14 February 2019

Committee Secretary
Department of the Senate
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Submitted by email: fairdinkumpower.sen@aph.gov.au

RE: Select Committee into Fair Dinkum Power

Thank-you for the opportunity to respond to the Select Committee into Fair Dinkum Power. Australians have heard a lot of nonsense about energy policy in the past decade, and it's high time we developed a plan for a true-blue energy system.

Environment Victoria is one of Australia's leading independent environment groups. With more than 40 member groups and over 100,000 individual supporters, we've been representing Victorian communities on environmental matters for over 40 years. Through advocacy, education and empowerment, Environment Victoria seeks significant and enduring solutions that will safeguard the environment and future wellbeing of all Victorians.

This Committee has the opportunity to fundamentally re-frame the way we think about energy in Australia. While the terms of reference focus on opportunities to empower consumers to take part in the 21st century grid, it also clear that Australia must make rapidly and effectively reduce its emissions. The transition to zero net emissions and 100 percent renewable energy is both imperative and inevitable. The window for action to stay under the 'guard rail' of two degrees of warming is rapidly closing. What's more, credible voices are warning that even a two-degree target is too high, and presents an unacceptable risk of destabilising the climate on which human civilisation depends. Any consideration of the role that consumers will play in a 21st energy system must be founded on the overarching need to stop climate change.

If future Australian governments are to help meet the objectives of the Paris climate agreement and take strong action on climate change then it is imperative that national and state energy markets are capable of delivering emissions reductions consistent with scientific and economic advice. All parts of government policy must consider their role in building this capacity to respond to climate change, and this Committee's investigations should be seen in that context.

This submission specifically responds to points a) 1 & 2, b), and e) 1 based on the Terms of Reference provided by the committee.

a. The potential for empowering energy consumers to play a more important role in the National Electricity Market, through providing diverse services in:

i. Energy generation

The failure to grasp the nature and extent of the energy transformation is represented in much of the current debate about energy policy, which assumes a largely passive role for consumers who have no choice but to pay prices delivered by narrow market arrangements. This situation has both affordability and equity implications, as energy prices have risen dramatically in recent years.

Increasingly, people are opting out of their traditional role as passive consumers of centrally-provided energy through the adoption of household renewable energy, storage and demand management technologies. Concerns have rightly been raised about the equity implications of this trend with the burden of system infrastructure costs being borne by a shrinking proportion of the population, particularly low-income and disadvantaged households.

However, the appropriate response is not to seek to impose artificial limits on the growth of household renewable energy and demand management technology – this shift is here to stay and will gather pace while current market arrangements continue to make 'opting out' attractive. Indeed, we should strive to accelerate the roll-out of these solutions. Instead, we need to support all households to access renewable energy and demand management while ensuring that the grid delivers significant benefits to all Australians.

To do this, we need to help Australian households that are locked out of the clean energy revolution, such as low-income households, apartment dwellers and renters. This Committee should examine opportunities for addressing the pricing and regulatory barriers preventing equitable access to renewable energy by all Australians, particularly disadvantaged households.

ii. Demand response and energy efficiency

We cannot achieve any appropriate emissions reduction target, let alone a rapid transition to a zero net emissions economy, without significant investment in energy efficiency. Much of the current energy debate regarding security and reliability focuses too heavily on episodic and rare failures of supply to meet spikes in demand. However, there has been less focus on the equally important opportunity to better match demand to supply as we transition to a more a de-centralised and distributed system.

The International Energy Agency has identified improving energy efficiency as the number one global action to achieve peak emissions by 2020 and significant declines by 2030.[1] In Australia's case, where our electricity system is highly emissions-intensive, the emissions reduction from efficiency and avoided consumption are likely to be even higher.

[1] ClimateWorks 2010, *Low Carbon Growth Plan for Australia*, www.climateworksaustralia.org/project/national-projects/low-carbon-growthplan-australia

Improving energy efficiency both reduces energy bills and delivers least-cost abatement compared with other emission reduction options – in many cases at zero to negative cost because efficiency investments generate cost-savings by reducing waste.[2] For example in Victoria's climate zone, upgrading residential building efficiency can reduce electricity and gas costs by 40 percent, translating into annual savings of up to $1,000 for the average household. However, low-income and vulnerable households – those who need the savings from efficiency the most – are likely to be missing out due to unaffordable upfront costs of upgrades, a lack of information and/or because they rent.[3]

