28 April 2017

The Committee
Standing committee on the environment and energy
PO Box 6021
Parliament House
Canberra ACT 2600

Dear Committee

Inquiry into modernising Australia's electricity grid

PIAC welcomes the opportunity to comment on the Discussion Paper prepared for the Inquiry into modernising Australia's electricity grid. We make these comments in the context of a number of major reviews, including the Independent Review Into The Future Security of the Energy Market (Finkel Review) to which PIAC provided a submission. We draw the Committee's attention to parts of our submission to the Finkel Review, which is attached, that are relevant to modernising networks and reflect our analysis of emerging issues over recent year years.

PIAC is of the view that Australia's electricity networks must rapidly evolve if they are to meet the challenges of the current century and facilitate effective access to the innovative energy services that customers are keen to use.

To future proof the energy system, it is critical to balance grid reliability and security with sustainably affordable energy services.

Transmission and distribution systems have been built to deliver a very high level of reliability of supply to consumers, as the result of inaccurate forecasts of high demand growth and, in some states, deterministic reliability standards that have exceeded efficient levels.

While this high reliability and excess capacity now provides additional security in the system, this benefit is rendered unsustainable by the considerable expense imposed on consumers, such that energy is increasingly unaffordable for many. Consumers pay heavily for high levels of network reliability, and the cost of surplus capacity is still recovered from consumers who aren't benefitting from it.

After significant recent growth, network costs have generally stabilised in most states; but they have done so at an excessively high level, and consumers now face further increases in their energy cost in coming years as wholesale energy costs, both for electricity and gas, are expected to increase dramatically.

When modernising the grid, it is critical to bear in mind that a system in which many consumers cannot afford energy is not a sustainable system.

More recent assessments of the Value of Customer Reliability suggest it is unlikely that additional, and continuing, expense of the above investment in reliability accurately reflects consumers' actual willingness to pay for fewer supply interruptions (or their willingness to accept a lower level of reliability in exchange for lower cost).

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More generally, the lack of coordinated energy and carbon policy at a national level, along with the absence of central planning more broadly, has created an environment of uncertainty that has deterred efficient and timely investment in energy infrastructure.

More agile regulation and greater consumer representation are needed

PIAC is concerned that governance of the Australian energy markets generally favours incumbents, at the expense of competition from emerging players, limiting opportunities for new and emerging businesses that can provide more efficacious ways to meet the needs of energy users. Given the transformation underway in the Australian energy markets, this inquiry provides an opportunity to recommend changes that realise the opportunities provided by innovation and avoid entrenching outdated systems and business models.

5-minute settlement in the wholesale market - the subject of a rule change proposal currently being considered by the AEMC - is one example of the opportunity, and need for, change to the operation of the system. The slow pace of implementing this change is emblematic of the disconnect between the rapid evolution of the energy system change and rule making/governance in this sector.

In PIACs view, there is an urgent need to revisit energy market and network regulatory arrangements with a view to reducing complexity and enhancing competition. Small incremental changes are unlikely to address the systemic weaknesses. Without systemic changes that are guided by a long-term strategy, it will be difficult to achieve the right balance between affordability, sustainability, security and reliability in the grid.

Governance arrangements must be transparent, have clear accountabilities and, be accompanied by enhanced consumer representation in decision making. In addition to participating in the Finkel review, PIAC has undertaken a thorough review of energy market governance arrangements and identified improvements needed across the NEM. Our submission to the Finkel Review draws heavily on this research and these recommendations. PIAC would be pleased to share this work with the committee by request.

PIAC believes there are a number of actions that could be made in the near term that will better facilitate modernisation of the electricity grid. In particular, PIAC believes that four key recommendations require immediate action:

- Establish a Consumer Advisory Committee for the COAG Energy Council.
- Require consumer representatives to sign-off on rule changes.
- Require energy market institutions to have consumer expertise at commissioner and executive level.
- Enhance consumer participation in network revenue determinations.

Increasing transparency in the market will ensure that even if prices do not go down, consumers will at least understand what is driving costs and question if costs are efficient and prudent.

Non-network solutions and new technologies will play an important role

Demand management and non-network solutions are critical to ensure that consumers are provided with the most cost-effective services. There is significant opportunity to improve system security, reliability, sustainability and affordability through the increased use of demand management and non-network solutions.

It is often thought that measures to improve reliability or security of supply inherently come at higher cost to consumers. PIAC notes however that system security and reliability can be improved through the increased use of demand management solutions that also reduce the cost to consumers. These measures are essential to maintaining stability and efficiency in an increasingly decentralised grid.

At a wholesale market level, the absence of an accessible, mature market for demand response in the NEM has left consumers exposed to a greater risk of involuntary load curtailment due to the lack of available generation during maximum demand events, and potentially higher wholesale prices at other times. The recent experience in South Australia highlights the potential impacts to the electricity system from extreme weather events.

At a network level, PIAC would draw the Committee's attention to the body of work undertaken by the Institute for Sustainable Futures to understand the benefits, and barriers to the adoption, of demand management and options for the design of a demand management incentive scheme.

Batteries, at both the behind the meter and grid level, can provide a number of additional services to the energy system as a whole beyond just storing energy for use to reduce peak demand. PIAC has undertaken research, and been involved with that of other organisations, to better understand the features of an appropriate regulatory environment to realise these benefits, considering also the consumer protection issues associated with batteries. PIAC would be pleased to share this work with the Commitee by request. There is more work to be done around the regulatory treatment of, and the consumer protections around, these products and services to ensure that batteries and other technology solutions are effective in the grid of the future.

PIAC is supportive of households adopting rooftop solar and batteries and, in the right circumstances, there is potential for the adoption of household solar or batteries to assist vulnerable consumers. Noting the above points, wide spread adoption of demand side technology should be done in a way that maximises the positive effect that these technologies can have for grid stability and reliability of the system as a whole. As such, PIAC supports proposals such as developing a registry of batteries.

Tariff reform has begun but further progress is required

While the transition towards cost reflective network tariffs has begun, there is a long way to go before they are appropriately designed and effective. There remain difficulties in translating complex network prices into tariffs that are easy for consumers to understand and act on in order to allow them to respond to efficient price signals, if they choose to do so. We elaborate on this work in both our submission to the Finkel Review and our submissions to the AER's NSW Tariff Structure Statements process, available on request.

Commitment to sector-wide collaboration is needed to regain consumer confidence

As noted in the discussion paper, the electricity industry is undergoing significant changes. However, there is currently a high level of distrust and unhappiness amongst consumers with regards to the energy system. This is evident in the outcomes of community surveys conducted by Ethnic Communities Council and Energy Consumers Australia. To overcome this will require a concerted effort on behalf of not just networks, but all parts of the industry as well as governments. PIAC hopes that this inquiry will form a valuable part in ensuring the transition of the electricity industry leads to beneficial and sustainable outcomes for all consumers.

Yours sincerely,

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