

AEMO Directions to Participants in South Australia

28 November 2022

Final Determination Report

Disclaimer

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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.



Table of Contents

Disclaimer	ii
Notes to this report	iii
<u>1 Introduction.....</u>	<u>1</u>
1.1 Background and direction to participants	1
1.2 Description of services provided	2
<u>2 Claims for additional compensation – Claimant1</u>	<u>2</u>
2.1 Summary of claims by Claimant1	2
2.2 Assessment of the claimed amounts.....	3
2.2.1 Additional net direct fuel costs (Gas) – per 3.15.7B(a3)(1)	3
2.2.2 Additional net direct maintenance costs (VOM) – per 3.15.7B(a3)(2)	4
2.2.3 Additional net direct other costs (FCAS) – per 3.15.7B(a3)(6)	4
2.2.4 Additional net direct other costs (Transportation) – per 3.15.7B(a3)(6)	4
2.2.5 Additional net direct other costs (Start-up costs) – per 3.15.7B(a3)(6)	4
2.2.6 The amount calculated as DCP	4
2.3 Summary of the determination – Claimant1	4
<u>3 Claims for additional compensation – Claimant2</u>	<u>5</u>
<u>4 Submissions on matters in the Draft Determination Report</u>	<u>6</u>



1 Introduction

IES has been appointed by AEMO as independent expert to assess claims for additional compensation submitted by *Directed Participants* in relation to the directions issued during Billing Weeks 21 to 24 in 2022.

1.1 Background and direction to participants

During billing weeks 21 to 24 in 2022 AEMO issued directions to maintain the system in a secure operating state. This report presents the assessment of claims made by two claimants, Claimant1 and Claimant2. Under NER Clause 3.15.7B(c)(1) AEMO must refer claims that are in excess of \$20,000 to an independent expert. The directions associated with the claims that have been assessed are summarised in Table 1 for Claimant1 and in Table 2 for Claimant2 with the information appropriately masked to maintain confidentiality. For each directed unit in an event, the tables show 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
PS4	115-1	20/05/2022 17:00	21/05/2022 1:00	23/05/2022 14:30	System strength
PS2	115-2	20/05/2022 17:00	21/05/2022 12:00	21/05/2022 16:00	System strength
PS2	115-5	21/05/2022 17:00	22/05/2022 12:00	22/05/2022 16:00	System strength
PS2	117-1	24/05/2022 17:00	25/05/2022 1:00	25/05/2022 13:30	System strength
PS2	118-3	28/05/2022 16:00	29/05/2022 10:00	29/05/2022 15:00	System strength
PS4	118-4	28/05/2022 16:00	29/05/2022 11:00	29/05/2022 15:45	System strength
PS2	120-3	30/05/2022 17:00	31/05/2022 3:00	31/05/2022 15:30	System strength
PS4	120-4	30/05/2022 17:00	31/05/2022 1:00	31/05/2022 14:00	System strength
PS3	121-1	3/06/2022 17:00	4/06/2022 12:00	5/06/2022 13:00	System strength
PS2	121-2	3/06/2022 17:00	4/06/2022 2:30	4/06/2022 14:00	System strength
PS2	121-7	4/06/2022 15:30	5/06/2022 1:00	5/06/2022 14:15	System strength
PS2	122-1	5/06/2022 15:30	5/06/2022 21:30	6/06/2022 14:30	System strength
PS3	122-4	5/06/2022 15:50	5/06/2022 22:30	6/06/2022 15:30	System strength



Table 2 Summary of the directions – assessed claims – Claimant2

Directed unit	Event number	Issued	Effective	Ended	Reason
PS2	115-6	21/05/2022 17:00	22/05/2022 10:00	22/05/2022 12:00	System strength
PS3	115-7	21/05/2022 17:00	22/05/2022 10:00	22/05/2022 12:00	System strength
PS3	121-6	3/06/2022 17:10	4/06/2022 14:00	4/06/2022 16:00	System strength

1.2 Description of services provided

The directions issued by AEMO were for the provision of system strength. A directed participant providing system strength is deemed, for the purposes of National Electricity Rules (NER) Clause 3.15.7(a1), to provide energy, refer to NER Clause 3.15.7(a2)(4)(iii). A directed participant that provides energy is entitled to compensation including for additional net direct costs incurred as a result of the provision of the service. 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...”

The claims for additional compensation include amounts due to four components:

- 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.

