Enduring Connection Policy 2.4

Solar and Wind Constraints Report: Results for Area A

Version 1.0

31/03/25

EirGrid

The Oval, 160 Shelbourne Road, Ballsbridge, Dublin D04 FW28
Telephone: +353 1 677 1700 | www.eirgrid.ie

Revision History						
Revision	**Date**	**Description**	**Originator**	**Reviewer**	**Checker**	**Approver**

Disclaimer

EirGrid has followed accepted industry practice in the collection and analysis of data available. While all reasonable care has been taken in the preparation of this data, EirGrid is not responsible for any loss that may be attributed to the use of this information. Prior to taking business decisions, interested parties are advised to seek separate and independent opinion in relation to the matters covered by this report and should not rely solely upon data and information contained herein. Information in this document does not amount to a recommendation in respect of any possible investment. This document does not purport to contain all the information that a prospective investor or participant in the Single Electricity Market may need.

For queries relating to the document or to request a copy contact:

info@eirgrid.com

Copyright Notice

The Oval, 160 Shelbourne Road, Ballsbridge, Dublin 4, D04 FW28, Ireland

Table of Contents

Document Structure

This document is for customers wishing to see the estimated Total Dispatch Down for Area A. For information on the study assumptions, methodology, abbreviations, and terms used for the Constraint Analysis reports, please see the area non-specific Assumptions and Methodology report found on the ECP-2.4 webpage[1].

This document contains two main sections:

Section 1: Results for Area A: outlines the area covered by this report. This section provides a network diagram of Area A and an overview of the results for Area A.

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

[1] https://www.eirgrid.ie/industry/customer-information/ecp-constraint-forecast-reports#ecp-2.4-constraint-reports-for-solar-and-wind

Important Note

This ECP-2.4 constraints report presents an estimate of the reduction in available solar and wind generation based on the study assumptions described. The reduction in available generation has been split into three categories for the purposes of this study: surplus, curtailment, and constraint.

Following the Judicial decision on the SEM-22-009 Decision Paper on Dispatch, Redispatch and Compensation Pursuant to Regulation EU 2019/943, the detailed design for implementing Articles 12 and 13 is yet to be determined and may differ from the implementation for Total Dispatch Down used in this study. Therefore, an assumed interpretation will be used for ECP-2.4 Constraint Analysis that applies a grandfathering[2] approach to resolving Surplus and Constraint conditions. However, in addition to the Core ECP 2.4 constraint forecast studies a set of sensitivity studies are also included in the study scenarios which employs pro-rata allocation of constraints.

This report uses the term "Total Dispatch Down" to refer to the total reduction in available solar and wind generation i.e., the sum of surplus, curtailment, and constraint, and is considered the key indicator for the results. However, it is important to note that the term "dispatch down" is more correctly applicable only to TSO instructions to reduce generation output from a market position, as is the case for curtailment and constraint, and is not necessarily applicable to a generator reducing its own output from its availability to a market position so that supply and demand are balanced, as is the case for surplus.

The results presented in this report are based on the simulation and modelling assumptions described. The findings are indicative only and this report should in no way be read as a guarantee as to future levels of surplus, curtailment, and constraint. The modelling of interconnectors is kept consistent with ECP 2.3 constraint forecast.

The battery sensitivity is termed as "ECP Battery", in which the non-connected batteries from the ECP scenario has been removed.

[2] 'Grandfathering' is where an old rule continues to apply to some existing situations while a new rule will apply to future cases. In the context of Article 12 and Article 13, grandfathering refers to the distinction between how priority dispatch renewable generators (those installed prior to 4th July 2019) and non-priority dispatch renewable generators (those installed on and after 4th July 2019) are treated in the SEM.

1 Results for Area A

1.1 Introduction

This section provides the surplus, curtailment and constraint results for Area A that are estimated by this analysis. There is a total of six core ECP-2.4 studies and nine sensitivity studies (including without maintenance) presented in this report. The study scenarios and the associated assumptions can be found in the Assumptions and Methodology report. An overview and discussion of the results is provided in this Section. The surplus, curtailment, and constraint results for each node in Area A are provided in Section 2 of this report.

1.2 Study Notes

A list of the major study assumptions is provided in the Assumptions and Methodology report. For Area A, there are a number of key assumptions which drive the results, including network outages and capacity factors. These are thus reiterated here. Similarly, it is worth highlighting again the differences between the various components of Total Dispatch Down.

