Constraint Forecast Analysis Reports for Enduring Connection Policy (ECP) 2.5

Results for Area K for Solar and Wind

Version 1.0

11/02/26

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Revision History						
Revision	**Date**	**Description**	**Originator**	**Reviewer**	**Checker**	**Approver**
R0	11.02.2026	Overview results and node results in Area K	ECP Team	ECP Lead	ECP Senior Lead	Economic Analysis Manager

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1 Overview for Area K

Figure 1-1 Network Map for Area K

The transmission network in Area K and the surrounding area is shown in Figure 1-1. Area K, in the south of the country includes a mix of wind and solar generation. The counties that are covered in this area include Tipperary (partial) and Waterford (most of). The 220 kV circuits are shown in green and the 110 kV circuits in black. Possible future transmission stations and lines for the connection of new generation are also shown on the map above.

1.1 Introduction

This document is for customers wishing to see the estimated Total Dispatch Down for Area K. For information on the study assumptions, methodology and Ireland summary report refer to the ECP webpage[1]. This document contains two main sections:

Section 1: An overview of the estimated surplus, curtailment, and constraint values for Area K for a range of scenarios. There is a total of six core ECP-2.5 studies and eight sensitivity studies presented in this report. The results highly depend on the study assumptions, which are described in the Assumptions Document.

Section 2: Area K Node Results: provides a table of results for each renewable generator type at every node in the area. This table documents the installed capacity, available energy, surplus, curtailment, and constraint for every node in Area K.

1.2 Key Summary

For Area K, the dominant power flows tend to be towards the load centres on the east coast and the interconnectors. However, with Celtic interconnector active, at time the power flow can be towards the Area F. These flow patterns are relevant when seeking to understand constraint apportionment in the simulation. Constraints in Area K can be caused both by local and wider system issues. Constraints in the model are optimised on a system-wide basis so, in theory, an increase in the installed generation in another area may increase constraints in Area K.

[1] https://www.eirgrid.ie/industry/customer-information/ecp-constraint-forecast-reports#Enduring%20Connection%20Policy%20(ECP)

In addition to the power flows out of Area K, there are also power flows across or through Area K. Renewable power from the south-west will flow across the transmission network and at least some of this power will flow through Area K. The power flowing out of Area K meets and joins with power flows from other areas, as the power flows towards the north-east region.

Area K is affected by issues in other areas and especially in the Area H2 through which the power flows towards the north-east region. The loss of connecting circuits can cause overloading on other neighbouring circuits. The Greenlink and Celtic interconnectors provide additional extraction points during high-RES scenarios. Thus, generation in Area K and H2 tries to push power towards the north-east through the 220 kV and 110 kV circuits majority of times. List of binding contingency and overloaded lines are given in ECP 2.5 Ireland summary report in ECP webpage.

1.3 Generation Overview

A detailed system-level overview of the renewable generation scenarios used in these studies is given in the area non-specific all Island Summary Report. The distribution of generation in each scenario based on technology, area and node is given in Assumptions document. The node-level installed wind and solar generation for Area K in the "ECP" scenario is given in Table 1-1. Installed and controllable energy in Area K is given in Table 1-2 for solar and Table 1-3 for wind.

Node	SO	Status	Solar	Wind
Butlerstown	DSO	due to connected	59	
Butlerstown	DSO	connected		2
Dungarvan	DSO	connected	4	
Dungarvan	DSO	due to connected	43	
Dungarvan	TSO	due to connected	85	
Dungarvan	DSO	connected		5
Rathnaskilloge	TSO	connected	95	
Woodhouse	TSO	due to connected		119
Woodhouse	TSO	connected		20
Total			286	146

Table 1-1 Wind and Solar Generation Summary (MW) in Area K for Generation Scenario "ECP"

Solar	ECP	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Ireland (MW)	9312	9312	9312	9312	9312
Installed Area K (MW)	286	286	286	286	286
Installed Controllable Area K (MW)	286	286	286	286	286
Available Controllable Area K (GWh)	335	335	335	335	335

Table 1-2 Installed MW and Available GWh for Area K - Solar

Wind	ECP	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Ireland (MW)	8197	11271	13197	13197	13197
Installed Area K (MW)	146	146	146	146	146
Installed Controllable Area K (MW)	139	139	139	139	139
Available Controllable Area K (GWh)	422	422	422	422	422

Table 1-3 Installed MW and Available GWh for Area K - Wind

1.4 Subgroups

There is a post-processing step between the PLEXOS simulation and this report to ensure an appropriate allocation of constraints among generators sharing the bottlenecks. This is done by creating constraint subgroups within an area or spanning multiple different areas. The subgroups are selected based on an assessment of the raw PLEXOS results and based on our experience of dispatch down on the real system. The subgroups are chosen to group those generators into a constraint group that are expected to experience similar constraint levels. The subgroups are selected on the basis that they share a common transmission bottleneck, or they are electrically close to a congested area within the network.

The review of Area K results identified constraint subgroups for solar and wind generation combining Area K and Area H2. The subgroup nodes are given in Table 1-4. The constraints are shared on a pro-rata basis amongst the non-priority generators in the subgroup ahead of priority generators. The individual node level dispatch down is given in Section 2.

Subgroup	Nodes
H2 & K	Butlerstown
	Dungarvan
	Rathnaskilloge
	Woodhouse

Table 1-4 Area K generator nodes and their subgroups

Figure 1-2 Subgroup H2 & K (subgroups outlined by blue dashed line)

1.5 Area K – Summary Results

The Total Dispatch Down results for Area K are provided below in Table 1-5 to Table 1-10 and Figure 1-3 to Figure 1-5. These include the breakdown between surplus, curtailment, and constraint. The Table 1-6, Table 1-8, and Table 1-10 gives the results of constraint sensitivity scenario. The Total Dispatch Down percentages are based on the total available energy. The Total Dispatch Down is the sum of surplus, curtailment, and constraint. The node level breakdown of surplus, curtailment and constraint are given in Section 2. The results show that in most cases the system level Total Dispatch Down increases with additional installed capacity due to a significant increase in surplus. However, the Total Dispatch Down reduces when the 2030 studies are compared with 2028 and there is a further reduction in the Future Grid scenario owing to increased demand, network reinforcement, interconnection, and relaxed system level operational limits.

