



Market Operator Monthly Report

December 2018

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Executive Summary

This Single Electricity Market Operator's (SEMO) report covers the month of operation of December 2018 and is published in accordance with the Single Electricity Market (SEM) Committee decision and Clause 2.144 of the Trading and Settlement Code.

During the month of December 2018, there was no late Credit Report publication as per the Trading and Settlement Code timelines.

There were 11 defaults by Participants during December 2018. The largest of these was an Energy Week 34 2018 M+4 invoice for €1,040.62 which was remedied on the same day.

There were no Credit Cover Increase defaults during December 2018 as per the Trading and Settlement code timelines.

70 general queries were received in December 2018. During the same period 62 general queries were resolved.

Formal queries continue to be answered well within the timelines stipulated in the Trading and Settlement Code.

Monthly Statistics

Trading and Settlement Code Breaches

Breaches of the Trading and Settlement Code were noted in the following areas.

Trading and Settlement Code Breaches			
Area		Major	Minor
Data Providers		-	-
Market Participants	Pricing & Scheduling	-	-
	Settlement	-	-
	Funds Transfer	8	-
	Credit Risk Management	-	-
SEMO	Pricing & Scheduling	-	-
	Settlement	-	-
	Funds Transfer	-	-
	Credit Risk Management	-	-
	Other	-	-
Total		8	-

Table 1 – Trading and Settlement Code Breaches

Further details of each of the Trading and Settlement code breaches noted above are set out in [Appendix A](#)

Key:

- Major Breach - late publishing of invoices, default notices issued for non-payment or similar.
- Minor Breach - deadlines not met, but no financial implication to Participants. This includes late posting of pricing and settlement runs.

Financial Statistics

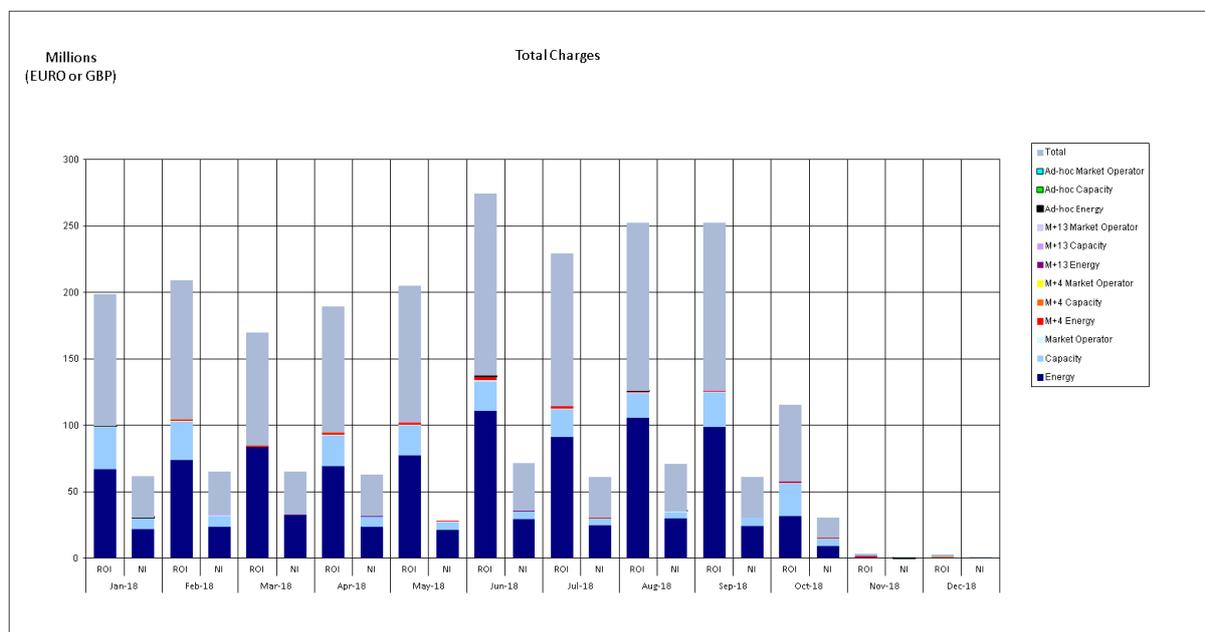


Figure 1 - Total Charges for Each Currency

Market	Dec-18	
	ROI	NI
Energy	€0	£0
Capacity	€0	£0
Market Operator	€0	£0
M+4 Energy	€806,243	£248,530
M+4 Capacity	€170,047	£72,567
M+4 Market Operator	€6,269	£1,675
M+13 Energy	€312,981	£71,305
M+13 Capacity	€78,711	£21,025
M+13 Market Operator	€1,598	£589
Ad-hoc Energy	€0	£0
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€1,375,850	£415,692

Table 2 - Total Charges for Each Currency

Notes relating to Table 2 and 3:

- Month of inclusion based on Invoice Date.

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- Amounts are after application of Settlement Reallocations.
- Previous month's data is available in [Appendix G](#).

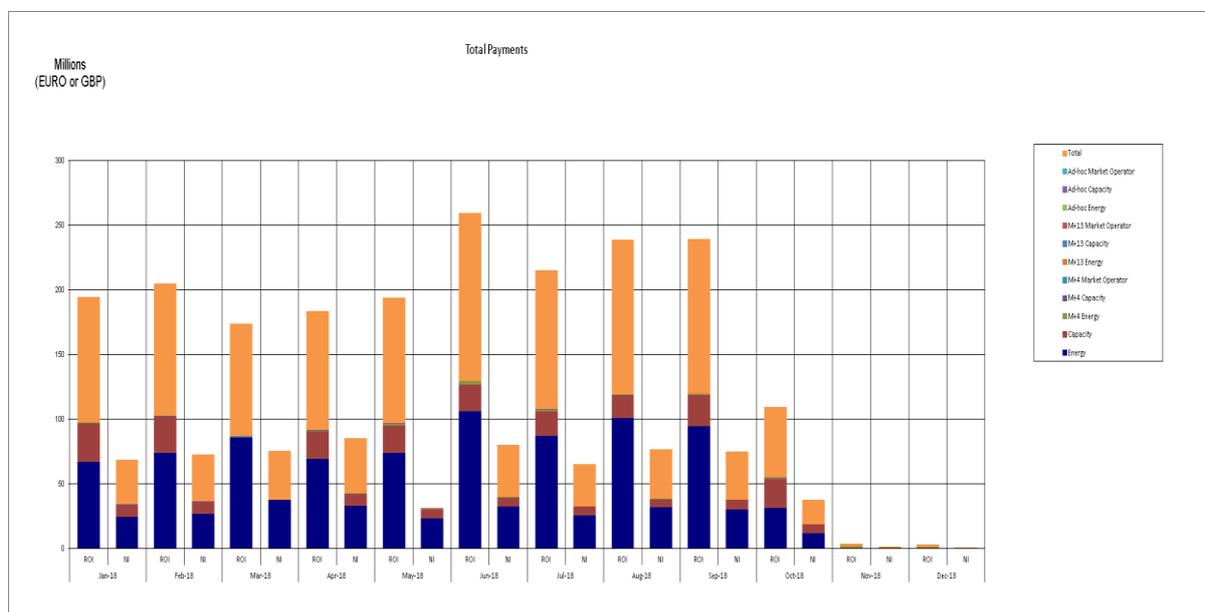


Figure 2 - Total Payments for Each Currency

Market	Dec-18	
	ROI	NI
Energy	€0	£0
Capacity	€0	£0
M+4 Energy	€806,949	£248,726
M+4 Capacity	€170,134	£67,787
M+4 Market Operator	€6,166	£1,659
M+13 Energy	€328,215	£71,328
M+13 Capacity	€88,275	£21,036
M+13 Market Operator	€1,873	£407
Ad-hoc Energy	€0	£0
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€1,401,613	£410,943

Table 3 - Total Payments for Each Currency

Total Currency Costs

Currency Costs for Initial Invoicing are now longer calculated in the SEM since Week 39 2018.

Financial Changes between Initial Settlement and Subsequent Reruns

The following graphs provide a breakdown of resettlement amounts for the M+4 resettlement period of August 2018 and the M+13 period of November 2017 for Energy and Capacity.