1.2.1 Network Outages

The scenarios in this report are intended to give a view of average long-term levels of surplus, curtailment, and constraint, subject to installed generation, demand, interconnection, operational constraints, and reinforcement delivery.

The ECP-2.4 constraints forecast analysis applies a similar transmission outage schedule to the ECP-2.3 constraints analysis. This was kept consistent with last year's schedule following positive feedback from industry. This schedule allows a representation of outage impact in each geographical area to be included in the studies.

This representative transmission outage schedule is given in Appendix A of the Assumptions and Methodology report. However, at times, longer duration outages may be required for certain connections, reinforcement works or forced outages work. These are not considered in this analysis and may result in higher wind and solar constraints in reality.

1.2.2 Benefit of Capacity Factor

In practice, a specific windfarm may be located at a site with higher wind speeds or may have a better performing type of wind turbine; the result is a higher capacity factor than neighbouring windfarms. This report does not reflect such localised diversity between windfarm sites. In reality, a windfarm with a higher capacity factor may see lower percentage surplus, curtailment, or constraint levels than an adjacent windfarm with a lower capacity factor. This is because at times of medium or low wind speed, the high-capacity factor windfarm can generate power when the low-capacity factor windfarm cannot.

1.2.3 Notes on Surplus, Curtailment and Constraint Modelling

1.2.3.1 Surplus

During generation reduction for surplus, a distinction is made between the treatment of priority and non-priority renewable generators, with non-priority generators being dispatched down ahead of priority generators. Within these two categories of generation, surplus is applied pro-rata across the all-island system for all non-priority renewable generators.

For any hour of the study, the surplus level will depend on system demand and interconnector flow capacity. In general, surplus is expected to increase with increasing installed renewable capacity.

It is expected that the further interconnection of the all-Island network with mainland UK and Europe will decrease the frequency of surplus conditions occurring.

In general, increased interconnector capacity with mainland UK may not necessarily eliminate surplus generation as solar and wind profiles in mainland UK will largely be in line with those in Ireland. In the Future Grid study year however, when both the Celtic and 2nd Ireland-France interconnectors are connected, there will be a greater export capacity during times of abundant renewable generation to mainland Europe where similar wind and solar generation in Ireland and mainland Europe is not expected.

Therefore, dispatch down due to surplus generation may not occur as frequently once both the Celtic and 2nd Ireland-France interconnectors are connected.

1.2.3.2 Curtailment

In this report, for each hour of the study, the curtailment is shared pro-rata on a system-wide basis with no distinction made between priority and non-priority generators. This means that both curtailment reductions and curtailment increases are shared system wide.

Solar generation has different reported levels of curtailment compared to wind due to different capacity factors and annual profile shapes.

The applied curtailment is broadly constant across the system. However, due to differences in wind and solar profiles and capacity factors between areas, the percentage of average curtailment differs between areas.

1.2.3.3 Constraints

The constraints on renewable generation are treated differently in different years. In 2029 and Future Grid scenario, for the constraint of renewable generation, a distinction is made between priority and non-priority generators, with non-priority generators being dispatched down ahead of priority generators across the relevant transmission nodes within the subgroup. Such application is termed as grandfathering of constraints. However, in 2027 study the constraints are allocated pro-rata to all renewable generator nodes within the subgroup. Additionally, in relevant sensitivity scenarios, grandfathering or pro-rata constraints allocation are applied accordingly. More details on the approach assumed in this study for the application of constraints to renewable generation can be found in the main ECP 2.4 Assumptions and Methodology report.

In general, there is a tendency for renewable bulk power to flow towards the demand in Dublin and the interconnectors. These flow patterns are relevant when seeking to understand constraint apportionment in the simulation.

When presented as percentage values, the constraint results look different for solar and wind, as they have a low correlation due to different profile shapes driven by weather patterns.

1.3 Generation Overview

A detailed system-level overview of the renewable generation scenarios used in these studies is given in Section 2 of the area non-specific Assumptions and Methodology report. The distribution of generation in each scenario based on technology, area and node is given in Appendix B of the Assumptions and Methodology report. The node-level installed wind and solar generation for Area A in the "ECP" scenario is given in Table 1-1.

