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15 September 2025

To: Productivity Commission
Re: Inquiry into *Investing in cheaper, cleaner energy and the net zero transformation* – interim report

Thank you for the opportunity for the Institute for Energy Economics and Financial Analysis (IEEFA) to provide input to the inquiry into *Investing in cheaper, cleaner energy and the net zero transformation* – interim report.

IEEFA is an independent energy finance think tank that examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

IEEFA thanks the Productivity Commission for the significant work in developing the interim report. The report rightly identifies three major gaps in Australia's current emissions reduction policies: electricity sector policies post-2030; industrial facilities that are exempt from the Safeguard Mechanism; and heavy vehicles. However, IEEFA considers that the Productivity Commission's interim report has overlooked some important levers that could help achieve net zero at least cost, including:

- Comprehensively improving energy efficiency and flexibility.
- Reviewing inefficient electricity network revenue regulation and pricing.
- Reducing fugitive methane emissions from coal and gas extraction.
- Scrutinising the net economic cost-benefit of new coal and gas projects.

We provide more information on those opportunities at the end of this submission

IEEFA also has specific comments on a few of the recommendations:

- Assessing emissions reduction policies using independently developed carbon values appears to be a positive step. However, IEEFA believes an economy-wide emissions price would be the most efficient way to deliver emissions reductions. The current challenge in aligning energy market outcomes with an emissions objective is that emissions are an unpriced externality. Placing a direct price on emissions is one of the most efficient ways to overcome this challenge.
- Regarding the recommendation to eliminate the exemption of electric vehicle (EVs) from Fringe Benefits Tax (FBT), and to eliminate stamp duty and registration discounts for EV owners, IEEFA considers that these financial incentives for EVs are not necessarily

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duplicative with the New Vehicle Efficiency Standard (NVES). The NVES sets standards on manufacturers but does not financially support owners to buy EVs. The policies appear to be additive rather than duplicative as they perform different functions. While the EV market is still developing, it may be premature to eliminate financial incentives for EVs. Further analysis in this area may be of benefit.

- A nationally consistent climate resilience rating system for housing, as recommended by the Productivity Commission, would be a positive step forward. The ratings should be disclosed at point of sale and lease, alongside energy performance ratings.

- IEEFA considers that there is a case for comprehensive national incentive schemes to support the full suite of household energy upgrades (including not just solar and batteries, but also efficient electric appliances), and that there could be a role for specific state government incentive schemes in cases where they deliver additional benefits. We explored this in our recent report on household energy upgrades.

Kind regards,

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Additional detail on key additional levers to consider for achieving net zero emissions at least cost

The remainder of this submission is excerpted from the IEEFA commentary *Four levers the Productivity Commission misses for least cost to net zero*, published on 11 August 2025.

Comprehensively improving energy efficiency and flexibility

In its latest World Energy Outlook report, the International Energy Agency (IEA) said that "the goal of doubling the global rate of energy efficiency improvements could provide larger emissions reductions by 2030 than anything else, but looks far out of reach under today's policy settings." In 2023, the IEA found that, while Australia had had success in achieving energy savings, annual improvement rates slowed after 2015 to less than half what is required under a net zero-aligned trajectory.

IEEFA estimates that over 1.7 million inefficient new gas and electric appliances are installed each year across Australia. Failing to shift those to efficient electric appliances costs Australian households over $3 billion in unnecessary energy costs. Australian appliance standards have not kept up with technological progress, with widely available heat-pump based appliances using a fraction of the energy used by traditional gas and resistive electric appliances. Improving electric appliances' efficiency nationally would save more electricity per year than the increase needed to accommodate the shift from gas to electric appliances.

Appliances offer an opportunity to support the electricity sector transition through being operated flexibly. Both hot water and air conditioning are key loads that could be flexibly operated, using more power during the daytime solar period, rather than in the evening peak period. This could reduce requirements for large-scale generation and network build.

Many small-scale programs have also revealed large untapped opportunities to improve industrial energy efficiency. For example, a program delivered by the Australian Alliance for Energy Productivity in New South Wales found that 80-90% of energy used by compressed air systems (which represent about 10% of industrial electricity use) is wasted. However, since the closure of the Energy Efficiency Opportunities program in 2014, there has been a gap in comprehensive government policy to support industrial energy efficiency. Unlocking this opportunity will require more than the Safeguard Mechanism, with a particular focus on capability building.

Reviewing inefficient electricity network revenue regulation and pricing

IEEFA estimates that supernormal profits across electricity distribution and transmission networks amounted to $15 billion (on top of "allowed" profits of $17.6 billion) over 2014-2023. This has led to higher electricity bills for consumers and undermined economic productivity. With distributed energy resources (DER) increasingly capable of providing network services, current regulation based on monopoly assumptions for electricity networks is outdated. A first-principles review of the economic regulation of electricity distribution networks is essential to redesign the regulatory regime for productivity, affordability and the energy transition.

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The recent boom in household batteries also presents an enormous opportunity to reduce bills for households and reduce the investment required in large-scale electricity system assets. IEEFA has found that rooftop solar and batteries could slash summer and winter peak demand in all states, reducing it to zero or below zero in the vast majority of cases. However, tariffs and incentives are needed to drive an optimum outcome for the energy system.

Reducing fugitive methane emissions from coal and gas extraction

Coal and gas extraction are responsible for at least about 20% of Australia's emissions, and possibly about 25% if suspected methane emissions underreporting is correct. Methane is a powerful greenhouse gas, but a short-lived one compared with carbon dioxide. Therefore, cutting methane emissions from the coal and gas sectors would have a rapid, significant effect on atmospheric warming potential.

Methane emissions are expected to remain stable till 2035, with the Safeguard Mechanism inadequate for driving methane emissions reductions. This is despite the low cost of abatement and the potential economic and financial benefits of utilising the captured methane. Methane is the main component of fossil gas, and IEEFA estimates that about 76 petajoules of methane could be recovered across the coal and gas sector each year. That is worth about $950 million and is more than twice the amount of gas anticipated to be needed for power generation in the National Electricity Market in 2025.

Scrutinising the net economic cost-benefit of new coal and gas projects

IEEFA's research has shown there are high economic risks associated with many new coal and gas developments, in particular those targeting liquified natural gas (LNG) exports.

In the context of an enormous looming global LNG supply glut, new LNG projects could worsen the financial situation of existing projects by worsening oversupply, further depressing global LNG prices. Existing LNG projects in eastern Australia have had disappointing financial results and have led to significant economic costs by driving a tripling in domestic gas prices in the eastern states. This in turn has driven significant industrial facility closures and decreases in gas generation. In addition, LNG projects are associated with very large gas use and emissions, which cannot be adequately addressed by carbon capture and storage.

IEEFA hopes that the Productivity Commission will take a broader look at the opportunities available to both progress Australia's emissions reduction agenda and reduce costs for Australians.