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

## Results for Area D for Solar and Wind

**Version 1.0**

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

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# 1 Overview for Area D


*Figure 1-1 Network Map for Area D*

Area D, in the west of the country, includes a mix of wind and solar generation. The counties that are covered in this area include Clare and Galway (partial). The transmission network in Area D and the surrounding area is shown in Figure 1-1. The 400 kV circuits are shown in red, the 220 kV circuits 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 D. For information on the study assumptions, methodology and Ireland summary report please 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 D 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.

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

Section 2: Area D 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 D.

## 1.2 Key Summary

At times of high renewable generation, there is a net export of power from Area D, and the dominant power flows tend to be from Area D towards the load centres on the east coast and the interconnectors. These flow patterns are relevant when seeking to understand constraint apportionment in the simulation.

Constraints in Area D 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 can increase constraints in Area D.

In addition to the power flows out of Area D, there are also power flows across or through Area D. The generators within Area D have access to the 220 kV stations at Shannonbridge, Cashla, Moneypoint and Killonan through the 110 kV circuits, and thus, the power flowing out of Area D meets and joins with other power flows from areas connected to these 220 kV stations. The power flow from Area D is towards east region. The generators on the meshed 110kV network in Area D would be affected by contingencies in the area as well as outside the area. 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 D in the “ECP” scenario is given in Table 1-1. Installed and controllable energy in Area D is given in Table 1-2 for solar and Table 1-3 for wind.

| Node | SO | Status | Solar | Wind |
|---|---|---|---|---|
| **Ardnacrusha** | DSO | due to connected | 39 | |
| **Ardnacrusha** | TSO | due to connected | 80 | |
| **Ardnacrusha** | DSO | due to connected | | 40 |
| **Ardnacrusha** | TSO | due to connected | | 91 |
| **Ardnacrusha** | DSO | connected | | 8 |
| **Booltiagh** | DSO | connected | | 114 |
| **Booltiagh** | DSO | due to connected | | 3 |
| **Booltiagh** | TSO | connected | | 31 |
| **Booltiagh** | DSO | connected | | 5 |
| **Coolshamroge** | TSO | due to connected | 60 | |
| **Drumline** | DSO | due to connected | 26 | |
| **Ennis** | DSO | due to connected | 32 | |

| | | | | |
|---|---|---|---|---|
| **Ennis** | TSO | due to connected | 60 | |
| **Slievecallan** | TSO | connected | | 72 |
| **Tullabrack** | DSO | connected | | 14 |
| **Tullabrack** | DSO | connected | | 17 |
| **Total** | | | 297 | 395 |

*Table 1-1 Wind and Solar Generation Summary (MW) in Area D 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 D (MW)** | 297 | 297 | 297 | 297 | 297 |
| **Installed Controllable Area D (MW)** | 297 | 297 | 297 | 297 | 297 |
| **Available Controllable Area D (GWh)** | 348 | 348 | 348 | 348 | 348 |

*Table 1-2- Installed MW and Available GWh for Area D - 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 D (MW)** | 395 | 395 | 395 | 395 | 395 |
| **Installed Controllable Area D (MW)** | 372 | 372 | 372 | 372 | 372 |
| **Available Controllable Area D (GWh)** | 1157 | 1157 | 1157 | 1157 | 1157 |

*Table 1-3 - Installed MW and Available GWh for Area D - 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 generators in Area D, alongside some generators in the north of Area E, are included in a single subgroup, D and E North. The power flows towards the 220kV nodes and the 400kV node in this area. The subgroup nodes for Area D are given in Table 1-4. The individual node level dispatch down is given in Section 2.

| Subgroup | Nodes |
|---|---|
| D and E North | Ardnacrusha |
| | Booltiagh |
| | Coolshamroge |
| | Drumline |
| | Ennis |
| | Slievecallan |
| | Tullabrack |

*Table 1-4 - Area D generators nodes and their subgroups*


*Figure 1-2 - Subgroup D & E North (subgroup outlined by blue dashed line)*

## 1.5 Area D – Summary Results

The Total Dispatch Down results for Area D 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 D (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 D and E North

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

| Area D (D and E North) | 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 | 4 | 151 | 297 | | | | | |
| **Installed Capacity (MW)** | 2030 | 4 | 151 | 297 | 297 | 297 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 297 | 297 | 297 |
| **Available Energy (GWh)** | 2028 | 5 | 177 | 348 | | | | | |
| **Available Energy (GWh)** | 2030 | 5 | 176 | 348 | 348 | 348 | | | |
| **Available Energy (GWh)** | FG | | | | | | 348 | 348 | 348 |
| **Generation (GWh)** | 2028 | 4 | 146 | 247 | | | | | |
| **Generation (GWh)** | 2030 | 4 | 145 | 249 | 216 | 228 | | | |
| **Generation (GWh)** | FG | | | | | | 258 | 237 | 279 |
| **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 | 1 % | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 0 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 1 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 13 % | 17 % | 29 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 11 % | 18 % | 28 % | 38 % | 34 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 26 % | 32 % | 20 % |

*Table 1-5 - Surplus, Curtailment and Constraint for Solar Non-Priority in Area D (D and E North)*

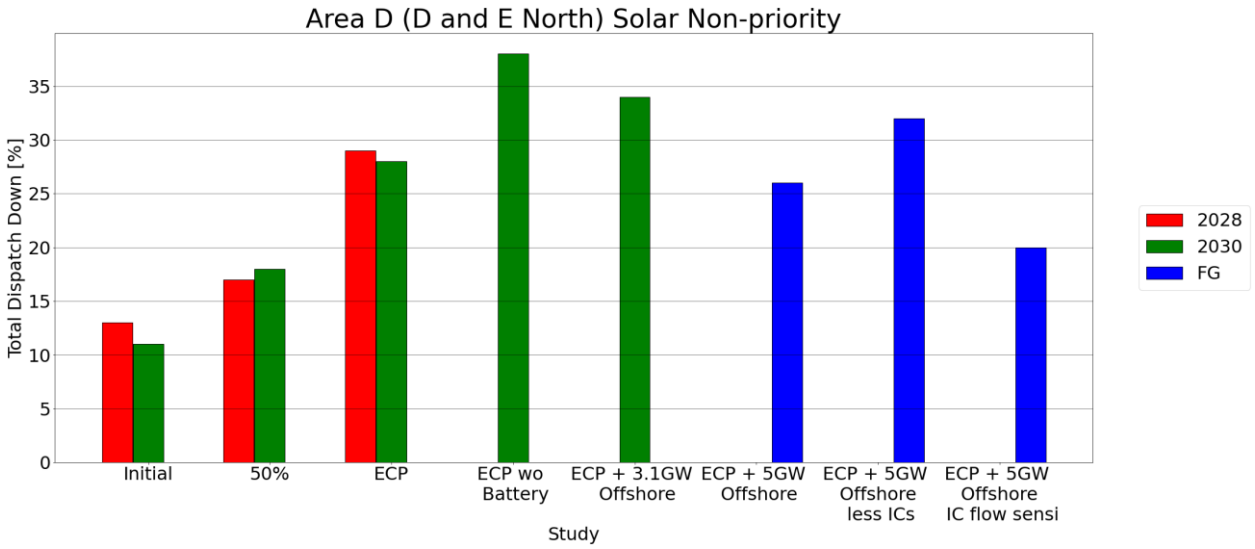



*Figure 1-3 - Results Solar Non-priority Area D (D and E North)*

| Area D (D and E North) | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 297 | |
| **Installed Capacity (MW)** | 2030 | 297 | 297 |
| **Available Energy (GWh)** | 2028 | 348 | |
| **Available Energy (GWh)** | 2030 | 348 | 348 |
| **Generation (GWh)** | 2028 | 247 | |
| **Generation (GWh)** | 2030 | 249 | 228 |
| **Surplus (%)** | 2028 | 23 % | |
| **Surplus (%)** | 2030 | 25 % | 31 % |
| **Curtailment (%)** | 2028 | 6 % | |
| **Curtailment (%)** | 2030 | 4 % | 4 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 29 % | |
| **Total Dispatch Down (%)** | 2030 | 28 % | 34 % |

*Table 1-6 - Surplus, Curtailment and Constraint for Solar Non-Priority with Sensitivity in Area D (D and E North)*

