



Why do rising energy costs cause so much consternation?

Rising consumer energy costs regularly draw negative media attention. Energy is essential, but so are many other services and products, and these seemingly attract less attention (e.g. housing and, to a lesser extent, telecommunications) even though these other services, at times, have displayed historic price increases at levels far greater than energy (this is particularly the case for housing). Possible factors driving these concerns about energy prices are:

- It is a basic utility - it is all but impossible to function as a member of society without electricity
- Consumers' lack of control over actual final energy costs
- Misallocation of the management of risk between retailers and consumers
- Limits in technology and contracts provided to consumers
- A perception that government involvement, direct or indirect, makes it a political target.

Background

Rising energy costs, particularly electricity costs, constantly draw public attention. The recent 20-plus per cent increases in network tariffs across the eastern seaboard of Australia will continue this trend. In this article, we explore possible reasons to explain the current public perceptions of rising energy bills with the goal of looking beyond acknowledging energy's "essentialness" to modern society.

Energy costs are increasing - but relative to what?

Energy costs are increasing in real and historic terms. But, compared to other products and services, Australia's consumption of electricity and gas, as a proportion of total final expenditure, has remained largely the same since 1970 (as the following figures illustrate).

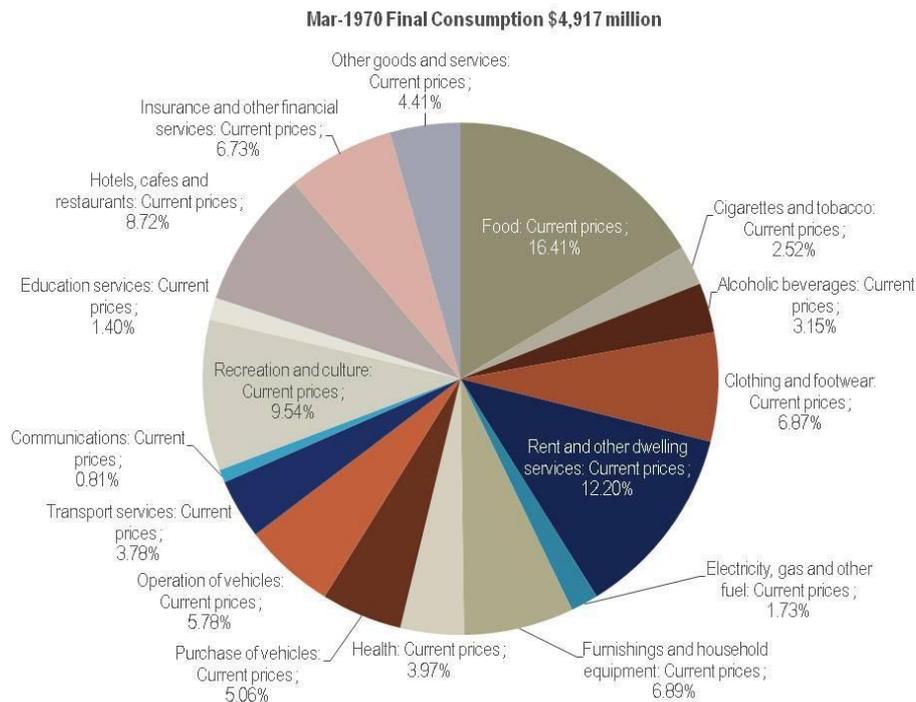


Figure 1: ABS final consumption expenditure - March 1970 to March 2011, current prices (click diagram to enlarge)

