

Select Committee on Energy Planning and Regulation in Australia
Answers to questions on notice
Climate Change, Energy, the Environment and Water Portfolio

Inquiry: Select Committee on Energy Planning and Regulation in Australia

Question No:

Hearing Date: 29 October 2024

Division/Agency: Emissions Reduction Division

Topic: Emissions projections for the electricity market

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Question Type: Spoken

Senator David Pocock asked:

Senator DAVID POCOCK: Thank you for your time this afternoon. I have some questions about emissions and technology modelling of the electricity market. It looks as though there was a prediction that emissions from the electricity sector would be about 12 million tonnes per annum in the year 2023-24, but that projection was out by about 10 million tonnes. Is that correct?

Mr Duggan: You have us at a bit of a disadvantage. The emissions projections are done by the climate change group in our department. We don't have any of those colleagues here with us today. But we can take that one on notice for you and come back.

Senator DAVID POCOCK: Sure. If that is the case, I'd like to know, on notice, why there was such a significant error in the projections.

Answer:

The decline in electricity emissions in the year to June 2024, as reported in the *National Greenhouse Gas Inventory Quarterly Update: March 2024*, was smaller than the decline projected in *Australia's emissions projections 2023*. The Quarterly explains a series of factors that impacted that quarter as follows:

While electricity emissions have been steadily falling in recent years in trend terms, there was an increase in electricity emissions for the March quarter. The Australian Energy Market Operator (AEMO) confirmed that NEM underlying demand surged in Queensland and New South Wales due to warmer than average temperatures, leading to the highest NEM demand for electricity in a March quarter since 2020. This demand required increased generation, including from existing coal and gas fired power stations, particularly in the evening. Despite this, AEMO confirmed that the emissions intensity in the NEM reduced to a new March quarter low of 0.62 tonnes CO₂-e/Megawatt hour (MWh) due to the increasing share of generation from renewable sources.

The emissions projections draw on the latest available information about large scale renewable energy deployment. New information is incorporated when the projections are updated annually.

The transition to a decarbonised energy system will not be linear. There will be fluctuations due to broad factors like weather and project-specific issues that affect when new renewable projects come online. The most recent data from the Clean Energy Regulator shows build rates for new renewable generation increasing. Initiatives such as the capacity investment scheme will speed up that investment.