3.1.1 Energy Market

Note: - For Figure 4, 6, 7, net values are shown.

- Positive amounts indicate net additional payments by Participants (Charges).
- Negative amounts indicate net additional payment to be made to Participants (Payments).

The reverse is true for Figure 5 & 8

M+4 Resettlement

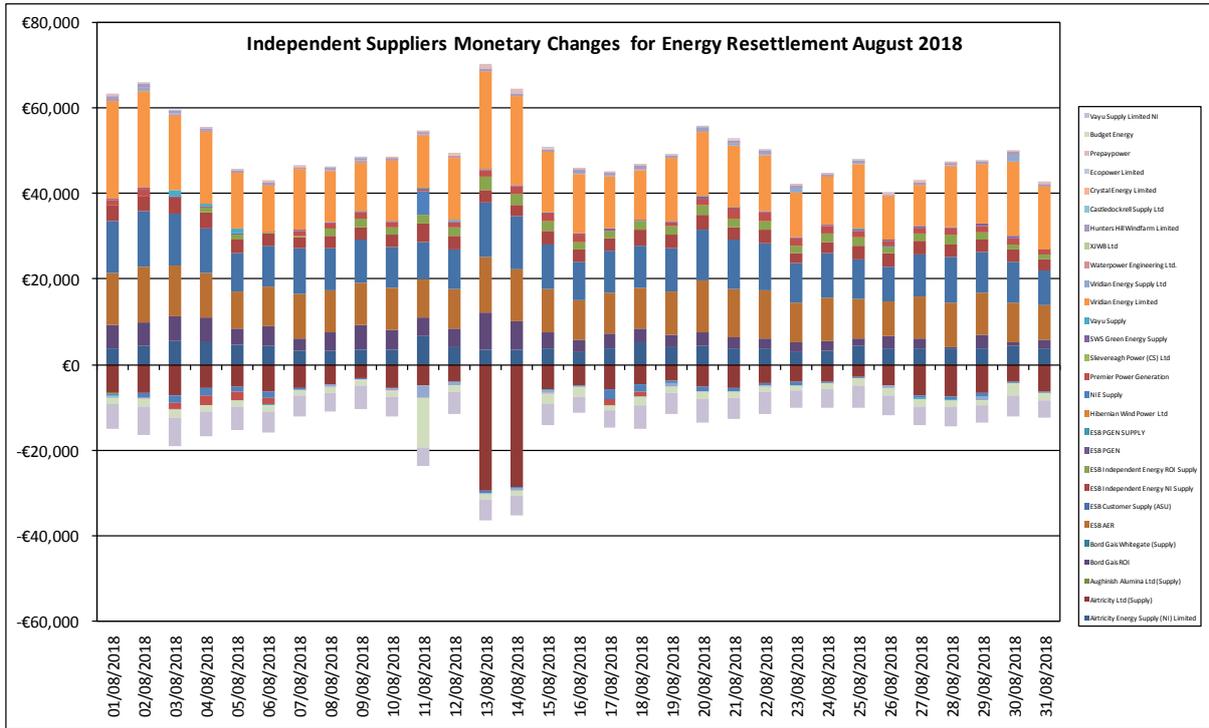


Figure 3 – Independent Suppliers Monetary Changes for Energy Resettlement – August 2018

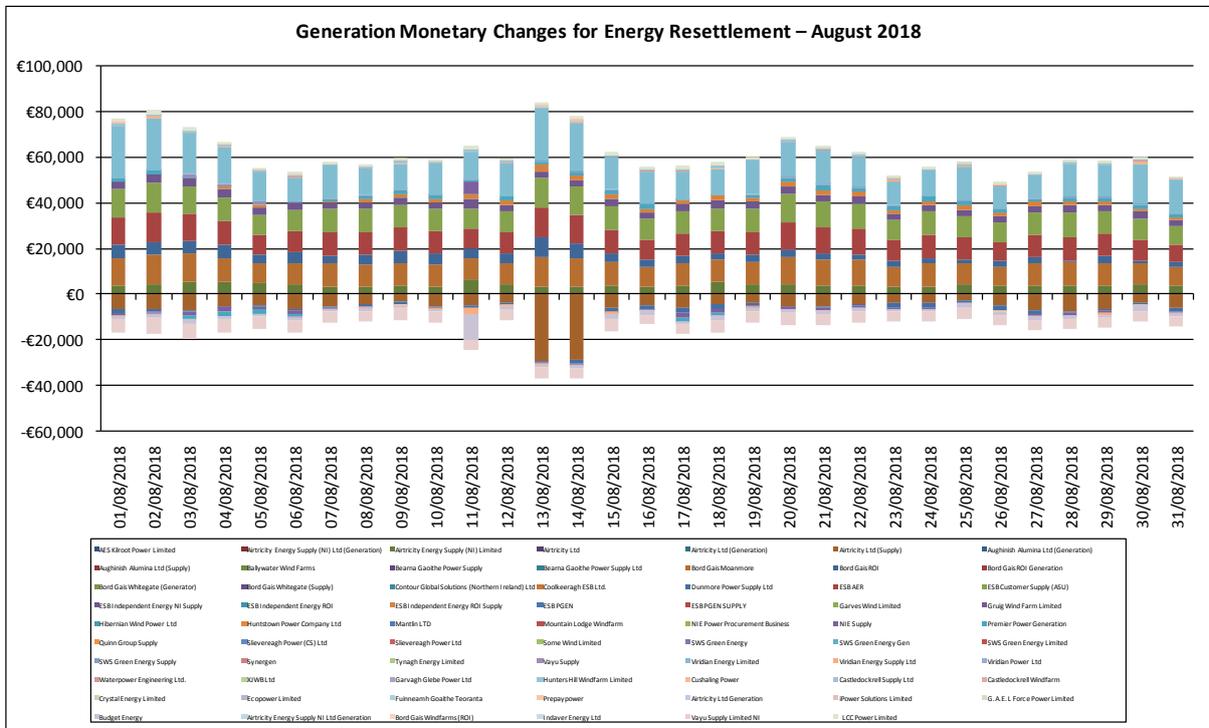


Figure 4 – Generation Monetary Changes for Energy Resettlement – August 2018

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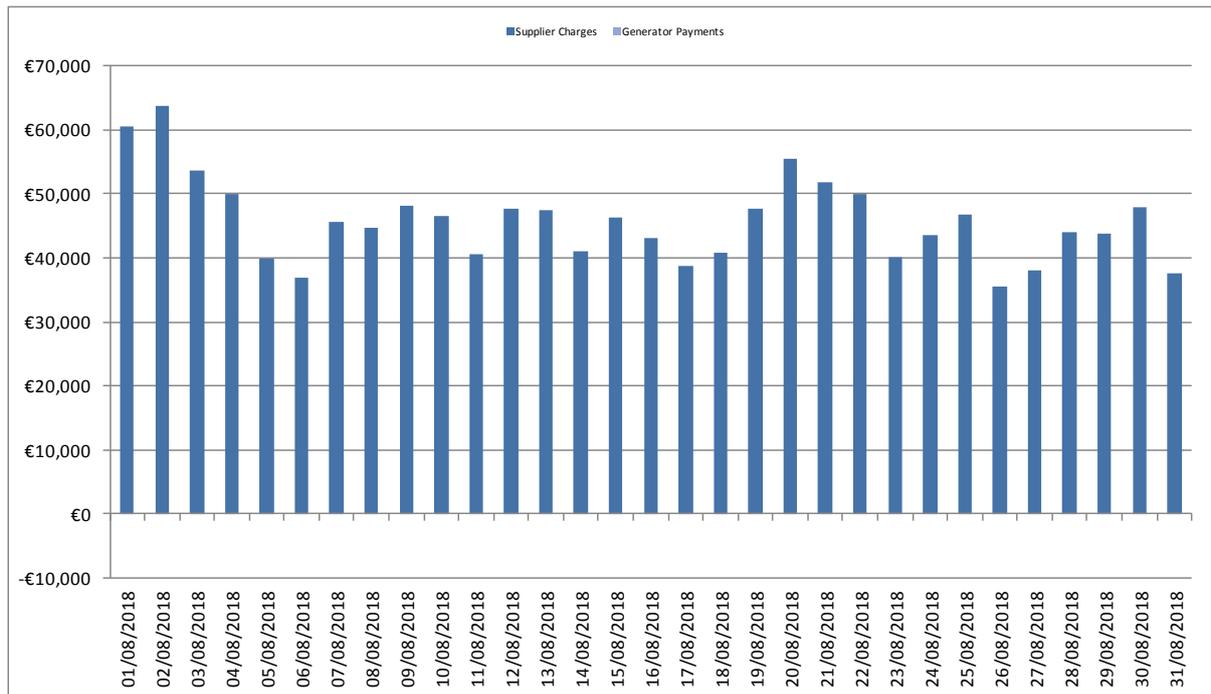


