7 May 2021

public interest
ADVOCACY CENTRE

Standing Committee on the Environment and Energy
House of Representatives
Parliament House

Submitted electronically

Dear Committee Members,

Inquiry into the current circumstances, and the future need and potential for dispatchable energy generation and storage capability in Australia

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in New South Wales. Established in 1982, PIAC tackles systemic issues that have a significant impact upon people who are marginalised and facing disadvantage. We ensure basic rights are enjoyed across the community through litigation, public policy development, communication and training. The Energy + Water Consumers' Advocacy Program represents the interests of low-income and other residential consumers, developing policy and advocating in energy and water markets.

PIAC welcomes the opportunity to respond to the Standing Committee on the Environment and Energy's (the Committee) inquiry into the current circumstances, and the future need and potential for dispatchable energy generation and storage capability in Australia (the Inquiry).

The issue of dispatchable power is important as the energy system transitions and traditional sources of generation retire. PIAC considers renewable sources and storage, such as batteries, pumped hydro and Distributed Energy Resources (DER) such as demand response, are the most cost effective and reliable means of meeting Australia's dispatchable capacity requirements. PIAC considers all Australia's dispatchable capacity can be met in future using renewable sources, while Gas Powered Generation will continue to have a minor but important role for some years meeting infrequent peak events. This role will diminish as batteries and other sources of dispatchable peak capacity become available.

PIAC notes while investment in new gas generation is unlikely to be economic or needed, changes in the generation and storage mix may threaten the viability of existing plant and/or make gas generation much more expensive. With more reliance on Variable Renewable Energy (VRE), and increasing capacity being linked to the charge states of storage, the system may become more dependent on more gas capacity than today but for less frequent periods and using less overall gas volume. This may require gas generators to charge higher prices to recoup costs across fewer events. It may also require government intervention to ensure gas supplies are available during peaks, which may add further costs to providing dispatchable power this way. Relying on gas for dispatchable generation is uneconomical and short-sighted.

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PIAC considers a market for flexibility in generation, storage and demand-side resources is needed to ensure sufficient dispatchable generation is available in future. The current energy-only market is not fit to encourage new investment in and provision of flexible energy services needed as the energy system transitions.

As an organisation which has represented the interests of household energy consumers for more than 20 years, PIAC has contributed to many reform processes concerning the current and future need for dispatchable energy generation and storage. We refer to recent previous work relevant to the Terms of Reference below.

All PIAC's submissions can be found by searching our publications page on the PIAC website: https://piac.asn.au/publications/

Current and future needs

Post-2025 Market Design
Recommendations for future market design with a focus on increasing access to demand-side resources, improving transmission access and pricing and developing markets for flexibility and essential system services.
Consultation Paper (focusses on integration of Distributed Energy Resources and transmission access)
Issues Paper (focusses on the design of markets for flexibility, inertia and storage management)
Two-sided market (focusses on design considerations for a two-sided market)

Review of the Gas Supply Guarantee
Considers the current and future need for gas in the energy system and whether a Gas Supply Guarantee for peaks is required.

Gas Fired Recovery
Considers the current and future role of gas in the energy system and whether more investment is needed to increase gas supply and lower gas prices.

NSW Energy Security Target and Safeguard
Consideration of the Energy Security Target and Safeguard provides an additional layer of regulatory security to meet the electricity demand by NSW consumers during summer peak periods. The scheme considers both supply and demand side resources to ensure the most efficient combination of actions is taken.

Issues related to system integration, connection, and grid transmission requirements

Distributed Energy Resources integration
Considers a rule change to integrate Distributed Energy Resources (DER) with the introduction of various new pricing measures. We note many of the barriers to the efficient uptake and use of DER can be addressed, and the impacts greatly reduced, by the introduction of more cost reflective tariffs for consumption. We recommend any major reforms to pricing of export or generation capacity should follow, not precede, the full implementation of cost-reflective pricing of consumption.

Coordination of generation and transmission investment
Recommends a whole-of-system coordination and planning framework for the National Energy Market and a new approach to cost and risk sharing for generation-leading transmission investment.

Consultation Paper
Interim report

Governance of Distributed Energy Resources Standards consultation paper
Recommends minimum technical standards responsive to the changing needs and opportunities from DER to be defined by industry standards frameworks. In their absence, a new coordinating structure and processes to help prioritise and coordinate technical standards for how DER systems interact with the broader system as a whole.

Distributed Energy Resources technical standards
Considers a rule change to introduce minimum technical standards for Distributed Energy Resources.

Existing, new and emerging technologies

Wholesale Demand Response Mechanism
Outlines the strong consumer case for Wholesale Demand Response and argues for a rule change to allow third-parties to bid demand response into the wholesale market.
Draft decision
Consultation paper
Consultation supplementary

Consumer Data Right draft energy sector designation
Consideration of the benefits of risks of introducing a Consumer Data Right for energy, which can facilitate improved access to useful data for consumers and their agents.

System services rule changes consultation paper
General principles for the provision of system services, including the preference for price signals to ensure the optimal mix of flexible generation, and how cost and risk of a market for system services should be recovered.

Future Fuels Strategy discussion paper
Assessment of the opportunities of electronic vehicles (EV) to provide wide-ranging benefits for energy consumers. EVs can provide an important and flexible tool to ensure the energy system remains stable and secure, reducing wholesale energy prices, and reducing network costs by deferring or avoiding the need for network augmentation or upgrades.

National Energy Consumer Framework Review Issues Paper 1: New Energy Products and Services
Considers the consumer protections required for new energy products and services to minimise potential harms while encouraging the provision of new, innovative services that benefit consumers.

NSW Energy Saving Scheme
Provides input to a review of the NSW Energy Saving Scheme and highlights the scheme is not currently incentivising energy activities to be undertaken in residential properties. Recommendations include creating Scheme targets for residential and low income household retrofits, expanding the list of eligible energy saving activities and introducing a factor to incentivise activities in areas of network constraint.

Comparative efficiency, cost, timeliness of development and delivery, and other features of various technologies

Review of the Gas Supply Guarantee
Considers the current and future need for gas in the energy system and whether a Gas Supply Guarantee for peaks is required.

Gas Fired Recovery
Considers the current and future role of gas in the energy system and whether more investment is needed to increase gas supply and lower gas prices.

Applications to various scales and forms of end-use such as households, industry, and transport

Trajectory for Low Energy Homes
Makes recommendations for implementing a trajectory for low energy homes and highlights the importance of household energy efficiency for health and well-being, energy affordability and system efficiency.

Australia's research and innovation development framework and policies

Standing Committee on Economics Inquiry into impediments to business investment
Discusses and provides recommendations on frameworks to encourage investments that benefit energy consumers. In particular, the submission focusses on balancing the need to protect consumers from harms with the need to encourage investment in new technologies and services.

Electronic vehicles issues paper
Considers whether regulatory arrangements are encouraging retailers to innovate to meet customer preferences for electronic vehicles.

We welcome the opportunity to discuss these matters further with the Committee.

Yours sincerely

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