For each generation type in Area K (solar non-priority, wind non-priority and wind priority), the total installed capacity in MW and total available generation in GWh are given in Table 1-5 to Table 1-10. The total generation in GWh after dispatch down and the corresponding percentage Total Dispatch Down are also included in the tables for each scenario. Details on the generation and network scenarios are given in the Assumptions document and Methodology report.

1.5.1 Non – priority Solar Results for H2 & K

The solar non-priority data is given in the following table.

Area K (H2 & K)	Year	Initial	50%	ECP	ECP wo Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Capacity (MW)	2028	103	195	286					
Installed Capacity (MW)	2030	103	195	286	286	286			
Installed Capacity (MW)	FG						286	286	286
Available Energy (GWh)	2028	121	228	336					
Available Energy (GWh)	2030	121	228	335	335	335			
Available Energy (GWh)	FG						335	335	335
Generation (GWh)	2028	83	181	232					
Generation (GWh)	2030	94	183	235	199	217			
Generation (GWh)	FG						239	222	264
Surplus (%)	2028	8 %	13 %	23 %					
Surplus (%)	2030	8 %	15 %	25 %	33 %	31 %			
Surplus (%)	FG						23 %	29 %	18 %
Curtailment (%)	2028	4 %	4 %	6 %					
Curtailment (%)	2030	2 %	3 %	4 %	5 %	4 %			
Curtailment (%)	FG						2 %	3 %	2 %
Constraint (%)	2028	20 %	3 %	2 %					
Constraint (%)	2030	11 %	2 %	1 %	3 %	1 %			
Constraint (%)	FG						4 %	2 %	1 %
Total Dispatch Down (%)	2028	32 %	21 %	31 %					
Total Dispatch Down (%)	2030	22 %	20 %	30 %	41 %	35 %			
Total Dispatch Down (%)	FG						29 %	34 %	21 %

Table 1-5 Surplus, Curtailment and Constraint for Solar Non-Priority in Area K (H2 & K)

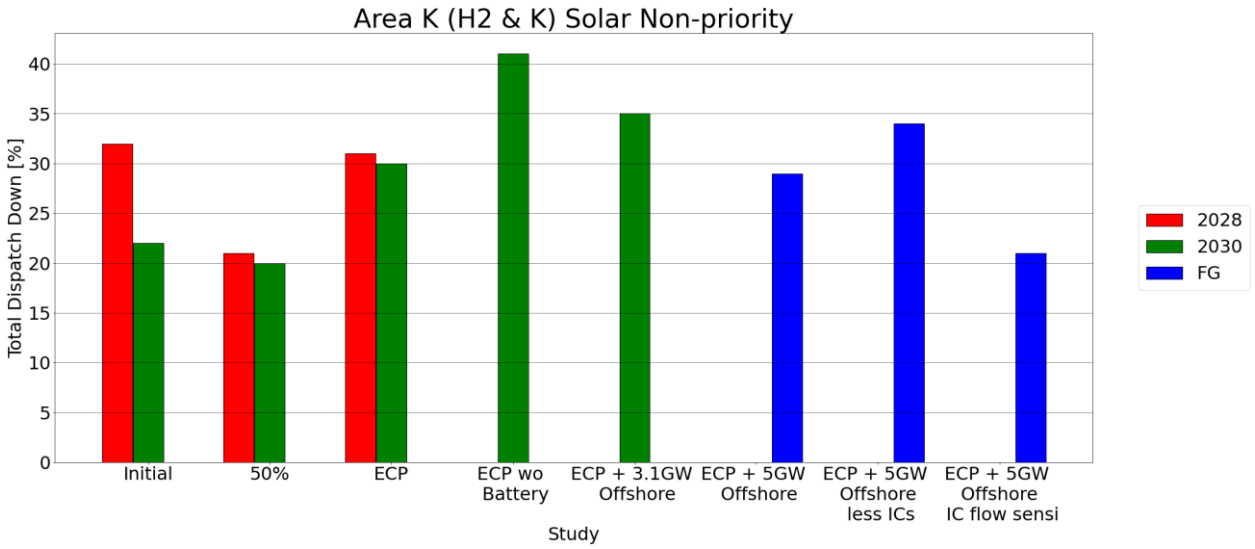

Figure 1-3 Results Solar Non-Priority Area K (H2 & K)

Area K (H2 & K)	Year	ECP	ECP + 3.1GW Offshore
Installed Capacity (MW)	2028	286	
Installed Capacity (MW)	2030	286	286
Available Energy (GWh)	2028	336	
Available Energy (GWh)	2030	335	335
Generation (GWh)	2028	232	
Generation (GWh)	2030	235	217
Surplus (%)	2028	23 %	
Surplus (%)	2030	25 %	31 %
Curtailment (%)	2028	6 %	
Curtailment (%)	2030	4 %	4 %
Constraint (%)	2028	2 %	
Constraint (%)	2030	1 %	1 %
Total Dispatch Down (%)	2028	31 %	
Total Dispatch Down (%)	2030	30 %	35 %

Table 1-6 Surplus, Curtailment and Constraint for Solar Non-Priority with Sensitivity in Area K (H2 & K)

1.5.2 Non – priority Wind Results for H2 & K

The wind non-priority data is given in the following table.

