

AEMO Directions to Participants in South Australia

25 January 2022

IES Ref 6672

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 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>4</u>
2.1 Summary of claims by Claimant1	4
2.2 Calculating the claimed amounts	5
2.2.1 Additional net direct fuel costs (Gas) – per 3.15.7B(a3)(1)	5
2.2.2 Additional net direct maintenance costs (VOM) – per 3.15.7B(a3)(2)	5
2.2.3 Additional net direct other costs (FCAS) – per 3.15.7B(a3)(6)	6
2.2.4 Additional net direct other costs (Transportation) – per 3.15.7B(a3)(6)	6
2.2.5 Additional net direct other costs (Start-up costs) – per 3.15.7B(a3)(6)	6
2.2.6 The amount calculated as DCP	6
2.3 Summary of the determination – Claimant1	6
<u>3 Claims for additional compensation – Claimant2</u>	<u>7</u>
3.1 Summary of claims by Claimant2	7
3.2 Calculating the claimed amounts	8
3.2.1 Additional net direct fuel costs (Gas) – per 3.15.7B(a3)(1)	8
3.2.2 Additional net direct maintenance costs (EOH) – per 3.15.7B(a3)(2)	9
3.2.3 Additional net direct other costs (FCAS) – per 3.15.7B(a3)(6)	9
3.2.4 Additional net direct other costs (Transportation) – per 3.15.7B(a3)(6)	10
3.2.5 The amount calculated as DCP	10
3.3 Summary of the determination – Claimant2	10
<u>4 Claims for additional compensation – Claimant3</u>	<u>10</u>
<u>5 Submissions on matters in the draft report.....</u>	<u>11</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 29 to 32 in 2021.

1.1 Background and direction to participants

During billing weeks 29 to 32 AEMO issued directions to maintain the system in a secure operating state. This report presents the assessment of claims made by three claimants, Claimant1, Claimant2 and Claimant3. The directions associated with the claims that have been assessed are summarised in Table 1, Table 2 and Table 3 with the information appropriately masked to maintain confidentiality.

Table 1 Summary of the directions – assessed claims – Claimant1

Directed unit	Event number	Issued	Effective	Ended	Reason
PS3	6-2	19/07/2021 17:00	20/07/2021 0:30	20/07/2021 16:30	System strength
PS2	7-2	23/07/2021 16:15	24/07/2021 1:00	25/07/2021 17:00	System strength
PS3	7-3	23/07/2021 16:15	24/07/2021 1:30	26/07/2021 17:00	System strength
PS2	7-6	25/07/2021 17:30	25/07/2021 21:30	26/07/2021 17:30	System strength
PS3	8-2	26/07/2021 16:00	26/07/2021 22:00	28/07/2021 14:00	System strength
PS2	8-1	26/07/2021 16:00	26/07/2021 22:30	27/07/2021 17:00	System strength
PS1	8-7	27/07/2021 17:00	28/07/2021 14:00	29/07/2021 7:25	System strength
PS3	8-8	28/07/2021 15:00	29/07/2021 8:00	29/07/2021 16:30	System strength
PS3	9-3	29/07/2021 16:00	29/07/2021 21:00	30/07/2021 17:00	System strength
PS1	9-2	29/07/2021 16:00	29/07/2021 21:00	31/07/2021 17:00	System strength
PS3	9-5	30/07/2021 17:00	30/07/2021 22:00	31/07/2021 14:30	System strength
PS2	10-1	31/07/2021 15:30	01/08/2021 07:30	01/08/2021 19:00	System strength
PS3	11-3	01/08/2021 16:00	02/08/2021 00:30	02/08/2021 16:00	System strength
PS1	11-2	01/08/2021 16:00	02/08/2021 01:00	02/08/2021 16:00	System strength
PS1	12-2	02/08/2021 17:00	02/08/2021 21:30	03/08/2021 17:00	System strength
PS3	12-1	02/08/2021 17:00	02/08/2021 22:30	03/08/2021 17:00	System strength
PS1	13-1	03/08/2021 17:00	03/08/2021 22:00	04/08/2021 15:30	System strength



