

AEMO responses to Questions on Notice

Senate Select Committee on Energy Planning & Regulation in Australia

5 December 2024

Question one

Senator CANAVAN: Can I go to what I was asking about the RERT last week. How much was used and what was used?

Mr Westerman: The direct answer to the question is that we published a notification yesterday, as is our obligation, that we used 65 megawatts of RERT for a total cost of \$3,557,700. That includes the cost of pre-activation as well as the actual RERT that was used at the time.

If it is helpful to expand on the situation last Wednesday, I would be happy to do that, Senator. The pre-activation is done during the day beforehand. It sets up RERT providers to be available for demand response. The actual activation during periods of low reserve is undertaken as is required. What happened last Wednesday—which, again, I'm happy to expand upon—is that the forecast early in the day was significantly more challenging than actually panned out at the period of low reserve, so we deployed less RERT than we pre-activated.

Senator CANAVAN: How much did you pre-activate?

Mr Westerman: I don't have that number, but we will include that in the RERT report that we will publish.

Senator CANAVAN: Can you take that on notice for us, so we can have it.

Mr Westerman: We'll publish that in the RERT report.

Senator CANAVAN: Yes, but we might not get that before we need to report. Could we get that figure by the 12th? Take that on notice. Thank you.

Answer

AEMO [reports on the activation of the Reliability and Reserve Trader \(RERT\)](#) and publishes both a report with estimated quantity and cost of activated RERT 5 business days after activation, as well as a 30 day RERT report and a quarterly RERT report. The [RERT Activation Estimates Report for 27 November 2024](#) has already been published on the AEMO Website.

A table including the amount (MW) of contracted, pre-activated and activated RERT on Wednesday 27 November 2024 has been included below.

	Contracted (MW)	Pre-activated (MW)	Activated (MW)
Large Industrial Customer	405	30	0

	Contracted (MW)	Pre-activated (MW)	Activated (MW)
Aggregated Demand Response	165	154	65
System Voltage Response	35	0	0
Total	605	184	65

Question two

Senator CANAVAN: So Tomago was pre-activated?

Mr Westerman: Tomago was pre-activated and ready and available but not used during the time. What we observed was that Tomago withdrew themselves out of the market, which is why they were—

Senator CANAVAN: So Tomago actually withdrew itself out. They did see a big dip there. That was presumably because of the spot price at the time?

Mr Westerman: I couldn't speak to why—

Senator CANAVAN: Okay. Did any of the money go to Tomago, then—the \$3 million? Do the pre-activated guys get—

Mr Westerman: I'd have to take that one on notice. I imagine there's a pre-activation charge, so I—

Senator CANAVAN: There is. But, typically, when you pre-activate someone, they get some funding—

Mr Westerman: Typically, yes, that's right—the pre-activation charge, yes.

Senator CANAVAN: Alright. You can take that on notice as well.

Answer

AEMO has included in its Hansard correction letter a request for a correction regarding the pre-activation of Tomago Aluminium. Tomago Aluminium was contracted to provide RERT services. However, Tomago was not pre-activated or activated in relation to the NSW Lack of Reserve (LOR) event on Wednesday 27 November 2024 and therefore no payments were made to them for RERT on that day.

Question three

Senator CANAVAN: but I do want to quickly ask about Eraring. Apparently, another unit is offline right now—is that correct?

Mr Westerman: I think it's the same unit, to be honest.

Senator CANAVAN: Oh, it's the same?

Mr Westerman: I believe that the same unit that was offline for the period of high demand is still extended, but I'd have to take that on notice.

Senator CANAVAN: We were told earlier that it was Vales Point 6 that was unplanned.

Mr Westerman: Last Wednesday there were five major units that were offline at the time. Three of them were planned and two of them were unplanned. The three planned units were Eraring 3, Bayswater 2 and Tallawarra A—Tallawarra being a gas plant, of course—and the unplanned units were Bayswater 3 and Vales Point 6.

Senator CANAVAN: Okay, we now have different information. AEMO clearly told us that Bayswater 3 was planned. I went through this, because I said I've got a thing from WattClarity which says it was unplanned. They came back and said that it was planned. But you're absolutely clear that it was both Bayswater 3 and—Vales Point 6, did you say?

Mr Westerman: That's my information.

Senator CANAVAN: That they were both unplanned?

Mr Westerman: Yes. I'm happy to take it away. I don't pretend to keep the records.

Answer

Eraring Unit 3 was offline on 5 December 2024 and was also on a planned outage on during the NSW LOR event on 27 November 2024.