Area K (H2 & K)	Year	Initial	50%	ECP	ECP wo Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Capacity (MW)	2028	34	76	119					
Installed Capacity (MW)	2030	34	76	119	119	119			
Installed Capacity (MW)	FG						119	119	119
Available Energy (GWh)	2028	104	234	363					
Available Energy (GWh)	2030	103	232	361	361	361			
Available Energy (GWh)	FG						361	361	361
Generation (GWh)	2028	0	149	234					
Generation (GWh)	2030	2	160	239	200	194			
Generation (GWh)	FG						224	210	272
Surplus (%)	2028	16 %	21 %	27 %					
Surplus (%)	2030	12 %	22 %	29 %	34 %	42 %			
Surplus (%)	FG						33 %	38 %	21 %
Curtailment (%)	2028	6 %	5 %	5 %					
Curtailment (%)	2030	5 %	3 %	3 %	4 %	3 %			
Curtailment (%)	FG						2 %	2 %	2 %
Constraint (%)	2028	78 %	11 %	4 %					
Constraint (%)	2030	81 %	6 %	2 %	7 %	2 %			
Constraint (%)	FG						3 %	2 %	2 %
Total Dispatch Down (%)	2028	100 %	36 %	36 %					
Total Dispatch Down (%)	2030	98 %	31 %	34 %	45 %	46 %			
Total Dispatch Down (%)	FG						38 %	42 %	25 %

Table 1-7 Surplus, Curtailment and Constraint for Wind Non-Priority in Area K (H2 & K)

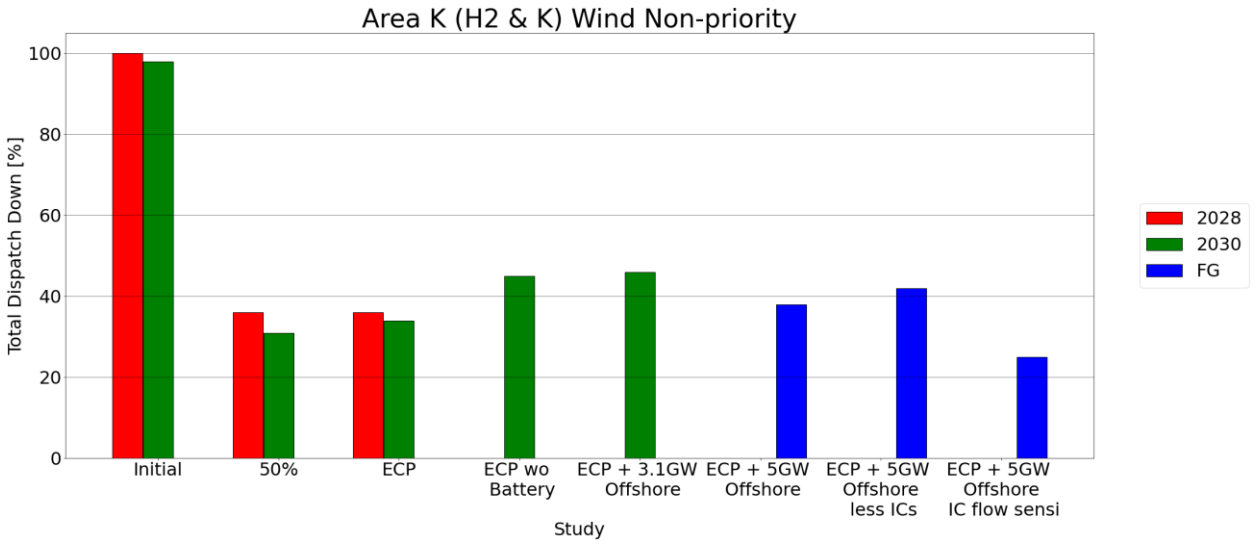

Figure 1-4 Results Wind Non-Priority in Area K (H2 & K)

Area K (H2 & K)	Year	ECP	ECP + 3.1GW Offshore
Installed Capacity (MW)	2028	119	
Installed Capacity (MW)	2030	119	119
Available Energy (GWh)	2028	363	
Available Energy (GWh)	2030	361	361
Generation (GWh)	2028	240	
Generation (GWh)	2030	242	196
Surplus (%)	2028	27 %	
Surplus (%)	2030	29 %	42 %
Curtailment (%)	2028	5 %	
Curtailment (%)	2030	3 %	3 %
Constraint (%)	2028	2 %	
Constraint (%)	2030	1 %	1 %
Total Dispatch Down (%)	2028	34 %	
Total Dispatch Down (%)	2030	33 %	46 %

Table 1-8 Surplus, Curtailment and Constraint for Wind Non-Priority with Sensitivity in Area K (H2 & K)

1.5.3 Priority Wind Results for H2 & K

The wind priority data is given in the following table.

Area K (H2 & K)	Year	Initial	50%	ECP	ECP wo Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Capacity (MW)	2028	20	20	20					
Installed Capacity (MW)	2030	20	20	20	20	20			
Installed Capacity (MW)	FG						20	20	20
Available Energy (GWh)	2028	61	61	61					
Available Energy (GWh)	2030	61	61	61	61	61			
Available Energy (GWh)	FG						61	61	61
Generation (GWh)	2028	50	55	55					
Generation (GWh)	2030	57	57	57	56	56			
Generation (GWh)	FG						57	57	59
Surplus (%)	2028	0 %	0 %	0 %					
Surplus (%)	2030	0 %	0 %	0 %	0 %	0 %			
Surplus (%)	FG						0 %	0 %	0 %
Curtailment (%)	2028	10 %	9 %	10 %					
Curtailment (%)	2030	7 %	6 %	6 %	9 %	7 %			
Curtailment (%)	FG						6 %	6 %	3 %
Constraint (%)	2028	8 %	0 %	0 %					
Constraint (%)	2030	0 %	0 %	0 %	0 %	0 %			
Constraint (%)	FG						0 %	0 %	0 %
Total Dispatch Down (%)	2028	18 %	9 %	10 %					
Total Dispatch Down (%)	2030	7 %	6 %	6 %	9 %	7 %			
Total Dispatch Down (%)	FG						6 %	6 %	3 %

