Quarterly Imperfections Cost Report

2020/2021 Q2: 1 Jan '21 to 31 March '21

	2020/2021 YTD Outturn (€m)	2019/2020 YTD Outturn (€m)	2020/2021 Q2 Outturn (€m)	2019/2020 Q2 Outturn (€m)
CPREMIUM	74.0	63.2	40.2	33.0
CDISCOUNT	52.1	49.7	24.8	25.2
CABBPO	0.1	0.1	0.0	0.1
CAOOPO	-0.6	0.2	-0.2	-0.1
CTEST	-0.1	0.0	0.0	0.0
CUNIMB	-1.4	-1.5	-0.7	-0.7
CCURL	-1.2	-1.5	-0.8	-0.9
Interconnector Ramp Rate Disparity [4]				
Interconnector Counter Trading [5]				
Dispatch Balancing Costs (DBC)	122.9	110.2	63.3	56.5
Fixed Cost Charges/Payments (CFC) [1]	17.8	14.8	11.9	5.6
Other System Charges (OSC) [2]	-1.9	-3.7	-0.8	-1.9
Imperfections Costs Outturn	**138.8**	**121.4**	**74.6**	**60.3**
Imperfections Costs Forecast	**154.1**	**154.9**	**83.9**	**86.3**
Variance: Forecast Vs. Outturn [3]	**-15.3**	**-33.55**	**-9.5**	**-26.03**
Variance %	**-9.9%**	**-21.7%**	**-11.3%**	**-30.2%**

Key Points

- Costs for the 20/21 year are based on actual initial settlement figures. There will be variations in the final year-end figures as a result of resettlement, system defect fixes and Trading and Settlement Code modifications.
- The Imperfections Cost Forecast is profiled based on the RA approved model, which assumed zero payments for OSC.
- The Imperfections Cost Outturn is subject to fluctuation relative to the forecast.
- Costs for the 19/20 year are based on M+4 & M+13 settlement figures were available. [6]

Key Factors Affecting Imperfections Costs	Forecast Assumptions for TY2021 [10]	Actual TY2021	Impact[13]
T&S Code and System Changes	Data as per forecast submission	Changes present in release F (04/11/20) would have decreased imperfections costs.	↓
Reserve Policy and TCGs[7]	Primary & Secondary Operating Reserve 75% LSI[8] TCG data as forecast per submission	Similar to forecast.	→
Reserve Provision	Data as per forecast submission	The Negative Ramping Reserve of 0MW decreased imperfections cost.	↓
System Demand	Data as per forecast submission	Actual system demand was slightly higher than forecast. There was low impact on imperfections costs.	→
Forced Generation Outages	Data as per forecast submission	The average forced outage rate for the quarter was 25.32% [9], 76% higher than forecast. This difference had minimal impact on imperfections costs because generators haven't been dispatching away from their PN's.	→
Scheduled Generation Outages	Data as per forecast submission	The scheduled generation outages were less than forecast and this has decreased costs from the forecast.	↓
Forced Transmission Outages	No outages forecast	The unplanned outages increased imperfections costs.	↑
Scheduled Transmission Outages	Data as per forecast submission	The scheduled transmission outages were less to forecast and had decreased imperfection costs.	↓
Commercial Offer data - Fuel Costs & Carbon[10]	Data as per forecast submission	Wholesale fuel prices for the quarter were as follows; Carbon: 96% higher than forecast, Coal: 18% higher than forecast, Gasoil: 37% higher than forecast, Gas: 38% higher than forecast, Oil: 47% higher than forecast. This difference increased imperfections costs for the period.	↑
Wind Variability	Data as per forecast submission	Installed all-island capacity at end of period: 5576.1 MW [11]. The average wind capacity factor for the quarter was 33%, which is slightly above forecast. This had limited impact on imperfections.	→

Mitigation Measures

The following are a list of mitigation measures undergoing review to seek to increase downward pressure on imperfection costs:

1. Daily review of Non-Compliances / Performance Monitoring events e.g. trips;
2. Weekly review of imperfections costs and drivers;
3. On-going review of Reserve Policy and TCGs [7];
4. Flexibility services as required;
5. Grid Code/ Trading and Settlement Code review and modifications;

Notes

[1] The imperfections cost forecast includes an estimate for Make Whole Payments. Make Whole Payments are not subject to the incentive process.

[2] Includes Other System Charges up to March 2021. Published at www.eirgridgroup.com and www.soni.ltd.uk.

[3] Positive value indicates outturn is higher than forecast. Negative value indicates outturn is lower than forecast.

[4] Following on from Release F and due to the complex nature of the associated data, work is ongoing to confirm this value. Hence no figure has been included for ramp rate disparity for Quarter 2 or YTD. This will be included in future reports.

[5] A figure was included for interconnector counter trading for Quarter 1; it should have been titled 'additional counter trading costs', as it covered costs that were not already captured in the table above. These additional costs will actually be accounted for in the tariff k factors, and have therefore been removed from the Quarterly Imperfections Cost Reports.

[6] M+13 have been completed up to week 13 FY 19/20 and M+4 have been completed for the FY 19/20.

[7] TCGs (Transmission Constraint Groups) or Operational constraints as published at www.eirgridgroup.com and www.soni.ltd.uk.

[8] LSI means the Largest Single Infeed which is used in the calculation of the system reserve requirement.

[9] Calculated from the average monthly all-island forced outage rates from Jan 2021 to Mar 2021.

[10] The forecast and actual fuel and carbon costs were based on data taken from Thomson Reuters.

[11] The installed wind capacity is the Jan 2021 figure as published on www.eirgridgroup.com .

[12] Forecast is over an annual time horizon. Information and figures are for this period unless otherwise stated. Forecast assumptions are published at: http://www.semcommittee.eu

[13] Increase from Forecast
Decrease from Forecast
No Change from Forecast

Component Description

Fixed Cost Charges/Payments: Payments for additional fixed costs incurred, or charges for fixed costs saved from dispatching a unit differently to its market position, if not sufficiently covered through the unit's other payments or charges.

Dispatch Balancing Costs are made up of the following components;

• **CPREMIUM:** Paid when an offer is scheduled in balancing (and delivered) at an offer price above the imbalance settlement price.

• **CDISCOUNT:** Paid when a bid is scheduled in balancing (and delivered) at a bid price below the imbalance settlement price.

• **CABBPO/ CAOOPO:** Bid Price Only and Offer Price Only Payments and Charges, adjustment payment or charge to result in net settlement at the offer price for increments, or bid price for decrements, for undo actions on generators.

• **CCURL:** Adjustment payment or charge to result in net settlement at a specific curtailment price for curtailment actions on generators.

• **CTEST:** Charges applied to units under test.

• **CUNIMB:** Charges for imbalances, and bids and offers accepted in balancing but not delivered, which were outside of a tolerance. Undelivered quantities are settled at the imbalance settlement price.