Node	SO	Status	Solar	Wind
Ardnagappary	DSO	connected		18
Ardnagappary	DSO	due to connect		9
Ardnagappary	DSO	connected		5
Arigna	DSO	due to connect		2
Arigna	DSO	connected		16
Binbane	DSO	connected		24
Binbane	DSO	due to connect		28
Binbane	DSO	connected		36
Binbane	DSO	connected		5
Cathaleen'S Fall	DSO	due to connect		38
Cathaleen'S Fall	DSO	connected		18
Cathaleen'S Fall	DSO	connected		5
Corderry	DSO	due to connect		37
Corderry	DSO	connected		46
Corderry	DSO	connected		17
Croaghonagh	TSO	connected		138
Garvagh	TSO	due to connect	40	
Garvagh	DSO	connected		34
Garvagh	TSO	connected		48
Golagh	TSO	due to connect		63
Golagh	TSO	connected		15
Gortawee	DSO	due to connect		4
Lenalea	TSO	connected		30
Lenalea	TSO	due to connect		72
Letterkenny	DSO	due to connect		20
Letterkenny	DSO	connected		40
Meentycat	TSO	connected		85
Mulreavy	TSO	connected		95
Sorne Hill	DSO	connected		48
Sorne Hill	DSO	connected		14
Tievebrack	TSO	due to connect		30
Trillick	DSO	connected		31
Trillick	DSO	connected		14
Total			40	1085

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

Solar	ECP	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Ireland (MW)	7005	7005	7005	7005
Installed Area A (MW)	40	40	40	40
Installed Controllable Area A (MW)	40	40	40	40
Available Controllable Area A (GWh)	42	42	42	42

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

Wind	ECP	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Ireland (MW)	7358	10432	12358	12358
Installed Area A (MW)	1085	1085	1085	1085
Installed Controllable Area A (MW)	951	951	951	951
Available Controllable Area A (GWh)	2750	2750	2750	2750

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

1.4 Network Overview

Area A, in the northwest of the country includes a mix of wind and solar generation. A summary of this generation is given in Table 1.1.

The transmission network in Area A and the surrounding area is shown in Figure 1-1. 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 below.

Figure 1-1 Network Map for Area A

At times of high renewable generation, there is a net export of power from Area A, and the dominant power flows tend to be from Area A 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 A 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 A.

Also, the power flowing out of Area A meets and joins with power flows from other areas, as the power flows towards the demand centres and interconnectors. A transmission bottleneck between Area A and the east is shared with power flows coming from other areas.

1.5 Future Grid Sensitivity Scenario

In line with the previous ECP constraint forecasts, and in response to feedback from industry, the Future Grid scenario is included in the analysis. All reasonable efforts have been made to align the network assumptions in the Future Grid scenario to the Shaping Our Electricity Future (SOEF) 1.1 Roadmap. The network projects included in the study are given in Appendix A of the Assumptions and Methodology report found on the ECP-2.4 webpage. Additionally, any project that has progressed to stage three of the six stage project planning process after the publication of the SOEF 1.1 Roadmap are also included in the Future Grid studies. Note however, that the wind and solar generation portfolio in the ECP-2.4 Future Grid scenario differs from the wind and solar portfolio considered in the SOEF 1.1 Roadmap. This is done to maintain alignment with the ECP-2.4 process. The ECP study scenario includes all wind and solar projects which have applied through connection processes, whereas the SOEF 1.1 study includes prospective list of generators to achieve the capacity volumes stated in the Climate Action Plan 23.

The Future Grid study includes a base renewable generation scenario (ECP), along with four sensitivity generation scenarios (ECP + 3.1 GW offshore, ECP + 5 GW offshore, ECP + 5 GW offshore without LirIC and 2nd France IC, and a maintenance sensitivity study). The scenarios with additional offshore wind have been included to show the potential impact of increasing offshore wind on Total Dispatch Down levels.

The demand modelled for the Future Grid scenario is based on the medium demand scenario for 2030 as published in the All-Island Resource Adequacy Assessment 2025-2034.

The purpose of the Future Grid scenario is to provide insights on the potential impact of the SOEF 1.1 Roadmap network reinforcement portfolio on the dispatch down of wind and solar generators. This study is not intended to be exhaustive; it is not intended to remove all transmission constraints and it does not give individual generators guarantee that their Total Dispatch Down will change to the estimated levels.