AEMO DIRECTIONS TO PARTICIPANTS IN SOUTH AUSTRALIA DURING BW 29-32

Directed unit	Event number	Issued	Effective	Ended	Reason
PS3	13-2	03/08/2021 17:00	03/08/2021 22:30	04/08/2021 17:00	System strength
PS3	13-3	03/08/2021 17:00	04/08/2021 09:15	04/08/2021 16:00	System strength

Table 2 Summary of the directions – assessed claims – Claimant2

Directed unit	Event number	Issued	Effective	Ended	Reason
PS1	7-1	23/07/2021 16:00	24/07/2021 00:30	24/07/2021 14:15	System strength
PS1	7-4	24/07/2021 17:00	25/07/2021 00:30	25/07/2021 15:30	System strength
PS1	7-5	25/07/2021 17:00	26/07/2021 00:30	26/07/2021 15:30	System strength
PS1	8-3	26/07/2021 16:00	27/07/2021 00:00	27/07/2021 16:30	System strength
PS1	8-5	27/07/2021 16:00	27/07/2021 23:30	28/07/2021 15:30	System strength
PS1	8-9	28/07/2021 15:15	28/07/2021 21:30	29/07/2021 07:30	System strength

Table 3 Summary of the directions – assessed claims – Claimant3

Directed unit	Event number	Issued	Effective	Ended	Reason
PS1	6-1	19/07/2021 20:30	19/07/2021 22:00	20/07/2021 14:30	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 (refer to 3.15.7(a2)(4)(iii)) is deemed, for the purposes of 3.15.7(a1), to provide energy. A directed participant that provides energy is entitled to compensation including for “...additional net direct costs incurred by the directed participant...as a result of the provision of the service”. 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 in some cases) – 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 National Electricity Rules (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,

Section 4 – Claims for additional compensation – Claimant3, and

Section 5 – Submissions on matters in the draft report.



2 Claims for additional compensation – Claimant1

2.1 Summary of claims by Claimant1

The assessed claim submitted by Claimant1 are summarised in Table 4.

Table 4 Summary of additional compensation claimed – assessed claims - Claimant1

Directed unit	Event No.	Effective	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	Total Cost of Direction	DCP	Additional Compensation Claimed
PS3	6-2	20/07/2021 0:30	\$125,316.02	\$1,940.94	\$195.78	\$127,452.75	\$53,682.32	\$73,770.42
PS2	7-2	24/07/2021 1:00	\$277,774.08	\$4,852.36	\$721.53	\$283,347.97	\$140,919.00	\$142,428.97
PS3	7-3	24/07/2021 1:30	\$457,967.83	\$7,703.12	\$1,363.84	\$467,034.79	\$220,859.00	\$246,175.79
PS2	7-6	25/07/2021 21:30	\$131,982.62	\$2,426.18	\$440.90	\$134,849.70	\$71,392.01	\$63,457.70
PS3	8-2	26/07/2021 22:00	\$123,387.00	\$2,244.22	\$432.06	\$126,063.28	\$65,983.09	\$60,080.19
PS2	8-1	26/07/2021 22:30	\$275,146.94	\$4,852.36	\$1,012.56	\$281,011.85	\$141,250.90	\$139,760.95
PS1	8-7	28/07/2021 14:00	\$126,861.15	\$23,014.91	\$832.31	\$150,708.37	\$61,401.46	\$89,306.92
PS3	8-8	29/07/2021 8:00	\$50,532.65	\$12,762.11	\$126.00	\$63,420.76	\$29,388.33	\$34,032.43
PS3	9-3	29/07/2021 21:00	\$295,221.35	\$5,337.59	\$794.52	\$301,353.47	\$156,043.29	\$145,310.18
PS1	9-2	29/07/2021 21:00	\$124,995.18	\$2,426.18	\$211.56	\$127,632.92	\$70,276.46	\$57,356.46
PS3	9-5	30/07/2021 22:00	\$112,647.25	\$2,001.60	\$175.63	\$114,824.47	\$59,080.26	\$55,744.21
PS2	10-1	01/08/2021 07:30	\$88,718.45	\$24,699.08	\$528.93	\$113,946.46	\$39,875.06	\$74,071.40
PS3	11-3	02/08/2021 00:30	\$121,740.94	\$1,819.63	\$239.77	\$123,800.35	\$54,129.46	\$69,670.89
PS1	11-2	02/08/2021 01:00	\$122,897.39	\$1,880.29	\$252.33	\$125,030.00	\$55,130.93	\$69,899.07
PS1	12-2	02/08/2021 21:30	\$147,049.48	\$2,244.22	\$347.15	\$149,640.85	\$66,546.08	\$83,094.77
PS3	12-1	02/08/2021 22:30	\$159,111.01	\$2,365.52	\$385.42	\$161,861.96	\$70,803.51	\$91,058.45
PS1	13-1	03/08/2021 22:00	\$144,528.37	\$2,122.91	\$277.95	\$146,929.23	\$64,149.65	\$82,779.58
PS3	13-2	03/08/2021 22:30	\$150,381.92	\$2,244.22	\$345.13	\$152,971.27	\$66,651.85	\$86,319.43
PS3	13-3	04/08/2021 09:15	\$50,233.25	\$17,315.52	\$77.09	\$67,625.86	\$22,477.75	\$45,148.11
Total			\$3,086,492.88	\$124,252.96	\$8,760.47	\$3,219,506.31	\$1,510,040.40	\$1,709,465.91