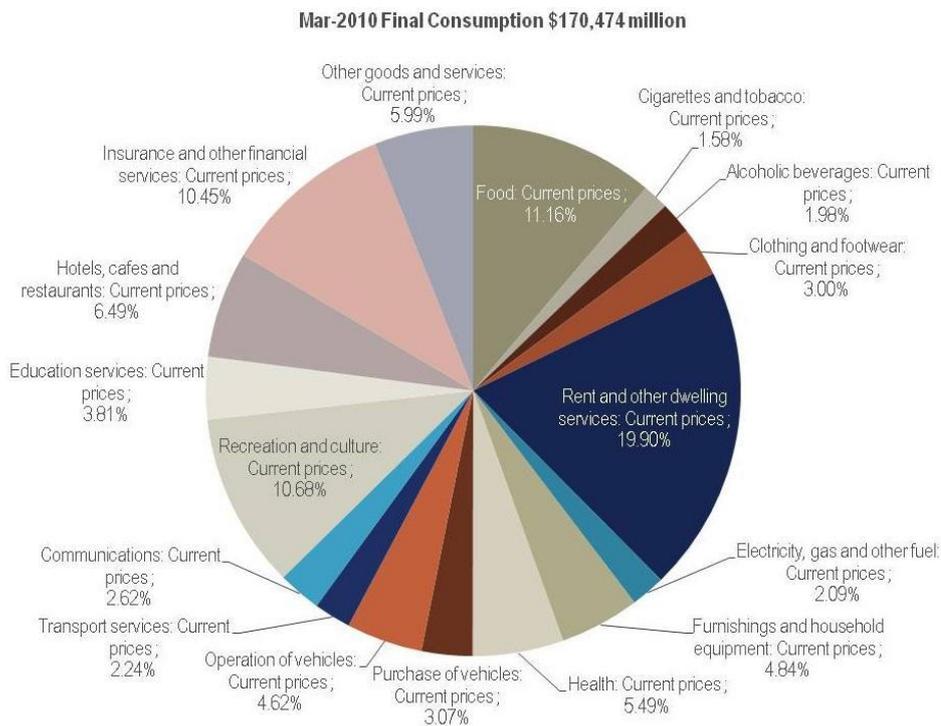


Figure 2: ABS final consumption expenditure by category - March 1970 and March 2010, current prices (click diagram to enlarge)

Figure 1 clearly shows there has been limited growth in the electricity, gas, and fuel consumption share of final consumption, particularly when compared to other “essential” spends, such as food and housing (shelter). This is confirmed by figure 2, which shows that between March 1970 and

March 2010, energy's share of Australia's final consumption budget rose from 1.73 per cent to 2.09 per cent, while in contrast, final consumption of housing product increased to 19.9 per cent from 12.2 per cent or from \$599.8 million rising to \$33,924.3 million.

Another relevant comparison is between final consumption on electricity, gas and fuel and communications services.

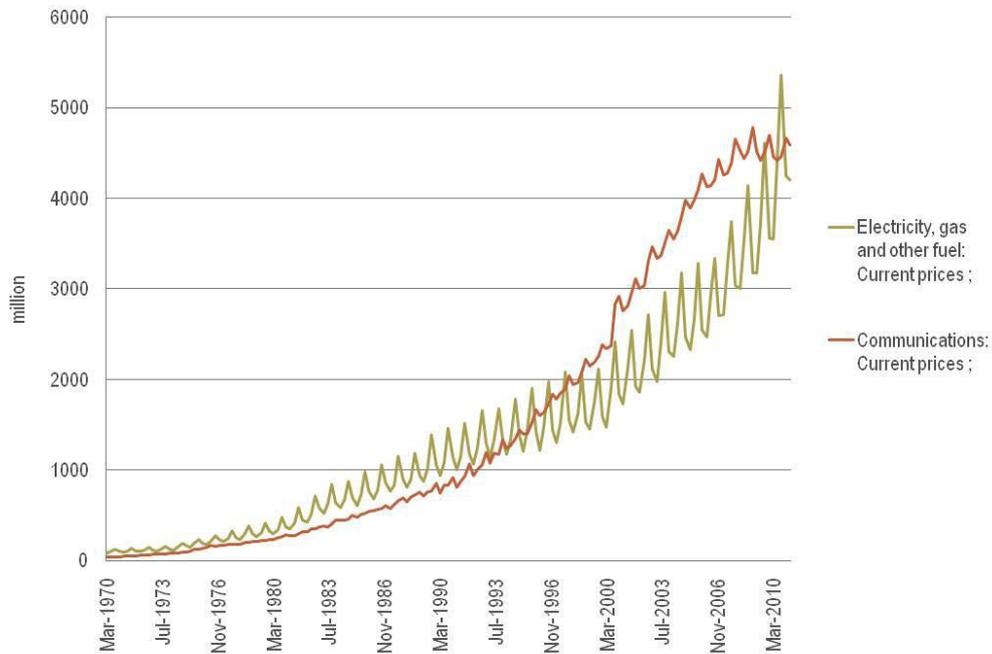


Figure 3: ABS final consumption expenditure for Energy and Communications - March 1970 and March 2010, current prices (click diagram to enlarge)

