



Submission

in response to

Post 2025 Market Design Issues Paper

prepared by

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About Environmental Justice Australia

Environmental Justice Australia is a not-for-profit public interest legal practice. We are independent of government and corporate funding. Our legal team combines technical expertise and a practical understanding of the legal system to protect our environment.

We act as advisers and legal representatives to community-based environment groups, regional and state environmental organisations, and larger environmental NGOs, representing them in court when needed. We also provide strategic and legal support to their campaigns to address climate change, protect nature and defend the rights of communities to a healthy environment.

We also pursue new and innovative solutions to fill the gaps and fix the failures in our legal system to clear a path for a more just and sustainable world.

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Climate Change

The Post 2025 Market Design Issues Paper (Post 2025 Paper) largely fails to address climate change as a key challenge that will be material to the new market design. There is a powerful argument that separating climate and energy policies sidelines climate actions. The Post 2025 Paper seems to be inclined towards a position on which climate change policies are not a substantive part of the new electricity market design. In fact the new market design should directly fight climate change by ensuring the grid is significantly and rapidly decarbonised.

The Post 2025 Paper acknowledges the importance of climate change, but addresses it only as a risk that needs to be managed with greater resiliency and contingency approaches. The paper fails to appropriately recognise climate concerns and the need for integrated climate and energy policy, along with economic imperatives and consumer preferences, as a primary driver of the energy transition that some elements of the market design reforms propose to advance.

Coal and gas account for about 85% of electricity generation¹, in particular, from burning black and brown coal at large power stations. This contrasts with the significant penetration of renewable energy, including a rapid increase in distributed energy resource (DER) deployment during the last few years, and the country's vast renewable energy potential.

In this context, Australia should start the new electricity market design discussions with a clear intention to coordinate energy and climate policies.

The Post 2025 market design review should incorporate energy policies aimed at reducing carbon emissions and tackle climate change as an explicit and independent sixth key challenge in its own right and acknowledge that addressing climate change is a structural feature that will give shape to the new electricity market design.

The paper refers to the need for the post 2025 project to satisfy the National Electricity Objective (NEO). Although not raised as part of this review, the review should not ignore the changes that should be made to the NEO to ensure progress towards decarbonisation of the grid, as well as recognition of health and environmental externalities of electricity generation. There are a number of goals that could be inserted into the NEO that would follow best international practices in setting energy policy goals including sustainability, environment, climate, and including references to "cost" not just price.²

Specific Comments

One of the most important features of the Post 2025 Paper is that it makes a commitment to incorporate international best practices to address the key challenges. State of the art policies and recent discussions taking place in energy transition processes around the world are referenced, but

¹ <https://www.energy.gov.au/government-priorities/energy-supply>.

² See for example Anne Kallies (2016) *A barrier for Australia's climate commitments? Law, the electricity market and transitioning the stationary electricity sector*, UNSW Law Journal Volume 39(4)

there are some particular elements that should be revised from a clean energy transition perspective. We identify the following:

a) “Orderly exit” of coal-based plants

In sections 4.2.1 and 4.2.4, the Post 2025 Paper foresees that coal-fired generation capacity is to be phased out and replaced by cleaner energy sources. However, the paper also states that market arrangements would need to enable an “orderly exit” of coal-based generation and its replacement by firm, dispatchable generation.

In a liberalised market context, entry and exit barriers should be as low as possible to provide economic efficiency (which is stated as a main objective of the market reform). Therefore, it is important that the “order” that is being proposed to be inserted in the exit processes of coal plants does not entail undue governmental intrusion to provide protection or artificially extend the financial viability of fossil fuels technologies. Coal plants are facing technological and regulatory risks that are not uncommon on other markets. An “orderly exit” should not delay their foreclosure when the market, and consumers, no longer require their service, taking into account the need to address system reliability during periods of peak demand, such as summer, with technologies such as a battery storage and demand response incentives.

b) The Post 2025 Paper fails to address fossil fuels subsidies

The paper advocates that productive, allocative, and dynamic efficiency is to be considered as a principle for evaluating market designs to achieve least-cost outcomes. However, the paper is also silent on the fact that existing fossil fuel subsidies, particularly for coal, are currently encouraging the continuation of high carbon electricity sources in the market.

Energy transition strategies should take into account the need to phase out subsidies and other policies that encourage carbon intensive energy generation and discriminate against new and cleaner technologies, and conversely the need for subsidies and other incentives to encourage clean low carbon sources to enter and participate in the market, to ensure more rapid decarbonisation of the grid.

c) Distributed Energy Resources and Community Solar

When addressing DER, section 4.3.4 mentions the important role of DER owners in the new market design. The paper suggests the possibility of revising incentives for investment in DER, including creating markets for services aggregators.

Community solar, which is already taking off in many areas of Australia, should also be explicitly added as an important modality of DER that should be facilitated in the new market design.

d) Transmission capacity constraints for Variable Renewable Energy (“VRE”)

Section 4.5.1 addresses one of the most relevant issues hindering the development of utility scale renewable energy generation, which is the dependence of VRE on transmission capacity installed and available to the location with the solar or wind potential. The Post 2025 Paper clearly identifies the need to develop transmission systems to allow VRE to enter the market and sets out the coordination of generation and transmission investment as a key challenge.

International experiences illustrate different approaches to provide flexibility to the interested parties to enter into different kinds of schemes to manage different risk allocation mechanisms. There are many different models to allow innovation to tackle a complex investment problem.

For instance, the Horse Hollow transmission line in Texas was a project developed by the owners of a wind farm. The main objective was to create an energy route to a more robust market, in this case, by transporting its electricity flow from a congested zone in West Texas to the Texas South ERCOT zone where no curtailment existed. The generators absorbed the transmission development and financial risks, and the regulatory regime was flexible enough to allow this private line to interconnect the facilities.

Regulatory capacity to allow creative schemes should be a principle to guide and incentivise investment.

e) Operational innovation to reduce carbon emissions

Building on the proposed idea that the new market design must directly fight climate change, there are important opportunities to innovate on operational practices, in particular dispatching policies.

A “green” dispatch policy, by which the dispatching merit order considers carbon emissions, is a key way that the operation of the market can advance the energy transition. The European Union for example requires “priority” dispatch of renewable energy.³

f) Energy-only market

Section 3.4 expresses the expectation of modelling an “energy only” market (in contrast to alternatives such as some form of “capacity” or “flexibility” markets). From an energy transition perspective, this is adequate: if designed correctly, “energy only” markets can promote the development of more efficient and cleaner resources, as long as the market has the flexibility and transparency to provide proper investment signals needed to develop enough capacity to cope with an ever-increasing demand and risk management needs. In contrast, when designed and applied poorly, one of the alternative forms of market – the “capacity” market – may effectively subsidise existing fossil fuel generators (as has happened in Europe)⁴ or result in the building of peaking plants that are never used (as has happened in Western Australia).⁵

³ See: <https://www.emissions-euets.com/internal-electricity-market-glossary/1818-priority-dispatching-of-electricity-from-renewable-energy-sources>.

⁴ See generally: <https://www.cleanenergywire.org/news/eu-deal-power-market-rules-and-capacity-mechanisms-criticised-coal-subsidies>.

⁵ See generally: <https://reneweconomy.com.au/dumb-and-dumber-energy-choices-in-the-wild-west-64327/>.