The components of the claim comprised 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 amounts in the claims submitted by Claimant1 were all rounded to the nearest dollar. The amounts shown in the above table are given in dollars and cents based on the information provided in the supporting information and calculations shown. The claimant submitted a claim for additional compensation but the amount was below \$20,000. Pursuant



to the NER this claim for event 8-12 was not assessed by the independent expert and therefore is not included in the above table.

2.2 Calculating 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. Purchases were made from two contracts and invoices provided in support. On some days gas was also purchased on the spot market. The cost of spot gas was included in these cases. The price was verified against the spot price at the time of the purchase.
- 3) Gas transportation costs were not claimed as no additional costs were incurred in connection with the directions.

This method in the view of IES provides a reasonable reflection of the gas costs incurred in relation to carrying out the *direction*. However, the following issues are worthy of note.

2.2.1.1 Calculation of the gas volume

There was a spread sheet error in the implementation of the relationship used to calculate the gas volume. The mathematical relationship was provided on the model provided by Claimant1 in the tab 'HR' and implemented correctly in that tab. However, there was an error in the Excel implementation of the relationship when calculating the volumes associated with the electricity dispatched during the direction (incorrectly placed brackets). This was corrected during the assessment and the corrected volumes used for the determination. The correction was relatively small.

2.2.1.2 Calculation of the gas price from one contract applicable to July

The July price of one of the contracts was calculated incorrectly. The quantity was divided by the quantity relating to 30 days instead of 31 days. The corrected July price was about 3% lower than the price used in the claim. The August price was not affected.

The combined impact of the volume and price corrections reduced the gas cost by \$42,064.59 compared to the amount in the claim.

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 2021 terms. It is noted that this approach to estimating VOM is essentially the same approach adopted in a recent final determination.² The effect of this adjustment is to reduce the claimed amount by \$13,738.29. This amount has been updated from the amount in the draft determination. The update corrected a spreadsheet error which divided the MWh used in determining the VOM by 2.

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 IES' view this is a reasonable method of attributing these costs to the direction. The Claimant's amounts for this component included in the claim are accepted.

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 were based on an engineering report and information provided by the claimant. To assess reasonableness 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 adjusting only for the effect of the incorrect July gas price (refer to 2.2.1.2) where applicable.

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). This is based on a formula where, simply put, the price 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

As a result of reviewing the claim submitted by Claimant1 two corrections were made: one to gas volume and the other to the price of one contract in the month of July. Both of these corrections were corrections to spreadsheet errors. The independent expert also made what it considered to be a more reasonable estimate of the VOM costs related to the direction. Table 5 summarises the determination based on the above assessment. Following assessment of the claim submitted by Claimant1 it is IES' view that Claimant1 is entitled to an additional

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



compensation amount equal to \$1,653,663.03. This amount does not include any amounts that the claimant may be entitled to in connection with the claim for event number 8-12.