Table 1-9 Surplus, Curtailment and Constraint for Wind Priority in Area K (H2 & K)

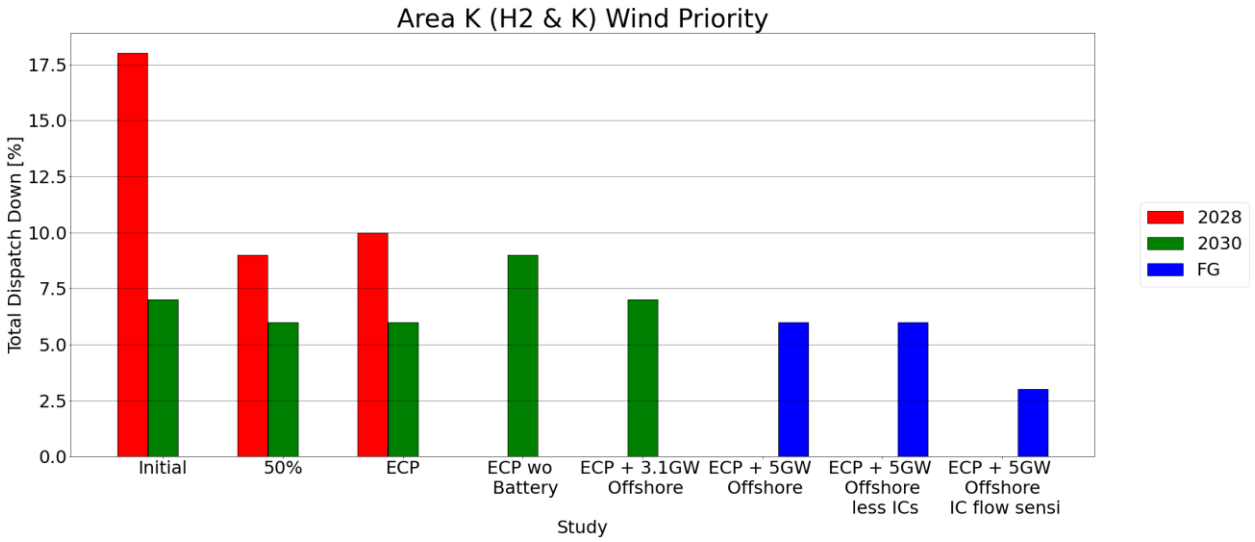

Figure 1-5 Results Wind Priority Area K (H2 & K)

Area K (H2 & K)	Year	ECP	ECP + 3.1GW Offshore
Installed Capacity (MW)	2028	20	
Installed Capacity (MW)	2030	20	20
Available Energy (GWh)	2028	61	
Available Energy (GWh)	2030	61	61
Generation (GWh)	2028	54	
Generation (GWh)	2030	56	56
Surplus (%)	2028	0 %	
Surplus (%)	2030	0 %	0 %
Curtailment (%)	2028	10 %	
Curtailment (%)	2030	6 %	7 %
Constraint (%)	2028	2 %	
Constraint (%)	2030	1 %	1 %
Total Dispatch Down (%)	2028	12 %	
Total Dispatch Down (%)	2030	7 %	8 %

Table 1-10 Surplus, Curtailment and Constraint for Wind Priority with Sensitivity in Area K (H2 & K)

2 Area K Node Results

This section presents results for 4 nodes in Area K.

In each node section:

- One table presents a list of the generators at each node that are included in the study.
- For each generator type (solar not priority, wind not priority or wind priority), one table contains the estimated levels of surplus, curtailment and constraint that generators estimate to experience are reported for all study scenarios. Note that the constraint dispatch down allocation is based on Grandfathering, which results in non-priority generators being reduced ahead of priority generators for constraint reasons.
- In addition to the core studies, one table contains a set of sensitivity studies results are also included, which employs pro-rata allocation of constraints.

Example

If you take Butlerstown, the below table identified which are Grandfathering and Pro-rata, the entire rest of this document is structed in this manner.

Table 2-2	Grandfathering	
Figure 2-2	Grandfathering	
Table 2-3	Pro-rata	From table 2-2 to table 2-3, constraints dispatch down % and total dispatch down % are different.

2.1 Butlerstown

Figure 2-1 - Location of node Butlerstown

Generator	SO	Capacity	Type	Status
Beallough (1)	DSO	1.7	wind uncontrolled	connected
Keiloge Solar (Prev Coolnagapogue Solar Farm Phase 1)	DSO	3.95	solar not priority	due to connected
Carriglong Solar Park	DSO	32.7	solar not priority	due to connected
Pickardstown PV	DSO	8.8	solar not priority	due to connected
Amberhill Community Solar Farm	DSO	4.99	solar not priority	due to connected
Loughdenee Solar	DSO	9.0	solar not priority	due to connected

Table 2-1- Generation Included in Study for Node Butlerstown

The solar not priority data is given in the following table.

Area K	Year	Initial	50%	ECP	ECP wo Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Capacity (MW)	2028		30	59					
Installed Capacity (MW)	2030		30	59	59	59			
Installed Capacity (MW)	FG						59	59	59
Available Energy (GWh)	2028		35	70					
Available Energy (GWh)	2030		35	70	70	70			
Available Energy (GWh)	FG						70	70	70
Generation (GWh)	2028		28	48					
Generation (GWh)	2030		28	49	41	45			
Generation (GWh)	FG						50	46	55
Surplus (%)	2028		13 %	23 %					
Surplus (%)	2030		15 %	25 %	33 %	31 %			
Surplus (%)	FG						23 %	29 %	18 %
Curtailment (%)	2028		4 %	6 %					
Curtailment (%)	2030		3 %	4 %	5 %	4 %			
Curtailment (%)	FG						2 %	3 %	2 %
Constraint (%)	2028		3 %	2 %					
Constraint (%)	2030		2 %	1 %	3 %	1 %			
Constraint (%)	FG						4 %	2 %	1 %
Total Dispatch Down (%)	2028		21 %	31 %					
Total Dispatch Down (%)	2030		20 %	30 %	41 %	35 %			
Total Dispatch Down (%)	FG						29 %	34 %	21 %