Measures such as insulation and efficient appliances both reduce overall consumption and deliver affordability benefits by helping consumers minimise usage during periods of peak demand, such as during heatwaves or cold snaps. Efficiency measures targeting consumption that typically occurs during peak periods (such as insulation and efficient heating and cooling appliances) act to moderate demand spikes and hence reduce the risk these pose to supply reliability. These peak prices make up a significant proportion of overall electricity and gas costs for many consumers. Reducing peak demand also improves system-wide affordability by delaying or avoiding the need for investment in additional supply infrastructure – a key driver of rising wholesale prices in recent years. However, detailed end-use data which would inform targeted investment is not currently available. Improving access and collection of this data will likely lead to significant improvements in the deployment of energy efficiency technologies.

Raising efficiency standards for new buildings could also achieve cost-effective savings in energy use of up to 49 percent and deliver important health and well-being benefits. The current review of the National Construction Code is an ideal opportunity to drive a significant improvement in new building performance and compliance across Australia, so as to reduce long term building running costs and improve affordability for consumers.

b. the potential for these services to deliver lower energy costs and increased energy reliability;

As more households and businesses adopt demand management and storage technology, there are opportunities to build on efficiency savings by allowing consumers to exercise more control over the timing of their usage. This greater consumer control within the system can reduce peak demand and shift demand as consumers choose to consume electricity and gas outside of peak price periods. Efficiency and demand management also free up more electricity from distributed generation and storage for export to the grid, as well as make additional gas

[2] International Energy Agency 2015, *World Energy Outlook: Special report on energy and climate change*, www.iea.org

[3] More information on opportunities to improve residential energy consumption is provided in our recent report "Smart, Clean Energy for All". https://environmentvictoria.org.au/2018/10/05/smart-clean-energy-for-all/

supplies available for other users. All of these outcomes reduce the reliability risks associated with peak power and improve energy reliability.

e. regulatory reforms which would empower energy consumers,

i. households, including low income households and renters,

There is significant scope to empower consumers and reduce carbon emissions through reform of the National Electricity Objective (NEO). The NEO currently frames the obligation to serve the long term interests of consumers in terms of “price, quality, safety, reliability, and security of supply”. Using ‘price’ as a proxy for affordability ignores the critical role that efficiency and demand management can play in reducing the amount and timing of energy consumption so as improve affordability even in the context of rising prices.

A re-framing of the NEO to replace ‘price’ with ‘cost’ would create an obligation to minimise overall cost to consumers, providing an incentive and driver for greater investment in efficiency and demand management by system managers and regulators.

Focusing on ‘cost’ rather than ‘price’ would also create an obligation to internalise the full environmental and health costs of fossil fuels in energy market decision-making. At present, emission reduction objectives constitute an externality that is largely ignored by market bodies and participants.

As Australia’s energy supply is highly emissions intensive and emissions reduction targets cannot be met without transitioning to a zero net emissions grid, it is also appropriate that the rules governing the NEM explicitly articulate an emissions reduction objective. This would help reduce emissions so as to avoid catastrophic climate change.

Reform of current market arrangements could also play a key role in empowering at risk consumers. Currently, regulators and retailers are not required to prioritise policies and programs which would drive efficiency improvements. However, energy efficiency could help reduce the large and growing problem of customers being unable to pay their bills. Energy efficiency can play a key role in helping consumers take control of their consumption and reduce their demand. However, without intervention to assist these customers reduce consumption through retrofitting and appliance replacement it is likely that energy hardship and disconnection rates will continue to rise.

There is also scope to empower consumers through reform of current tariff structures. These currently comprise high fixed charges, high minimum usage requirements and declining block tariffs, which combine to distort price incentives for consumers to invest in efficiency. They also act to deprive low-income and vulnerable customers of the full cost-saving benefits of efficiency measures or behaviour changes. These distorting tariff structures should be formally excluded

from the market, which would empower consumers to control their energy usage and play a more active role in the energy market.

Conclusion

The energy system is undergoing rapid change. If this change is ignored, or if we try to constrain it within the old paradigm of centralised electricity and passive consumers, it will lead to poor outcomes for all concerned. If we embrace the opportunity to decarbonise our electricity sector, increase the equity in the energy system and become more efficient in how we use energy then regulators and policy makers can ensure that technological change leads to widespread community benefits.

We encourage the Committee to embrace the opportunity to help chart a new path for Australia's energy grid. Thank you for receiving this submission, and we would be happy to provide any further information to assist the Committee with the next steps of its inquiry.

Regards,

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