Enduring Connection Policy (ECP) 2.4

Constraints Analysis for Wind & Solar

Area Results Overview 21st May 2025





ECP-2.4 - Background



- The Enduring Connection Policy (ECP) 2-4 is the fourth batch of connection offers for Renewable Energy Sources (RES) planned under ECP 2 by the Commission for Regulation of Utilities (CRU).
- The ECP 2-4 Constraints Analysis is carried out by EirGrid (as directed by CRU/20/060 decision on ECP 2) to forecast dispatch down levels for ECP 2-4 wind and solar projects.
- EirGrid on 31 March 2025 published 12 regional constraints reports to provide ECP 2-4 developers with information on forecasted dispatch down levels in each network region.
- ECP 2-4 generation connection offers include:

Wind	Solar	Battery
509 MW	1839 MW	1703 MW



Key Metric: Total Dispatch Down

Total Dispatch Down (DD) = Surplus + Curtailment + Constraint

		Study Sequence	
TDD Type and Definition	1. Surplus DD applied for energy balancing when generation exceeds demand plus interconnector export.	2. Curtailment DD applied to ensure operational limits are met.	3. Constraint DD applied to manage network constraints. This is applied to solve local transmission issues.
ECP-2.3 Approach	 Non-PD to reduce output on a pro- rata basis. If surplus is unresolved by non-PD reduction, PD reduce output on a pro- rata basis. 	 Reduce PD and non-PD output where not already on zero output on a pro- rata basis. 	 Proposed according to Enduring approach from SEM-22-009: Non-PD to reduce output on a pro-rata basis. If constraint is unresolved by non-PD reduction, PD reduce output on a pro- rata basis.
ECP-2.4 Approach	• As per ECP-2.3	• As per ECP-2.3	• As per ECP 2-3, but with pro-rata included in 2027 and 2029.



Study Assumptions

Wind, Offshore Wind and Solar Profiles

- Onshore wind profiles from the year 2020 were used.
- Each area profile is a recorded profile from a representative node in that area.
- Solar and offshore wind profiles have been obtained from an external vendor and have been synthesised from 2020 data.

Interconnectors

- 2027: Moyle, EWIC, Greenlink
- 2029: Moyle, EWIC, Greenlink, Celtic, North-South 2
- Future Grid: Moyle, EWIC, Greenlink, Celtic, North-South 2, LirIC, 2nd IE to France IC

Reinforcements

- 2027 & 2029: based upon current estimated delivery dates from latest Network Delivery Portfolio (NDP).
- Future Grid: network aligned with the SOEF 1.1 Roadmap network.







Operational Assumptions

Operational Limits (applied in Curtailment Run)	Assumption	Network Op. Limits & Rules	
Non-Synchronous Generation	2027 - 85% 2029 - 90% Future Grid - 95%	(applied in Constraint Run) Line/Cable limits	
Operational Limit For Inertia	2027 - 23,000 MWs (Sync comp included) 2029 - 23,000 MWs (Sync comp included) Future Grid - 23,000 MWs (Sync comp included)	N - 1	
Minimum Sets (IE, NI)	2027 - 7 (4,3) 2029 - 4 (2,2) Future Grid - 3 (No jurisdictional split)	N - G SPS	
Reserve	POR, SOR, TOR I, and TOR II		

Installed Capacity (GW)



Comparison of Installed Capacity in ECP 2.1 - 2.4



Comparison of Installed Capacity in ECP 2.1 - 2.4



IE Total Dispatch Down and Generation (TWh) (Wind and Solar)



Ireland Dispatch Down (%)



Ireland Dispatch Down (%)



Ireland Dispatch Down (%)



Ireland Dispatch Down (%)



Total Ireland Dispatch Down by Technology (%)



Total Ireland Dispatch Down by Technology (%)



Total Ireland Dispatch Down by Technology (%)



Total Ireland Dispatch Down by Technology (%)



Total Ireland Dispatch Down by Technology (%)





ECP-2.4 - Key Messages

- The general trend in the dispatch down is similar to ECP 2.3 constraint forecast results
- Grandfathering of surplus and constraints leads to significantly higher volumes of Total Dispatch Down(TDD) for non-priority generators.
- In the longer-term scenarios, surplus becomes a more significant component of TDD with increasing renewable capacity (with offshore).
- As study years progress the percentage of constraint decreases due to reinforcements to the network.
- Interconnection plays an important role in managing surplus and TDD assuming that the flows on the interconnectors are aligned with market dynamics.
- Batteries have a positive impact on reducing surplus and TDD.