Table 2-2 - Surplus, Curtailment and Constraint for Solar non-priority for Node Butlerstown

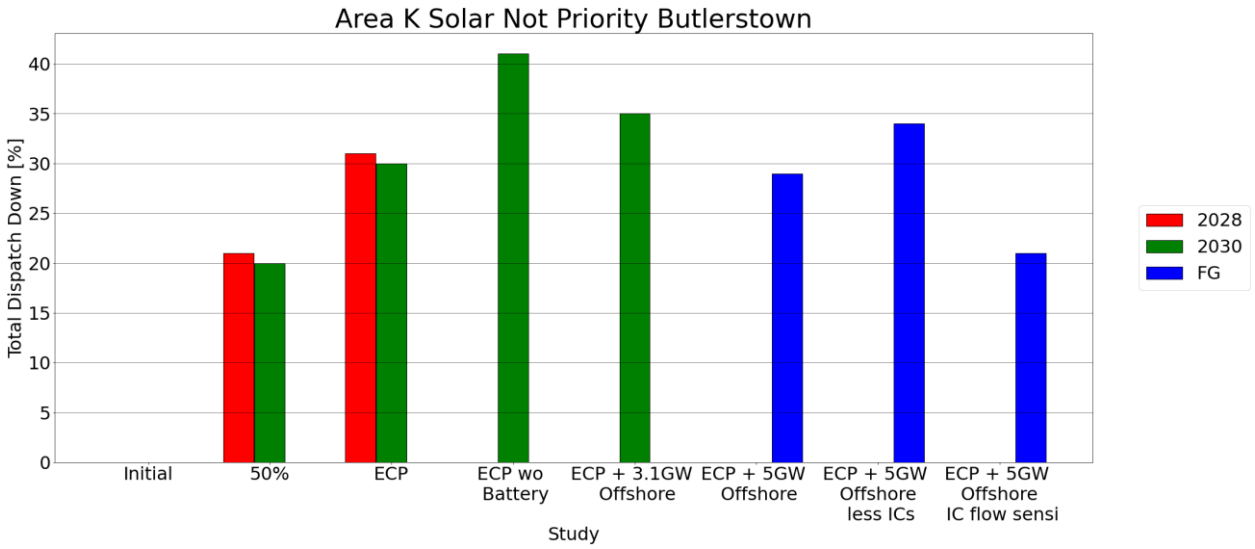

Figure 2-2- Total Dispatch Down for Solar not priority for Node Butlerstown

Area K	Year	ECP	ECP + 3.1GW Offshore
Installed Capacity (MW)	2028	59	
Installed Capacity (MW)	2030	59	59
Available Energy (GWh)	2028	70	
Available Energy (GWh)	2030	70	70
Generation (GWh)	2028	48	
Generation (GWh)	2030	49	45
Surplus (%)	2028	23 %	
Surplus (%)	2030	25 %	31 %
Curtailment (%)	2028	6 %	
Curtailment (%)	2030	4 %	4 %
Constraint (%)	2028	2 %	
Constraint (%)	2030	1 %	1 %
Total Dispatch Down (%)	2028	31 %	
Total Dispatch Down (%)	2030	30 %	35 %

Table 2-3 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Butlerstown

2.2 Dungarvan

Figure 2-3 - Location of node Dungarvan

Generator	SO	Capacity	Type	Status
Ballycurreen (1)	DSO	4.99	wind uncontrolled	connected
Drumroe East Solar Farm	DSO	15.0	solar not priority	due to connected
Foxhall PV	DSO	3.99	solar not priority	due to connected
Cooltubbrid West Solar	DSO	4.0	solar not priority	connected
Kilcannon	DSO	4.95	solar not priority	due to connected
Poulbautia Solar Farm	DSO	19.0	solar not priority	due to connected
Modelligo Solar Farm	TSO	80.0	solar not priority	due to connected
Ballymac Solar	TSO	5.0	solar not priority	due to connected

Table 2-4 - Generation Included in Study for Node Dungarvan

The solar not priority data is given in the following table.

Area K	Year	Initial	50%	ECP	ECP wo Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Capacity (MW)	2028	8	70	132					
Installed Capacity (MW)	2030	8	70	132	132	132			
Installed Capacity (MW)	FG						132	132	132
Available Energy (GWh)	2028	9	82	155					
Available Energy (GWh)	2030	9	82	154	154	154			
Available Energy (GWh)	FG						154	154	154
Generation (GWh)	2028	6	65	107					
Generation (GWh)	2030	7	66	108	92	100			
Generation (GWh)	FG						110	102	121
Surplus (%)	2028	8 %	13 %	23 %					
Surplus (%)	2030	8 %	15 %	25 %	33 %	31 %			
Surplus (%)	FG						23 %	29 %	18 %
Curtailment (%)	2028	4 %	4 %	6 %					
Curtailment (%)	2030	2 %	3 %	4 %	5 %	4 %			
Curtailment (%)	FG						2 %	3 %	2 %
Constraint (%)	2028	20 %	3 %	2 %					
Constraint (%)	2030	11 %	2 %	1 %	3 %	1 %			
Constraint (%)	FG						4 %	2 %	1 %
Total Dispatch Down (%)	2028	32 %	21 %	31 %					
Total Dispatch Down (%)	2030	22 %	20 %	30 %	41 %	35 %			
Total Dispatch Down (%)	FG						29 %	34 %	21 %

Table 2-5 - Surplus, Curtailment and Constraint for Solar non-priority for Node Dungarvan

