

**Submission
No 135**

SUSTAINABILITY OF ENERGY SUPPLY AND RESOURCES IN NSW

Organisation: Energy Efficiency Council

Date Received: 13 September 2019

Mr Alex Greenwich, MP
The Chair, Committee on Environment and Planning
Parliament House
Macquarie Street
Sydney NSW 2000

13 September 2019

Re: Inquiry into the sustainability of energy supply and resources in NSW

Dear Mr Greenwich,

The Energy Efficiency Council (EEC) is Australia's peak body for energy efficiency, energy management and demand response. The EEC thanks you for the opportunity to comment on the Committee on Environment and Planning's inquiry into the sustainability of energy supply and resources in NSW.

Getting smarter with the way that we use energy, particularly during peak times, reduces the amount of generation that our system needs. In effect, energy management provides low cost, zero-emissions and highly reliable 'capacity'. Large industrial sites can provide at least 3.8 Gigawatts of capacity during peak times – more than twice the current capacity of the Liddell Power Station. In addition, energy efficiency across a broad range of sites can deliver more than 25 Terawatt hours (TWh) of capacity each year – the equivalent of more than three times the annual output of the Liddell Power station.

Using energy management to provide capacity isn't just a theoretical idea. Following the loss of Japan's nuclear generation capacity in 2011, Japan improved its energy efficiency so dramatically that it managed to reduce its annual energy consumption by over 100 TWh – more than 12 times the annual output of Liddell. In China, energy efficiency improvements since 2000 have saved around ten exajoules a year, the equivalent of 12 per cent of China's final energy consumption.

Improving the way that we use energy would also:

- **Reduce energy bills:** if we implement basic energy efficiency measures it will lower Australians' energy bills by \$7.7 billion each year.
- **Reduce emissions:** energy management has delivered by far the largest reductions in global greenhouse gas emissions this century, and could easily deliver half of Australia's national target to reduce emissions by 26-28 per cent by 2030.
- **Drive economic growth and jobs:** energy efficiency improvements in 2017 alone increased global GDP by an estimated AU\$2.8 trillion that year. Improving energy management in Australia would create at least 120,000 job-years of employment.

Unfortunately, independent analysis of the world's 25 largest energy consuming countries ranked Australia as the worst developed country for energy efficiency policy and performance.¹ The good news is that by adopting well-established policies from overseas we can rapidly improve our energy efficiency and energy management.

In short, energy management is the key to making our 21st century energy system work, and ensuring that energy in NSW is affordable, reliable and sustainable.

In June we released a new report on global best practice in energy management, *The World's First Fuel: how energy efficiency is reshaping global energy systems*, which was developed over two years in conjunction with experts in the United States, Europe and Asia. I have enclosed a copy of this report, which I believe will assist the Committee in its deliberations.²

The EEC looks forward to engaging with the Committee as it finalises its inquiry. I can be contacted via email on [REDACTED] or via phone at [REDACTED].

Best regards,



Rob Murray-Leach
Head of Policy
Energy Efficiency Council

¹ Castro-Alvarez, F, Vaidyanathan, S, Bastian, H & King, J 2018, *The 2018 International Energy Efficiency Scorecard*, American Council for an Energy-Efficient Economy, Washington DC.

² Please note that a physical copy of the report has been mailed to you, and an electronic copy of the report is available here: <http://www.eec.org.au/policy-advocacy/handbook>.

Attachments included with submission

The World's First Fuel: How energy efficiency is reshaping global energy systems, Energy Efficiency Council, 2019