Area Results





Subgroups



- Constraint subgroups are consistent with ECP-2.3.
- Subgroups are consistent across network year scenarios to allow for benchmarking and comparisons.
- Constraints subgroupings are part of the ECP analysis to ensure balanced allocation of congestions. This is done to overcome PLEXOS modelling limitations as the tool is a cost-optimisation model and may over constrain certain nodes for a given contingency.
- This study does not act to predict future wind dispatch tool subgroups rather it aims to enable appropriate allocation of network constraints within the boundaries of the ECP-2.4 studies.
- Future iterations of the ECP constraint reports will re-assess these constraint groups.





²⁴Area A, B & C

Table 1 : List of Reinforcements connecting to Area A, B and C

Year	Reinforcement/Project	Area
2027	Binbane - Cathleen's Fall 110 kV Line uprate	А
2027	Cashla - Dalton 110 kV circuit 1 (DLR)	В
2027	Cashla-Salthill 110 kV Thermal Uprate	В
2027	Castlebar-Cloon 110 kV Line Uprate	В
2027	Cathaleens Fall - Coraclassy 110 kV circuit 1 (DLR)	А
2029	Dalton 110 kV Busbar	В
2027	Flagford - Sliabh Bawn 110 kV circuit uprate	С
2027	Galway 110 kV Station Redevelopment Project	В
2027	Glenree - Moy 110 kV Line Uprate	В
2027	Lanesboro - Mullingar 110 kV Thermal Uprate	С
2027	Lanesboro - Sliabh Bawn 110 KV Line Uprate	С
2027	Sligo 110 kV Station - Shrananagh 1 & 2 Bay uprates	В
2029	Castlebar - Dalton 110 kV	В
2029	Drumkeen - Clogher 110 kV circuit	А
2029	Flagford Sligo Capacity Needs*	В
2029	North Connacht 110 kV Project*	В
2029	Oldstreet - Woodland 400 kV circuit	C

Table 2 : Sample list of Contingencies and line overloads in these areas

Overloaded Line	Contingency
Line (Lanesboro coupler_110_1)	Loss of Flagford Louth 220
Line (Carrick on Shannon - Arigna-T_110_1)	Loss of Flagford-Srananagh 220 circuit 1
Line (Letterkenny - Golagh-T_110_1)	Loss of Binbane - Cath Fall (or Clogher)
Line (Cathaleens Fall - Srananagh_110_1)	Loss of Cath Fall -Srananagh 2
Line (Dalton coupler_110_1)	Loss of Castlebar Cloon
Line (Flagford - Sligo_110_1)	Loss of Carrick on Shannon - Arigna T
Line (Bellacorick - Castlebar_110_1)	Loss of Cunghill Sligo
Line (Castlebar - Dalton_110_1)	Loss of Cunghill Sligo