Table 5 Summary of determination – Claimant1

Directed unit	Event No.	Effective	Total Fuel Cost	VOM Cost + Start up Cost	FCAS Recovery	Total Cost of Direction	DCP	Additional Compensation determination
PS3	6-2	20/07/2021 0:30	\$123,789.01	\$1,427.67	\$195.78	\$125,412.47	\$53,682.32	\$71,730.14
PS2	7-2	24/07/2021 1:00	\$275,293.95	\$3,650.02	\$721.53	\$279,665.50	\$140,919.00	\$138,746.50
PS3	7-3	24/07/2021 1:30	\$452,710.11	\$5,720.59	\$1,363.84	\$459,794.54	\$220,859.00	\$238,935.54
PS2	7-6	25/07/2021 21:30	\$129,926.37	\$1,829.00	\$440.90	\$132,196.28	\$71,392.01	\$60,804.27
PS3	8-2	26/07/2021 22:00	\$119,905.55	\$1,689.90	\$432.06	\$122,027.51	\$65,983.09	\$56,044.42
PS2	8-1	26/07/2021 22:30	\$267,547.63	\$3,617.59	\$1,012.56	\$272,177.78	\$141,250.90	\$130,926.88
PS1	8-7	28/07/2021 14:00	\$122,868.41	\$22,106.84	\$832.31	\$145,807.56	\$61,401.46	\$84,406.10
PS3	8-8	29/07/2021 8:00	\$49,737.25	\$12,300.49	\$126.00	\$62,163.75	\$29,388.33	\$32,775.42
PS3	9-3	29/07/2021 21:00	\$288,576.15	\$3,993.93	\$794.52	\$293,364.60	\$156,043.29	\$137,321.32
PS1	9-2	29/07/2021 21:00	\$122,325.33	\$1,798.73	\$211.56	\$124,335.61	\$70,276.46	\$54,059.16
PS3	9-5	30/07/2021 22:00	\$109,130.80	\$1,507.11	\$175.63	\$110,813.54	\$59,080.26	\$51,733.28
PS2	10-1	01/08/2021 07:30	\$88,590.23	\$24,321.22	\$528.93	\$113,440.38	\$39,875.06	\$73,565.32
PS3	11-3	02/08/2021 00:30	\$121,787.65	\$1,371.51	\$239.77	\$123,398.94	\$54,129.46	\$69,269.47
PS1	11-2	02/08/2021 01:00	\$122,322.11	\$1,396.89	\$252.33	\$123,971.33	\$55,130.93	\$68,840.40
PS1	12-2	02/08/2021 21:30	\$146,350.24	\$1,675.35	\$347.15	\$148,372.75	\$66,546.08	\$81,826.66
PS3	12-1	02/08/2021 22:30	\$159,173.47	\$1,782.54	\$385.42	\$161,341.43	\$70,803.51	\$90,537.92
PS1	13-1	03/08/2021 22:00	\$144,585.36	\$1,615.02	\$277.95	\$146,478.33	\$64,149.65	\$82,328.68
PS3	13-2	03/08/2021 22:30	\$149,641.58	\$1,678.01	\$345.13	\$151,664.72	\$66,651.85	\$85,012.88
PS3	13-3	04/08/2021 09:15	\$50,167.08	\$17,032.26	\$77.09	\$67,276.43	\$22,477.75	\$44,798.68
Total			\$3,044,428.29	\$110,514.67	\$8,760.47	\$3,163,703.43	\$1,510,040.40	\$1,653,663.03

3 Claims for additional compensation – Claimant2

3.1 Summary of claims by Claimant2

The claims assessed for Claimant2 are summarised in Table 6. The components of the claim comprised Fuel cost (Gas), operations and maintenance cost expressed in equivalent operating hours terms (EOH) 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. Claimant2 claim amounts were rounded off to the nearest 10 cents and shown in the last



column of Table 6. The amounts shown reflect the revised claim submitted to AEMO as provided by AEMO to IES.