### 1.5.2 Non - priority Wind Results for D and E North

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

| Area D (D and E North) | 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 | 117 | 182 | 248 | | | | | |
| **Installed Capacity (MW)** | 2030 | 117 | 182 | 248 | 248 | 248 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 248 | 248 | 248 |
| **Available Energy (GWh)** | 2028 | 365 | 570 | 775 | | | | | |
| **Available Energy (GWh)** | 2030 | 362 | 566 | 770 | 770 | 770 | | | |
| **Available Energy (GWh)** | FG | | | | | | 770 | 770 | 770 |
| **Generation (GWh)** | 2028 | 279 | 422 | 536 | | | | | |
| **Generation (GWh)** | 2030 | 298 | 423 | 530 | 483 | 435 | | | |
| **Generation (GWh)** | FG | | | | | | 472 | 460 | 592 |
| **Surplus (%)** | 2028 | 16 % | 20 % | 26 % | | | | | |
| **Surplus (%)** | 2030 | 12 % | 22 % | 28 % | 33 % | 40 % | | | |
| **Surplus (%)** | FG | | | | | | 32 % | 37 % | 20 % |
| **Curtailment (%)** | 2028 | 6 % | 5 % | 5 % | | | | | |
| **Curtailment (%)** | 2030 | 5 % | 3 % | 3 % | 4 % | 3 % | | | |
| **Curtailment (%)** | FG | | | | | | 2 % | 2 % | 2 % |
| **Constraint (%)** | 2028 | 2 % | 1 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 1 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 5 % | 1 % | 1 % |
| **Total Dispatch Down (%)** | 2028 | 24 % | 26 % | 31 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 18 % | 25 % | 31 % | 37 % | 43 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 39 % | 40 % | 23 % |

*Table 1-7 - Surplus, Curtailment and Constraint for Wind Non-priority in Area D (D and E North)*

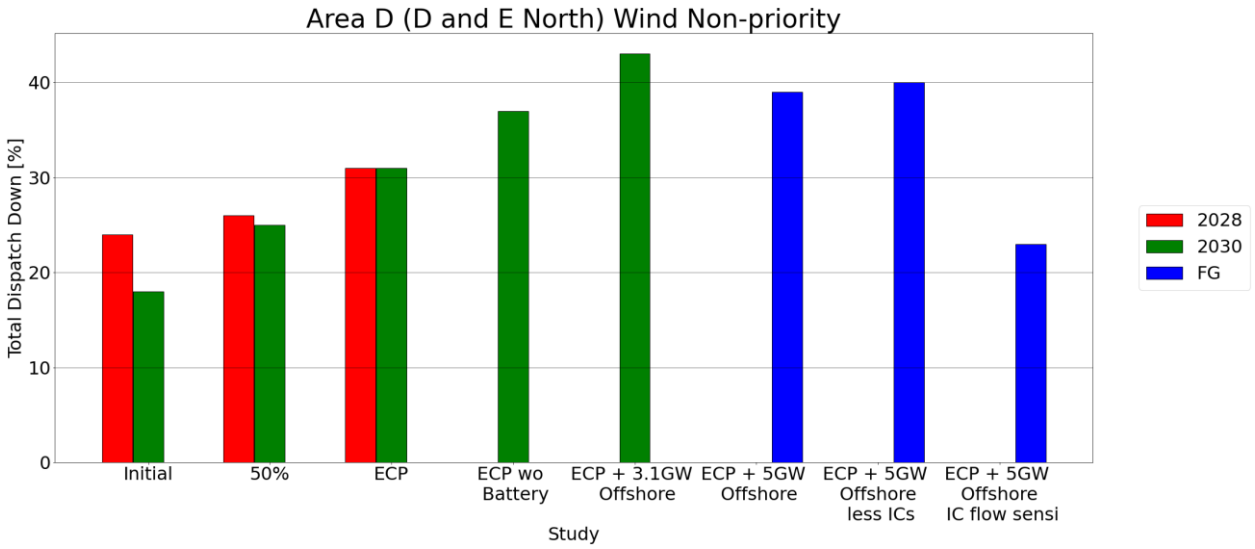



*Figure 1-4 - Results Wind Non-priority Area D (D and E North)*

Wind Non-priority with Sensitivity generation report

| Area D (D and E North) | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 248 | |
| **Installed Capacity (MW)** | 2030 | 248 | 248 |
| **Available Energy (GWh)** | 2028 | 775 | |
| **Available Energy (GWh)** | 2030 | 770 | 770 |
| **Generation (GWh)** | 2028 | 536 | |
| **Generation (GWh)** | 2030 | 531 | 435 |
| **Surplus (%)** | 2028 | 26 % | |
| **Surplus (%)** | 2030 | 28 % | 40 % |
| **Curtailment (%)** | 2028 | 5 % | |
| **Curtailment (%)** | 2030 | 3 % | 3 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 31 % | |
| **Total Dispatch Down (%)** | 2030 | 31 % | 43 % |

*Table 1-8 - Surplus Curtailment and Constraint for Wind Non-priority* with Sensitivity *in Area D (D and E North)*

### 1.5.3 Priority Wind Results for D and E North

The wind priority data is given in the following table.

| Area D (D and E North) | 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 | 125 | 125 | 125 | | | | | |
| **Installed Capacity (MW)** | 2030 | 125 | 125 | 125 | 125 | 125 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 125 | 125 | 125 |
| **Available Energy (GWh)** | 2028 | 390 | 390 | 390 | | | | | |
| **Available Energy (GWh)** | 2030 | 387 | 387 | 387 | 387 | 387 | | | |
| **Available Energy (GWh)** | FG | | | | | | 387 | 387 | 387 |
| **Generation (GWh)** | 2028 | 352 | 355 | 352 | | | | | |
| **Generation (GWh)** | 2030 | 362 | 365 | 364 | 355 | 360 | | | |
| **Generation (GWh)** | FG | | | | | | 366 | 366 | 376 |
| **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 % | 8 % | 7 % | | | |
| **Curtailment (%)** | FG | | | | | | 6 % | 5 % | 3 % |
| **Constraint (%)** | 2028 | 0 % | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 0 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 0 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | 9 % | 10 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 7 % | 6 % | 6 % | 8 % | 7 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 6 % | 5 % | 3 % |

*Table 1-9 - Surplus, Curtailment and Constraint for Wind Priority in Area D (D and E North)*

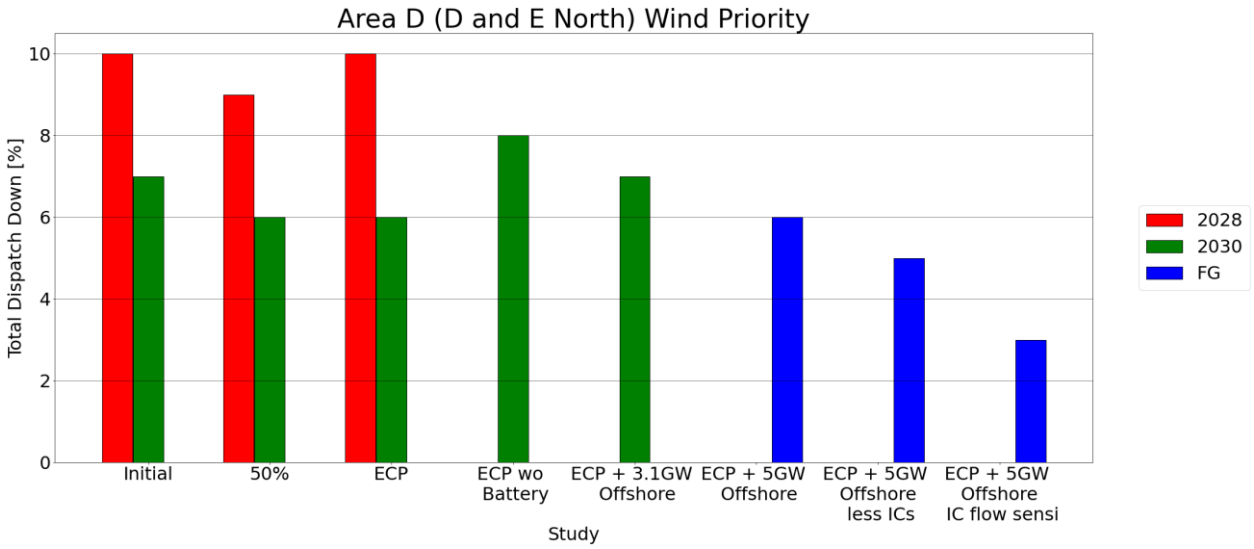



*Figure 1-5 - Results Wind Priority Area D (D and E North)*

Wind Priority with Sensitivity generation report

| Area D (D and E North) | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 125 | |
| **Installed Capacity (MW)** | 2030 | 125 | 125 |
| **Available Energy (GWh)** | 2028 | 390 | |
| **Available Energy (GWh)** | 2030 | 387 | 387 |
| **Generation (GWh)** | 2028 | 352 | |
| **Generation (GWh)** | 2030 | 364 | 359 |
| **Surplus (%)** | 2028 | 0 % | |
| **Surplus (%)** | 2030 | 0 % | 0 % |
| **Curtailment (%)** | 2028 | 10 % | |
| **Curtailment (%)** | 2030 | 6 % | 7 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | |
| **Total Dispatch Down (%)** | 2030 | 6 % | 7 % |

*Table 1-10 - Surplus, Curtailment and Constraint for Wind Priority with Sensitivity in Area D (D and E North)*

# 2 Area D Node Results

This section presents results for 7 nodes in Area D.