Total Dispatch Down in Area A

			ŀ	A, B I	North	n sola	ar												Α,	B No	rth w	/ind														G No	orth	wind				
			S	oları	non-p	oriori	ity						w	ind r	non-j	oriori	ty								win	d pri	ority								W	/ind r	non-p	riorit	y			
60%		eger Cor Cur Sur	n d hstra tailm plus	iint % nent %	% %																																					
al Dispatch Down (%) %00 %00 %00 %00 %00 %00 %00 %00 %00 %00					9.0%							22.4%	62.6%		35.3%	37.4%		%	9.8%	6.2%														961				35.4%	48.7%			
20% 10%	5.6% 9.2%	13.5% 4.4% 7.3%	10.0%	8.6% 8.9%	15.0% 5.1% 9	5.4% 4.9%	10.8%	15.0%	20.8%	31.6%	6.1% 23.3%	13.0% 4.5%		36.4%	5.8%	9.0%	25.3%	12.6% 15.19	22.7%	31.5%	31.6%	4.1% 23.3%	6.6% 22.4%				4.4%				4.7%		6.1% 9.1%	13.0% 4.5% 10.4	4.7%	10.4%	5.8% 10.8%	9.0%		12.6% 4.2%	22.7%	31.5%
	2027 50%	2027 ECP	2029 50%	2029 ECP	2029 wo Battery	FG ECP	FG ECP 3.10ffshore	FG ECP + 5 GW Offshore	FG ECP wolC + 5 GW Offshore	2027 Initial	2027 50%	2027 ECP	2029 Initial	2029 50%	2029 ECP	2029 wo Battery	FG ECP	FG ECP 3.10ffshore	FG ECP + 5 GW Offshore	FG ECP wolC + 5 GW Offshore	2027 Initial	2027 50%	2027 ECP	2029 Initial	2029 50%	2029 ECP	2029 wo Battery	FG ECP	FG ECP 3.10ffshore	FG ECP + 5 GW Offshore	FG ECP wolC + 5 GW Offshore	2027 Initial	2027 50%	2027 ECP	2029 Initial	2029 50%	2029 ECP	2029 wo Battery	FG ECP	FG ECP 3.10ffshore	FG ECP + 5 GW Offshore	FG ECP wolC + 5 GW Offshore

Total Dispatch Down in Area B

	A, B North solar	A, B No	rth wind	B South solar	B Sou	th wind	C solar	C wind
	solar non-priority	wind non-priority	wind priority	solar non-priority	wind non-priority	wind priority	solar non-priority	wind non-priority
60%	Legend ■ Constraint % ■ Curtailment % ■ Surplus %							
50%								
(%) u								
8 40% 0		6.2%						
I Dispatch		22.4% 62.6% 37.4% 9.8%						
Tota 70%	9.0	1.6% 23.3% 36.4% % 15.1	. 6% 2. 4%	4.9%			8	6 .1%
10% 0%	3.8% 5.7% 9.2% 13.6% 9.2% 10.0% 8.9% 14.9% 5.0 5.4% 4.9% 11.0% 21.2%	6.8% 6.8% 4.8% 4.8% 6.3% 25.3 13.4% 25.3 13.8% 25.3 13.8% 25.3 13.8% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4% 25.3 13.4\% 25.3\% 25.3 13.4\% 25.3\% 25\% 25\% 25\% 25\% 25\% 25\% 25\% 25\% 25\% 25	31, 4.4% 23.39 7.0% 22 4.7% 3.9% 4.8%	5.8% 4.5% 13.6% 4.5% 8.6% 5.0 5.0 5.14% 5.0 5.0 5.13% 2.1.3% 2.1.3% 2.1.3%	4.8% 10.6% 3.8% 4.5% 7.7% 7.1% 6.5% 10.3% 10.3% 27.6%	5.7% 3.7%	5.8% 4.5% 4.5% 4.5% 4.5% 6.0 5.4% 1.1.0% 5.0 5.1.3% 5.0 5.0 5.1.3% 5.0 5.0 5.1 5.4% 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	6.8% 8.8% 14.3% 8.8% 6.3% 8.6% 9.7% 8.6% 13.8% 3.4 33.4
	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 29 wo Battery FG ECP 6W Offshore GW Offshore GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 ECP 2029 ECP 2029 ECP 2029 ECP 2029 ECP 7 3.10ffshore GW Offshore GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 2029 ECP 7 Diffishore GW Offishore GW Offishore	2027 50% 2027 ECP 2029 50% 2029 ECP 29 wo Battery FG ECP 3.10ffshore GW Offshore GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 1nitial 2029 50% 2029 ECP 2029 ECP 76 ECP 73.10ffshore GW Offshore GW Offshore	2027 Initial 2027 50% 2029 Initial 2029 Initial 2029 ECP 2029 ECP 2029 ECP 2029 ECP 2029 ECP 7 Offshore GW Offshore GW Offshore	2027 Initial 2027 50% 2027 50% 2029 Initial 2029 50% 2029 50% 2029 50% 2029 50% 2029 50% 2029 50% 2029 60% FG ECP 9 3.10ffshore GW Offshore GW Offshore	2027 50% 2027 ECP 2029 50% 2029 ECP 29 wo Battery FG ECP 3 3.10ffshore GW Offshore GW Offshore
	202 FG ECF FG ECP + 5 B ECP wolC + 5	202 FG ECF FG ECP + 5 ECP wolC + 5	202 FG ECF FG ECP + 5	202 FG ECF FG ECP + 5	202 FG ECF FG ECP + 5	202 FG ECP FG ECP + 5	202 FG ECF FG ECP + 5 B ECP wolC + 5	202 FG ECF FG ECP + 5 ECP wolC + 5
				U U			U U	