Figure 5 – Total Monetary Changes for Energy Resettlement – August 2018

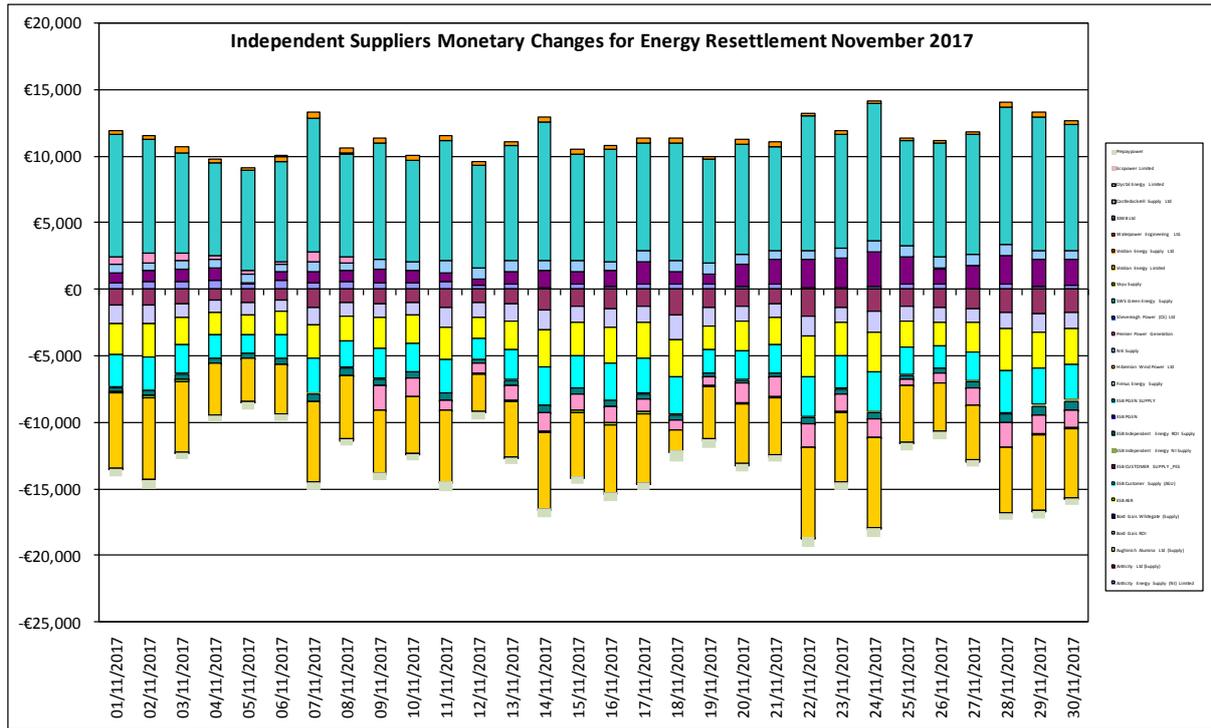


Figure 6 - Independent Suppliers Monetary Changes for Energy Resettlement – Nov 2017

