

## Glossary of terms used in a System Operating Plan (SOP)

A System Operating Plan is a snapshot in time, usually produced for the peaks and troughs of the Demand Curve (Cardinal Points). The SOP provides a plan to meet System Demand and Reserve Requirements and ensure that any constraints are satisfied.

All the information presented in the SOP is based on market submissions and Operating Margin requirements at the time of creation of the SOP.

<b>Term</b>	<b>Description</b>	<b>Methodology</b>
Customer Demand Forecast	National 5-minute spot demand	Calculated by ESO
Station Demand Forecast	Assumed total national station demand	Calculated by ESO
DSBR – (Demand Side Balancing Reserve).	Not valid anymore	Not valid anymore
Demand Adjustment	Not valid anymore	Not valid anymore
Zone: EMX (Expected Maximum Level)	Summation of expected maximum MW availabilities for each BMU running. The figures are derived from the Maximum Export Limit (MEL) considering any restrictions due to system constraints. This includes any additional units scheduled to meet required margins.	Based on Market provided data plus (if required) actions by ENCC
Zone: EOL (Expected Operating Level)	Summation of expected actual output of each BMU running. The figures are derived from the Physical Notifications (PNs) considering any restrictions due to system constraints. This includes any additional units scheduled to meet required margins at SEL.	Based on Market provided data plus (if required) actions by ENCC
Zone: EMI (Expected Minimum Level)	Summation of the expected minimum MW achievable for each BMU running. The figures are derived from the Stable Export Level (SEL) considering any restrictions due to system constraints. This includes any additional units scheduled to meet required margins at SEL.	Based on Market provided data plus (if required) actions by ENCC
NO1	Sum of all the non-wind BMUs in the north dispatch zone	Automatically calculated by ESO systems
NW1	Sum of all the wind BMUs forecast output in the north dispatch zone	Automatically calculated by ESO systems

SO1	Sum of all the non-wind BMUs in the south dispatch zone	Automatically calculated by ESO systems
SW1	Sum of all the wind BMUs forecast output in the south dispatch zone	Automatically calculated by ESO systems
BRITNED	Expected flow on the BritNed Interconnector based on the latest submitted reference program	Market provided data
EWIC	Expected flow on East West Interconnector based on the latest submitted reference program	Market provided data
FRANCE	Expected flow on IFA Interconnector based on the latest submitted reference program	Market provided data
INTIFA2	Expected flow on IFA2 Interconnector based on the latest submitted reference program	Market provided data
MOYLE	Expected flow on the Moyle interconnector based on the latest submitted reference program	Market provided data
A negative value for the Interconnector flow indicates the flow is from UK.		
PS	Pump Storage units	Market provided data
STO	Short Term Operating Reserve (STOR).	Manually adjusted by ESO if any excess is used to offset Regulating Reserve
SB	Small Balancing Mechanism Units (BMUs)	Automatically calculated by ESO systems
Contingency Requirement	A margin of plant that will be maintained in a state to be capable of synchronising in sufficient time to achieve full output for the relevant Cardinal Point.	Automatically calculated by ESO systems. (Usually 0MW at 4 hours ahead stage)
Operating Margin Surplus/Shortfall	Provides an indication of whether the contingency requirement for the cardinal point is satisfied	Automatically calculated by ESO systems
Trigger Level	This value is used in conjunction with the Contingency Requirement. If the Contingency Requirement is not satisfied by the available plant then based on these	Automatically calculated by ESO systems

	trigger levels the ESO will consider whether to issue an Electricity Margin Notification (EMN) to the market. Variable value depending on time of year and day.	
Positive Residual	Indicates by how much the ESO has met its positive margin requirements in terms of SOP demand plus reserve requirements.	Calculated by ESO systems and includes any manual adjustments made by ENCC if required
Imbalance	Indicates how many Bids or Offers the ESO expect to be required to meet SOP demand.	Calculated by ESO systems
Negative Residual	Indicates by how much the ESO has met its negative margin requirements in terms of SOP demand plus reserve requirements.	Calculated by ESO systems and includes any manual adjustments made by ENCC if required
Standing Reserve Requirement (SRR)	Standing reserve has now been replaced by Short Term Operating Reserve (STOR). This is a fixed value depending on the time of day and year.	Calculated value by ESO
Standing Reserve Availability (SRA)	The amount of STOR that is usable is the sum of the STOR declared available	Calculated by ESO systems
Standing Reserve Shortfall (SRS)	The standing reserve shortfall is the difference between the STOR requirement minus the STOR usable indicates if there is a standing reserve shortfall	Automatically calculated by ESO systems
Standing Reserve Excess (SRE)	Indicates if there is an excess of Standing Reserve. Calculated by $SRR - SRA$ .	Automatically calculated by ESO systems
Standing Res Wind Adj (WSRR)	This is an automatically calculated value, used to adjust the standing reserve requirement figure to take into account the potential wind forecasting error	Automatically calculated by ESO systems (Set to 0MW as not currently used in Operating Margin Calculations)
Net Positive Regulating Reserve (PRG)	Regulating reserve is designed to cover for expected levels of plant loss plus demand forecast error that occurs for a specified cardinal point between the final SOP production time and real time.	Calculated by ESO

Positive Reg Res Wind Adj (WPRR)	This is an automatically calculated value to take into account the potential wind forecasting error.	Automatically calculated by ESO systems
Reserve for Response (PRE)	The reserve for response is the amount of reserve that needs to be allocated to synchronised generators so they can be pulled back and instructed to hold frequency response.	Automatically calculated by ESO systems after all contracted response is subtracted from requirement
0% Percentage of Standing Reserve Excess	Not valid anymore.	Not valid anymore
Total Positive Reserve (SCS)	Simple calculation of PRG + PRE.	Automatically calculated by ESO systems
Net Negative Reg Reserve (NRG)	This accounts for wind and demand forecast errors. The current requirement is set to 1300MW	Calculated by ESO
Negative Reg Res Wind Adj (WNRR)	This is an automatically calculated value to take into account the potential wind forecasting error.	Automatically calculated by ESO systems (Currently set at 0MW)
Negative Response Reserve (NRS)	The negative reserve for response is the amount of reserve that needs to be allocated to synchronised generators to allow them to be picked up from SEL to hold high frequency response.	Automatically calculated by ESO systems after all contracted response is subtracted from requirement
Total (Negative Reserve)	Simple calculation of NRG + NRS.	Automatically calculated by ESO systems
Maximum Loss (Generation)	The maximum generation loss is determined by the maximum credible loss on the system at the CP for this SOP.	Manually adjusted by ESO
Maximum Loss (Demand)	The maximum demand loss is determined by the maximum credible demand loss on the system at the CP for this SOP	Manually adjusted by ESO