1.6 Area A – Average Results

The Total Dispatch Down results for Area A are provided below in Table 1-5 to Table 1-12 and Figure 1-3 to Figure 1-6. These include the breakdown between surplus, curtailment, and constraint. The Table 1-6, Table 1-8, Table 1-10 and Table 1-12 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 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 2029 studies are compared with 2027 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 A (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 1-12. 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 Section 2 of the Assumptions and Methodology report.

1.6.1 Offshore Wind Sensitivity Studies

Results for the offshore wind-based sensitivity studies are included, along with results for the core scenarios. The general trend is that with increasing levels of offshore wind, Total Dispatch Down increases due to significant increases in the available wind energy, which in turn leads to increased levels of surplus.

1.6.2 Impact of Article 12 and 13

Higher Total Dispatch Down is observed for non-priority generators due to the impact of the implementation of grandfathering of surplus and constraints, which results in non-priority generators being reduced ahead of priority generators for surplus and constraint reasons. More detail on the Article 12 clause is available in Section 3.6 of the Assumptions and Methodology report.

Another factor that contributes to the higher total dispatch down for non-priority wind and solar units is the proportion of priority to non-priority units within a subgroup. If a subgroup has a high volume of priority wind/solar units to non-priority wind/solar units, then this can result in the constraints that would usually be allocated to the priority units only allocated to the non-priority units (due to the grandfathering of constraints). This can result in high constraints percentage for non-priority units within a subgroup.

1.6.3 Battery Sensitivity

The ECP 2.4 constraint forecast study scenarios include a battery sensitivity study. The installed capacity of wind and solar is same as that of ECP scenario while the network and demand are of 2029 study year. The constraint allocation is based on grandfathering. The results show a higher level of Total Dispatch Down especially contributed by the surplus component. During higher RES conditions, with the batteries included, the excess energy available are stored and utilized during low RES available. A detailed breakdown of the Total Dispatch Down components with batteries are given in the section 2 of this report.

1.6.4 Future Grid Sensitivity Study

The results of the Future Grid scenario show a notable reduction in Total Dispatch Down over the core study years (2027 and 2029) due to the impact of the SOEF 1.1 Roadmap network reinforcements, increased demand levels, increased interconnection, and the relaxation of operational constraints. However, increases in installed wind and solar generation, as seen in the offshore wind scenarios, result in rising surplus levels, causing an increase in Total Dispatch Down levels. A detailed breakdown of the Total Dispatch Down components for Area A under the Future Grid scenarios and associated sensitivity case is given in Table 1-5 to Table 1-12. Further node level details can be viewed in Section 2.

1.6.5 Area Subgroups

The constraint forecast study, which is performed using PLEXOS software, applies mathematical optimisation to find the lowest cost generator dispatch schedule to meet demand, subject to several system and transmission level constraints. To ensure the model is impartial, the assumptions on the cost of renewable generators remain the same, irrespective of technology or location, and are always lower than that of conventional plants. This ensures renewable generators are given priority in the PLEXOS optimisation. However, due to network congestion caused by line limits and N-1 contingency security checks, the power flows in certain lines are limited, causing dispatch down in RES generators which may affect one generator or multiple generators chosen by PLEXOS' internal logic. During various initial studies, it was observed that PLEXOS may repeatedly choose the same generator(s) to dispatch down to manage an issue in a region shared by multiple generators.

There is often 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 TSO 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 Area A is a wind heavy region with a significant volume of wind generation with around 1 GW of installed wind capacity in the full ECP study. Together in Area A, B and C there is 2.5 GW of wind installed. During times of high wind scenario, a major portion of the power flowing through Area A flows into the Srananagh 220 kV station in Area B. This is additional to the power flow from the Area B circuits. The power flow from Srananagh 220kV to Flagford 220kV becomes one of the major bottlenecks in this area. Furthermore, in Area A, loss of any parallel sections from Letterkenny station to Srananagh station can potentially overload the parallel 110kV circuits during high power flow.

With the Area B North region, the contingency created by loss of either side of the 110kV lines from Bellacorick overloading the other becomes a significant issue. However, by the year 2029, this region benefits with the inclusion of the North Connacht project between Moy and Tonroe station.

The lines overloading in Area A and north of Area B cause generators to be dispatched down in Area A, north of Area B. During the high-RES scenarios, the power from each of these areas tends to flow onto the 220 kV circuits, and then towards the load centres in Dublin.

Additionally, contingency on the 220 kV circuits will put additional stress on the supporting 110 kV circuits, causing dispatch down of RES generators in the area. The 110 kV parallel paths are critical transmission infrastructure in these areas during times of high wind. Any loss of these 110 kV parallel lines results in additional dispatch down.