Australian energy and communication spends have held a similar proportion in overall expenditure, with communication spend marginally ahead between 2000 and 2010, and energy catching up by the March 2011 quarter. The outcome from the data is that while electricity, gas and fuel costs are increasing, the rate of growth is comparable - if not less than - the growth seen in other “essentials”. Also note the distinct “saw-tooth” seasonal pattern in energy consumption*.

Why the focus on energy costs?

Energy, as a product, represents an input to most production and recreation activities, despite holding a relatively small proportion of overall expenditure. It is essential, and clearly pervasive, but what other reasons could explain our ongoing fixation with energy costs?

From a household perspective, there are some important observations about consumption of electricity, gas and fuel for transport. For transport, a household can moderate consumption by simply driving less, changing the vehicle's fuel efficiency, or using substitutes; for example, car pooling (sharing costs of fuel) or using public transport. More importantly, households can decide when to spend on fuel: when the price of fuel is high,

households (and to a lesser extent businesses) can buy at a time when the price is (relatively) lower.

However, for electricity and gas, households have limited ability to control expenditure. Consumers can moderate the use of electricity and gas, and they can buy more efficient electricity and gas appliances, but there is no incentive to change the time of use, or to pre-select price and time for heavy use appliance to cheaper periods. Knowledge of realised savings from energy efficiency activity is not immediate due to metering technology limiting the provision of real-time information to consumers.

The separation between a consumer's effective control or real-time influence over energy bills is a contrast to fuel costs and other expenditure groups.

“Essentialness” or lack of control?

Rather than accept the orthodoxy that consumer anxiety and political focus on rising electricity and gas bills is driven by energy's “essentialness”, we offer some alternative perspectives.

Without real-time measurement and monitoring options, which would allow consumers to react, any notion of consumer choice in electricity and gas retailing is questionable. And the fact that energy retailers bill customers quarterly (where a consumer finds out three months later what actually happened) reinforces the limit of consumer choice for households when it comes to energy.

On the surface, consumers have a choice when they select electricity and gas plans. However, when we compare the options that consumers have when they buy an energy contract against a telecommunications or housing contract, the difference in offerings is apparent. Figure 4 shows the comparison against relevant product dimensions.



Figure 4: Comparing housing and telecommunication across key product dimensions (click diagram to enlarge)

In contrast, across the same characteristics as figure 4 for electricity and gas we note:

- Consumers can choose a price/cost of a minimum or access charge, and volumetric charge at a flat rate or with a discount (if the consumer enters into a contract term of 12 months and up to 36 months)
- Contract terms are usually around 24 months, there are arrangements with no contract, and other terms
- Quality of the service is not specified.

Clearly, consumers have a limited option suite when choosing their energy contract structure in comparison to other essential services. For example, consumers are not offered a take or pay arrangement (certainty of costs but limited incentive to reduce consumption) nor are they able to see their real-time consumption**, which is vital when final cost is driven solely by actual usage.

A lack of consumer control then transforms into community anxiety and enhanced political focus. The real question is why this transformation occurs.

Without extensive customer surveys, we can only offer our opinion. Firstly, around 50 per cent of energy bills are driven by costs that emerge from regulated or monopoly businesses***. Australia’s present economic orthodoxy is that the economic regulation of these natural monopolies should ensure the final prices are efficient - that is, they represent a least cost of supply solution. Competition - or its more controlled substitute, regulation - has the implicit objective: to reduce prices for consumers.

When energy bills increase, and substantially, consumers heuristically look to the political institution for an explanation.

The second point is that a significant proportion of the energy sector remains in government ownership in most jurisdictions (generation and network assets). For consumers, a rising energy bill, delivered by what constitutes an extension of the public sector, draws connotations of perceived inefficiencies on both actual service delivery and the efficient management of capital.

In all jurisdictions apart from Victoria, political institutions - either directly or indirectly through independent regulatory agencies - stand within the political market and claim to ensure that final retail energy tariffs reflect an efficient or least cost of supply. It is a claim to control energy bills which, by and large, is illusory.