AEMO has calculated the compensation amount the directed participant is entitled to receive (DCP) in accordance with NER Clause 3.15.7(c). The claimants have submitted written claims for additional compensation under NER clause 3.15.7B. The assessment of these claims is discussed in this report.

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 by Claimant1

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 total cost of the direction is the sum of these components. The additional compensation claimed is equal to the latter quantity less DCP. The assessed claims submitted by Claimant1 are summarised in Table 3. The amounts in the claims submitted by Claimant1



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.

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

Directed unit	Event No.	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	Total Cost of Direction	DCP	Additional Compensation Claimed
PS4	115-1	\$532,376.18	\$7,460.50	\$1,313.63	\$541,150.31	\$489,990.26	\$51,160.05
PS2	115-2	\$32,447.29	\$20,155.84	\$45.74	\$52,648.86	\$30,836.89	\$21,811.97
PS2	115-5	\$33,081.58	\$21,878.49	\$67.96	\$55,028.03	\$31,935.06	\$23,092.97
PS2	117-1	\$183,729.29	\$1,516.36	\$241.56	\$185,487.21	\$109,269.60	\$76,217.61
PS2	118-3	\$91,048.22	\$606.54	\$14.70	\$91,669.46	\$46,664.33	\$45,005.13
PS4	118-4	\$90,663.74	\$576.22	\$14.99	\$91,254.95	\$44,476.93	\$46,778.02
PS2	120-3	\$255,706.26	\$1,516.36	\$123.11	\$257,345.73	\$117,138.26	\$140,207.47
PS4	120-4	\$260,376.03	\$1,577.02	\$111.17	\$262,064.22	\$119,486.96	\$142,577.26
PS3	121-1	\$436,290.68	\$38,214.92	\$243.54	\$474,749.14	\$233,935.40	\$240,813.74
PS2	121-2	\$211,047.76	\$1,395.05	\$136.08	\$212,578.89	\$112,009.53	\$100,569.36
PS2	121-7	\$238,495.20	\$29,251.54	\$49.90	\$267,796.64	\$126,710.87	\$141,085.77
PS2	122-1	\$308,643.85	\$33,413.85	\$297.42	\$342,355.11	\$167,882.32	\$174,472.79
PS3	122-4	\$296,529.07	\$50,659.77	\$244.57	\$347,433.40	\$161,573.03	\$185,860.38
Total		\$2,970,435.13	\$208,222.46	\$2,904.36	\$3,181,561.95	\$1,791,909.43	\$1,389,652.52

2.2 Assessment of the claimed amounts

This Section assesses the claimed amount by examining the method used and correctness of the calculation 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)

Claimant1 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 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 transaction notes for spot purchase.
- 3) Gas transportation costs were not claimed as no additional costs were incurred in connection with the directions.
- 4) A small unauthorised overrun charge, on one day, related to complying with the direction was included.



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*.

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

The claim included a component of additional maintenance costs of the directed units. Claimant1 used a VOM rate based on data from a very old study and indexed that cost by 2.5% for each year from the date of the study to the present. This is not a reliable estimate of VOM but Claimant1 could not furnish other supporting data. In view of this we have used the VOM for these units provided in the “2021 Inputs and assumptions workbook” available on AEMO’s website.¹ The workbook expresses the VOM costs in June 2021 terms and the amounts were indexed to June quarter 2022 terms.² It is noted that this approach to estimating VOM is essentially the same approach adopted in a previous final determination.³

2.2.3 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*. 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 supported by dispatch data. Raise contingency costs are charged to generators on the basis of the energy they produce at the time. In our view this is a reasonable method of attributing these costs to the direction.

2.2.4 Additional net direct other costs (Transportation) – per 3.15.7B(a3)(6)

Gas transportation costs were not claimed as no additional costs were incurred in connection with the directions.

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

Start-up costs, incurred in some events, 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. IES has allowed the start-up costs included in the claims.

2.2.6 The amount calculated as DCP

The 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 a year immediately preceding the trading day of the *direction*. This amount was calculated by AEMO.

2.3 Summary of the determination – Claimant1

The independent expert made what, in our view, is a more reasonable estimate of the VOM costs related to the direction. As a result the determined amount is less than claimed by

¹ <https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp/current-inputs-assumptions-and-scenarios>.