The generation from the north of Area B is also pooled into the Srananagh and Flagford stations. Hence the bottleneck around Flagford and Srananagh is effectively shared between the generators in Area A and north of Area B.

With the Future Grid scenario, this region gets further benefit from the additional network reinforcements.

It was observed that the PLEXOS internal logic was constantly choosing the same set of generators to dispatch down with respect to multiple contingencies in the area, thus identifying a need to share the constraints.

The contingencies and overloaded lines associated with the area are included in Appendix C of the Assumptions and Methodology report.

Analysis of Area A identified a constraint subgroup for solar and wind generation to include Area A and the north of Area B, which is a path following the general power flow. The Gortawee node is included in the G North subgroup. The subgroup nodes are given in Table 1-4. However, in this report, 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
A, B North	Ardnagappary
	Arigna
	Binbane
	Cathaleen's Fall
	Corderry
	Croaghonagh
	Garvagh
	Golagh
	Lenalea
	Letterkenny
	Meentycat
	Mulreavy
	Sorne Hill
	Tievebrack
	Trillick
G North	Gortawee

Table 1-4 Area A generators nodes and their subgroups

Figure 1-2 Subgroups A & B North and G North (subgroups outlined by blue dashed line)

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

Area A (A, B North)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		20	40				
Installed Capacity (MW)	2029		20	40	40			
Installed Capacity (MW)	FG			40		40	40	40
Available Energy (GWh)	2027		21	42				
Available Energy (GWh)	2029		21	42	42			
Available Energy (GWh)	FG			42		42	42	42
Generation (GWh)	2027		17	31				
Generation (GWh)	2029		18	33	30			
Generation (GWh)	FG			37		36	34	32
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailment (%)	2027		2 %	4 %				
Curtailment (%)	2029		1 %	3 %	5 %			
Curtailment (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		9 %	7 %				
Constraint (%)	2029		10 %	9 %	9 %			
Constraint (%)	FG			5 %		3 %	2 %	1 %
Total Dispatch Down (%)	2027		17 %	25 %				
Total Dispatch Down (%)	2029		15 %	21 %	29 %			
Total Dispatch Down (%)	FG			11 %		15 %	19 %	25 %

Table 1-5 Surplus, Curtailment and Constraint for Solar Non-Priority in Area A (A, B North)

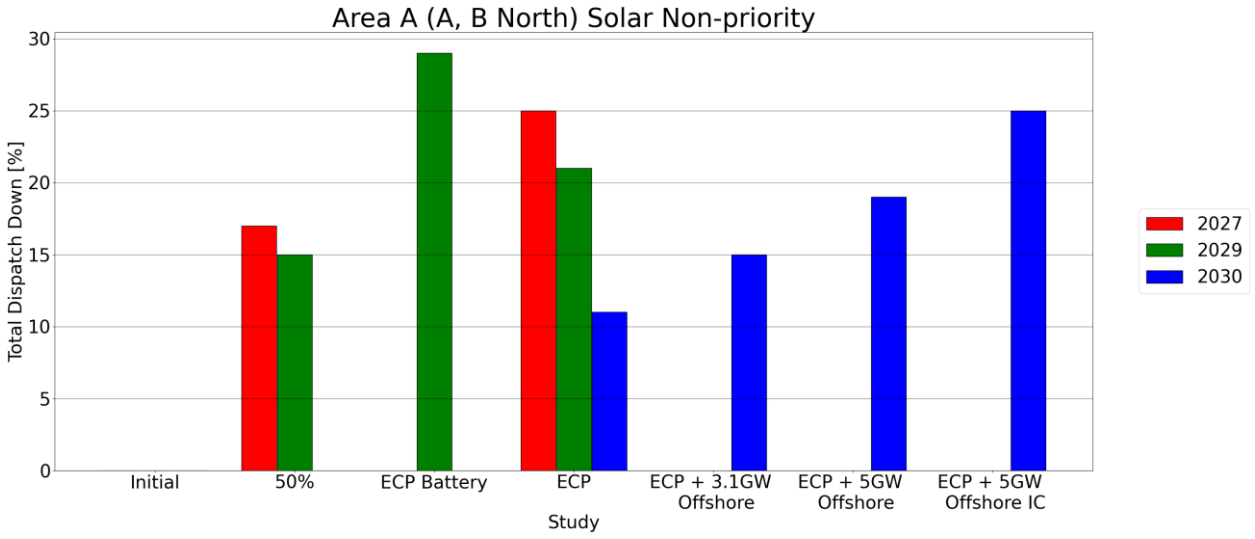

Figure 1-3 Results Solar Non-Priority Area A (A, B North)