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 Ardnacrusha, 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 Ardnacrusha


*Figure 2-1- Location of node Ardnacrusha*

| Generator | SO | Capacity | Type | Status |
|---|---|---|---|---|
| **Knockastanna (1)** | DSO | 7.5 | wind priority | connected |
| **Dromsallagh Solar** | DSO | 4.0 | solar not priority | due to connected |
| **Carrownagowan Wind Farm** | TSO | 91.2 | wind not priority | due to connected |
| **Drummin Solar** | DSO | 35.0 | solar not priority | due to connected |
| **Ballyglass Solar Farm** | TSO | 80.019 | solar not priority | due to connected |
| **Fahybeg** | DSO | 40.0 | wind not priority | due to connected |

*Table 2-1- Generation Included in Study for Node Ardnacrusha*

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

| Area D | 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 | | 60 | 119 | | | | | |
| **Installed Capacity (MW)** | 2030 | | 60 | 119 | 119 | 119 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 119 | 119 | 119 |
| **Available Energy (GWh)** | 2028 | | 70 | 140 | | | | | |
| **Available Energy (GWh)** | 2030 | | 70 | 139 | 139 | 139 | | | |
| **Available Energy (GWh)** | FG | | | | | | 139 | 139 | 139 |
| **Generation (GWh)** | 2028 | | 58 | 99 | | | | | |
| **Generation (GWh)** | 2030 | | 57 | 100 | 86 | 91 | | | |
| **Generation (GWh)** | FG | | | | | | 103 | 95 | 112 |
| **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 | | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 1 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | | 17 % | 29 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | | 18 % | 28 % | 38 % | 34 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 26 % | 32 % | 20 % |

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

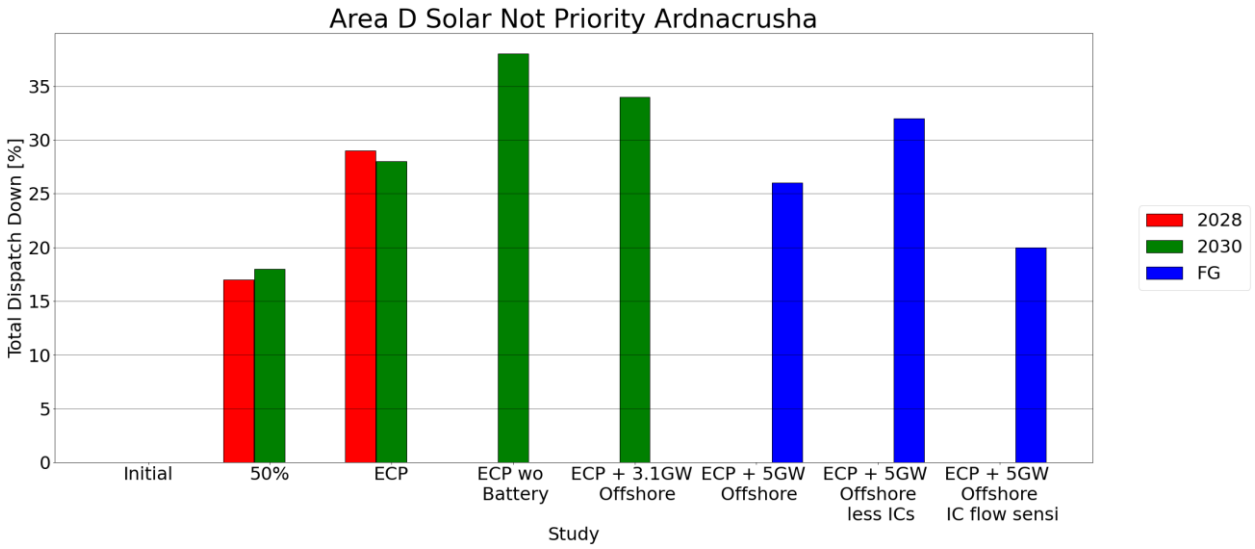



*Figure 2-2 - Total Dispatch Down for Solar not priority for Node Ardnacrusha*

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

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 119 | |
| **Installed Capacity (MW)** | 2030 | 119 | 119 |
| **Available Energy (GWh)** | 2028 | 140 | |
| **Available Energy (GWh)** | 2030 | 139 | 139 |
| **Generation (GWh)** | 2028 | 99 | |
| **Generation (GWh)** | 2030 | 100 | 91 |
| **Surplus (%)** | 2028 | 23 % | |
| **Surplus (%)** | 2030 | 25 % | 31 % |
| **Curtailment (%)** | 2028 | 6 % | |
| **Curtailment (%)** | 2030 | 4 % | 4 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 29 % | |
| **Total Dispatch Down (%)** | 2030 | 28 % | 34 % |

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

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

| Area D | 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 | | 66 | 131 | | | | | |
| **Installed Capacity (MW)** | 2030 | | 66 | 131 | 131 | 131 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 131 | 131 | 131 |
| **Available Energy (GWh)** | 2028 | | 205 | 410 | | | | | |
| **Available Energy (GWh)** | 2030 | | 204 | 408 | 408 | 408 | | | |
| **Available Energy (GWh)** | FG | | | | | | 408 | 408 | 408 |
| **Generation (GWh)** | 2028 | | 152 | 284 | | | | | |
| **Generation (GWh)** | 2030 | | 152 | 281 | 256 | 230 | | | |
| **Generation (GWh)** | FG | | | | | | 250 | 244 | 313 |
| **Surplus (%)** | 2028 | | 20 % | 26 % | | | | | |
| **Surplus (%)** | 2030 | | 22 % | 28 % | 33 % | 40 % | | | |
| **Surplus (%)** | FG | | | | | | 32 % | 37 % | 20 % |
| **Curtailment (%)** | 2028 | | 5 % | 5 % | | | | | |
| **Curtailment (%)** | 2030 | | 3 % | 3 % | 4 % | 3 % | | | |
| **Curtailment (%)** | FG | | | | | | 2 % | 2 % | 2 % |
| **Constraint (%)** | 2028 | | 1 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 5 % | 1 % | 1 % |
| **Total Dispatch Down (%)** | 2028 | | 26 % | 31 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | | 25 % | 31 % | 37 % | 43 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 39 % | 40 % | 23 % |

*Table 2-4 - Surplus, Curtailment and Constraint for Wind non-priority for Node Ardnacrusha*

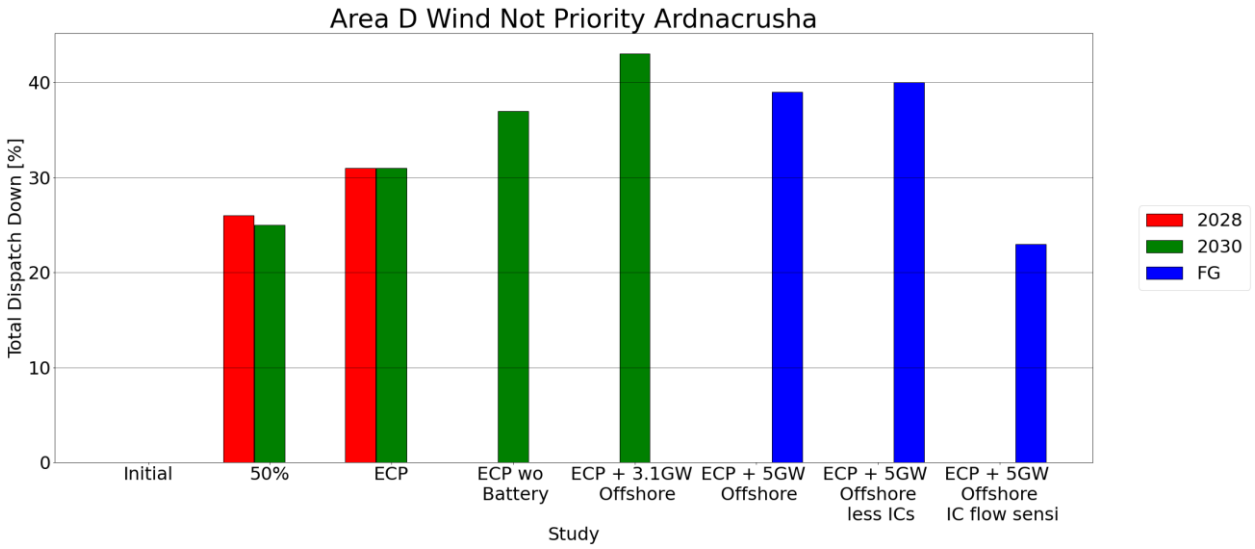



*Figure 2-3 - Total Dispatch Down for Wind not priority for Node Ardnacrusha*

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

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 131 | |
| **Installed Capacity (MW)** | 2030 | 131 | 131 |
| **Available Energy (GWh)** | 2028 | 410 | |
| **Available Energy (GWh)** | 2030 | 408 | 408 |
| **Generation (GWh)** | 2028 | 284 | |
| **Generation (GWh)** | 2030 | 281 | 231 |
| **Surplus (%)** | 2028 | 26 % | |
| **Surplus (%)** | 2030 | 28 % | 40 % |
| **Curtailment (%)** | 2028 | 5 % | |
| **Curtailment (%)** | 2030 | 3 % | 3 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 31 % | |
| **Total Dispatch Down (%)** | 2030 | 31 % | 43 % |