² Australian Bureau of Statistics (June 2022) All groups CPI ; Adelaide, Series ID A2325821J; 'TABLE 5. CPI: Groups, Index Numbers by Capital City' [time series spreadsheet], Consumer Price Index, Australia, accessed 20 September 2022. Available at <https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download>

³ Final Assessment of Additional Compensation for Directions in SA Between February 25th and March 26th, 2021 by the consultancy SLC.



\$5,045.55. Table 4 summarises the determination based on the above assessment. Following assessment of the claim submitted by Claimant1 the independent expert’s determination is that Claimant1 is entitled to an additional compensation amount equal to \$1,384,606.97.

Table 4 Summary of determination – Claimant1

Directed unit	Event No.	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	Total Cost of Direction	DCP	Additional Compensation Determination
PS4	115-1	\$532,376.18	\$5,914.54	\$1,313.63	\$539,604.36	\$489,990.26	\$49,614.09
PS2	115-2	\$32,447.29	\$20,042.82	\$45.74	\$52,535.85	\$30,836.89	\$21,698.96
PS2	115-5	\$33,081.58	\$21,772.57	\$67.96	\$54,922.11	\$31,935.06	\$22,987.05
PS2	117-1	\$183,729.29	\$1,219.69	\$241.56	\$185,190.54	\$109,269.60	\$75,920.94
PS2	118-3	\$91,048.22	\$491.14	\$14.70	\$91,554.06	\$46,664.33	\$44,889.73
PS4	118-4	\$90,663.74	\$468.12	\$14.99	\$91,146.85	\$44,476.93	\$46,669.93
PS2	120-3	\$255,706.26	\$1,227.91	\$123.11	\$257,057.28	\$117,138.26	\$139,919.02
PS4	120-4	\$260,376.03	\$1,252.53	\$111.17	\$261,739.73	\$119,486.96	\$142,252.77
PS3	121-1	\$436,290.68	\$37,536.29	\$243.54	\$474,070.51	\$233,935.40	\$240,135.11
PS2	121-2	\$211,047.76	\$1,127.15	\$136.08	\$212,310.99	\$112,009.53	\$100,301.45
PS2	121-7	\$238,495.20	\$28,914.37	\$49.90	\$267,459.47	\$126,710.87	\$140,748.60
PS2	122-1	\$308,643.85	\$33,013.14	\$297.42	\$341,954.41	\$167,882.32	\$174,072.09
PS3	122-4	\$296,529.07	\$50,196.62	\$244.57	\$346,970.26	\$161,573.03	\$185,397.23
Total		\$2,970,435.13	\$203,176.91	\$2,904.36	\$3,176,516.40	\$1,791,909.43	\$1,384,606.97

3 Claims for additional compensation – Claimant2

Claimant2 submitted a claim for additional compensation which included fuel cost (Gas), operations and maintenance cost expressed in equivalent operating hours terms (EOH) incurred while the units operated in compliance with the directions. No amounts related to FCAS recovery were included in the claim. The total cost of the direction is the sum of the cost components in the claim. The additional compensation amount claimed is equal to the latter sum less DCP (as calculated by AEMO in accordance with the NER).

Gas volume attributed to the direction was calculated in proportion to the electricity generated while under direction. Documented support was provided for fuel and transport costs incurred in connection with carrying out the direction. In the opinion of the independent expert this is a reasonable method for determining fuel costs. The EOH included Start costs, Fixed and Variable O&M supported by information provided by the claimant.

The amounts in Table 5 reflect the additional claim made based on the information provided by Claimant2. The claimant rounded the claimed amounts to the nearest 10 cents (first decimal



place of a dollar amount). The amounts shown in the last column of Table 5 differ from what has been claimed due to the rounding mentioned.

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

Directed Unit	Event	Total Fuel Cost	EOH	Transportation	Total Cost of Direction	DCP	Additional Compensation Claimed
PS2	115-6	\$23,103.52	\$8,615.63	\$547.77	\$32,266.92	\$2,105.66	\$30,161.27
PS3	115-7	\$28,029.16	\$8,773.32	\$664.56	\$37,467.04	\$2,554.58	\$34,912.46
PS3	121-6	\$14,402.70	\$8,758.30	\$288.00	\$23,449.00	\$2,964.79	\$20,484.21
Total		\$65,535.39	\$26,147.25	\$1,500.33	\$93,182.96	\$7,625.02	\$85,557.94

Following assessment of the claim submitted by Claimant2 the independent expert has allowed the claim for additional compensation, based on the submitted information, for the amount of \$85,557.94.

4 Submissions on matters in the Draft Determination Report

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