Total Dispatch Down in Area C

		C solar	C w	ind	J Country solar	J Country wind
		solar non-priority	wind non-priority	wind priority	solar non-priority	wind non-priority
	90% 80%	Legend Constraint % Curtailment % Surplus %				
(%) uw	70% 60%					
tch Do	50%		8		8	% %
Dispa	40%		ei ei		51.5% 51.5% 28.7%	54.5 68.0% 65.6 15.2%
Total	30%				44.6% 45.3% 44.1% 33.2	47.5% 56.6% 59.59 26.9% 20.5
	20%		31.8% 6.1% % 12.9%	31.8%	20%	30.4%
	10% 0%	5.8% 13.6% 13.6% 14.8% 14.8% 14.8% 14.8% 14.8% 14.8% 14.8% 14.8% 14.5% 15.5% 15.5% 21.3	5.3% 8. 11.9% 8.6 1.9% 8.6 7.9% 12.3% 11.6% 21.8	6.2% 6.1% 8.8%	9.7% 9.6% 9.6% 14.8% 14.8% 11.0% 15.5% 21.3	5.3% 11.9% 7.9% 11.6% 21.8
		2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 2029 wo Battery FG ECP 3.10ffshore FG ECP 4.5 GW Offshore FG ECP wolC + 5 GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 2029 Wo Battery FG ECP 3: 10ffshore FG ECP + 5 GW Offshore FG ECP wolC + 5 GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 2029 Wo Battery FG ECP 3. 10ffshore FG ECP 3. 10ffshore FG ECP 4.5 GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 Wo Battery FG ECP 3. 10ffshore FG ECP + 5 GW Offshore FG ECP wolC + 5 GW Offshore	2027 50% 2027 ECP 2029 50% 2029 ECP 2029 wo Battery FG ECP 3.10ffshore FG ECP + 5 GW Offshore FG ECP wolC + 5 GW Offshore

Area G & J

Table 3 : List of Reinforcements connecting to Area A, B and C

Year	Project Name	Area
2027	Arva - Carrick-on-Shannon 110 kV line uprate	G
2027	Belcamp Shellybanks 220 kV Cable	J
2027	Coolnabacky - Portlaoise 110 kV line uprate	J
2027	Derryiron 110 kV Busbar Uprate	J
2027	Drybridge - Oldbridge - Platin 110 kV line uprate	G
2027	Gorman - Platin 110 kV line uprate	G
2027	Kinnegad 110 kV station, Derryiron 110 kV bay conductor uprate	J
2027	Laois Kilkenny (Coolnabacky) 400 kV Station - New Station &	
2027	Associated Lines & Station Works	J
2027	Louth - Rathrussan 110 kV No 1 Line Uprate	G
2027	Maynooth - Woodland 220 kV line uprate	J
2027	Newbridge - Cushaling 110 kV line, Stations bay conductors and lead-	
2027	in conductor uprate	J
2027	Thornsberry 110KV Station Busbar uprate	J
2029	Baroda - Monread 110 kV circuit (DLR)	J
2029	Baroda - Newbridge 110 kV circuit (DLR)	J
2029	Derryiron - Thornsberry 110 kV Line Uprate	J
2029	Dunstown 400 kV Series Capacitor	J
2029	Meath Hill - Louth 110 kV	G
2029	New 400 kV Strategic Spare Transformer (Dunstown)	J
2029	North South 400 kV Interconnector - Rol	G
2029	Oldstreet-Woodland 400 kV Series Capacitor	J

Table 4 : Sample list of Contingencies and line overloads in these areas

Overloaded Line	Contingency
Line (Maynooth - Timahoe_110_1)	Loss of Derryiron Kinnegad
Line (Finglas - Mooretown_220_1)	Loss of Corduff Mooretown 220 1
Line (Maynooth - Blake-T_110_1)	Loss of Castlebagot Maynooth 220 1
Line (Maynooth - Rinawade_110_1)	Loss of Corduff Blundelstown (or Mullingar)
Line (Derryiron - Kinnegad_110_1)	Loss of Maynooth - Timahoe
Line (Rinawade - Dunfirth-T_110_1)	Loss of Corduff Blundelstown (or Mullingar)
Line (Lisdrum - Lislea 110 1)	Loss of Louth - Ratrussan
Line (Drybridge - Louth_110_1)	Loss of Garballagh Platin
Line (Drybridge - Louth_110_1)	Loss of Gorman Louth 220



• 2029 - 8 reinforcements.

