

AEMO Directions to Participants in South Australia

9 October 2023

Final Determination Report

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Notes to this report

Units and dollars

Unless otherwise specified:

- Dollars refer to Australian dollars.
- The claim determination amounts do not include interest payable to participants.



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1 Introduction

IES has been appointed by AEMO as independent expert to assess claims for additional compensation submitted by *Directed Participants* in relation to directions issued during Billing Weeks 13 to 16 in 2023.

1.1 Background and direction to participants

During billing weeks 13 to 16 in 2023 AEMO issued directions to maintain the system in a secure operating state. Under NER Clause 3.15.7B(c)(1) AEMO must refer claims that exceed \$20,000 to an independent expert. The directions associated with the claims that have been assessed for Claimant1 and Claimant2 are summarised in Table 1 and Table 2 respectively. The information in the tables have been appropriately masked to maintain confidentiality. For each directed unit in an event, the table shows the time and date the direction was issued along with the start and end time for each direction.

Table 1 Summary of the directions – assessed claims – Claimant1

Directed unit	Event number	Issued	Effective	Ended	Reason
PS1	290-4	11/04/2023 17:30	12/04/2023 7:00	12/04/2023 6:35	System security
PS1	292-3	15/04/2023 16:00	16/04/2023 11:30	16/04/2023 15:00	System security

Table 2 Summary of the directions – assessed claims – Claimant2

Directed unit	Event number	Issued	Effective	Ended	Reason
PS1	284-1	2/04/2023 16:30	3/04/2023 9:00	3/04/2023 13:55	System security
PS1	285-1	3/04/2023 17:00	4/04/2023 9:30	4/04/2023 15:00	System security
PS1	286-1	4/04/2023 17:00	5/04/2023 9:00	5/04/2023 15:00	System security
PS1	288-1	6/04/2023 17:00	7/04/2023 3:00	9/04/2023 17:00	System security
PS1	289-2	10/04/2023 7:45	10/04/2023 9:30	10/04/2023 16:30	System security
PS1	290-2	10/04/2023 21:30	11/04/2023 9:00	12/04/2023 16:10	System security
PS1	292-1	13/04/2023 17:00	14/04/2023 9:30	16/04/2023 15:00	System security
PS1	294-1	18/04/2023 7:00	18/04/2023 9:30	18/04/2023 15:00	System security
PS1	295-1	19/04/2023 7:00	19/04/2023 8:30	19/04/2023 14:30	System security
PS1	296-1	22/04/2023 6:00	22/04/2023 9:00	22/04/2023 16:00	System security



The applicable version of the NER is version 196 with respective start and end dates of 15 March 2023 to 26 April 2023.

1.2 Description of services provided

AEMO issued directions to the participant to maintain power system security. A directed participant entitled to compensation under 3.15.7B may submit a claim for additional compensation for the sum of:

- The aggregate loss of revenue and additional net direct costs; less
- The amount notified under 3.15.7(e).

NER Clause 3.15.7B(a3) lists, without limitation, components included in the calculation of additional net direct costs. 3.15.7B(b) states that submissions made must:

- (1) “itemise each component of a claim;
- (2) contain sufficient data and information to substantiate each component of a claim...; and
- (3) be signed by an authorised officer of the applicant certifying that the written submission is true and correct.”

The claims for additional compensation include amounts due to:

- Additional net direct fuel costs (Gas) – per 3.15.7B(a3)(1), plus
- Additional net direct maintenance costs (VOM) – per 3.15.7B(a3)(2), plus
- Additional net direct other costs (FCAS and start-up costs where applicable) – per 3.15.7B(a3)(6), less
- The amount calculated as ‘DCP’ under 3.15.7(c). AEMO calculates the provisional compensation in accordance with 3.15.7(c) and informs the directed participant pursuant to 3.15.7(e).

AEMO has calculated the compensation amount the directed participant is entitled to receive, DCP, in accordance with NER Clause 3.15.7(c).

Where it is considered important for clarity, terms defined in the NER have been italicised in the report. A reference to a clause in this report is a reference to the clause in the NER unless stated otherwise.

The remainder of this report is organised as follows:

Section 2 – Claims for additional compensation – Claimant1,



Section 3 – Claims for additional compensation – Claimant2, and

Section 4 – Submissions on matters in the Draft Determination Report.

