Quarterly Imperfections Cost Report 1st July 2018 - 30th September 2018

1st July 2018 - 30th September 2018				
2017/2018 YTD Outturn (€m)	2016/2017 YTD Outturn (€m)	2017/2018 Q4 Outturn (€m)	2016/2017 Q4 Outturn (€m)	
190.5	138.2	35.3	30.9	
7.9	3.2	1.9	1.2	
-2.5	-2.2	-0.5	-0.4	
-11.4	-9.0	-2.5	-2.4	
184.5	130.2	34.2	29.3	
180.4	146.6	36.8	33.9	
4.1	-16.4	-2.6	-4.6	
2.3%	-11.2%	-7.1%	-13.6%	
	1st July 2018 - 3 2017/2018 YTD Outturn (€m) 190.5 7.9 -2.5 -11.4 184.5 180.4 4.1	1st July 2018 - 30th September 207 2017/2018 2016/2017 YTD Outturn (€m) YTD Outturn (€m) 190.5 138.2 7.9 3.2 -2.5 -2.2 -11.4 -9.0 184.5 130.2 180.4 146.6 4.1 -16.4	1st July 2018 - 30th September 2018 2017/2018 2016/2017 2017/2018 YTD Outturn (€m) YTD Outturn (€m) Q4 Outturn (€m) 190.5 138.2 35.3 7.9 3.2 1.9 -2.5 -2.2 -0.5 -11.4 -9.0 -2.5 184.5 130.2 34.2 180.4 146.6 36.8 4.1 -16.4 -2.6	

Key Points

• The Imperfections Costs Forecast are profiled based on the submitted model which assumed zero payments for both OSC and Energy Imbalances.

• The Imperfections Costs Outturn are subject to fluctuation dependent upon power system conditions and will vary significantly within the year relative to the forecast. The differing power system conditions and external conditions (for example system demand) need to be taken into account when comparing quarterly periods and year to date figures.

Key Factors Affecting Imperfections Costs	Forecast Assumptions for TY1718 ^[5]	Actual TY1718	Impact ^[11]
Reserve Policy and TCGs ^[6]	Primary & Secondary Operating Reserve 75% LSI ^[7] TCG data as forecast per submission	From previous Quarter (Q3): 65% SNSP made permanent; operation of PBA and PBB in open cycle mode can contribute towards Dublin requirement for 2 large generators. These reduced DBC. Cork gas fired generation was temporarily limited to <450 MW due to	₽
Reserve Provision	Data as per forecast submission	gas network restrictions in the area. This increased DBC. The minimum daytime operating reserve requirement in Ireland has decreased from 155 MW to 135 MW due to DS3 System Services Contracts; the minimum daytime operating reserve requirement in Northern Ireland has decreased from 50 MW to 49 MW due to DS3 System Services Contracts. EWIC is providing up to 75 MW dynamic reserve – effective 11th September	₽
Regulatory Policy Changes	Data as per forecast submission	No change from forecast in this quarter.	
System Demand	Data as per forecast submission	Actual system demand was around 4% lower than forecast and has the effect of reducing DBC over the Quarter.	➡
Forced Generation Outages	Data as per forecast submission	Average actual rate for this quarter: 5.44% ^[8] .	
Scheduled Generation Outages	Data as per forecast submission	There were some outages in this Quarter that were not in the original forecast, driving up costs.	1
Forced Transmission Outages	No outages forecast	Some forced outages, including 400kV, making contingency management difficult.	1
Scheduled Transmission Outages	Data as per forecast submission.	Protection configurations in the South West impacted generator output in this region.	1
Commercial Offer data - Fuel Costs & Carbon ^[9]	Data as per forecast submission	Wholesale fuel prices for the quarter were as follows; Gas: 67% higher than forecast, Coal c. 37% higher, Distillate c. 42% higher, Oil c. 29% higher and Carbon was c. 292% higher. Therefore the cost of constraining on generation (Gas and Coal units) was higher than forecast and has increased DBC over the quarter.	٢
Wind Variability	Data as per forecast submission	Installed Capacity at period end: 4772.2MW ^[10] Estimated Capacity Factor from actuals for Q4: 20% This wind capacity factor was lower than forecast (23%) during the quarter, which decreased DBC as more price making generators were in merit.	₽

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. Ongoing review of Reserve Policy and TCGs ^[6];
- 4. Flexibility services as required;
- 5. Grid Code review and modifications;
- 6. System Operator counter trading on the Interconnectors; and
- 7. EWIC export plan to reduce LSI.

[1] Costs are actual initial settlement figures. There may be variations in the final figures as a result of resettlement or regulator approved derogations.

[2] Other System Charges amounts as published at www.eirgridgroup.com.

[3] Positive value indicates under forecast, Negative value indicates over forecast.

[4] Imperfections Cost Forecast includes forecast for Make Whole Payments. Make Whole Payments are not subject to the incentive process.

[5] 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

[6] TCGs mean Transmission Constraint Group or Operational Constraints as published at www.eirgridgroup.com.

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

[8] Forced outage percentage availability is an average of Ireland's July to September figures.

[9] Fuel and Carbon Costs forecast and actual performance based on data taken from Thomson Reuters.

[10] Installed capacity is as of end August 2018, end of year data not currently available.

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

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