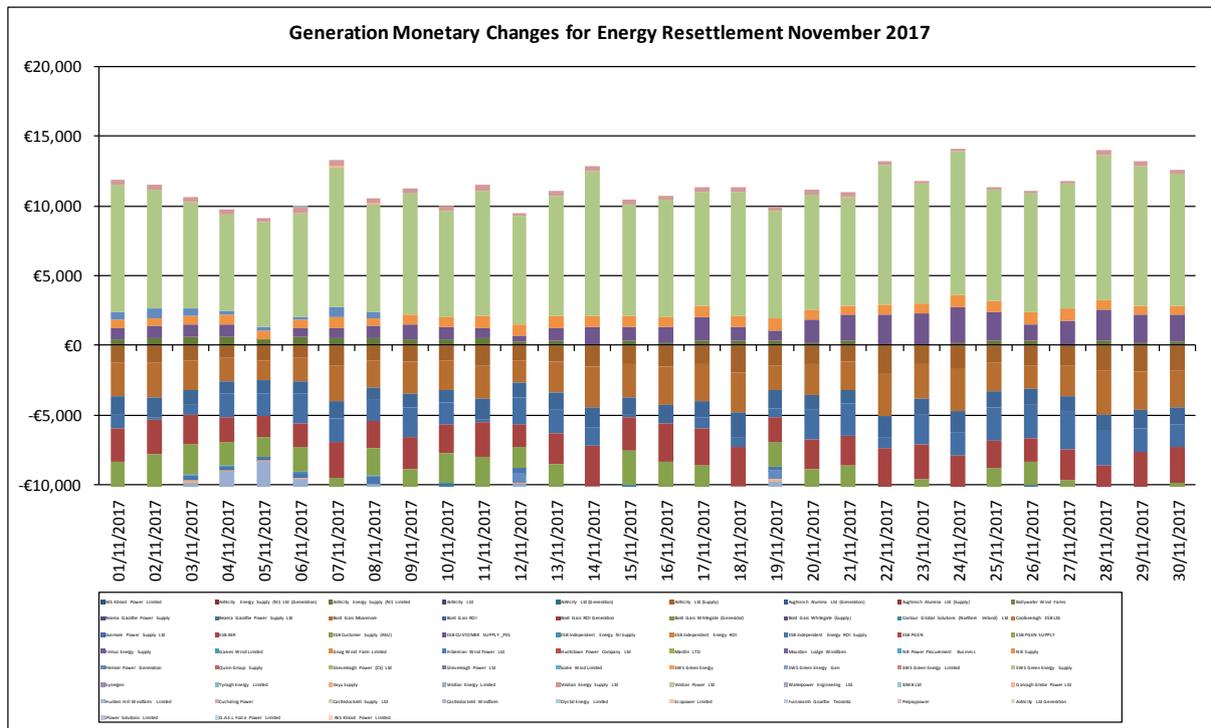


Figure 7 - Generation Monetary Changes for Energy Resettlement – Nov 2017

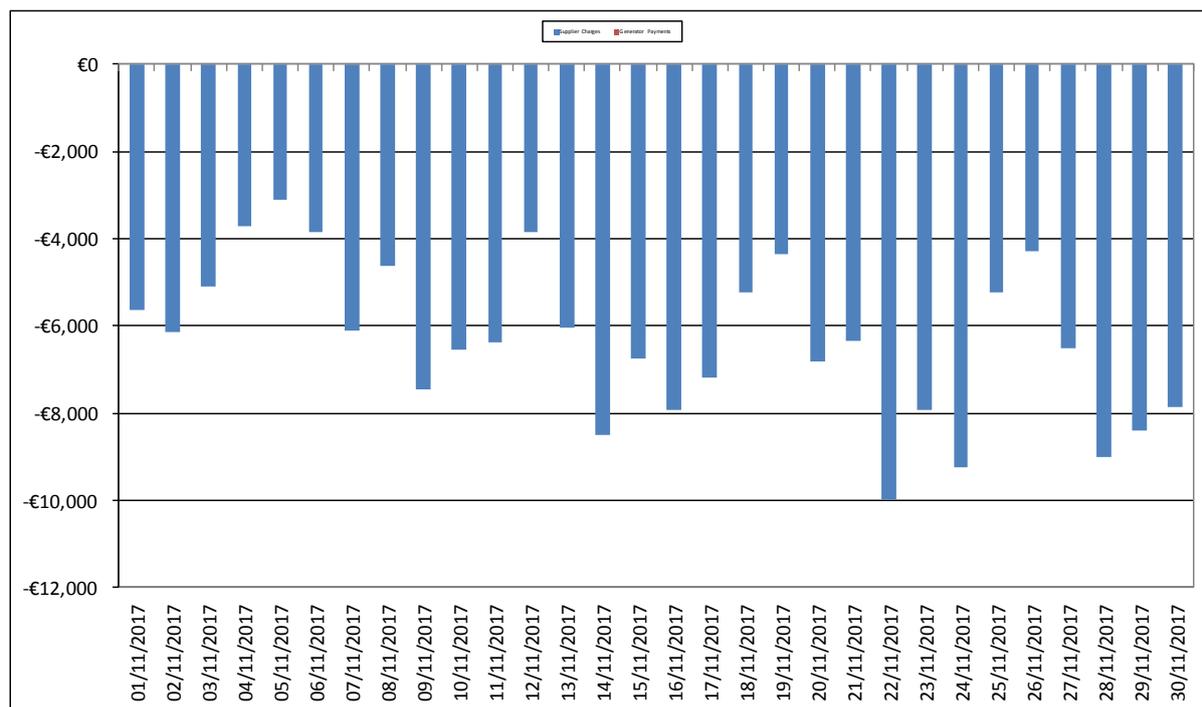


Figure 8 - Total Monetary Changes for Energy Resettlement – Nov 2017

3.1.2 Capacity Market

Note: - For Figure 10, 11 & 14 net values are shown.

- Positive amounts indicate net additional payments by Participants (Charges).
- Negative amounts indicate net additional payment to be made to Participants (Payments)

The reverse is true for Figure 12.

The changes in Capacity are graphed below showing the variance in monetary terms as opposed to percentage terms. As the Jurisdictional Error Supply Units can be significantly affected by resettlement, this is more reflective of the monetary redistribution in M+4 and M+13. Please also note that as of June 2011 the Jurisdictional Error Supply Unit (ROI) is now a Retail Supply unit. The Jurisdictional Error Supply Unit (NI) is unchanged.

M+4 Resettlement

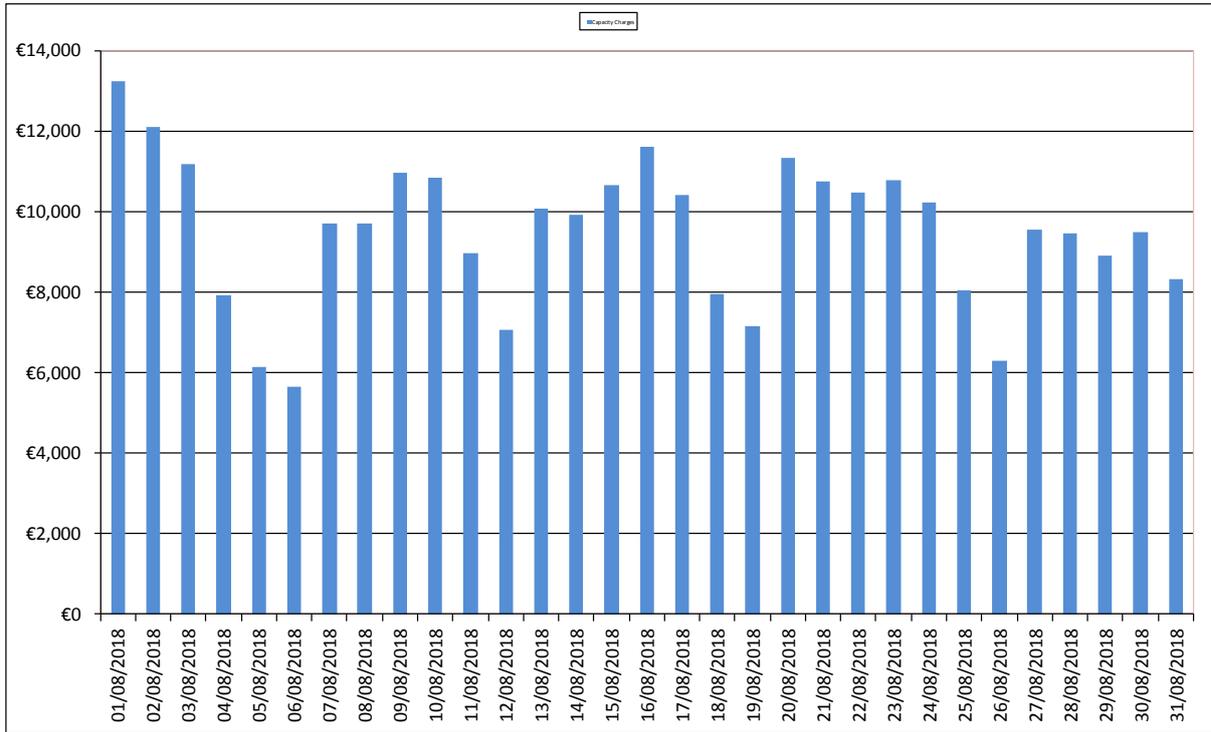


Figure 9 - Independent Suppliers Monetary Changes for Capacity Resettlement – August 2018

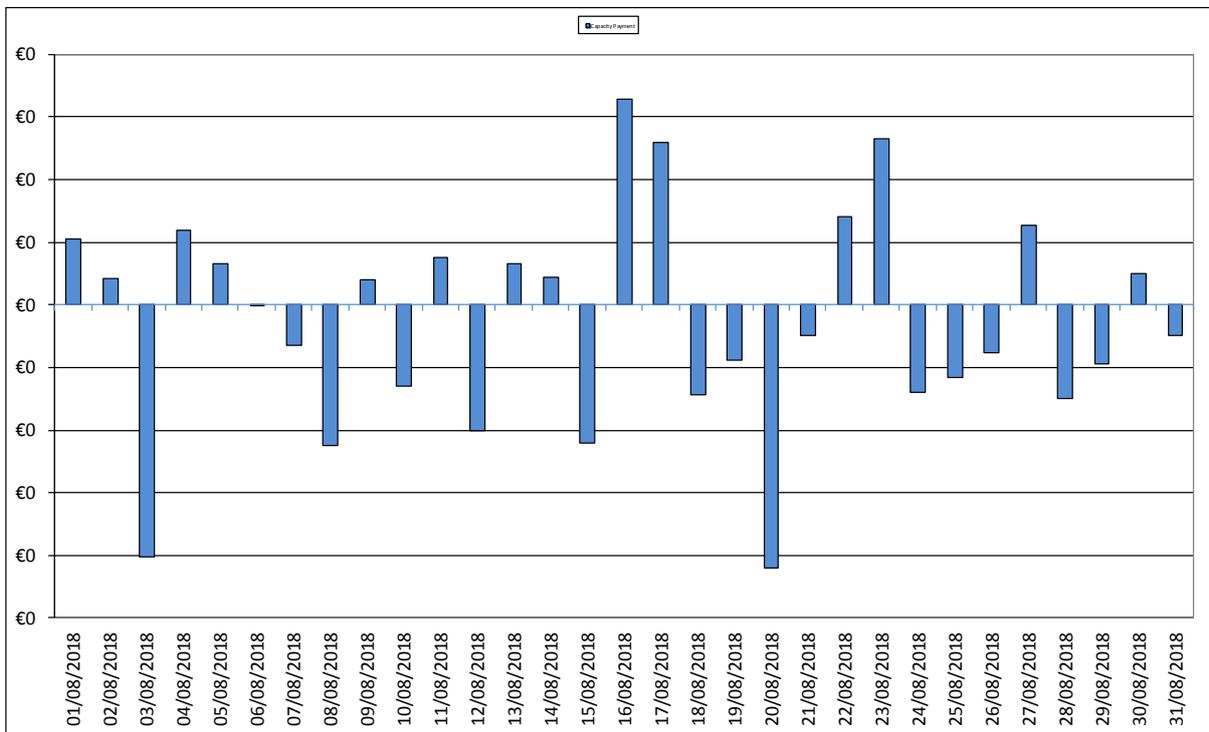


Figure 10 - All Generation Monetary Change for Capacity Resettlement – August 2018