2 Claims for additional compensation – Claimant1

2.1 Summary of claims

The assessed claims submitted by Claimant1 comprised direct cost components of fuel cost (Gas), variable operations and maintenance cost (VOM), start-up costs for some events and recovery of contingency FCAS charges incurred while the units operated in compliance with the directions. The additional compensation claimed is equal to the sum of these components less ‘DCP’. The assessed claims submitted by the claimant are summarised in Table 3. The amounts in the claims submitted by the claimant were all rounded to the nearest dollar. The amounts shown in Table 3 are given in dollars and cents based on the supporting information and calculations provided by the claimant in support of the claim. The claimant claim document dated 24 May 2023 submitted by the claimant shows an amount of \$17 for FCAS but the total shown in that claim document did not include the amount for FCAS. The inclusion of the FCAS amount is likely to be due to a typo.

Table 3 Summary of additional compensation claimed – assessed claims – Claimant1

Directed unit	Event No.	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	DCP	Additional Compensation Claimed
PS1	290-4	\$0	\$58,062.91	\$0	\$0	\$58,062.91
PS1	292-3	\$51,568.40	\$29,784.88	\$5.74	\$42,170.01	\$39,189.01
Total		\$51,568.40	\$87,847.79	\$5.74	\$42,170.01	\$97,251.91

2.2 Assessment of the claimed amounts

This Section assesses the claimed amount by examining the method used and correctness of the calculations of each of the components of net additional costs included in the claim.

2.2.1 Additional net direct fuel costs (Gas) – per 3.15.7B(a3)(1)

The claimant calculated gas costs as follows:

- 1) Calculated the gas volume consumed by the units as the product of the heat rate and energy dispatched while under direction. The heat rate relationship was based on a technical report and the energy quantities was taken from the dispatch data.



- 2) Calculated a volume weighted average price of gas based on the volumes and prices of the gas supplied to the units while generating under direction. Gas prices were supported by invoices and, where applicable, transaction notes for spot purchase.
- 3) Gas transportation costs were not claimed as no additional costs were incurred in connection with the directions.
- 4) Spot purchases with supporting information were included in one claim.

The costs and method in the view of IES provides a reasonable reflection of the gas costs incurred in relation to carrying out the *direction*.

For direction 290-4 the claimant's supporting model shows gas volumes and costs that relate to a unit other than the directed unit and for a period (in January 2023) which is not related to the direction period. The data are not included in the calculations nor do they impact the claimed amount and is likely left over from a previous claim.

2.2.2 Additional net direct maintenance costs (VOM) – per 3.15.7B(a3)(2)

The claimant used a VOM rate per hour of operation based on data from a very old study and indexed that cost from the date of the study to the present by reference to CPI data published by the Australian Bureau of Statistics.¹ VOM was claimed for one of the direction events. In the supporting calculation provided, the claimant quoted the index value of 130.8 corresponding to December 2022. However, the VOM was adjusted by a value that does not match the Dec 2022 index quoted. Instead it appears to have been based on the June 2022 index value. The amount claimed for VOM was compared to the estimates in the claim against the VOM \$/MWh rate for these units provided in the 2022 ISP plan supporting material, 'Forecasting Assumptions Update workbook; Variable OPEX tab; Existing, Committed and Anticipated generators table' available on AEMO's website.² The workbook expresses the VOM costs in June 2021 terms and the amounts were indexed to terms consistent with the period of the directions using CPI data published by the Australian Bureau of Statistics.³ The direction occurred during the June 2023 quarter and the CPI index applied to the direction period was calculated by linear interpolation between the index of the quarter the direction occurred in and the quarter immediately preceding it. In our view, this is a reasonable estimate of the index. It is noted that estimating VOM with reference to the ISP data indexed by the CPI index data is essentially the same

¹ Australian Bureau of Statistics, time series workbook. 6401.0 Consumer Price Index, Australia; 'TABLE 5. CPI: Groups, Index Numbers by Capital City', 'Data1', Index Numbers; All groups CPI; Adelaide, Series ID A2325821J. December 2022.

² <https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp/current-inputs-assumptions-and-scenarios>.