Area A (A, B North)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	20	
Installed Capacity (MW)	2029 (pro-rata)	20	
Installed Capacity (MW)	FG (pro-rata)		40
Available Energy (GWh)	2027 (GF)	21	
Available Energy (GWh)	2029 (pro-rata)	21	
Available Energy (GWh)	FG (pro-rata)		42
Generation (GWh)	2027 (GF)	17	
Generation (GWh)	2029 (pro-rata)	18	
Generation (GWh)	FG (pro-rata)		36
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailment (%)	2027 (GF)	2 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	9 %	
Constraint (%)	2029 (pro-rata)	10 %	
Constraint (%)	FG (pro-rata)		3 %
Total Dispatch Down (%)	2027 (GF)	17 %	
Total Dispatch Down (%)	2029 (pro-rata)	15 %	
Total Dispatch Down (%)	FG (pro-rata)		15 %

Table 1-6 Surplus, Curtailment and Constraint for Solar Non-Priority with sensitivity in Area A (A, B North)

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

Area A (A, B North)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	280	410	541				
Installed Capacity (MW)	2029	280	410	541	541			
Installed Capacity (MW)	FG			541		541	541	541
Available Energy (GWh)	2027	810	1187	1564				
Available Energy (GWh)	2029	810	1187	1564	1564			
Available Energy (GWh)	FG			1564		1564	1564	1564
Generation (GWh)	2027	534	802	939				
Generation (GWh)	2029	300	716	882	788			
Generation (GWh)	FG			1113		1101	1019	935
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	63 %	36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027	34 %	32 %	40 %				
Total Dispatch Down (%)	2029	63 %	40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 1-7 Surplus, Curtailment and Constraint for Wind Non-Priority in Area A (A, B North)

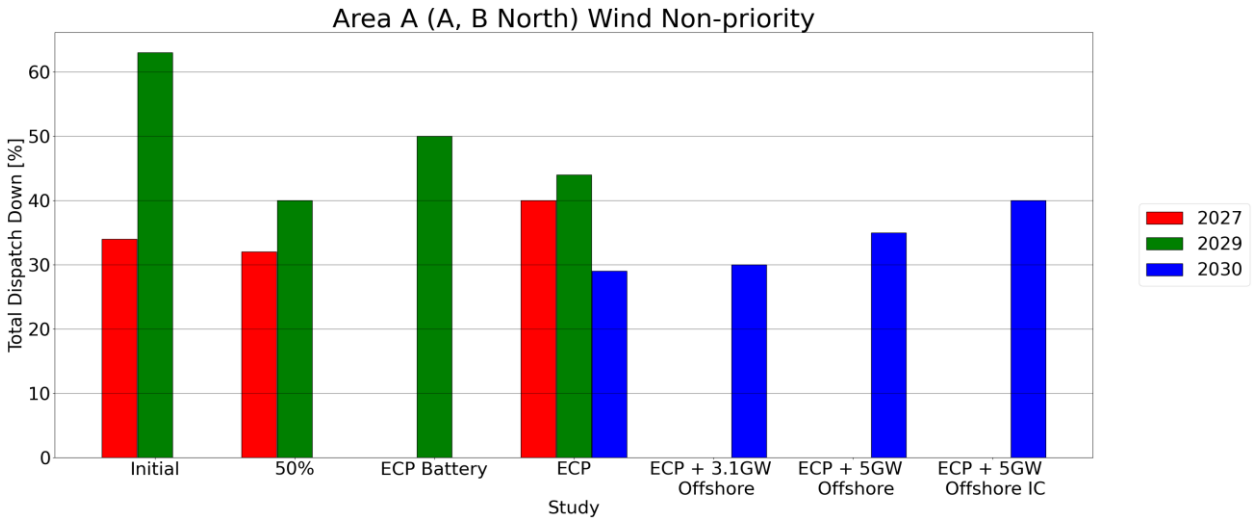

Figure 1-4 Results Wind Non-Priority in Area A (A, B North)

Area A (A, B North)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	410	
Installed Capacity (MW)	2029 (pro-rata)	410	
Installed Capacity (MW)	FG (pro-rata)		541
Available Energy (GWh)	2027 (GF)	1187	
Available Energy (GWh)	2029 (pro-rata)	1187	
Available Energy (GWh)	FG (pro-rata)		1564
Generation (GWh)	2027 (GF)	590	
Generation (GWh)	2029 (pro-rata)	903	
Generation (GWh)	FG (pro-rata)		1188
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 1-8 Surplus, Curtailment and Constraint for Wind Non-Priority with sensitivity in Area A (A, B North)

The wind priority data is given in the following table.