Total Dispatch Down in Area G

					G No	orth s	solar													GI	Nort	h win	d													J Ci	ty, G	Sou	th so	olar			
				so	olar r	non-p	oriori	ity						wi	nd no	on-pr	iorit	y								wind	pric	ority								so	lar n	on-p	riori	ty			
50% 45% 40% 35% 30% 22% 20% 15% 10% 5%		ege Co Cu Su	nd nstra rtaili rplus % ⁹ ³ ⁴ ² ⁸	aint men s %	% t %	8.6% 3.1%	14.8% 5.0%	% 3.0%	11.0%	15.5%	21.3%	1% 3.1% 9.1%	13.0% 4.5% 10.4%	%	10.4%	% 10.8%	8.6% 3.2% 35.4%	48.7%	12.7% 4.2%	21.4%	29.9%		6 9.1%	5% 10.4%								8	10.6%	. 36 6.8%	13.6% 4.5% 4.2%	7.6%	4.4%	8.6% 3.1% 3.0%	14.8% 5.0% 4.0%	% 4.9%	11.0%	15.5%	21.3%
0%	2027 Initial	2027 50% 5.8	2027 ECP	2029 Initial	2029 50% 3.3%	2029 ECP	2029 wo Battery	FG ECP 5.4	FG ECP 3. 10ffshore	FG ECP + 5 GW Offshore	PG ECP WOLC + 5 GW Offshore	2027 50% 6.	2027 ECP	2029 Initial 4.7	2029 50%	2029 ECP 5.6	2029 wo Battery	FG ECP 2.8%	FG ECP 3.10ffshore	FG ECP + 5 GW Offshore	FG ECP wolC + 5 GW Offshore	2027 Initial	2027 50% 4.19	2027 ECP 6.	2029 Initial	2029 50%	2029 ECP 3.3%	2029 wo Battery	FG ECP	FG ECP 3.10ffshore	FG ECP + 5 GW Offshore 3.7%	FG ECP wolC + 5 GW Offshore 4.7	2027 Initial	2027 50% 5.8	2027 ECP	2029 Initial	2029 50% 3.3%	2029 ECP	2029 wo Battery	FG ECP 5.4	FG ECP 3.10ffshore	FG ECP + 5 GW Offshore	FG ECP wolC + 5 GW Offshore

Total Dispatch Down in Area J



Area D, E, F & I

Table 5 : List of Reinforcements connecting to Area A, B and C

Year	Project Name	Area
2027	Moneypoint Synchronous Condenser	E
2027	New 400 220 kV Transformer for Moneypoint Sub-Station	E
2027	Prospect Tarbert 220 kV Cable Replacement Project	E
2027	Bandon Dunmanway 110 kV circuit thermal capacity	F
2029	Ardnacrusha - Ennis 110kV circuit DLR and related works	D
2029	Drumline - Ennis 110 kV	D
2029	Cross Shannon 400 kV Cable	E
2029	Moneypoint 400 kV Series Capacitor	E
2029	Bandon Raffeen 110 kV circuit thermal capacity	F
2029	Knockraha - Barrymore 110 kV circuit	I
2029	Cahir - Barrymore 110 kV circuit	I

- 2027 3 reinforcements & 1 Sync Comp.
- 2029 7 reinforcements.
- Overall reduction in TDD in 2029 from 2027 in Areas D, E, F and I.