Another crucial area that may explain consumer consternation is the lack of retail alternatives offered by energy retailers to give consumers more control over final bills, or which utilise the retailers' abilities to reduce final energy bills. A clear example of a lack of offerings in this regard is the lack of a capped energy contract offerings. A capped energy contract would provide consumers with more certainty around final energy costs, and would also provide greater control to consumers, particularly, over the total annual costs of energy.

Energy retailers are reluctant to provide capped offerings due to extreme price and volatility risks in wholesale energy markets (electricity more so than gas), and because retailers have no certainty, from year to year, what will be charged by network businesses. In MHC's opinion, when we consider consumers' limited ability to monitor real-time energy costs and respond accordingly, energy retailers are better placed to manage these risks: while consumers can control time and volume, they are not aware of the cost implications of their behaviour.

Year to year, network price volatility represents an interesting conundrum for energy retailers, particularly, as they look to change product offerings. Discussing this challenge is beyond the scope of this article; however, clearly there is a market opportunity to the first retailer to offer integrated technology and service-based products which enable customers to share the risk management role by controlling their energy demand (volume and time), and real-time use of the network, may well attract valuable and loyal customers.

Moreover, energy retailers, particularly the large vertically-integrated players (such as Origin, AGL and TruEnergy) have substantial expertise in sourcing low-cost energy and in portfolio management to deliver the physical commodity across peak periods, which is illustrated by figure 5 showing Origin Energy's claimed portfolio capabilities to manage its retail load.

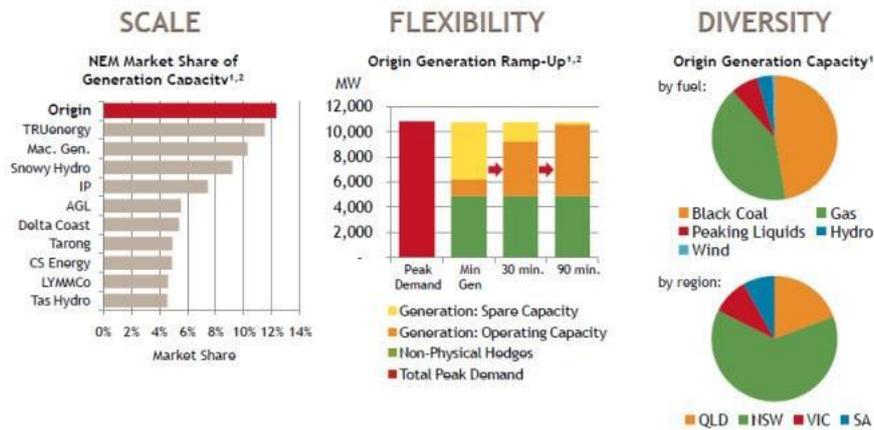


Figure 5: Origin Energy's generation portfolio 2011****

The disconnect between energy retailer portfolio capabilities, and the lack of a comparable offering that reflects these capabilities which would allow consumers to more effectively manage their energy bills, represent a further driver to explain consumer consternation.

No "silver bullet" solution

Making energy bills less of an issue for consumers and politicians, as with most challenges, requires foresight, a reasonable time horizon, and a transparent and coherent plan to inform change. The core planks of any plan for change should include: a) having technology or contracts that provide "real" control to consumers; and b) addressing the paradox of energy supply efficiency from government ownership and the economic regulation of key supply elements of energy.

* For instance: between 1990 and 2011, from the 85 quarters, 66 per cent had quarterly electricity, gas and fuel consumption less than the average quarterly consumption for the financial year. Of the 34 per cent of quarters where electricity, gas and fuel consumption were higher than the quarterly financial year average, 72 per cent were in the September quarter, with the remainder being the June quarter.

** Most mobile phone plans allow users to monitor consumption of the cap within the month.

*** See AER's State of the Energy market.

**** Origin Energy (May 2011), Macquarie Connections 12th Annual Australia Conference, by scale sufficient controllable power generation to meet consumer demands, by flexibility having sufficient physical capability to respond with peakiness of demand, and by diversity, ample opportunity to meet demand at a blended cost of supply.