*Table 2-5 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Ardnacrusha*

The wind priority data is given in the following table.

| Area D | 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 | 8 | 8 | | | | | |
| **Installed Capacity (MW)** | 2030 | 8 | 8 | 8 | 8 | 8 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 8 | 8 | 8 |
| **Available Energy (GWh)** | 2028 | 23 | 23 | 23 | | | | | |
| **Available Energy (GWh)** | 2030 | 23 | 23 | 23 | 23 | 23 | | | |
| **Available Energy (GWh)** | FG | | | | | | 23 | 23 | 23 |
| **Generation (GWh)** | 2028 | 21 | 21 | 21 | | | | | |
| **Generation (GWh)** | 2030 | 22 | 22 | 22 | 21 | 22 | | | |
| **Generation (GWh)** | FG | | | | | | 22 | 22 | 23 |
| **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 % | 8 % | 7 % | | | |
| **Curtailment (%)** | FG | | | | | | 6 % | 5 % | 3 % |
| **Constraint (%)** | 2028 | 0 % | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 0 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 0 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | 9 % | 10 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 7 % | 6 % | 6 % | 8 % | 7 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 6 % | 5 % | 3 % |

*Table 2-6 - Surplus, Curtailment and Constraint for Wind priority for Node Ardnacrusha*

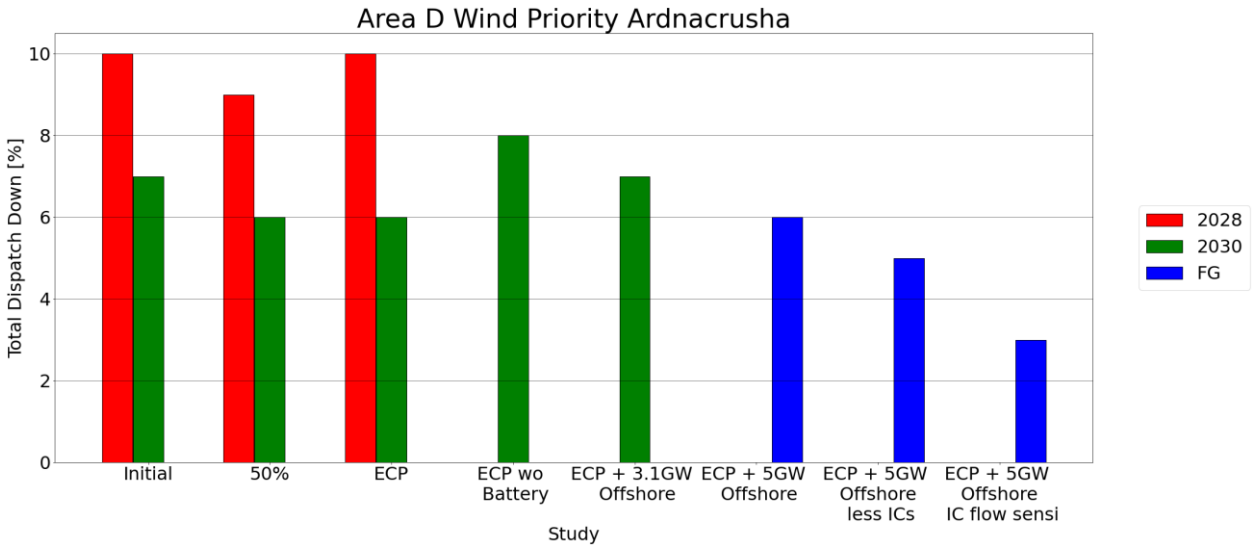



*Figure 2-4 - Total Dispatch Down for Wind priority for Node Ardnacrusha*

The wind priority with sensitivity data is given in the following table.

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 8 | |
| **Installed Capacity (MW)** | 2030 | 8 | 8 |
| **Available Energy (GWh)** | 2028 | 23 | |
| **Available Energy (GWh)** | 2030 | 23 | 23 |
| **Generation (GWh)** | 2028 | 21 | |
| **Generation (GWh)** | 2030 | 22 | 22 |
| **Surplus (%)** | 2028 | 0 % | |
| **Surplus (%)** | 2030 | 0 % | 0 % |
| **Curtailment (%)** | 2028 | 10 % | |
| **Curtailment (%)** | 2030 | 6 % | 7 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | |
| **Total Dispatch Down (%)** | 2030 | 6 % | 7 % |

*Table 2-7 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Ardnacrusha*

## 2.2 Booltiagh


*Figure 2-5 - Location of node Booltiagh*

| Generator | SO | Capacity | Type | Status |
|---|---|---|---|---|
| **Booltiagh (1)** | TSO | 19.45 | wind priority | connected |
| **Booltiagh (2)** | TSO | 12.0 | wind priority | connected |
| **Cahermurphy (1)** | DSO | 6.0 | wind not priority | connected |
| **Kiltumper** | DSO | 4.99 | wind uncontrolled | connected |
| **Lissycasey (1)** | DSO | 13.399 | wind not priority | connected |
| **Boolynagleragh (1)** | DSO | 36.98 | wind not priority | connected |
| **Sorrell Island (prev Glenmore) (1)** | DSO | 24.0 | wind not priority | connected |
| **Sorrell Island (Glenmore) WF Ext** | DSO | 8.0 | wind not priority | connected |
| **Crossmore (1)** | DSO | 15.0 | wind not priority | connected |
| **Crossmore (2)** | DSO | 10.2 | wind not priority | connected |
| **Gortaheera CM2 Windfarm** | DSO | 3.0 | wind not priority | due to connected |

*Table 2-8 - Generation Included in Study for Node Booltiagh*

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

| Area D | 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 | 117 | 117 | 117 | | | | | |
| **Installed Capacity (MW)** | 2030 | 117 | 117 | 117 | 117 | 117 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 117 | 117 | 117 |
| **Available Energy (GWh)** | 2028 | 365 | 365 | 365 | | | | | |
| **Available Energy (GWh)** | 2030 | 362 | 362 | 362 | 362 | 362 | | | |
| **Available Energy (GWh)** | FG | | | | | | 362 | 362 | 362 |
| **Generation (GWh)** | 2028 | 279 | 270 | 252 | | | | | |
| **Generation (GWh)** | 2030 | 298 | 271 | 249 | 227 | 205 | | | |
| **Generation (GWh)** | FG | | | | | | 222 | 217 | 278 |
| **Surplus (%)** | 2028 | 16 % | 20 % | 26 % | | | | | |
| **Surplus (%)** | 2030 | 12 % | 22 % | 28 % | 33 % | 40 % | | | |
| **Surplus (%)** | FG | | | | | | 32 % | 37 % | 20 % |
| **Curtailment (%)** | 2028 | 6 % | 5 % | 5 % | | | | | |
| **Curtailment (%)** | 2030 | 5 % | 3 % | 3 % | 4 % | 3 % | | | |
| **Curtailment (%)** | FG | | | | | | 2 % | 2 % | 2 % |
| **Constraint (%)** | 2028 | 2 % | 1 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 1 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 5 % | 1 % | 1 % |
| **Total Dispatch Down (%)** | 2028 | 24 % | 26 % | 31 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 18 % | 25 % | 31 % | 37 % | 43 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 39 % | 40 % | 23 % |

*Table 2-9 - Surplus, Curtailment and Constraint for Wind non-priority for Node Booltiagh*

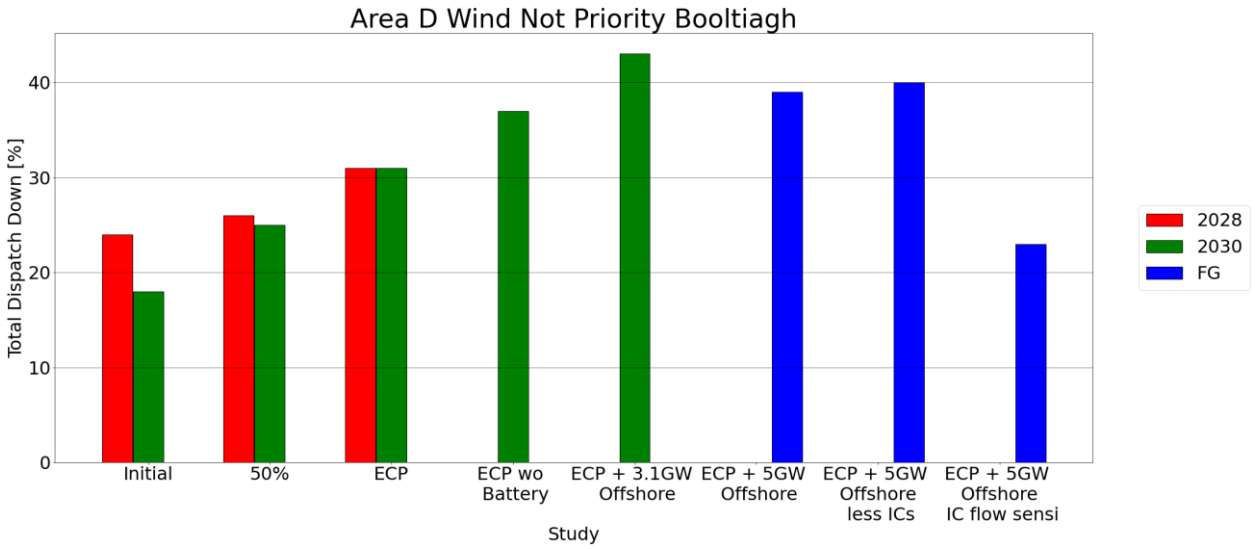



*Figure 2-6 - Total Dispatch Down for Wind not priority for Node Booltiagh*

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

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 117 | |
| **Installed Capacity (MW)** | 2030 | 117 | 117 |
| **Available Energy (GWh)** | 2028 | 365 | |
| **Available Energy (GWh)** | 2030 | 362 | 362 |
| **Generation (GWh)** | 2028 | 252 | |
| **Generation (GWh)** | 2030 | 250 | 205 |
| **Surplus (%)** | 2028 | 26 % | |
| **Surplus (%)** | 2030 | 28 % | 40 % |
| **Curtailment (%)** | 2028 | 5 % | |
| **Curtailment (%)** | 2030 | 3 % | 3 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 31 % | |
| **Total Dispatch Down (%)** | 2030 | 31 % | 43 % |

