The Economic Impact of High Energy Prices

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The Energy State of the Nation 2014

Energy Policy Institute of Australia

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Economic Impacts of High Energy Prices

- Australia is migrating away from its relative energy price advantage, and there are predictable economic ramifications for business and consumers that are outlined in this policy paper.

- The offset is a major escalation of some energy sector international exports and the development required for this to occur - and cheaper imports.

- The ramifications are classical economics - in real time:
  - Local energy demand is and will continue to be reduced or pressured and is far more challenging to forecast.
  - Local business will lose any competitive advantage they had from relative energy pricing, and this comes on top of other pressures such as productivity and A$ rates - tipping point issue.
  - They will restructure, reduce, seek alternatives or simply offshore more production.
  - There is rising energy “poverty” in the residential sector with its own policy challenges.

- The issue is how much of this change/damage is caused actually by policy issues and not efficient resource allocation?
Where is domestic demand heading?

Electricity - the “Sochi downhill” curve - electricity pricing & policy impacts
NSW & Vic Load Trends - Energy and Peak Demand

- Energy is falling off fast still
- Peak demand is very temperature sensitive due to air conditioning penetration
2013 Gas Statement of Opportunities - spot the trend

Annual domestic gas demand projections, by demand group (2012 data adjusted)
2013 SOO Gas Power Generation - in free fall - off the cliff
Ahh Economics - prices go up and volume goes down

Electricity price index, December 1980 to December 2012. Electricity Network Regulatory Frameworks, Inquiry Report, Vol 1, Productivity Commission

Changes in the annual VIC residential electricity bill
(4,000 kWh; no electric off-peak hot water 2013 dollars)

- Standard network services
- Policy costs - network
- Policy costs - retail
- Total costs charged in the network portion of the bill
- All other costs included in the bill

Distribution | Transmission | AMI Metering | Feed-in tariffs | VEET | RET | Carbon price | Wholesale energy and retailer costs | GST

$1,441 $1,259 $1,138 $1,104 $995 $895 $855 $839 $916 $952 $909 $970 $979 $999
The impact of policy costs on VIC residential electricity price

1995 bill: $999 (2013 dollars)

Total bill in 2013: $1,441 (2013 dollars)

Change in bill from 1995 to 2013: $442 (2013 dollars)

- GST: $131 (29.7%)
- Wholesale energy and retailer costs: $97 (22.1%)
- Policy costs recovered in retail portion of bill: $198 (44.8%)
- Policy costs recovered in network portion of bill: $137 (31.0%)
- Distribution: -$120 (-27.1%)
- Transmission: -$2 (-0.5%)

Changes since 2001:
- GST: $131
- Wholesale energy and retailer costs: $97
- Policy costs recovered in retail portion of bill: $198
- Policy costs recovered in network portion of bill: $137
- Distribution: -$120
- Transmission: -$2

Change in bill from 1995 to 2013: $442 (2013 dollars)
What does this mean?

• High fixed levels of investment in the energy sector - only two choices when demand slides off like this:

• Raise prices - has been spectacular in some regulated electricity networks
  - In response AER has moved them from price cap to revenue cap regulation - ensuring revenue recovery for networks - moves this volume risk from the network to the consumer?
  - Hits smaller consumers much harder as they use more network
  - Most of the increases in the power sector have been policy driven - wholesale and retail are highly competitive
  - Gas networks are set to also ratchet pricing as demand falls

• Write down the asset values - the generators solution......
  - Not happening in regulated entities
  - RET impacts on wholesale has assisted to kill off gas power generation - and major gas resales occurring across all states

• AND customers react as you would expect
Business Example of Impacts

• The policy paper outlines that it is not only the traditional large energy consuming “smoke stack” type industries that are being affected
  - It is highly visible when a smelter closes or a major producer of energy intensify products shuts up shop - but this energy price impact is economy wide

• The packaged food industry is an example of a “below the radar” industry going through major restructuring (food in glass, frozen, canned, etc.) - and they are not alone

• Energy price escalations (electricity and now gas) have meant it is simply cheaper to do this production elsewhere - and the sector is dominated by major international brands who can easily move production - and in this case food producers will also be impacted

• The industry is in the midst of major reform now - not just offshoring but alternatives are developing rapidly - lots of underlying change occurring

• Has similar feel to when Australia lost the “rag trade” after import tariffs were dropped - 100,000 jobs lost in textile - rapid restructure of the industry and we benefit from lower cost clothing now - but it is a brutal process
Gas costs see food sector blow up

Hockey claims SPC vindication

SID MAHER
NATIONAL AFFAIRS EDITOR

JOE Hockey has claimed SPC Ardmona’s $70 million deal to supply Woolworths as vindication of the government’s line in the sand on corporate welfare, declaring it a win for companies that are prepared to accept responsibility for their own actions.

