

AEMO Directions to Participants in South Australia

20 February 2023

Final Determination Report

Disclaimer

This report has been prepared by IES Advisory Services (IES) for AEMO and is supplied in good faith and reflects the knowledge, expertise and experience of the consultants involved. In conducting the analysis for this report IES has endeavoured to use what it considers is the best information available at the date of publication. IES makes no representations or warranties as to the accuracy of the assumptions or estimates on which the forecasts and calculations are based.

The degree of reliance placed upon the projections in this report is a matter for that reader's own commercial judgement and IES accepts no responsibility whatsoever for any loss occasioned by any person acting or refraining from action as a result of reliance on the report.



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</u> <u>Introduction.....</u>	<u>1</u>
1.1 Background and direction to participants	1
1.2 Description of services provided	1
<u>2</u> <u>Claims for additional compensation – Claimant1</u>	<u>2</u>
2.1 Summary of claims.....	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	5
2.3 Summary of the determination	5
<u>3</u> <u>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 33 to 36 in 2022.

1.1 Background and direction to participants

During billing weeks 33 to 36 in 2022 AEMO issued directions to maintain the system in a secure operating state. This report presents the assessment of claims submitted by one claimant, Claimant1. 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 Claimant 1 are summarised in Table 1 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

Directed unit	Event number	Issued	Effective	Ended	Reason
PS3	151-1	9/08/2022 17:00	10/08/2022 21:00	11/08/2022 14:30	System security
PS3	152-1	11/08/2022 17:00	11/08/2022 23:00	12/08/2022 5:30	System security
PS3	153-1	12/08/2022 16:30	13/08/2022 2:00	13/08/2022 15:30	System security
PS3	154-1	13/08/2022 17:00	14/08/2022 9:00	14/08/2022 15:30	System security
PS3	155-3	16/08/2022 21:45	17/08/2022 12:15	18/08/2022 16:00	System security
PS3	156-1	18/08/2022 17:05	19/08/2022 10:00	20/08/2022 15:30	System security
PS3	157-1	20/08/2022 14:45	21/08/2022 10:30	21/08/2022 16:00	System security
PS4	157-2	20/08/2022 14:45	21/08/2022 10:30	21/08/2022 16:00	System security
PS3	158-1	21/08/2022 15:00	22/08/2022 0:30	22/08/2022 14:30	System security
PS3	159-1	22/08/2022 22:30	23/08/2022 10:30	23/08/2022 15:30	System security
PS3	160-1	27/08/2022 12:00	28/08/2022 01:00	29/08/2022 13:00	System security
PS4	160-2	27/08/2022 12:00	28/08/2022 00:30	29/08/2022 18:00	System security

1.2 Description of services provided

AEMO issued directions to the participant to maintain power system security. AEMO calculated the provisional compensation in accordance with 3.15.7(c) and informed the directed participant



pursuant to 3.15.7(e). A directed participant entitled to compensation under 3.15.7B may submit a claim 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 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’ 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).

Start-up costs for one direction included cost for overtime.

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, and

Section 3 – Submissions on matters in the Draft Determination Report.

2 Claims for additional compensation – Claimant1

2.1 Summary of claims

The assessed claims submitted by Calaimant1 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 sum less ‘DCP’. The assessed claims submitted by



the claimant are summarised in Table 2. 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.