*Table 2-10 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Booltiagh*

The wind priority data is given in the following table.

| Area D | 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 | 31 | 31 | 31 | | | | | |
| **Installed Capacity (MW)** | 2030 | 31 | 31 | 31 | 31 | 31 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 31 | 31 | 31 |
| **Available Energy (GWh)** | 2028 | 98 | 98 | 98 | | | | | |
| **Available Energy (GWh)** | 2030 | 98 | 98 | 98 | 98 | 98 | | | |
| **Available Energy (GWh)** | FG | | | | | | 98 | 98 | 98 |
| **Generation (GWh)** | 2028 | 89 | 90 | 89 | | | | | |
| **Generation (GWh)** | 2030 | 91 | 92 | 92 | 90 | 91 | | | |
| **Generation (GWh)** | FG | | | | | | 92 | 92 | 95 |
| **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 % | 8 % | 7 % | | | |
| **Curtailment (%)** | FG | | | | | | 6 % | 5 % | 3 % |
| **Constraint (%)** | 2028 | 0 % | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 0 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 0 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | 9 % | 10 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 7 % | 6 % | 6 % | 8 % | 7 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 6 % | 5 % | 3 % |

*Table 2-11 - Surplus, Curtailment and Constraint for Wind priority for Node Booltiagh*

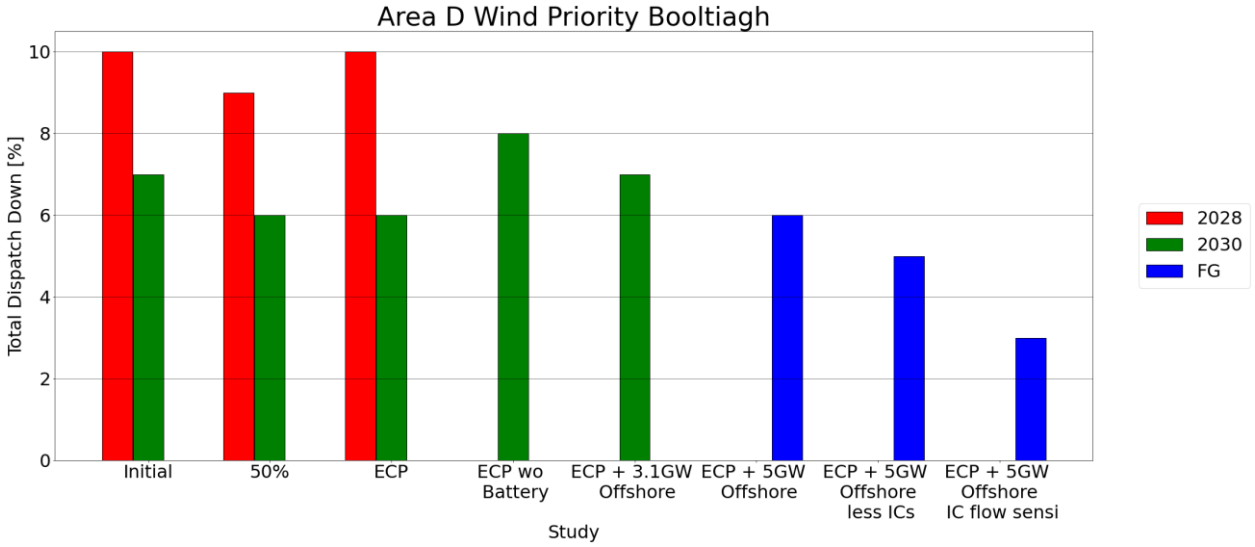


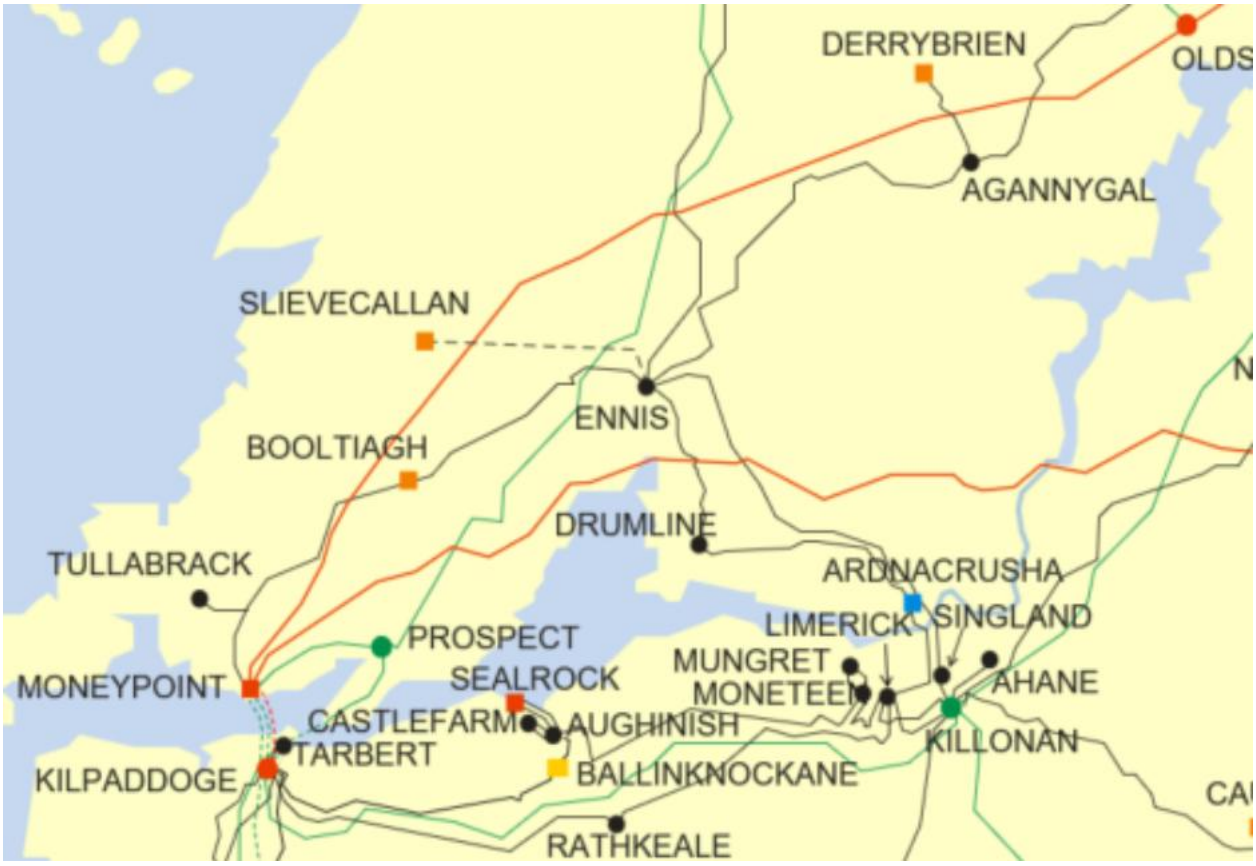

*Figure 2-7 - Total Dispatch Down for Wind priority for Node Booltiagh*

The wind priority with sensitivity data is given in the following table.