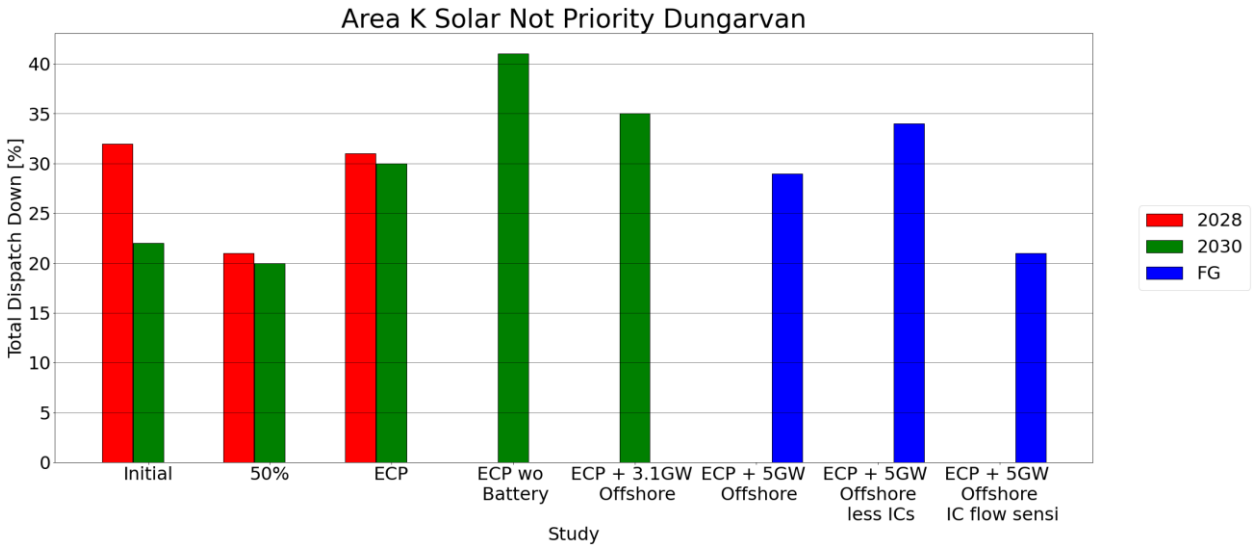

Figure 2-4 - Total Dispatch Down for Solar not priority for Node Dungarvan

Area K	Year	ECP	ECP + 3.1GW Offshore
Installed Capacity (MW)	2028	132	
Installed Capacity (MW)	2030	132	132
Available Energy (GWh)	2028	155	
Available Energy (GWh)	2030	154	154
Generation (GWh)	2028	107	
Generation (GWh)	2030	108	100
Surplus (%)	2028	23 %	
Surplus (%)	2030	25 %	31 %
Curtailment (%)	2028	6 %	
Curtailment (%)	2030	4 %	4 %
Constraint (%)	2028	2 %	
Constraint (%)	2030	1 %	1 %
Total Dispatch Down (%)	2028	31 %	
Total Dispatch Down (%)	2030	30 %	35 %

Table 2-6 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Dungarvan

2.3 Rathnaskilloge

Figure 2-5 - Location of node Rathnaskilloge

Generator	SO	Capacity	Type	Status
Rathnaskilloge	TSO	95.0	solar not priority	connected

Table 2-7- Generation Included in Study for Node Rathnaskilloge

The solar not priority data is given in the following table.

Area K	Year	Initial	50%	ECP	ECP wo Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Capacity (MW)	2028	95	95	95					
Installed Capacity (MW)	2030	95	95	95	95	95			
Installed Capacity (MW)	FG						95	95	95
Available Energy (GWh)	2028	111	111	111					
Available Energy (GWh)	2030	111	111	111	111	111			
Available Energy (GWh)	FG						111	111	111
Generation (GWh)	2028	76	88	77					
Generation (GWh)	2030	87	89	78	66	72			
Generation (GWh)	FG						79	74	87
Surplus (%)	2028	8 %	13 %	23 %					
Surplus (%)	2030	8 %	15 %	25 %	33 %	31 %			
Surplus (%)	FG						23 %	29 %	18 %
Curtailment (%)	2028	4 %	4 %	6 %					
Curtailment (%)	2030	2 %	3 %	4 %	5 %	4 %			
Curtailment (%)	FG						2 %	3 %	2 %
Constraint (%)	2028	20 %	3 %	2 %					
Constraint (%)	2030	11 %	2 %	1 %	3 %	1 %			
Constraint (%)	FG						4 %	2 %	1 %
Total Dispatch Down (%)	2028	32 %	21 %	31 %					
Total Dispatch Down (%)	2030	22 %	20 %	30 %	41 %	35 %			
Total Dispatch Down (%)	FG						29 %	34 %	21 %

Table 2-8 - Surplus, Curtailment and Constraint for Solar non-priority for Node Rathnaskilloge

