



Centre for Energy and Environmental Markets

Notes for introductory statement to the Senate Select Committee on Electricity Prices

Centre for Energy and Environmental Markets (CEEM), University of NSW.
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CEEM

CEEM is an interdisciplinary research centre working in the area of energy and environmental market analysis and design. CEEM researchers have been assessing the Australian National Electricity Market (NEM) and relevant environmentally oriented policy measures for the past decade. More information is available at www.ceem.unsw.edu.au.

General comments

The NEM is by many measures an internationally regarded example of electricity industry restructuring. Like many electricity industries, however, the restructuring process was supply-side and wholesale market oriented. In particular, its retail markets remain unfinished business and have performed poorly to date in facilitating energy users to effectively, efficiently and equitably obtain their needed and desired energy services.

The metering interface for most customers is immature and provides little useful information on the patterns and contributions to energy consumption. The tariff arrangements are better termed schedules of fees than prices and discourage effective and efficient engagement.

Furthermore, external policies to drive low-carbon transition of the industry have lacked the coherence and comprehensiveness required to effectively, efficiently and equitably address our climate change and broader sustainability challenges.

Comments with regard to some key Terms of Reference

- a. identification of the key causes of electricity price increases over recent years and those likely in the future;*

In the context of delivered energy services, the underlying objective of the NEM, there are many relevant prices, and these have seen divergent trends over recent years. Until the introduction of the carbon in mid 2012, wholesale market prices had been generally falling over recent years. The prices of electrical appliances that can draw significant power such as air-conditioners have also been, to some extent falling. Prices for electrical network components and works have generally grown.

The prices (better termed schedules of fees) that have shown the greatest increase are, of course, retail market tariffs. There are a variety of causes. Some reflect a necessary and well overdue response to our growing climate change concerns. In effect, carbon pricing and renewable energy support reflect a partial removal of a long standing environmental subsidy to large greenhouse emitters in the NEM. Other price drivers would seem to include necessary network expenditure given the long asset life cycle of these assets and growing peak demand.

Much of the price increase however reflects market failure. In particular, demand-side opportunities to improve electricity industry efficiency through measures such as peak demand reduction and energy efficiency. Addressing these failures should be the key priority of policy makers.

There are a range of estimates and modelling exercises regarding the relative magnitude of these factors driving retail price rises.. There are inevitable complexities and uncertainties to these calculations. An example is whether charges attributed to renewable energy obligations in consumer tariffs actually correctly reflect underlying retailer costs. Regardless, the extent of market failure is clearly great. Higher data transparency in end-user consumption and costs, network expenditure and retailer costs would assist in refining the contributors to these price increases.

b. legislative and regulatory arrangements and drivers in relation to network transmission and distribution investment decision making and the consequent impacts on electricity bills, and on the long term interests of consumers;

Network regulation is invariably complex given the long-lived lumpy nature of the assets, the high public and political interest in system reliability, and the uncertainties of future demand. However, it is clear that the current regulatory incentives for Network Service Providers are far from ideal for achieving more efficient outcomes. In part this reflects historical practice, in part the challenges of engaging effectively with end-users given immature metering and retail market arrangements. However, the current 'incentives' for network asset investment over appropriate demand-side options need to be addressed. A key opportunity for progress is the process for investment decision making in networks. The AEMC Power of Choice Review has valuable recommendations in terms of increasing the transparency and consultation involved in such decision making.

c. options to reduce peak demand and improve the productivity of the national electricity system;

There are many options to reduce peak demand through load management, energy efficiency and distributed generation and this can have a key impact on network investment. Note that this, however, is only one important opportunity to improve system productivity. Failure to consider all opportunities in a coherent and comprehensive manner might work against other objectives such as emissions reductions or overall energy efficiency.

d. investigation of mechanisms that could assist households and business to reduce their energy costs:

Energy efficiency is an opportunity for all energy consumers. Information regarding energy efficiency opportunities is a clear barrier for energy consumers. There are a growing range of technologies that can provide end-users with more detailed and useful information on their energy consumption. Valuable progress is being made in this regard by a number of retailers where the metering infrastructure supports it. Deployment of enabling infrastructure to support such information should be a priority. However, information only leads to action when energy users are 'ready, willing and able' to respond. There are a wide range of barriers for action including energy user motivation given other concerns, the complexity of options available, financing and split incentives (a major issue for renters).

Energy users would greatly benefit from assistance in these regards and this would best be provided by Energy Service Companies (ESCOs) whose focus is on delivery of energy services, rather than the sale of electricity or cost-recovery of network expenditure. ESCOs are the missing 'institutional' player in the current NEM arrangements. Progress in this regard is being made with a growing number of ESCO players in the commercial and industrial space. However, NEM arrangements could play a far more useful role in supporting such market participants, and integrating them more formally into the market arrangements. The acknowledgement of their potential role of ESCOs in the Draft AEMC report on Demand Side Participation represents important progress in this regard, and should be a priority.