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 31 | |
| **Installed Capacity (MW)** | 2030 | 31 | 31 |
| **Available Energy (GWh)** | 2028 | 98 | |
| **Available Energy (GWh)** | 2030 | 98 | 98 |
| **Generation (GWh)** | 2028 | 89 | |
| **Generation (GWh)** | 2030 | 92 | 90 |
| **Surplus (%)** | 2028 | 0 % | |
| **Surplus (%)** | 2030 | 0 % | 0 % |
| **Curtailment (%)** | 2028 | 10 % | |
| **Curtailment (%)** | 2030 | 6 % | 7 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | |
| **Total Dispatch Down (%)** | 2030 | 6 % | 7 % |

*Table 2-12 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Booltiagh*

## 2.3 Coolshamroge




| Generator | SO | Capacity | Type | Status |
|---|---|---|---|---|
| **Manusmore Solar 2** | TSO | 60.0 | solar not priority | due to connected |

*Table 2-13 - Generation Included in Study for Node Coolshamroge*

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

| Area D | 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 | 60 | | | | | |
| **Installed Capacity (MW)** | 2030 | | 30 | 60 | 60 | 60 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 60 | 60 | 60 |
| **Available Energy (GWh)** | 2028 | | 35 | 70 | | | | | |
| **Available Energy (GWh)** | 2030 | | 35 | 70 | 70 | 70 | | | |
| **Available Energy (GWh)** | FG | | | | | | 70 | 70 | 70 |
| **Generation (GWh)** | 2028 | | 29 | 50 | | | | | |
| **Generation (GWh)** | 2030 | | 29 | 50 | 44 | 46 | | | |
| **Generation (GWh)** | FG | | | | | | 52 | 48 | 56 |
| **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 | | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 1 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | | 17 % | 29 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | | 18 % | 28 % | 38 % | 34 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 26 % | 32 % | 20 % |

*Table 2-14 - Surplus, Curtailment and Constraint for Solar non-priority for Node Coolshamroge*

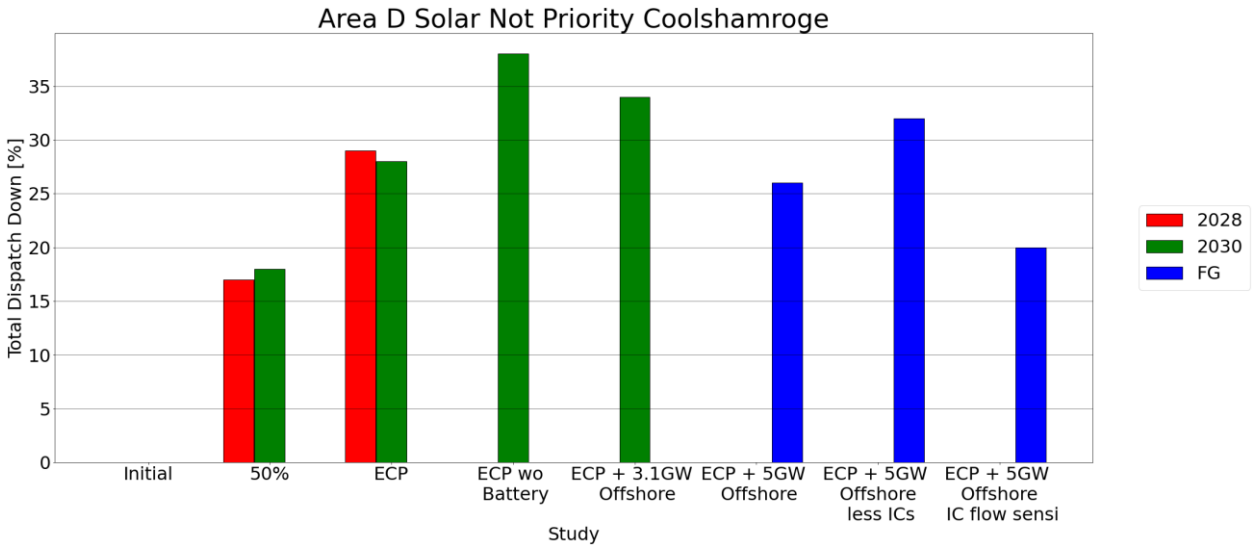



*Figure 2-8 - Total Dispatch Down for Solar not priority for Node Coolshamroge*

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

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 60 | |
| **Installed Capacity (MW)** | 2030 | 60 | 60 |
| **Available Energy (GWh)** | 2028 | 70 | |
| **Available Energy (GWh)** | 2030 | 70 | 70 |
| **Generation (GWh)** | 2028 | 50 | |
| **Generation (GWh)** | 2030 | 50 | 46 |
| **Surplus (%)** | 2028 | 23 % | |
| **Surplus (%)** | 2030 | 25 % | 31 % |
| **Curtailment (%)** | 2028 | 6 % | |
| **Curtailment (%)** | 2030 | 4 % | 4 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 29 % | |
| **Total Dispatch Down (%)** | 2030 | 28 % | 34 % |

*Table 2-15 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Coolshamroge*

## 2.4 Drumline


*Figure 2-9 - Location of node Drumline*

| Generator | SO | Capacity | Type | Status |
|---|---|---|---|---|
| **Firgrove** | DSO | 4.0 | solar not priority | due to connected |
| **Ballycunneen PV** | DSO | 12.0 | solar not priority | due to connected |
| **Clonloghan Solar Farm** | DSO | 9.99 | solar not priority | due to connected |

*Table 2-16 - Generation Included in Study for Node Drumline*

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

| Area D | 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 | 4 | 15 | 26 | | | | | |
| **Installed Capacity (MW)** | 2030 | 4 | 15 | 26 | 26 | 26 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 26 | 26 | 26 |
| **Available Energy (GWh)** | 2028 | 5 | 18 | 30 | | | | | |
| **Available Energy (GWh)** | 2030 | 5 | 18 | 30 | 30 | 30 | | | |
| **Available Energy (GWh)** | FG | | | | | | 30 | 30 | 30 |
| **Generation (GWh)** | 2028 | 4 | 15 | 22 | | | | | |
| **Generation (GWh)** | 2030 | 4 | 14 | 22 | 19 | 20 | | | |
| **Generation (GWh)** | FG | | | | | | 23 | 21 | 24 |
| **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 | 1 % | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 0 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 1 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 13 % | 17 % | 29 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 11 % | 18 % | 28 % | 38 % | 34 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 26 % | 32 % | 20 % |

*Table 2-17 - Surplus, Curtailment and Constraint for Solar non-priority for Node Drumline*

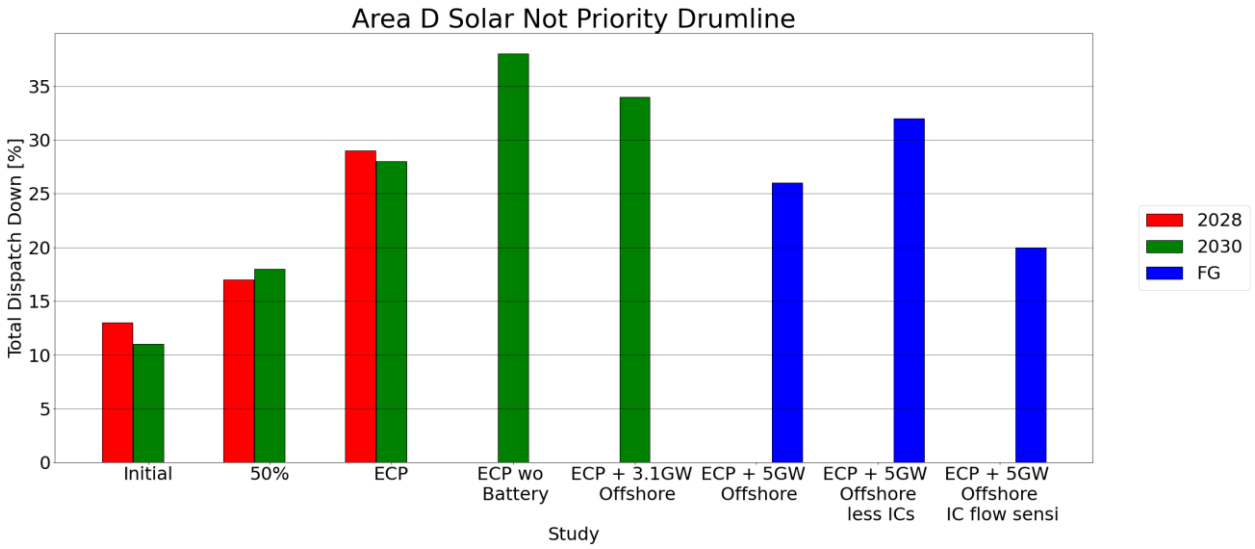



*Figure 2-10 - Total Dispatch Down for Solar not priority for Node Drumline*

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

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 26 | |
| **Installed Capacity (MW)** | 2030 | 26 | 26 |
| **Available Energy (GWh)** | 2028 | 30 | |
| **Available Energy (GWh)** | 2030 | 30 | 30 |
| **Generation (GWh)** | 2028 | 22 | |
| **Generation (GWh)** | 2030 | 22 | 20 |
| **Surplus (%)** | 2028 | 23 % | |
| **Surplus (%)** | 2030 | 25 % | 31 % |
| **Curtailment (%)** | 2028 | 6 % | |
| **Curtailment (%)** | 2030 | 4 % | 4 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 29 % | |
| **Total Dispatch Down (%)** | 2030 | 28 % | 34 % |