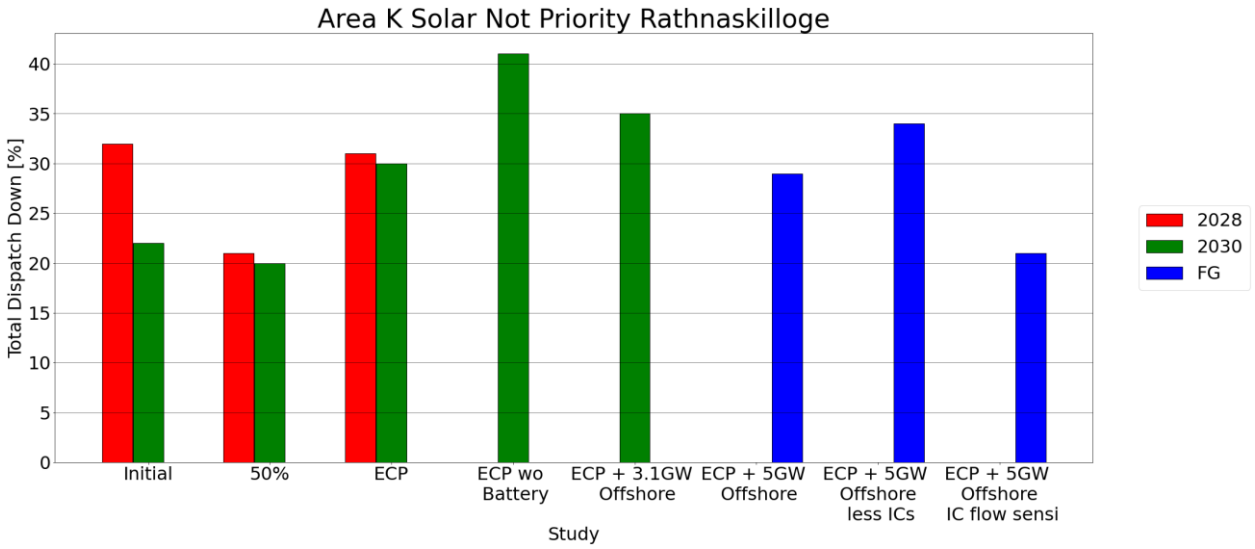

Figure 2-6 - Total Dispatch Down for Solar not priority for Node Rathnaskilloge

Area K	Year	ECP	ECP + 3.1GW Offshore
Installed Capacity (MW)	2028	95	
Installed Capacity (MW)	2030	95	95
Available Energy (GWh)	2028	111	
Available Energy (GWh)	2030	111	111
Generation (GWh)	2028	77	
Generation (GWh)	2030	78	72
Surplus (%)	2028	23 %	
Surplus (%)	2030	25 %	31 %
Curtailment (%)	2028	6 %	
Curtailment (%)	2030	4 %	4 %
Constraint (%)	2028	2 %	
Constraint (%)	2030	1 %	1 %
Total Dispatch Down (%)	2028	31 %	
Total Dispatch Down (%)	2030	30 %	35 %

Table 2-9 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Rathnaskilloge

2.4 Woodhouse

Figure 2-7 - Location of node Woodhouse

Generator	SO	Capacity	Type	Status
Woodhouse (1)	TSO	20.0	wind priority	connected
Knocknamona Wind Farm (Prev. Crohaun)	TSO	34.0	wind not priority	due to connected
Lyrenacarriga Windfarm and BESS	TSO	85.0	wind not priority	due to connected

Table 2-10 - Generation Included in Study for Node Woodhouse

The wind not priority data is given in the following table.

Area K	Year	Initial	50%	ECP	ECP wo Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Capacity (MW)	2028	34	76	119					
Installed Capacity (MW)	2030	34	76	119	119	119			
Installed Capacity (MW)	FG						119	119	119
Available Energy (GWh)	2028	104	234	363					
Available Energy (GWh)	2030	103	232	361	361	361			
Available Energy (GWh)	FG						361	361	361
Generation (GWh)	2028	0	149	234					
Generation (GWh)	2030	2	160	239	200	194			
Generation (GWh)	FG						224	210	272
Surplus (%)	2028	16 %	21 %	27 %					
Surplus (%)	2030	12 %	22 %	29 %	34 %	42 %			
Surplus (%)	FG						33 %	38 %	21 %
Curtailment (%)	2028	6 %	5 %	5 %					
Curtailment (%)	2030	5 %	3 %	3 %	4 %	3 %			
Curtailment (%)	FG						2 %	2 %	2 %
Constraint (%)	2028	78 %	11 %	4 %					
Constraint (%)	2030	81 %	6 %	2 %	7 %	2 %			
Constraint (%)	FG						3 %	2 %	2 %
Total Dispatch Down (%)	2028	100 %	36 %	36 %					
Total Dispatch Down (%)	2030	98 %	31 %	34 %	45 %	46 %			
Total Dispatch Down (%)	FG						38 %	42 %	25 %

Table 2-11 - Surplus, Curtailment and Constraint for Wind non-priority for Node Woodhouse