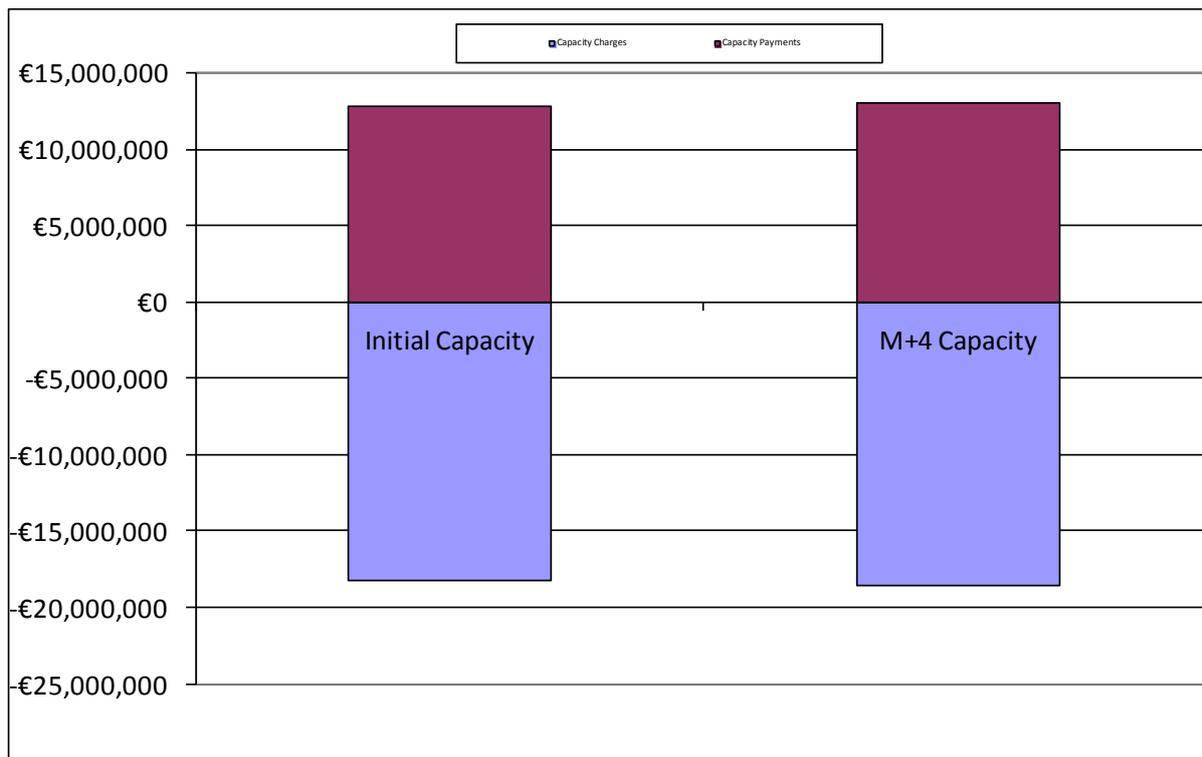


Figure 11 - Comparison of Distribution of Monetary Amounts between Capacity Initial and Resettlement August 2018.

The above graph demonstrates that due to all the individual changes to payment and charge amounts on a Supplier or Generator Unit basis, the overall Capacity Market resettlement Charge and Payment amounts have not changed due to resettlement.

M+13 Resettlement

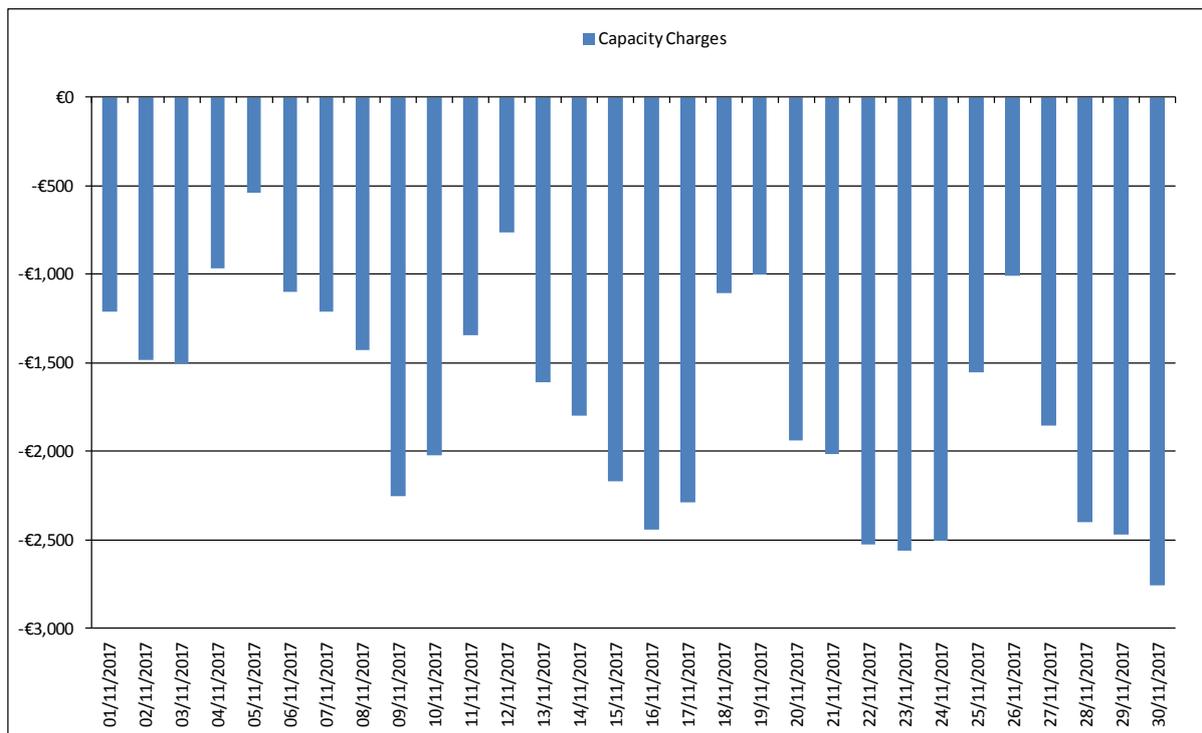


Figure 12 - Independent Suppliers Monetary Changes for Capacity Resettlement – Nov 2017

