31 January 2022



To the Senate Standing Committees on Economics,

Thank you for the opportunity to make a submission to the Inquiry into Treasury Laws Amendment (2022 Measures No. 4) Bill 2022. <u>Beyond Zero Emissions</u> (BZE) is an independent solution focussed think tank and we welcome this consultation. We commend the government for Schedule 8 - to supply the CEFC with additional funding to implement the Rewiring the Nation plan, establish the Powering Australia Technology Fund and streamline provision of additional funds to the CEFC in future. This step is important to delivering funding efficiently, will enable growth of the Australian clean energy sector and drive a much needed and rapid transition of Australia's energy system to ensure we reduce emissions.

In early February we will be releasing a new report: *National Supergrid - Connecting Australians to a zero emissions future*. Based on research and industry engagement, this report recommends a \$20 billion investment over the next five years (from existing allocated funding such as Rewiring the Nation, Powering the Regions and National Reconstruction fund) to realise rapid upgrades to critical grid infrastructure. This research along with our policy recommendation for the establishment of a national Renewable Energy Industrial Precinct program can leverage Australia's zero-emission economic opportunities, such as the \$333 billion green export opportunity identified in our Export Powerhouse report (almost triple the value of 2019 fossil fuel exports) - we need to move rapidly to clean energy for all.

CEFC is the ideal agency to oversee the broadscale investment priorities for a holistic upgrade of electricity generation, transmission, distribution, storage and system security. The National Supergrid report makes a recommendation for spending over the next five years to build the foundations of this grid, detailed in table 1 for your interest. This recommendation ensures that expenditure can deliver a suite of national benefits to all Australians and is designed to assist in prioritising competing investments to ensure an equitable energy transition.

A National Supergird delivered at speed will be key to building the foundations of Australia as a renewable energy superpower, unlocking export opportunities, cutting energy bills, ensuring energy security and regional prosperity. Please find attached pre-release version of the report detailing how Australia can deliver and benefit from a rapid rollout of grid infrastructure, we would welcome the opportunity to discuss this further.

Yours Sincerely, **Dr Jane Sewell** Head of Research (Interim), Beyond Zero Emissions. <u>jane.sewell@bze.org.au</u>

Table 1: Distribution of funding for grid infrastructure investment

Infrastructure	Funding	Details
Transmission \$11.7 billion	\$8.7 billion	Support transmission projects identified in the AEMO 2022 ISP Hydrogen Superpower for delivery in the next 5 years to 2027/28.
	\$2 billion	Support transmission projects that enable the delivery of renewables to two industrial precincts for clean commodities and manufacturing.
	\$1 billion	Support transmission in the Pilbara (WA) to fast-track renewable energy sharing. Support the Electric Superhighway (NT) to deliver energy independence and opportunities to First Nations people.
Storage \$4.3 billion	\$3.6 billion	Support for 6 GW/50 GWh medium duration (8 hr) battery storage projects to unlock renewables and provide critical firming capacity.
	\$400 million	Support for local innovators to scale up next-gen energy storage technologies.
	\$300 million	Support the groundwork for pumped hydro assets, focusing on brownfield and off-river sites, as well as projects that support our industrial regions.
Distribution \$2.3 billion	\$335 million	Support collaborative establishment of a national distributed energy resources management system to optimise household solar, batteries and electric vehicles.
	\$175 million	Support distribution upgrades to enable electrification for communities
	\$400 million	Support the rollout of stand-alone power systems and microgrids to remote and First Nations communities for improved energy independence.
	\$336 million	Support rural communities and farmers to decarbonise and connect mid-scale renewables (1-5 MW) to unlock new revenue streams.
	\$500 million	Support distribution upgrades to enable the electrification of community hubs, schools etc. to ease cost pressures and free up funding for service delivery.
	\$600 million	Support distribution upgrades to industrial clusters, helping them to electrify and adopt modern, renewable powered manufacturing processes.
System Security \$1.7 billion	\$1.5 billion	Support the delivery of critical assets such as synchronous condensers.
	\$200 million	Support the accelerated rollout of advanced grid forming inverters.