*Table 2-18 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Drumline*

## 2.5 Ennis

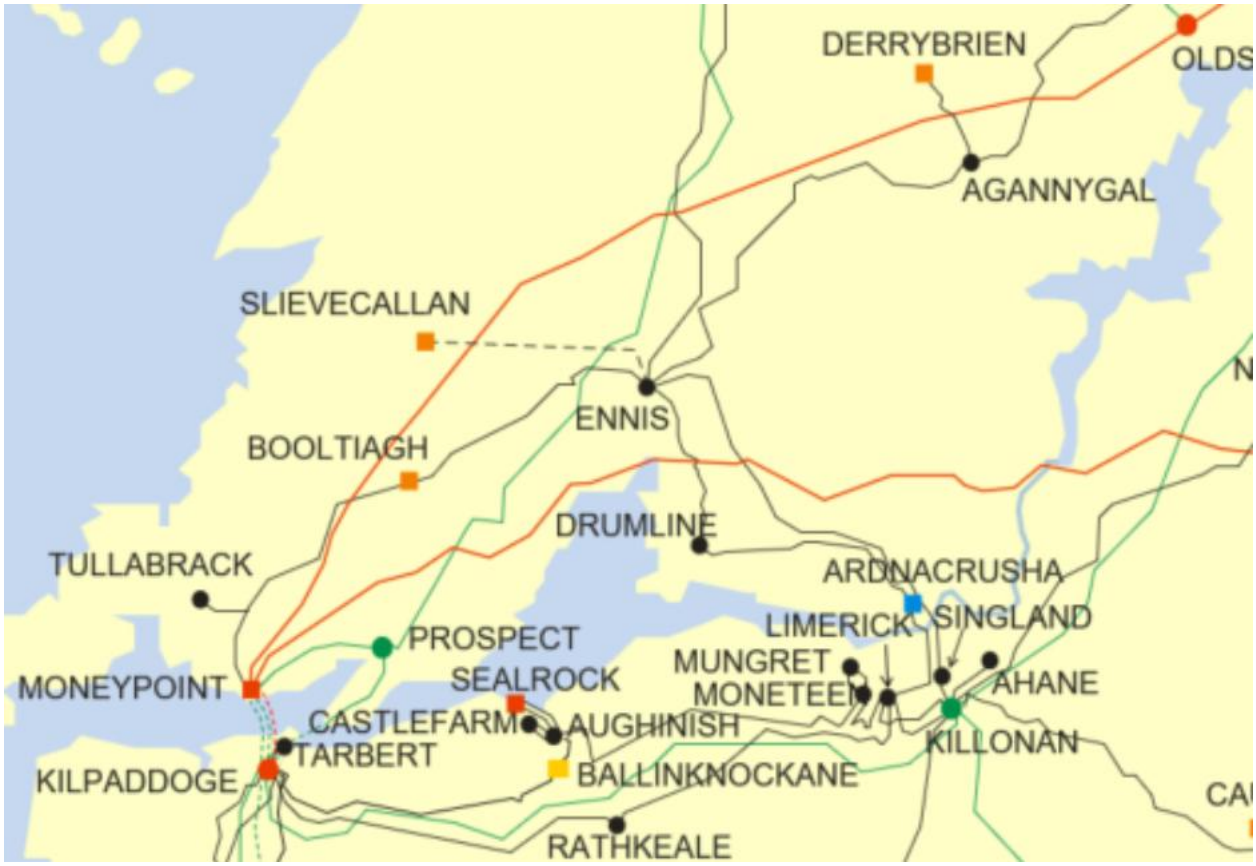



*Figure 2-11 - Location of node Ennis*

| Generator | SO | Capacity | Type | Status |
|---|---|---|---|---|
| **Lissane West Solar Farm** | DSO | 18.3 | solar not priority | due to connected |
| **Manusmore Solar Park** | TSO | 60.0 | solar not priority | due to connected |
| **Ballingaddy Solar** | DSO | 4.99 | solar not priority | due to connected |
| **Cahershaughnessy Solar** | DSO | 8.8 | solar not priority | due to connected |

*Table 2-19 - Generation Included in Study for Node Ennis*

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

| Area D | 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 | | 46 | 92 | | | | | |
| **Installed Capacity (MW)** | 2030 | | 46 | 92 | 92 | 92 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 92 | 92 | 92 |
| **Available Energy (GWh)** | 2028 | | 54 | 108 | | | | | |
| **Available Energy (GWh)** | 2030 | | 54 | 108 | 108 | 108 | | | |
| **Available Energy (GWh)** | FG | | | | | | 108 | 108 | 108 |
| **Generation (GWh)** | 2028 | | 45 | 77 | | | | | |
| **Generation (GWh)** | 2030 | | 44 | 77 | 67 | 71 | | | |
| **Generation (GWh)** | FG | | | | | | 80 | 73 | 86 |
| **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 | | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 1 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | | 17 % | 29 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | | 18 % | 28 % | 38 % | 34 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 26 % | 32 % | 20 % |

*Table 2-20 - Surplus, Curtailment and Constraint for Solar non-priority for Node Ennis*

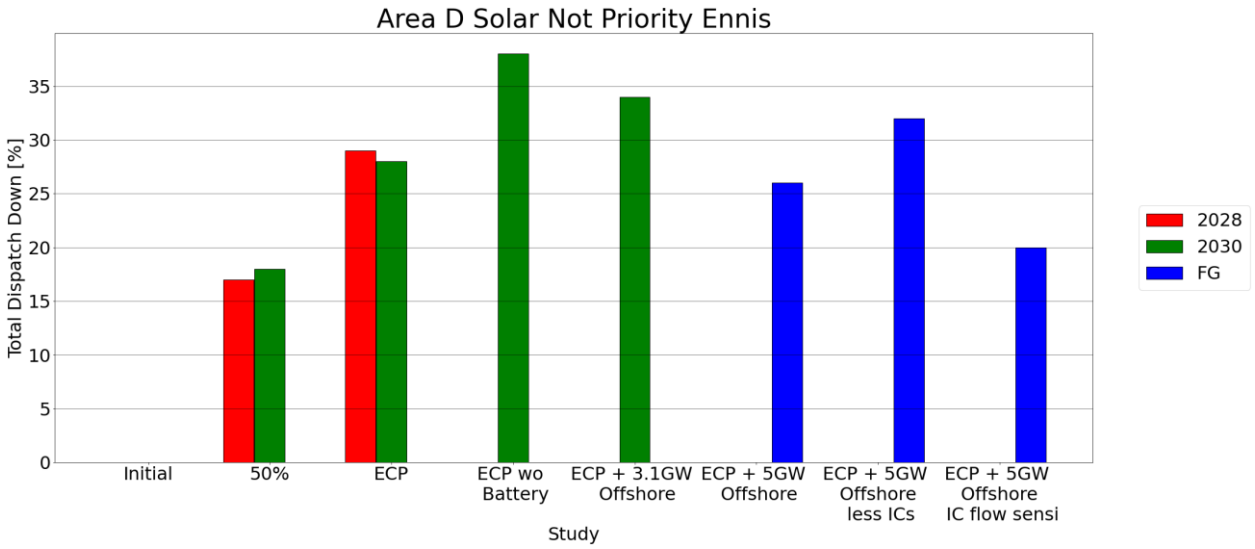



*Figure 2-12 - Total Dispatch Down for Solar not priority for Node Ennis*

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

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 92 | |
| **Installed Capacity (MW)** | 2030 | 92 | 92 |
| **Available Energy (GWh)** | 2028 | 108 | |
| **Available Energy (GWh)** | 2030 | 108 | 108 |
| **Generation (GWh)** | 2028 | 77 | |
| **Generation (GWh)** | 2030 | 77 | 71 |
| **Surplus (%)** | 2028 | 23 % | |
| **Surplus (%)** | 2030 | 25 % | 31 % |
| **Curtailment (%)** | 2028 | 6 % | |
| **Curtailment (%)** | 2030 | 4 % | 4 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 29 % | |
| **Total Dispatch Down (%)** | 2030 | 28 % | 34 % |

*Table 2-21- Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Ennis*

## 2.6 Slievecallan


*Figure 2-13- Location of node Slievecallan*

| Generator | SO | Capacity | Type | Status |
|---|---|---|---|---|
| **Knockalassa (formerly Keelderry)** | TSO | 26.875 | wind priority | connected |
| **Boolinrudda (formerly Loughaun North)** | TSO | 45.0 | wind priority | connected |

*Table 2-22 - Generation Included in Study for Node Slievecallan*

The wind priority data is given in the following table.

| Area D | 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 | 72 | 72 | 72 | | | | | |
| **Installed Capacity (MW)** | 2030 | 72 | 72 | 72 | 72 | 72 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 72 | 72 | 72 |
| **Available Energy (GWh)** | 2028 | 225 | 225 | 225 | | | | | |
| **Available Energy (GWh)** | 2030 | 223 | 223 | 223 | 223 | 223 | | | |
| **Available Energy (GWh)** | FG | | | | | | 223 | 223 | 223 |
| **Generation (GWh)** | 2028 | 203 | 205 | 203 | | | | | |
| **Generation (GWh)** | 2030 | 209 | 211 | 210 | 205 | 208 | | | |
| **Generation (GWh)** | FG | | | | | | 211 | 211 | 217 |
| **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 % | 8 % | 7 % | | | |
| **Curtailment (%)** | FG | | | | | | 6 % | 5 % | 3 % |
| **Constraint (%)** | 2028 | 0 % | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 0 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 0 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | 9 % | 10 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 7 % | 6 % | 6 % | 8 % | 7 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 6 % | 5 % | 3 % |