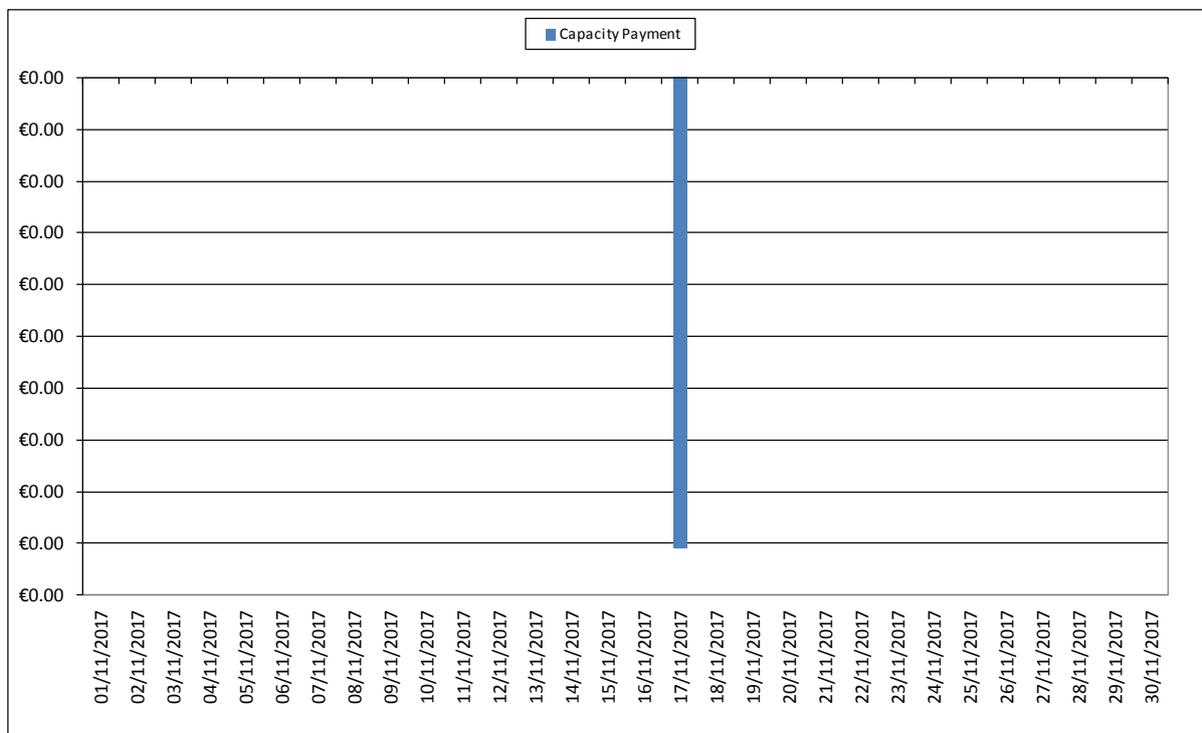


Figure 13 – All Generation Monetary Change for Capacity Resettlement – Nov 2017

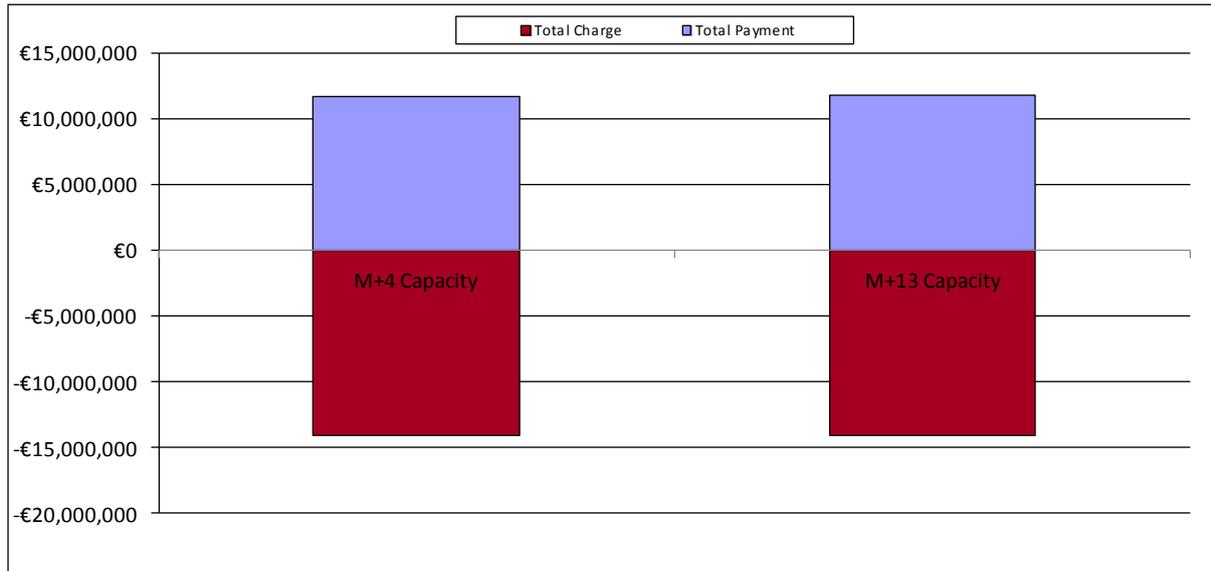


Figure 14 - Comparison of Distribution of Monetary Amounts between M+4 Capacity Resettlement and M+13 Capacity Resettlement – Nov 2017.

Helpdesk Call Statistics

The statistics presented in Table 4 - Helpdesk Call Statistics covers the month of December 2018

Market Helpdesk Report: 01/12/18 to 31/12/18

	Received	Resolved within the period	Not Resolved	Resolved in the period	Resolution Time (Working Days)	Resolved On Time
Normal	70	62	8	70	1.96	63
Important	0	0	0	0	0.00	0
Urgent	0	0	0	0	0.00	0
Settlement	0	0	0	1	19.64	1
Credit	0	0	0	0	0.00	0
Dispute	1	0	1	0	0.00	0
Data	0	0	0	0	0.00	0
Total/Average	71	62	9	71	4.32	64

Table 4 – Helpdesk Statistics

Definitions:

- Resolved within the Period refers to queries raised and resolved within the calendar month of December 2018.
- Resolved in the Period refers to queries resolved within December 2018, and includes queries raised before this time.
- Resolution Time (Working Days) refers to average time to resolve, in working days, for this category of query. It is calculated based on all queries for the category, not just December 2018.
- Not Resolved refers to queries raised but not resolved within December 2018.
- Urgent are general queries which may have an impact on market operations. SEMO has an internal objective to resolve these within 3 working days; however, this is not a mandated service level under the Trading and Settlement Code.
- Disputes are where a dispute has been raised over the outcome of a data or settlement query.

The average resolution time for General Queries has increased by 0.61 working days from 1.35 in November 2018 to 1.96 in December 2018. SEMO has a metric to resolve General Queries within 20 Working Days. These include queries received over the phone and e-mail.

Data and Settlement Queries generally continue to be responded to within the timelines required by the Trading and Settlement Code, i.e. one calendar month. No Formal Query timeline extensions were required during December 2018 with regard to formal Settlement Queries.

Disputes and Queries

5.1.1 Disputes

One Settlement Disputes was raised during the month of December 2018. The Dispute is currently in the process for a scheduled meeting with an agreed Dispute resolution Board.

Topic	Number Of Queries
Meter Data (SEM)	1

Table 5– Upheld Dispute Queries by Topic

5.1.2 Data Queries (SEM)

There were no formal data queries received during the month of December 2018.

Topic	Number Of Queries

Table 6– Upheld Data Queries by Topic

5.1.3 Settlement Queries

There were no formal queries raised with the SEM

Topic	Number Of Queries

Table 7 – Upheld Settlement Queries by Topic

- **Unresolved Queries**

There are no unresolved SEM Settlement Queries as of the 9th January 2019.

Central Systems

6.1 List of System Errors and Re-runs

Details are provided in [Appendix C](#): List of All Systems Errors and Failures

6.1.1 Re-Pricing / Resettlement Runs

There were no Ad hoc Re-Settlement run carried out in December 2018.

6.1.2 System Errors

There were no Market Application defects found in December 2018.

Details are provided in [Appendix C](#): List of All Systems Errors and Failures

Occasional Components

7.1 Disaster Recovery/Business Continuity Tests

There were no scheduled Business Continuity tests performed during December 2018.

7.2 Communications or Systems Failures

There were no communication failures during December 2018.

7.3 Denial of Service Attacks

There was no Denial of Service Attacks during December 2018.

Appendix A: Detail of Trading and Settlement Code Breaches

Data Provider

There were no breaches to report in December 2018.

Market Participant

Opr Date Identified	Run Type	Quality or Timing	Party	Issue Type	Description	Cause	Resolution	T and SC Breach
19/12/2018	Money In	Timing	Participant	Payment Default	Lightfield Limited (PT_400201) defaulted on a Energy Week 33 M+4 2018 & Week 47 M+13 2017 & Week 48 M+13 2017	Participant Error	A default letter was issued to the Participant.	Major
31/12/2018	Money In	Timing	Participant	Payment Default	Lightfield Limited (PT_400201) defaulted on a Capacity November 2017 M+13	Participant Error	A default letter was issued to the Participant.	Major
19/12/2018	Money In	Timing	Participant	Payment Default	Just Energy (Ireland) Limited (PT_400211) defaulted on a Energy Week 34 M+4 2018 & Week 33 M+4 2018.	Participant Error	A default letter was issued to the Participant.	Major
31/12/2018	Money In	Timing	Participant	Payment Default	Gurteen Energy Supply (PT_400187) defaulted on a Capacity August M+4 2018 invoice	Participant Error	A default letter was issued to the Participant.	Major
12/12/2018	Money In	Timing	Participant	Payment Default	Dan Twomey Waterpower Engineering Ltd. (PT_400045) defaulted on a Energy Week 31 M+4 2018 & Week 31 M+4 2018 invoice	Participant Error	A default letter was issued to the Participant.	Major
12/12/2018	Money In	Timing	Participant	Payment Default	Dalkia Alternative Energy DSU (PT_400124) defaulted on a Energy Week 45 M+13 2017	Participant Error	A default letter was issued to the Participant.	Major
05/12/2018	Money In	Timing	Participant	Payment Default	Activation Energy (PT_500098) defaulted on a Capacity July M+4 2018	Participant Error	A default letter was issued to the Participant.	Major
05/12/2018	Money In	Timing	Participant	Payment Default	New Measured Power Limited TA Pinergy (PT_400173) defaulted on an Energy Week 44 2018 M+13 invoice & Capacity October M+13 2017 invoice	Participant Error	A default letter was issued to the Participant.	Major

Table 8 – Trading and Settlement Code Breaches – Market Participants

SEMO – Settlements

There were no breaches to report in December 2018.