AEMO has included in its Hansard correction letter a request for a correction regarding the status and number of major generating units which were offline on Wednesday 27 November 2024. On that date, there were six major generators (greater than 200MW) offline in NSW:

- Bayswater Unit 2 – planned outage
- Bayswater Unit 3 – unplanned / forced outage
- Eraring Unit 3 – planned outage, return to service date extended by participant
- Vales Point 6 – planned outage, return to service date extended by participant
- Tallawarra A – planned outage
- Tumut 3 one unit (300MW) – unplanned / forced outage

Question four

Ms York: What can come out of our modelling process is a marginal value of the carbon budget constraint that is in the market modelling process; that's sometimes referred to as a shadow price on carbon, but that's not what we use. For the step change scenario at 2050—and this will be in real July 2023 dollars because all the dollars in the ISP are in real 2023 dollars—the marginal value of the carbon budget constraint is \$256 per tonne of CO₂ emissions. I can also give you the value at the equivalent time—how the energy minister set the value of emissions reduction, for comparison purposes. That was, at that time, \$420 per tonne of carbon emissions in 2050, and that is also in July 2023 dollars.

Senator CANAVAN: On notice, can you get us the prices or the figures for both of those series, for the step change, for all the years up to 2050. Is that okay?

Answer

The 2024 Integrated System Plan (ISP) models Australia's commitment to net zero by 2050 through the use of carbon budgets, which provide a trajectory for emissions reduction over the modelling horizon. The allocation of a carbon budget to the electricity sector in each scenario was determined through multi-sectoral modelling, which was implemented prior to the ISP modelling, and was a topic of consultation in the 2023 Inputs, Assumptions and Scenarios Report (IASR).

The marginal value of the carbon budget constraint in the economic modelling for the Step Change scenario is set out in the table below. This value is an output of the modelling and approximately reflects the lowest cost option to abate a further tonne of carbon emission in the NEM. In some years the value is zero — which reflects that the carbon budget did not drive emissions reduction in that period.

A table detailing the marginal value of carbon budget constraint in 2024 ISP Step Change Scenario (real \$ 2023), as well as a table detailing the value of emissions reduction (VER) to 2049 (real \$ 2023) as calculated per the statement set by the Energy and Climate Change Ministerial Council and detailed in the AER's guidance, is included below. AEMO has not published these figures, which are an outcome of ISP modelling, because they can be easily misinterpreted given interactions with other aspects of the ISP modelling, and cautions against using the marginal value of the carbon budget constraint to compare against other costs of abatement. A table detailing the marginal value of carbon budget constraint in 2024 ISP Step Change Scenario (real \$ 2023), as well as a table detailing the value of emissions reduction (VER) to 2049 (real \$ 2023) as calculated per the statement set by the Energy and Climate Change Ministerial Council and detailed in the [AER's guidance](#), is included below.

Financial Year	AEMO Marginal value of carbon budget constraint (\$/tonne of CO ₂ -e)
2024-25	151
2025-26	151
2026-27	151
2027-28	151
2028-29	151
2029-30	151
2030-31	151
2031-32	150
2032-33	150

Calendar Year	Commonwealth value of emissions reduction (VER) (\$/tonne of CO ₂ -e)
2024	70
2025	75
2026	80
2027	84
2028	89
2029	95
2030	105
2031	114
2032	124

Financial Year	AEMO Marginal value of carbon budget constraint (\$/tonne of CO2-e)
2033-34	150
2034-35	150
2035-36	150
2036-37	150
2037-38	150
2038-39	-
2039-40	-
2040-41	-
2041-42	-
2042-43	-
2043-44	-
2044-45	-
2045-46	256
2046-47	256
2047-48	256
2048-49	256
2049-50	256
-	-

Calendar Year	Commonwealth value of emissions reduction (VER) (\$/tonne of CO2-e)
2033	135
2034	146
2035	157
2036	169
2037	181
2038	194
2039	207
2040	221
2041	236
2042	252
2043	268
2044	286
2045	305
2046	325
2047	346
2048	369
2049	393
2050	420

Question five

Senator GROGAN: Can I take you back to the previous exchange with Senator Canavan. There was a pretty serious allegation in there, and I'm happy for you to take this on notice: do you believe there was any inappropriate interference from the department in setting the ISP scenarios?

Ms York: From our perspective, we don't. We interact with all governments on their policies, as I said before, to make sure we understand what they are, how they're proposed to be implemented, what stage they're at in terms of legislative implementation, budget considerations and what they're using, so we can effectively model those policies. In the case of the 82 per cent, that was a normal interaction and discussion around a shift from something that wasn't a policy in the 2022 ISP becoming a policy that needed to be an input in the 2024 ISP. There's inevitably going to be a transition from not including it as a constraint to including it as a constraint on that continuum. That was occurring sometime around that middle-of-2023 timeframe, when there was this email exchange—and there were probably other interactions to understand exactly how that was going to be calculated. I see that as a very normal and reasonable interaction of an organisation that's trying to model government policies in terms of making sure we understand how that is to occur in our work.

Senator GROGAN: Can I ask you to review the Hansard and just consider whether there's anything else you want to say regarding those allegations from Senator Canavan. Thank you.

Answer

AEMO has reviewed the transcript and has nothing further to add to the evidence provided at the hearing.