³ Australian Bureau of Statistics, time series workbook. 6401.0 Consumer Price Index, Australia; 'TABLE 5. CPI: Groups, Index Numbers by Capital City', 'Data1', Index Numbers; All groups CPI; Adelaide, Series ID A2325821J. June 2023. Accessed 7 August 2023. Available at <https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download>



approach adopted in a number of previous final determinations.⁴ The VOM estimate based on the indexed ISP data was slightly lower than the claimed amount for the direction event 292-3. We have adjusted downward the VOM amount for this direction by \$90.16.

2.2.3 Additional net direct other costs (FCAS) – per 3.15.7B(a3)(6)

For direction 292-3, the claimant included in its claim for additional compensation an amount to recover the FCAS charges it incurred due to carrying out the *direction*. The claimant calculated the dispatched energy from the directed units as a percentage of the total energy and applied that factor to the contingency raise costs incurred during the direction period. The energy quantities were taken from dispatch data. Raise contingency costs are charged to generators on the basis of the energy they produce in each interval. In our view this is a reasonable method of attributing these costs to the direction.

For direction 290-4 the supporting model provided by the claimant shows an FCAS amount that relates to a unit other than the directed unit. This amount, although shown in the claim document, was not included in the total amount claimed. It appears to be due to a typo in preparing the claim document and oversight in clearing the model from a previous claim.

2.2.4 Additional net direct other costs (Start-up costs) – per 3.15.7B(a3)(6)

Start-up costs were based on an engineering report and information provided by the claimant. To assess reasonableness of the start-up costs included in the claim, the claimed costs were benchmarked against independent information in the public domain for the units concerned and made appropriate allowance for the higher cost of startup fuel. IES has allowed the start-up costs included in the claims.

2.2.5 The amount calculated as DCP

The method of calculating the provisional compensation to which a directed participant is entitled (DCP) in the case of a direction for the provision of energy is specified in 3.15.7(c). The price used in determining the DCP is the 90th percentile of prices for energy in the year immediately preceding the trading day of the *direction*. This amount was calculated by AEMO.

2.3 Summary of the determination

The independent expert made what, in our view, is a reasonable adjustment of the VOM costs related to the direction as discussed above. As a result, the determined amount is less than claimed by \$90.16. Table 4 summarises the determination based on the above assessment. Following assessment of the claims, the independent expert's determination is that the claimant is entitled to an additional compensation amount equal to \$97,161.76.

⁴ See for example the final determination 'Final Assessment of Additional Compensation for Directions in SA Between February 25th and March 26th, 2021 by the consultancy SLC.



Table 4 Summary of determination – Claimant1

Directed unit	Event No.	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	DCP	Additional Compensation Determination
PS1	290-4	\$0	\$58,062.91	\$0	\$0	\$58,062.91
PS1	292-3	\$51,568.40	\$29,694.72	\$5.74	\$42,170.01	\$39,098.85
Total		\$51,568.40	\$87,847.79	\$5.74	\$42,170.01	\$97,161.76

3 Claims for additional compensation – Claimant2

3.1 Summary of claims

The assessed claims submitted by Claimant2 comprised direct cost components of fuel cost including variable transportation cost, operations and maintenance cost, start-up costs and recovery of contingency FCAS charges incurred while the units operated in compliance with the directions. The additional compensation claimed is equal to the sum of these components less ‘DCP’. The assessed claims submitted by the claimant are summarised in Table 5. Supporting information and calculations were provided by the claimant.

Table 5 Summary of additional compensation claimed – assessed claims – Claimant2

Directed unit	Event No.	Total Fuel Cost	OM Cost + Start up Cost	FCAS Recovery	DCP	Additional Compensation Claimed
PS1	284-1	\$107,272.81	\$39,892.32	\$0.00	\$50,424.80	\$96,740.33
PS1	285-1	\$124,433.74	\$41,697.83	\$0.00	\$57,055.14	\$109,076.43
PS1	286-1	\$121,960.08	\$43,218.95	\$4.08	\$62,562.40	\$102,620.71
PS1	288-1	\$555,642.78	\$211,298.39	1,401.4	\$642,032.85	\$126,309.72
PS1	289-2	\$58,445.95	\$46,157.72	\$5.40	\$71,297.90	\$33,311.17
PS1	290-2	\$248,036.03	\$118,795.48	\$35.11	\$322,735.80	\$44,130.82
PS1	292-1	\$435,375.79	\$185,955.13	\$197.73	\$553,758.02	\$67,770.62
PS1	294-1	\$35,416.52	\$41,693.89	\$332.69	\$57,124.37	\$20,318.73
PS1	295-1	\$39,803.55	\$43,198.58	\$105.19	\$62,431.66	\$20,675.66
PS1	296-1	\$64,537.10	\$46,186.46	\$927.37	\$72,492.61	\$39,158.33
Total		\$1,790,924.34	\$818,094.74	\$3,008.98	\$1,951,915.55	\$660,112.52