*Table 2-23 - Surplus, Curtailment and Constraint for Wind priority for Node Slievecallan*

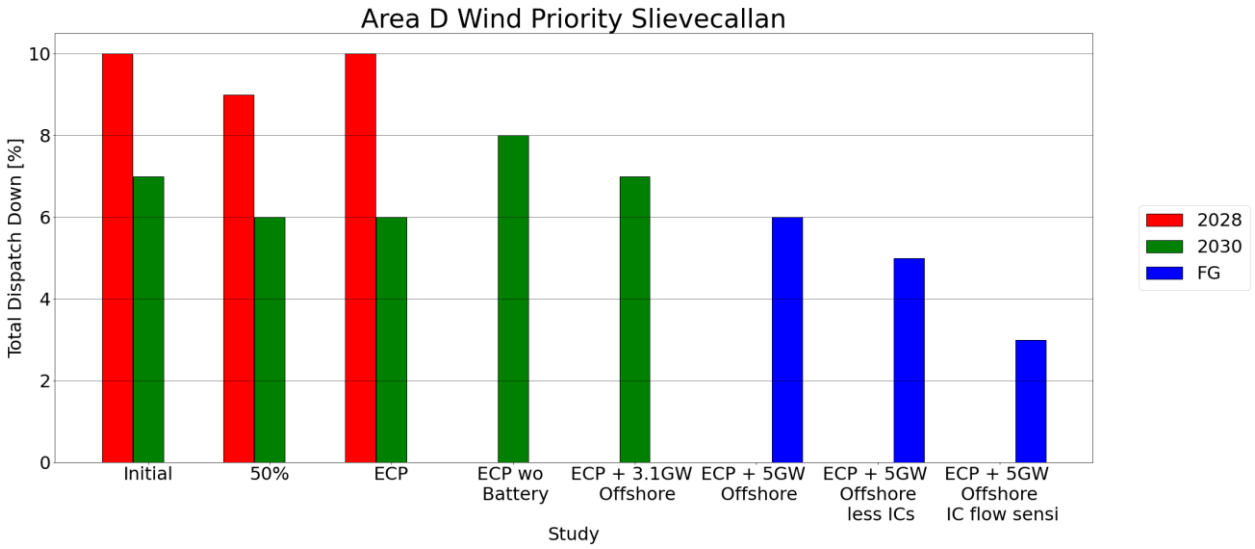



*Figure 2-14 - Total Dispatch Down for Wind priority for Node Slievecallan*

The wind priority with sensitivity data is given in the following table.

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 72 | |
| **Installed Capacity (MW)** | 2030 | 72 | 72 |
| **Available Energy (GWh)** | 2028 | 225 | |
| **Available Energy (GWh)** | 2030 | 223 | 223 |
| **Generation (GWh)** | 2028 | 203 | |
| **Generation (GWh)** | 2030 | 210 | 207 |
| **Surplus (%)** | 2028 | 0 % | |
| **Surplus (%)** | 2030 | 0 % | 0 % |
| **Curtailment (%)** | 2028 | 10 % | |
| **Curtailment (%)** | 2030 | 6 % | 7 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | |
| **Total Dispatch Down (%)** | 2030 | 6 % | 7 % |

*Table 2-24 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Slievecallan*

## 2.7 Tullabrack


*Figure 2-15 - Location of node Tullabrack*

| Generator | SO | Capacity | Type | Status |
|---|---|---|---|---|
| **Moanmore (1)** | DSO | 12.6 | wind uncontrolled | connected |
| **Tullabrack (1)** | DSO | 13.8 | wind priority | connected |
| **Carrownawelaun (1)** | DSO | 4.6 | wind uncontrolled | connected |

*Table 2-25 - Generation Included in Study for Node Tullabrack*

The wind priority data is given in the following table.

| Area D | 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 | 14 | 14 | 14 | | | | | |
| **Installed Capacity (MW)** | 2030 | 14 | 14 | 14 | 14 | 14 | | | |
| **Installed Capacity (MW)** | FG | | | | | | 14 | 14 | 14 |
| **Available Energy (GWh)** | 2028 | 43 | 43 | 43 | | | | | |
| **Available Energy (GWh)** | 2030 | 43 | 43 | 43 | 43 | 43 | | | |
| **Available Energy (GWh)** | FG | | | | | | 43 | 43 | 43 |
| **Generation (GWh)** | 2028 | 39 | 39 | 39 | | | | | |
| **Generation (GWh)** | 2030 | 40 | 40 | 40 | 39 | 40 | | | |
| **Generation (GWh)** | FG | | | | | | 40 | 41 | 42 |
| **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 % | 8 % | 7 % | | | |
| **Curtailment (%)** | FG | | | | | | 6 % | 5 % | 3 % |
| **Constraint (%)** | 2028 | 0 % | 0 % | 0 % | | | | | |
| **Constraint (%)** | 2030 | 0 % | 0 % | 0 % | 0 % | 0 % | | | |
| **Constraint (%)** | FG | | | | | | 0 % | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | 9 % | 10 % | | | | | |
| **Total Dispatch Down (%)** | 2030 | 7 % | 6 % | 6 % | 8 % | 7 % | | | |
| **Total Dispatch Down (%)** | FG | | | | | | 6 % | 5 % | 3 % |

*Table 2-26 - Surplus, Curtailment and Constraint for Wind priority for Node Tullabrack*

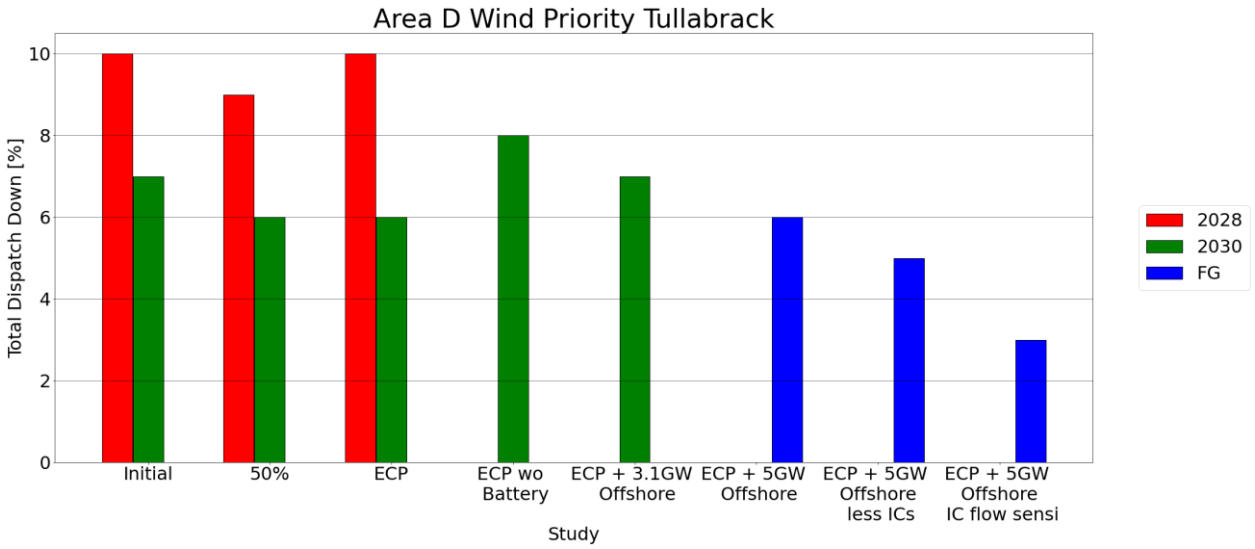



*Figure 2-16 - Total Dispatch Down for Wind priority for Node Tullabrack*

The wind priority with sensitivity data is given in the following table.

| Area D | Year | ECP | ECP + 3.1GW Offshore |
|---|---|---|---|
| **Installed Capacity (MW)** | 2028 | 14 | |
| **Installed Capacity (MW)** | 2030 | 14 | 14 |
| **Available Energy (GWh)** | 2028 | 43 | |
| **Available Energy (GWh)** | 2030 | 43 | 43 |
| **Generation (GWh)** | 2028 | 39 | |
| **Generation (GWh)** | 2030 | 40 | 40 |
| **Surplus (%)** | 2028 | 0 % | |
| **Surplus (%)** | 2030 | 0 % | 0 % |
| **Curtailment (%)** | 2028 | 10 % | |
| **Curtailment (%)** | 2030 | 6 % | 7 % |
| **Constraint (%)** | 2028 | 0 % | |
| **Constraint (%)** | 2030 | 0 % | 0 % |
| **Total Dispatch Down (%)** | 2028 | 10 % | |
| **Total Dispatch Down (%)** | 2030 | 6 % | 7 % |

*Table 2-27 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Tullabrack*