Area A (A, B North)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	406	406	406				
Installed Capacity (MW)	2029	406	406	406	406			
Installed Capacity (MW)	FG			406		406	406	406
Available Energy (GWh)	2027	1174	1174	1174				
Available Energy (GWh)	2029	1174	1174	1174	1174			
Available Energy (GWh)	FG			1174		1174	1174	1174
Generation (GWh)	2027	783	853	833				
Generation (GWh)	2029	1171	1156	1135	1122			
Generation (GWh)	FG			1164		1142	1131	1119
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 1-9 Surplus, Curtailment and Constraint for Wind Priority in Area A (A, B North)

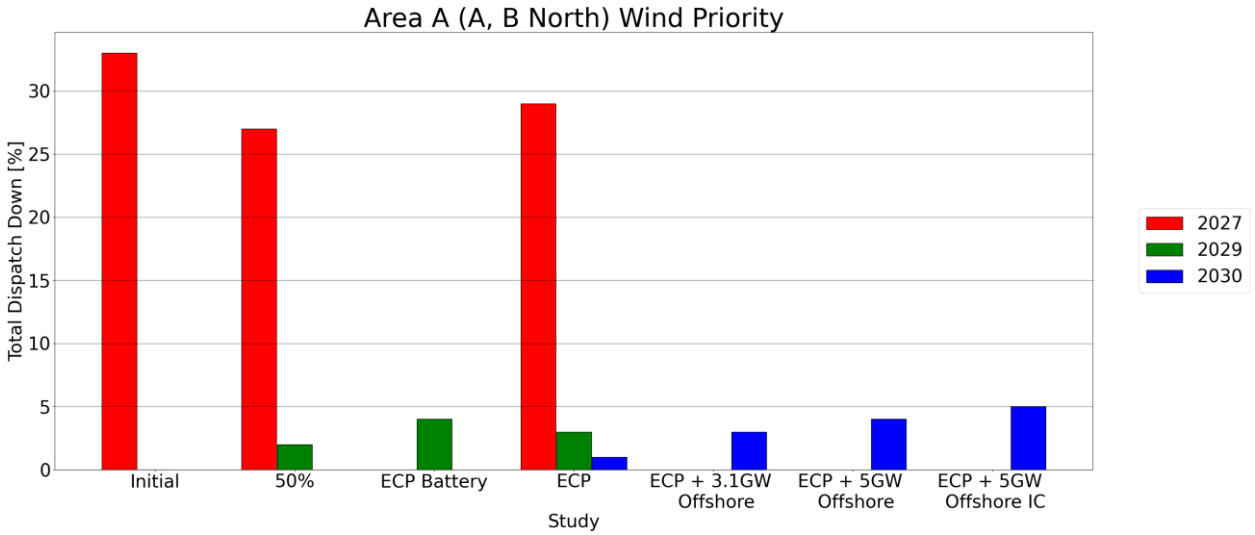

Figure 1-5 Results Wind Priority Area A (A, B North)

Area A (A, B North)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	406	
Installed Capacity (MW)	2029 (pro-rata)	406	
Installed Capacity (MW)	FG (pro-rata)		406
Available Energy (GWh)	2027 (GF)	1174	
Available Energy (GWh)	2029 (pro-rata)	1174	
Available Energy (GWh)	FG (pro-rata)		1174
Generation (GWh)	2027 (GF)	1126	
Generation (GWh)	2029 (pro-rata)	913	
Generation (GWh)	FG (pro-rata)		1030
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 1-10 Surplus, Curtailment and Constraint for Wind Priority with sensitivity in Area A (A, B North)