Table 6 : Sample list of Contingencies and line overloads in these areas

Overloaded Line	Contingency
Line (Clahane - Trien_110_1)	Loss of Kilpaddoge Knockanure 1
Line (Knockraha - Barrymore-T_110_1)	Loss of Cahir-Doon
Line (Clashavoon - Macroom_110_1)	Loss of Clashavoon Knockraha 220
Line (Bandon - Raffeen_110_1)	Loss of Clashavoon Knockraha 220



Total Dispatch Down in Area D



Total Dispatch Down in Area E

	D and E North solar		D and E North wind	E,F & I solar	E,F &	l wind
	solar non-priority	wind non- priority	wind priority	solar non-priority	wind non-priority	wind priority
35% 30%	Legend Constraint % Curtailment % Surplus %	4%			2.5% 3.2%	
(%) 25% 25% 20%	2.3%	<mark>2.1%</mark> 2.4%		23%	6 12.0% 2.3% 2.9%	
Total Dispai	4.5%	5% 27.6%		4.5% 1% 5.1%	4% 4.3% 2:2% 1% 5.7% 22.8% 31.4%	
5%	5.8% 2.3% 5.8% 2.3% 13.7% 3 8.7% 3 14.9% 5.4% 11.0% 11.0%	10.3%	3.9% 6.3% 3.2% 4.3% 2.7% 3.7%	5.8% 2.3% 13.7% 3 8.7% 3 5.4% 14.9% 11.0% 15.5%	2.6% 3.0% 2.6% 6.0% 3.0% 2.1% 7.0% 6.0% 3.2% 5.6% 2.4% 3.3% 2.9% 5.9% 3.3%	2.6% 3.9% 2.4% 6.3% 2.2% 4.3% 3.7% 3.7%
	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 2029 Wo Battery FG ECP 3.10ffshore FG ECP + 5 GW Offshore FG ECP wolC + 5 GW Offshore	FG ECP 3.10ffshore FG ECP + 5 GW Offshore FG ECP wolC + 5 GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 2029 wo Battery FG ECP 3.10ffshore FG ECP + 5 GW Offshore FG ECP wolc + 5 GW Offshore	2027 Initial 2027 50% 2027 50% 2029 Initial 2029 50% 2029 ECP 2029 wo Battery FG ECP 3.10ffshore FG ECP + 5 GW Offshore FG ECP wolC + 5 GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 2029 Wo Battery FG ECP 3.10ffshore FG ECP + 5 GW Offshore FG ECP wolC + 5 GW Offshore	2027 Initial 2027 50% 2027 ECP 2029 Initial 2029 50% 2029 ECP 2029 Wo Battery FG ECP 3.10ffshore FG ECP + 5 GW Offshore FG ECP wolC + 5 GW Offshore

Total Dispatch Down in Area F



Total Dispatch Down in Area I



Area H1, H2 & K

Table 7 : List of Reinforcements connecting to Area A, B and C

Year	Project Name	Area
2027	Lisheen - Thurles 110 kV: DLR	H1
2027	Crane - Wexford 110 kV: uprate	H2
2027	New Ballyvouskill 220-110 kV Transformer	H2
2029	Killonan 220 kV Station Refurbishment	H1

- 2027 3 reinforcements
- 2029 1 reinforcements.
- Overall reduction in TDD in 2029 from 2027 in Areas H1, H2 and K.

Table 8 : Sample list of Contingencies and line overloads in these areas

Overloaded Line	Contingency
Line (Cauteen - Killonan_110_1)	Loss of Cauteen Tipperary
Line (Arklow T2101)	Loss of Arklow 220-110 2
Line (Great Island - Kellis_220_1)	Loss of Arklow Carrickmines 220 1
Line (Great Island - Kellis_220_1)	Loss of Great Island - Lodgewood 220
Line (Killoteran - Waterford_110_1)	Loss of Cullenagh-Waterford
Line (Carlow - Kellis_110_2)	Loss of Dunstown-Kellis 220
Line (Arklow T2101)	Loss of Lodgewood 220-110 1
Line (Cahir - Barrymore-T_110_1)	Loss of Cahir-Doon
Line (Cahir - Doon_110_1)	Loss of Cullenagh-Knockraha 220
Line (Cullenagh - Waterford_110_1)	Loss of Cullenagh-Great Island 220
Line (Great Island T2102)	Loss of Cullenagh-Great Island 220



Total Dispatch Down in Area H1



Total Dispatch Down in Area H2



Total Dispatch Down in Area K