For claim 296-1, the claim document dated 31 May 2023 contains what appears to be a typo in the table in the Summary of Directions and Claims section. The amount shown there is \$39,159.33, which is \$1.00 higher than shown in the supporting information and calculations. However, the total amount claimed for the four directions covered by that claim document is correct. The \$1.00 difference did not carry through to the amount claimed.

3.2 Assessment of the claimed amounts

This Section assesses the claimed amount by examining the method used and correctness of the calculations of each of the components of net additional costs included in the claim.

3.2.1 Additional net direct fuel costs (Gas) – per 3.15.7B(a3)(1)

The claimant calculated gas costs as follows:

- 1) Calculated the gas volume consumed by the directed units based on the deliveries. The quantity of fuel attributed to the direction was prorated based on the dispatch under direction compared to the total dispatch over the period covered by the gas deliveries.
- 2) Gas volumes and prices are supported by information contained in invoices. Gas volumes were also reconciled against another reporting source.
- 3) Gas transportation costs were also supported by invoices.

The costs and method in the view of IES provides a reasonable reflection of the gas costs incurred in relation to carrying out the *direction*.

3.2.2 Additional net direct maintenance costs and start-up costs

The claimant included costs for O&M and start-up costs attributed to the direction. These are based on actual costs incurred reviewed on a regular basis. Additional detail to support the amount claimed was sought from and provided by the claimant. These costs are accepted.

3.2.3 Additional net direct other costs (FCAS) – per 3.15.7B(a3)(6)

The claimant included in its claim for additional compensation an amount to recover the FCAS charges it incurred due to carrying out the *direction*.

3.2.4 The amount calculated as DCP

The method of calculating the provisional compensation to which a directed participant is entitled (DCP) in the case of a direction for the provision of energy is specified in 3.15.7(c). The price used in determining the DCP is the 90th percentile of prices for energy in the year immediately preceding the trading day of the *direction*. This amount was calculated by AEMO.



3.3 Summary of the determination

Table 6 summarises the determination based on the above assessment. Following assessment of the claims the independent expert has allowed the claim of the claimant for an amount equal to \$660,112.52.

Table 6 Summary of determination – Claimant2

Directed unit	Event No.	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	DCP	Additional Compensation Determination
PS1	284-1	\$107,272.81	\$39,892.32	\$0.00	\$50,424.80	\$96,740.33
PS1	285-1	\$124,433.74	\$41,697.83	\$0.00	\$57,055.14	\$109,076.43
PS1	286-1	\$121,960.08	\$43,218.95	\$4.08	\$62,562.40	\$102,620.71
PS1	288-1	\$555,642.78	\$211,298.39	\$1,401.4	\$642,032.85	\$126,309.72
PS1	289-2	\$58,445.95	\$46,157.72	\$5.40	\$71,297.90	\$33,311.17
PS1	290-2	\$248,036.03	\$118,795.48	\$35.11	\$322,735.80	\$44,130.82
PS1	292-1	\$435,375.79	\$185,955.13	\$197.73	\$553,758.02	\$67,770.62
PS1	294-1	\$35,416.52	\$41,693.89	\$332.69	\$57,124.37	\$20,318.73
PS1	295-1	\$39,803.55	\$43,198.58	\$105.19	\$62,431.66	\$20,675.66
PS1	296-1	\$64,537.10	\$46,186.46	\$927.37	\$72,492.61	\$39,158.33
Total		\$1,790,924.34	\$818,094.74	\$3,008.98	\$1,951,915.55	\$660,112.52

4 Submissions on matters in the Draft Determination Report

No submissions have been received on the matters contained in the draft determination report.

