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: IQ24-000175

Hearing Date: 29 October 2024

Division/Agency: National Energy Transformation Division

Topic: Shadow carbon price

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Question Type: Spoken

Senator Canavan asked:

Senator CANAVAN: What's the shadow price of carbon that AEMO use in the ISP? Mr Duggan: AEMO utilise, effectively, a carbon budget methodology. That carbon budget methodology, consistent with government policy around emissions reduction, effectively assigns a certain level of carbon that is attributable to the electricity sector. In that context, it's a model driven output. It's not an input assumption in terms of what's derived in terms of a shadow carbon price. One of my colleagues may be able to correct me on this, but I don't think that that's something that AEMO publish.

Senator CANAVAN: No. We've asked for it before, and they refused to give it to us. They say that they're not at liberty to share this information. I don't know who's restricting their liberty, but do you know what the shadow carbon price is in the latest version of the ISP? Mr Duggan: No. AEMO has given you the answer, which is that it's not published as part of their very extensive suite of information that they publish, but we can take that on notice. Senator CANAVAN: Can you take that on notice.

Answer:

The Integrated System Plan (ISP) model finds the generation mix required to meet electricity demand with the lowest-cost system, subject to a large number of constraints. Some of the constraints represent existing policies, including committed state and national renewable energy targets. To ensure that the model achieves net-zero emissions by 2050, as specified in legislation, a carbon budget is also applied. There is no carbon price imposed on emissions by the ISP resource optimisation model.

The ISP aims to find the lowest-cost development pathway for the National Electricity Market. This involves comparing total system costs for a wide range of potential development pathways. AEMO publishes the total system costs and many other results for each scenario in its "ISP Generation and Storage Outlook" datasets.