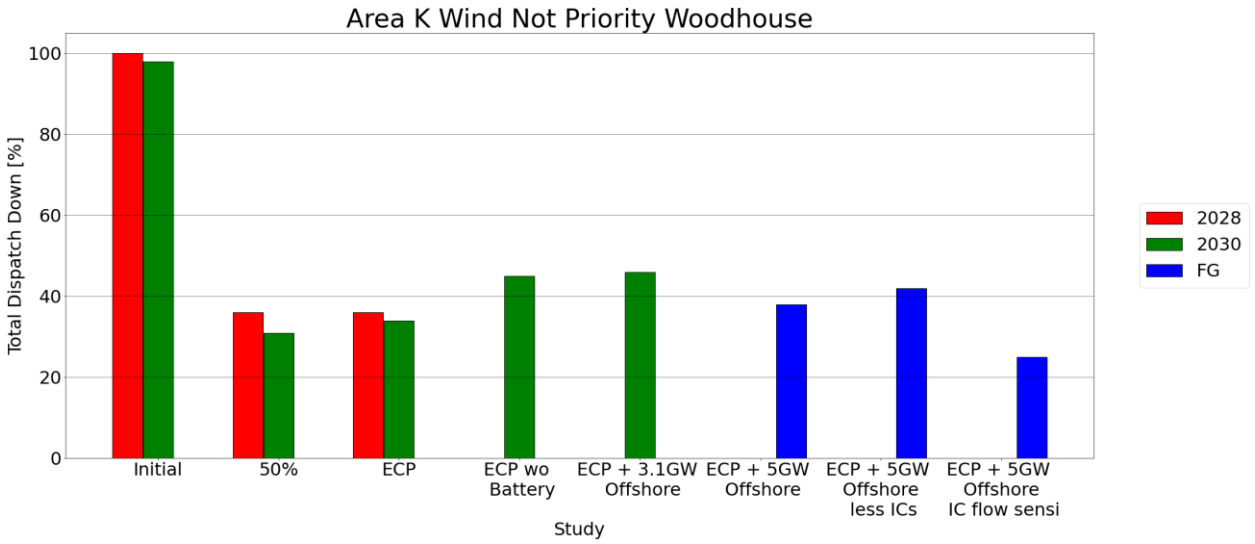

Figure 2-8 - Total Dispatch Down for Wind not priority for Node Woodhouse

Area K	Year	ECP	ECP + 3.1GW Offshore
Installed Capacity (MW)	2028	119	
Installed Capacity (MW)	2030	119	119
Available Energy (GWh)	2028	363	
Available Energy (GWh)	2030	361	361
Generation (GWh)	2028	240	
Generation (GWh)	2030	242	196
Surplus (%)	2028	27 %	
Surplus (%)	2030	29 %	42 %
Curtailment (%)	2028	5 %	
Curtailment (%)	2030	3 %	3 %
Constraint (%)	2028	2 %	
Constraint (%)	2030	1 %	1 %
Total Dispatch Down (%)	2028	34 %	
Total Dispatch Down (%)	2030	33 %	46 %

Table 2-12 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Woodhouse

The wind priority data is given in the following table.

Area K	Year	Initial	50%	ECP	ECP wo Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore less ICs	ECP + 5GW Offshore IC flow sensi
Installed Capacity (MW)	2028	20	20	20					
Installed Capacity (MW)	2030	20	20	20	20	20			
Installed Capacity (MW)	FG						20	20	20
Available Energy (GWh)	2028	61	61	61					
Available Energy (GWh)	2030	61	61	61	61	61			
Available Energy (GWh)	FG						61	61	61
Generation (GWh)	2028	50	55	55					
Generation (GWh)	2030	57	57	57	56	56			
Generation (GWh)	FG						57	57	59
Surplus (%)	2028	0 %	0 %	0 %					
Surplus (%)	2030	0 %	0 %	0 %	0 %	0 %			
Surplus (%)	FG						0 %	0 %	0 %
Curtailment (%)	2028	10 %	9 %	10 %					
Curtailment (%)	2030	7 %	6 %	6 %	9 %	7 %			
Curtailment (%)	FG						6 %	6 %	3 %
Constraint (%)	2028	8 %	0 %	0 %					
Constraint (%)	2030	0 %	0 %	0 %	0 %	0 %			
Constraint (%)	FG						0 %	0 %	0 %
Total Dispatch Down (%)	2028	18 %	9 %	10 %					
Total Dispatch Down (%)	2030	7 %	6 %	6 %	9 %	7 %			
Total Dispatch Down (%)	FG						6 %	6 %	3 %

Table 2-13 - Surplus, Curtailment and Constraint for Wind priority for Node Woodhouse

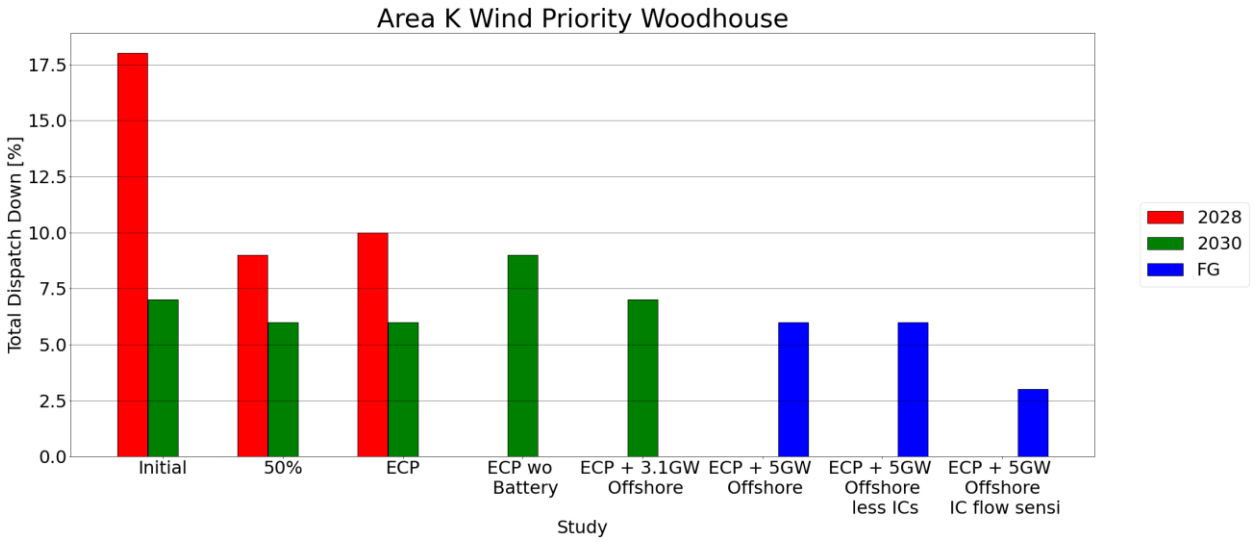

Figure 2-9 - Total Dispatch Down for Wind priority for Node Woodhouse

Area K	Year	ECP	ECP + 3.1GW Offshore
Installed Capacity (MW)	2028	20	
Installed Capacity (MW)	2030	20	20
Available Energy (GWh)	2028	61	
Available Energy (GWh)	2030	61	61
Generation (GWh)	2028	54	
Generation (GWh)	2030	56	56
Surplus (%)	2028	0 %	
Surplus (%)	2030	0 %	0 %
Curtailment (%)	2028	10 %	
Curtailment (%)	2030	6 %	7 %
Constraint (%)	2028	2 %	
Constraint (%)	2030	1 %	1 %
Total Dispatch Down (%)	2028	12 %	
Total Dispatch Down (%)	2030	7 %	8 %

Table 2-14 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Woodhouse