The claimant provided information which showed the method and calculations of EOH and other claim costs. The last column of the table shows the additional compensation amount in the claim as submitted.

Table 6 Summary of additional compensation claimed - assessed claims - Claimant2

Directed Unit	Event	Effective	Total Fuel Cost	EOH Cost	FCAS & Transportation	Total Cost of Direction	DCP	Additional Compensation Claimed
PS1	7-1	24/07/2021 00:30	\$325,858.76	\$12,457.50	\$11,699.01	\$350,015.27	\$233,183.92	\$116,831.30
PS1	7-4	25/07/2021 00:30	\$345,891.30	\$13,590.00	\$6,891.06	\$366,372.37	\$257,480.10	\$108,892.30
PS1	7-5	26/07/2021 00:30	\$328,787.87	\$13,590.00	\$5,361.38	\$347,739.25	\$256,129.09	\$91,610.20
PS1	8-3	27/07/2021 00:00	\$293,916.35	\$14,949.00	\$7,489.68	\$316,355.03	\$281,201.46	\$35,153.60
PS1	8-5	27/07/2021 23:30	\$590,232.63	\$14,496.00	\$20,971.55	\$625,700.18	\$545,715.27	\$79,984.90
PS1	8-9	28/07/2021 21:30	\$199,330.79	\$9,060.00	\$6,641.24	\$215,032.03	\$175,827.73	\$39,204.30
		Total						\$471,676.60

The claimant submitted a claim for additional compensation but the amount was below \$20,000. Pursuant to the NER this claim for event 8-4 was not assessed by the independent expert and therefore is not included in the above table.

3.2 Calculating 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.

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

Claimant2 calculated gas costs as follows:

- 1) The gas used for the directions represented the gas used on the day that was above what was needed for the claimant’s commercial operations. The gas for the direction was sourced from volume flexible agreements and from linepack. Gas volume was attributed to each direction event in proportion to the dispatched energy related to that event on each day.
- 2) The gas agreements were sorted from the lowest to the highest price and used in that order to satisfy the commercial operations first followed by what was needed for the directions. Gas for a direction event was allocated to the agreement (or linepack) with remaining availability and moved to subsequent agreements until the gas used for the direction was allocated to corresponding agreements.

The rationale is that gas volume needed for the direction was not anticipated and was managed from purchases that came from increasing price arrangements. In the view of IES the general approach for allocating gas to typical commercial operation and to the directions as a group is reasonable and consistent with how other directed participants have managed



operations during directions. While the total gas costs across all directions is reasonable, IES believes that the allocation of gas among the directions group could be improved. A recent additional compensation claim determination report used essentially the same method, which in its author's view, incentivises a claimant to minimise costs across all directions that occur on the same day.³ Applying the preferred method to redistribute the costs among all the directions does not change the total cost of gas, only the allocation among direction events. On this occasion, without setting a precedent for future determinations, the independent expert determined to allow the claims as submitted for the reasons explained below.

The claimant did not submit claims for at least six direction events: 8-6, 8-10, 8-11, 9-1, 9-4 and 9-6. The net effect of the preferred method is to redistribute the total claimed amount among the direction events. In order to do so effectively, all the events would need to be considered and changes made to gas costs of all the events. IES' interpretation of the NER is that there are no provisions that enable the independent expert to adjust amounts related to events where a claim for additional compensation has not been submitted. In this case, claims were made in connection with only a subset of direction events. Applying the preferred method, given the data, results in an over-estimate of the gas costs for the subset of claims submitted. Without, in IES' view, the ability to adjust amounts of the unclaimed events, to keep the total cost of gas unchanged, it would result in the undesirable outcome of increasing the total cost of directions. In IES' view allowing the claims as submitted is acceptable as it does not over-compensate the claimant and does not inflate the total direction cost.