Hardening his attack on the age of entitlement, the Treasurer claimed public support for the government’s opposition to corporate handouts and said SPC’s company-changing deal showed the opposition was wrong on assistance to the motor vehicle industry and to SPC. As revealed in The Australian yesterday, SPC announced it had signed a five-year, $70m deal with Woolworths to supply 24,000 tonnes of fruit, tomatoes and navy beans to be sourced locally, underwriting the company’s operations for the next five years.

SPC managing director Peter Kelly said the deal with Woolworths would require the equivalent of 86,000 fruit trees in the Goulburn Valley.

The deal was much-needed positive news for the federal government, which last month rejected a request to provide $25m in assistance to SPC Ardmona. Tony Abbott declared it a line in the sand on industry policy, arguing that the company’s parent Coca-Cola Amatil was capable of restoring the business.

“This is a win for common sense, this is a win for taxpayers, and this is a win for companies that are prepared to accept responsibility for their own action,” Mr Hockey said. “This is an argument against the state becoming a wholly owned subsidiary of old-time socialism, which is what Bill Shorten is arguing — that if there’s a problem, write out a cheque, and if someone is doing well, tax them and regulate them, and that is not the answer.”

The government has been under attack from the opposition over its approach to industry policy after General Motors Holden, Toyota and Alcoa all announced plant closures in the past few months. The closures have come amid an increase in the unemployment.

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Energy underpinned more than Business

• The energy costs of materials - no matter how they are sourced - are an input component to many other industries

• A good example is housing affordability - glass, bricks, wallboard, roofing, concrete, etc. - all are heavily exposed to energy prices

• These costs escalations are unavoidable because they are embedded in our economy

• The competitive advantage of energy was not just enjoyed by industry

• It added to the affordability for consumers of a wide range of products as much as providing productive jobs in less skilled sectors

• And for low income or fixed income consumers the rise of energy poverty is an issue that is starting to really bite - and often it is driven by energy policy not as a result of a competitive market allocation

• The burden of this will fall to the public purse and is set to compound in the colder states as gas prices rise e.g. Victoria
Forecasting - needs its own reform

• The traditional wisdom in the electricity industry was demand was relatively inelastic - it was an “essential service” - growth would and had been masking any “bumps in the road” - whack in 2.5% and you will be right

• As early as 2007/08 this was being challenged - we forecast (as did some networks and economists) in 2008 that there would be falling demand - a death spiral effect as seen in the gas industry prior to natural gas in the 1970/80’s,
  - Then came the *regulated* network price shocks and we have clearly seen that energy use is indeed elastic

• Policies that increased prices have accelerated this trend - for example the heavily subsidised and often mandated take up of solar technologies at astounding costs of carbon abatement - NSW Solar Bonus Scheme?

• Consumers (business and residents) changed their habits and we have seen widespread forecasting failure as a result

• The systems used for forecasting needs extensive reform - this is a case of serious market failure in my view - the market needs better information - and it is easy to undertake?
Conclusions

• Energy is a significant input cost to many Australian industries and is accounting for a growing proportion of residential disposable income for low-income households.

• The consequences of rising energy prices are predictable and are now playing out in what may become a classic case study in economics in the years to come: demand destruction; loss of competitiveness of Australian industry that relies on reasonably priced energy driving offshoring of production; and rising energy poverty in the residential sector.

• The offsets are intended to be greater national income from international sales of energy and the associated economic benefits from being able to source goods from more cost-competitive countries.

• There is rigour and logic to these arguments, but many of the domestic market consequences come from policy decisions, not from efficient resource allocation, so the full impacts of what may seem reasonable policy decisions at the time are now coming to light and will become more transparent over the next 3 to 5 years - and will be unpalatable.
Conclusions

• The question then is - do we have the trade-offs right - are the impacts of the policy decisions worth the pain of the restructuring? Do we even understand the consequences?

• It is interesting that strong economic argument is put forward for the development of energy export industries but that the same rigour and logic is largely lacking for domestic energy policy decisions. A more holistic approach is required, with rigour, and this needs to be redressed urgently.
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