Table 2 Summary of additional compensation claimed – assessed claims

Directed unit	Event No.	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	DCP	Additional Compensation Claimed
PS3	151-1	\$326,069.53	\$42,125.53	\$142.58	\$218,590.20	\$149,747.43
PS3	152-1	\$124,093.99	\$788.51	\$26.86	\$84,150.75	\$40,758.60
PS3	153-1	\$259,607.64	\$1,637.67	\$77.22	\$177,454.34	\$83,868.19
PS3	154-1	\$124,242.15	\$788.51	\$13.64	\$84,449.75	\$40,594.56
PS3	155-3	\$530,230.52	\$52,282.31	\$489.28	\$351,330.56	\$231,671.56
PS3	156-1	\$566,672.14	\$3,578.61	\$227.79	\$384,715.47	\$185,763.08
PS3	157-1	\$104,822.17	\$664.24	\$9.19	\$69,902.09	\$35,593.50
PS4	157-2	\$107,545.10	\$59,243.51	\$9.16	\$70,882.71	\$95,915.07
PS3	158-1	\$268,172.58	\$1,690.80	\$93.62	\$181,191.99	\$88,765.00
PS3	159-1	\$101,009.90	\$603.86	\$29.34	\$65,556.65	\$36,086.45
PS3	160-1	\$682,373.98	\$60,877.73	\$470.17	\$456,157.95	\$287,563.93
PS4	160-2	\$820,036.66	\$5,012.00	\$524.92	\$542,485.19	\$283,088.39
Total		\$4,014,876.37	\$229,293.28	\$2,113.77	\$2,686,867.65	\$1,559,415.76

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)

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 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) Overrun charges were included for some directions 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*.

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. The claimant 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 the claimant could not furnish other supporting data. In view of this we have used the VOM \$/MWh rate for these units provided in the 2022 ISP plan supporting material, 'Inputs, assumptions and scenario workbook (Worksheet-Existing Gen Data Summary)' available on AEMO's website.¹ 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.² Given the period of direction occurred during part of the quarter, 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. The index was calculated at the midpoint of the direction period. In our view, this is a reasonable estimate of the index. It is noted that estimating VOM with reference to the CPI index data 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 in each interval. 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

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

² Australian Bureau of Statistics (September 2022) All groups CPI ; Adelaide, Series ID A2325821J; 'TABLE 5. CPI: Groups, Index Numbers by Capital City' [Data1], Consumer Price Index, Australia, accessed 15 November 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.



the units concerned. IES has allowed the start-up costs included in the claims after making an adjustment for an error in overtime cost for one direction.

The claimant included costs for overtime related to the start-up for direction 160-1. The supporting documentation indicated two dates but only one of them fell into the period of the direction 160-1. The overtime cost was adjusted to only include the cost of overtime that fell in the direction period. The claimant confirmed the error made in claiming overtime costs.

2.2.6 The amount calculated as DCP

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 more reasonable estimate of the VOM costs related to the direction and adjusted the overtime cost component of start-up costs as discussed above. As a result, the determined amount is less than claimed by \$7,370.44. Table 3 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 \$1,552,045.32.

Table 3 Summary of determination

Directed unit	Event No.	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	DCP	Additional Compensation determination
PS3	151-1	\$326,069.53	\$41,654.37	\$142.58	\$218,590.20	\$149,276.28
PS3	152-1	\$124,093.99	\$632.87	\$26.86	\$84,150.75	\$40,602.96
PS3	153-1	\$259,607.64	\$1,335.52	\$77.22	\$177,454.34	\$83,566.04
PS3	154-1	\$124,242.15	\$636.02	\$13.64	\$84,449.75	\$40,442.07
PS3	155-3	\$530,230.52	\$51,569.64	\$489.28	\$351,330.56	\$230,958.89
PS3	156-1	\$566,672.14	\$2,906.06	\$227.79	\$384,715.47	\$185,090.53
PS3	157-1	\$104,822.17	\$528.21	\$9.19	\$69,902.09	\$35,457.47
PS4	157-2	\$107,545.10	\$59,114.89	\$9.16	\$70,882.71	\$95,786.44
PS3	158-1	\$268,172.58	\$1,367.55	\$93.62	\$181,191.99	\$88,441.76
PS3	159-1	\$101,009.90	\$495.20	\$29.34	\$65,556.65	\$35,977.80
PS3	160-1	\$682,373.98	\$57,596.15	\$470.17	\$456,157.95	\$284,282.35



Directed unit	Event No.	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	DCP	Additional Compensation determination
PS4	160-2	\$820,036.66	\$4,086.35	\$524.92	\$542,485.19	\$282,162.74
Total		\$4,014,876.37	\$221,922.84	\$2,113.77	\$2,686,867.65	\$1,552,045.32

3 Submissions on matters in the Draft Determination Report

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