3.2.1.1 Estimating the cost of gas from linepack

Claimant2 injects gas into linepack storage when it does not use all of its purchases and withdraws from linepack storage when needed. The claimant estimates linepack price as the volume weighted average of gas purchased over the month. There are different approaches to calculating linepack costs. The method used by the claimant is acceptable on the basis that it is a reasonable method and one that is implemented in its accounting system.

3.2.2 Additional net direct maintenance costs (EOH) – per 3.15.7B(a3)(2)

The claim included a component of additional maintenance costs of the directed unit. Claimant2 provided information which showed the method and calculations of EOH. IES considers these costs to be reasonable.

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*. For directions that occurred on the same day, the Claimant calculated the dispatched energy corresponding to each direction event 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 IES' view this is a reasonable method of attributing these costs to the direction. The Claimant's amounts for this component included in the claim are accepted.

³ Additional compensation claims arising from AEMO directions during billing weeks 21 to 24 FINAL DETERMINATION, Synergies.



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

Transportation costs were allocated to the directions but only on the days when the claimant incurred overrun costs. It is reasonable to assume that these costs were incurred in connection with the directions.

3.2.5 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). This is based on a formula where, simply put, the price is the 90th percentile of prices for energy a year immediately preceding the trading day of the *direction*. This amount was calculated by AEMO.

3.3 Summary of the determination – Claimant2

The claims submitted by Claimant2 were assessed. Following review of the claim submitted by Claimant2 it is IES' view that Claimant2 is entitled to an additional compensation amount equal to \$471,676.54. This amount does not include any amounts that the claimant may be entitled to in connection with the claim for event number 8-4.

Table 7 Summary of determination - Claimant2

Directed Unit	Event	Effective	Total Fuel Cost	EOH Cost	FCAS & Transportation	Total Cost of Direction	DCP	Additional Compensation determination
PS1	7-1	24/07/2021 00:30	\$325,858.76	\$12,457.50	\$11,699.01	\$350,015.27	\$233,183.92	\$116,831.35
PS1	7-4	25/07/2021 00:30	\$345,891.30	\$13,590.00	\$6,891.06	\$366,372.37	\$257,480.10	\$108,892.27
PS1	7-5	26/07/2021 00:30	\$328,787.87	\$13,590.00	\$5,361.38	\$347,739.25	\$256,129.09	\$91,610.16
PS1	8-3	27/07/2021 00:00	\$293,916.35	\$14,949.00	\$7,489.68	\$316,355.03	\$281,201.46	\$35,153.57
PS1	8-5	27/07/2021 23:30	\$590,232.63	\$14,496.00	\$20,971.55	\$625,700.18	\$545,715.27	\$79,984.91
PS1	8-9	28/07/2021 21:30	\$199,330.79	\$9,060.00	\$6,641.24	\$215,032.03	\$175,827.73	\$39,204.29
		Total						\$471,676.54

4 Claims for additional compensation – Claimant3

Claimant 3 submitted a claim for additional compensation in relation to direction event 6-1. The claim amounts related to fuel cost, VOM and additional transportation. The claimant elected to not claim for the recovery of FCAS costs. DCP was subtracted from the sum of these components. The claimant rounded the amounts claimed to the nearest dollar as summarised in Table 8.

Table 8 Summary of additional compensation claimed – assessed claims – Claimant3

Directed Unit	Event	Effective	Total Fuel Cost	VOM Cost	Transportation	Total Cost of Direction	DCP	Additional Compensation Claimed
PS1	6-1	19/07/2021 22:00	\$332,236	\$7,534	\$ 2,416	\$342,186	\$215478	\$126,708



The amount claimed for each of these components was supported by an invoice from the relevant supplier. Some items on the invoices were blacked out. A meeting was held with a representative of the claimant who explained the nature of the blacked out items and satisfied the independent expert that they were of a fixed cost nature and did not apply toward the cost of the direction.

IES has allowed the claim and determined that Claimant3 is entitled to additional compensation of \$126,708.00

5 Submissions on matters in the draft report

In fulfilment of the NER requirements interested parties were invited to make submissions on the matters contained in the draft report in accordance with the intervention settlement timetable. No submissions were received.