SEMO - Pricing and Scheduling

There were no breaches to report in December 2018.

SEMO - Funds Transfer

There were no breaches to report in December 2018.

SEMO - Credit Management

There were no breaches to report in December 2018.

SEMO – Other

There were no breaches to report in December 2018.

Appendix B: List of Queries by Type

No formal queries for December 2018.

Appendix C: List of All System Errors and Failures

The definitions of the statuses used for the List of All System Errors and Failures are:

- In Progress: Fix being identified and implemented.
- Resolved: Fix has been implemented, but reruns have not been performed.
- Closed: Required reruns have been performed and error-failure has been completely rectified.

Note: Items in the List of All System Errors and Failures that have status 'Closed' in this month's report will not appear in subsequent Monthly Market Operator Reports as they are no longer open issues.

There were no Market Application defects found in December 2018.

Issue No.	Description	Effect	Fixed from	Re-Pricing	Resettlement	Status
-	-	-	-	-	-	-

Table 9 - List of System Errors and Failures

Appendix D: Details of Operational Timings

No longer required as part of legacy SEM wind down.

Appendix E: Imperfections Charge

No longer required as part of legacy SEM wind down.

Appendix F: Default Commercial Offer Data Used

No longer required as part of legacy SEM wind down.

Appendix G: Total Charges and Payments Data

The tables below list historical values for Total Charges and Total Payments in the SEM by month and currency since start of the SEM.

- Month of inclusion based on invoice date.
- Amounts are after application of Settlement Reallocation.

Table 10 – Total Charges by Month

Market		Energy	Capacity	Market Operator	M+4 Energy	M+4 Capacity	M+4 Market Operator	M+13 Energy	M+13 Capacity	M+13 Market Operator	Ad-hoc Energy	Ad-hoc Capacity	Ad-hoc Market Operator	Total
Jul-17	ROI	£53,839,556.76	£18,463,543.17	£689,850.17	£859,675.25	£105,231.46	£1,843.13	£47,200.17	£31,615.25	£600.31	£0.00	£0.00	£0.00	74,045,115.67
	NI	£16,871,524.38	£4,970,215.26	£169,319.17	£206,699.63	£26,416.99	£609.40	£122,939.50	£47,342.00	£1,369.62	£0.00	£0.00	£0.00	22,416,435.95
Aug-17	ROI	£49,715,868.99	£16,597,661.81	£670,887.89	£189,567.77	£49,405.94	£1,189.91	£131,434.13	£36,135.62	£1,706.37	£1.41	£0.00	£0.00	67,393,859.84
	NI	£15,604,259.43	£4,539,253.85	£174,636.65	£71,879.64	£24,102.39	£515.19	£11,674.35	£2,799.04	£123.94	£52.50	£0.00	£0.00	20,429,296.98
Sep-17	ROI	£74,262,007.43	£18,246,287.18	£871,978.12	£297,529.91	£58,164.04	£2,322.12	£47,978.01	£13,495.87	£504.35	£163,227.43	£0.00	£0.00	93,963,494.46
	NI	£26,213,019.19	£5,128,326.58	£230,350.58	£81,360.23	£23,139.40	£499.97	£13,331.20	£6,511.87	£297.83	£140,679.45	£0.00	£0.00	31,837,516.30
Oct-17	ROI	£64,383,218.39	£18,184,490.56	£721,054.00	£289,078.01	£109,973.68	£2,586.90	£32,785.64	£11,166.82	£447.56	£0.00	£0.00	£0.00	83,734,801.56
	NI	£18,177,387.18	£5,365,068.45	£188,849.52	£78,539.81	£23,503.63	£650.99	£10,931.60	£2,877.72	£134.29	£0.00	£0.00	£0.00	23,847,943.19
Nov-17	ROI	£83,791,449	£24,787,352	£781,890	£413,698	£113,547	£3,295	£122,794	£33,971	£718	£458,369	£6,145	£6,145	£110,519,371
	NI	£22,118,497	£6,651,371	£204,783	£141,841	£56,639	£1,085	£61,621	£21,195	£400	£705	£2,550	£2,550	£29,263,237
Dec-17	ROI	£108,724,596.96	£30,213,314.37	£1,032,089.87	£386,043.20	£61,761.35	£2,747.14	£91,579.26	£20,859.90	£58.92	£354,184.96	£196,828.99	£196,828.99	141,281,393.91
	NI	£35,009,530.01	£7,435,318.60	£270,080.16	£180,156.15	£72,189.79	£1,323.93	£45,368.58	£11,660.54	£288.42	£58,353.41	£11,091.72	£11,091.72	43,106,453.03
Jan-18	ROI	£66,824,387.64	£31,236,649.01	£796,356.35	£272,646.34	£136,640.90	£1,965.48	£56,253.29	£18,996.49	£347.05	£320.44	£2,955.28	£2,955.28	99,350,473.55
	NI	£21,801,403.00	£8,153,351.60	£211,139.18	£105,764.72	£76,139.37	£734.71	£22,938.26	£7,983.39	£150.76	£275,137.08	£85,908.52	£85,908.52	30,826,559.11
Feb-18	ROI	£73,894,145.46	£29,049,213.63	£821,611.24	£239,608.70	£442,118.67	£1,727.82	£34,763.85	£73,083.63	£225.56	£0.00	£0.00	£0.00	104,556,498.56
	NI	£23,559,299.88	£8,534,268.31	£214,366.57	£214,152.33	£80,930.26	£1,369.32	£27,935.49	£69,821.89	£160.29	£0.00	£0.00	£0.00	32,702,304.34
Mar-18	ROI	£83,664,309	£0	£194,992	£674,215	£284,330	£3,439	£95,181	£158,339	£583	£0	£0	£0	£85,075,447
	NI	£32,334,060	£0	£50,052	£163,160	£102,559	£899	£50,645	£71,098	£380	£0	£0	£0	£32,772,854
Apr-18	ROI	£69,317,323	£23,231,814	£783,294	£970,456	£256,503	£5,627	£267,758	£516	£0	£0	£0	£0	£94,904,628
	NI	£23,659,859	£7,429,700	£190,874	£151,575	£33,802	£816	£72,822	£115,446	£533	£0	£0	£0	£31,655,427
May-18	ROI	£77,304,833	£22,485,464	£739,608	£1,395,991	£384,788	£8,896	£89,490	£221,592	£645	£0	£0	£0	£102,631,308
	NI	£21,411,034	£6,005,961	£181,189	£109,484	£23,056	£674	£114,249	£62,751	£823	£0	£0	£0	£27,909,222
Jun-18	ROI	£110,729,885	£22,412,350	£892,166	£2,294,801	£444,742	£12,880	£101,002	£74,247	£805	£417,974	£0	£0	£137,380,852
	NI	£29,772,183	£5,362,582	£213,124	£111,573	£27,385	£607	£183,273	£95,348	£1,350	£16	£0	£0	£35,767,439
Jul-18	ROI	£91,566,909	£20,553,253	£732,984	£1,335,293	£324,878	£6,367	£47,651	£89,704	£431	£0	£0	£0	£114,657,469
	NI	£24,824,845	£5,305,704	£169,676	£164,048	£26,544	£654	£124,634	£100,028	£1,063	£0	£0	£0	£30,717,196
Aug-18	ROI	£105,558,500	£18,695,229	£882,539	£559,068	£165,878	£3,317	£48,971	£87,850	£370	£206,636	£0	£0	£126,208,357
	NI	£29,846,140	£5,022,974	£217,086	£248,040	£37,238	£1,329	£10,253	£31,064	£85	£5,825	£0	£0	£35,420,033
Sep-18	ROI	£99,146,293	£25,829,272	£731,194	£468,008	£88,260	£2,304	£34,658	£89,979	£269	£0	£0	£0	£126,390,237
	NI	£24,452,280	£5,983,336	£181,019	£68,235	£13,992	£365	£6,470	£18,637	£53	£0	£0	£0	£30,724,387
Oct-18	ROI	£31,530,401	£24,300,026	£595,030	£865,326	£183,408	£4,241	£148,617	£39,733	£1,136	£0	£0	£0	£57,667,916
	NI	£9,455,756	£5,693,202	£150,691	£108,258	£95,783	£1,126	£8,612	£2,164	£108	£0	£0	£0	£15,455,699
Nov-18	ROI	£0	£0	£0	£1,160,011	£185,595	£6,269	£312,981	£78,711	£1,598	£31	£0	£0	£1,745,196
	NI	£0	£0	£0	£333,889	£67,914	£1,675	£86,421	£34,554	£589	£82,261	£0	£0	£607,304
Dec-18	ROI	£0	£0	£0	£806,243	£170,047	£6,269	£312,981	£78,711	£1,598	£0	£0	£0	£1,375,850
	NI	£0	£0	£0	£248,530	£72,567	£1,675	£71,305	£21,025	£589	£0	£0	£0	£415,692

