship customers on the best available offer, noting that low-income and vulnerable consumers often struggle to access pay-on-time discounts.
- Improve efforts to offer early assistance to customers struggling to pay, including access to hardship programs and the associated protections from late payment and early termination fees, access to payment plans and other assistance.
- Work with, and provide direct support to financial counselling services.

Finally, the Federal and state governments need to develop a national concessions framework to ensure a consistent and transparent approach to customer assistance that minimises cost for retailers and hence consumers. The last time a review was conducted nationally was via COAG in 2007.