Market Operator Monthly Report

Market		Energy	Capacity	M+4 Energy	M+4 Capacity	M+4 Market Operator	M+13 Energy	M+13 Capacity	M+13 Market Operator	Ad-hoc Energy	Ad-hoc Capacity	Ad-hoc Market Operator	Total
Jul-17	ROI	£54,277,998.32	£17,477,373.72	£846,835.48	£102,146.67	£1,651.30	£47,723.87	£34,509.09	£601.00	£0.00	£0.00	£0.00	£72,788,839.45
	NI	£18,773,354.99	£5,850,870.07	£230,926.67	£29,088.46	£609.37	£122,267.41	£44,738.41	£1,404.46	£0.00	£0.00	£0.00	£25,053,259.84
Aug-17	ROI	£50,562,528.38	£15,345,661.50	£190,289.53	£50,188.86	£1,330.67	£130,457.46	£35,704.06	£1,694.02	£2.00	£0.00	£0.00	£66,317,856.48
	NI	£18,103,577.29	£5,650,171.54	£71,815.23	£23,380.11	£512.28	£11,510.00	£3,159.55	£146.77	£45.51	£0.00	£0.00	£23,864,318.28
Sep-17	ROI	£77,198,039.75	£16,935,824.39	£297,316.08	£58,064.10	£2,315.75	£36,227.08	£14,579.25	£480.13	£329,748.86	£0.00	£736.80	£94,873,332.19
	NI	£29,090,989.44	£6,342,522.98	£81,307.50	£23,116.39	£615.25	£24,625.76	£5,539.12	£177.97	£254,051.02	£0.00	£4.28	£35,822,949.71
Oct-17	ROI	£66,627,076.69	£17,573,435.30	£379,168.29	£109,325.13	£2,586.81	£31,769.76	£11,103.25	£435.24	£0.00	£0.00	£0.00	£84,734,900.47
	NI	£22,549,009.87	£5,897,549.80	£79,103.03	£24,197.26	£648.45	£10,935.82	£2,957.83	£134.12	£0.00	£0.00	£0.00	£28,564,536.18
Nov-17	ROI	£83,230,541	£23,930,421	£473,719	£114,595	£3,363	£122,843	£33,951	£718	£645,100	£4,985	£800	£108,561,035
	NI	£25,746,600	£7,365,655	£145,319	£55,530	£1,080	£61,622	£21,196	£399	£274	£3,545	£0	£33,401,221
Dec-17	ROI	£106,835,064.33	£27,957,453.42	£397,100.73	£98,040.58	£2,984.78	£91,151.49	£20,818.71	£556.31	£336,745.88	£173,793.95	£644.35	£135,914,354.53
	NI	£37,790,994.99	£9,466,911.04	£181,354.27	£40,293.46	£1,305.84	£45,734.51	£11,769.44	£290.16	£57,624.89	£31,404.66	£288.16	£47,627,971.42
Jan-18	ROI	£66,556,846.79	£30,184,516.90	£264,692.47	£140,421.82	£600.74	£56,245.08	£18,749.58	£346.74	£37.23	£16,333.45	£0.00	£97,238,790.80
	NI	£24,598,645.75	£9,075,819.96	£105,487.86	£72,782.55	£685.44	£22,940.69	£8,209.56	£150.74	£270,100.11	£74,414.80	£1,311.93	£34,230,549.39
Feb-18	ROI	£73,649,373.32	£28,234,770.33	£241,672.56	£232,622.38	£1,496.49	£33,903.63	£90,769.95	£220.04	£0.00	£0.00	£0.00	£102,484,828.70
	NI	£26,522,258.99	£9,276,145.07	£211,340.35	£267,052.17	£1,368.55	£28,772.37	£54,122.68	£164.70	£0.00	£0.00	£0.00	£36,361,224.88
Mar-18	ROI	£85,513,434	£0	£691,820	£303,976	£3,238	£94,253	£188,330	£578	£0	£0	£0	£86,795,628
	NI	£37,437,280	£0	£170,090	£85,702	£898	£51,265	£45,028	£384	£0	£0	£0	£37,790,647
Apr-18	ROI	£69,267,924	£20,860,692	£945,469	£237,063	£3,887	£193,101	£310,897	£516	£0	£0	£0	£91,819,549
	NI	£32,845,010	£9,450,019	£150,560	£50,635	£818	£72,832	£77,370	£533	£0	£0	£0	£42,647,777
May-18	ROI	£73,986,199	£21,003,133	£1,333,265	£344,914	£4,639	£89,323	£138,550	£645	£0	£0	£0	£96,900,668
	NI	£23,049,174	£7,260,826	£111,164	£58,347	£686	£114,206	£136,262	£823	£0	£0	£0	£30,731,488
Jun-18	ROI	£106,186,794	£20,271,690	£2,266,420	£404,741	£6,062	£101,282	£80,377	£791	£394,961	£0	£884	£129,714,001
	NI	£32,258,574	£7,261,868	£115,238	£62,628	£627	£183,374	£89,625	£1,350	£852	£0	£2	£39,974,138
Jul-18	ROI	£86,768,139	£19,045,125	£1,383,691	£307,142	£4,724	£47,761	£123,685	£431	£0	£0	£0	£107,680,698
	NI	£25,508,813	£6,579,825	£161,500	£42,347	£738	£124,667	£69,402	£1,063	£0	£0	£0	£32,488,356
Aug-18	ROI	£101,015,744	£17,337,990	£549,108	£161,828	£2,583	£49,204	£91,882	£311	£145,525	£0	£0	£119,354,176
	NI	£31,815,843	£6,244,149	£243,991	£41,050	£1,252	£10,283	£27,631	£85	£7,589	£0	£0	£38,391,874
Sep-18	ROI	£94,348,675	£24,483,726	£469,838	£87,398	£2,373	£34,655	£85,446	£269	£0	£0	£0	£119,512,381
	NI	£30,233,883	£7,164,947	£67,373	£14,752	£295	£6,469	£22,731	£53	£0	£0	£0	£37,510,502
Oct-18	ROI	£30,964,136	£22,562,931	£878,875	£189,837	£5,160	£148,618	£39,721	£1,133	£0	£0	£0	£54,790,411
	NI	£11,418,621	£7,231,162	£107,709	£30,084	£1,123	£8,612	£2,161	£110	£0	£0	£0	£18,799,581
Nov-18	ROI	£0	£0	£1,157,683	£185,071	£6,166	£320,379	£79,187	£2,118	£2,649	£0	£8	£1,753,261
	NI	£0	£0	£333,518	£67,787	£1,659	£86,279	£34,163	£589	£38,925	£0	£155	£563,074
Dec-18	ROI	£0	£0	£806,949	£170,134	£6,166	£328,215	£88,275	£1,873	£0	£0	£0	£1,401,613
	NI	£0	£0	£248,726	£67,787	£1,659	£71,328	£21,036	£407	£0	£0	£0	£410,943

Table 11 - Total Payments by Month

Appendix H: Full Balancing Costs

No longer required as part of legacy SEM wind down.

Appendix I: MSP Algorithms

No longer required as part of legacy SEM wind down.