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

Area A (G North)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	4	4	4				
Installed Capacity (MW)	2029	4	4	4	4			
Installed Capacity (MW)	FG			4		4	4	4
Available Energy (GWh)	2027	12	12	12				
Available Energy (GWh)	2029	12	12	12	12			
Available Energy (GWh)	FG			12		12	12	12
Generation (GWh)	2027	12	10	9				
Generation (GWh)	2029	12	10	10	6			
Generation (GWh)	FG			6		10	9	8
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	2 %	9 %	10 %				
Constraint (%)	2029	5 %	10 %	11 %	35 %			
Constraint (%)	FG			49 %		4 %	1 %	0 %
Total Dispatch Down (%)	2027	4 %	18 %	28 %				
Total Dispatch Down (%)	2029	5 %	14 %	19 %	48 %			
Total Dispatch Down (%)	FG			52 %		19 %	26 %	34 %

Table 1-11 - Surplus, Curtailment and Constraint for Wind Non-priority in Area A (G North)

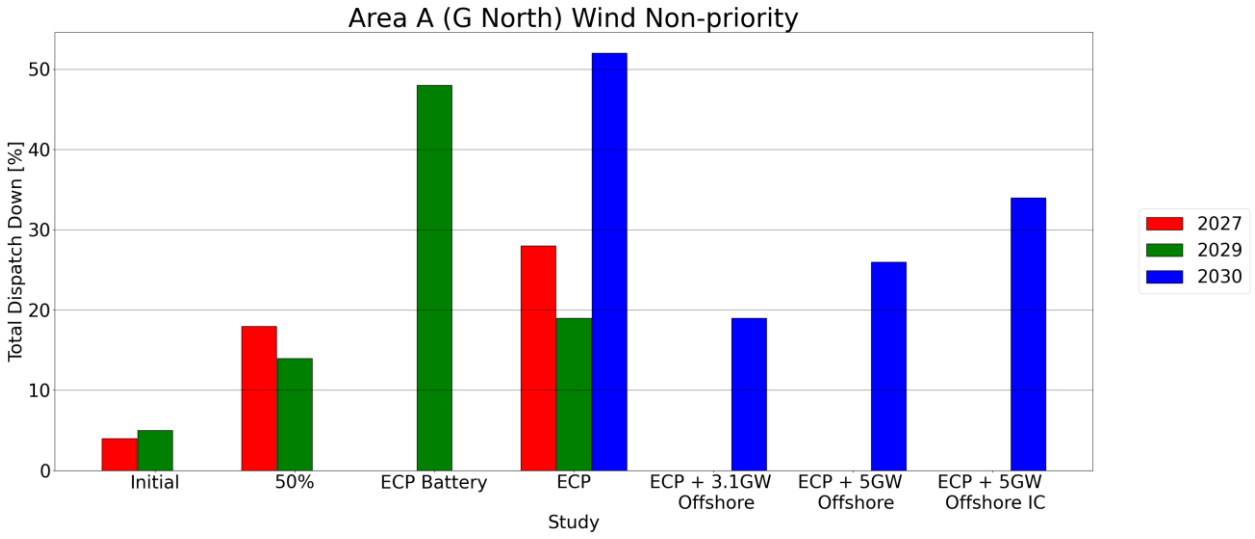

Figure 1-6 - Results Wind Non-priority Area A (G North)

Area A (G North)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	4	
Installed Capacity (MW)	2029 (pro-rata)	4	
Installed Capacity (MW)	FG (pro-rata)		4
Available Energy (GWh)	2027 (GF)	12	
Available Energy (GWh)	2029 (pro-rata)	12	
Available Energy (GWh)	FG (pro-rata)		12
Generation (GWh)	2027 (GF)	9	
Generation (GWh)	2029 (pro-rata)	11	
Generation (GWh)	FG (pro-rata)		10
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	19 %	
Constraint (%)	2029 (pro-rata)	5 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	28 %	
Total Dispatch Down (%)	2029 (pro-rata)	8 %	
Total Dispatch Down (%)	FG (pro-rata)		17 %

Table 1-12 - Surplus, Curtailment and Constraint for Wind Non-priority with sensitivity in Area A (G North)

1.7 Conclusion – Results for Area A

This section provides an overview of the estimated surplus, curtailment, and constraint values for Area A for a range of scenarios based on a number of installed generation assumptions (generation scenarios) and the study year (network and demand assumptions). The results highly depend on the study assumptions, which are described in the Assumptions and Methodology report.

Section 2 contains the detailed results consisting of available energy (GWh) and percentage surplus, curtailment, and constraint values for each node for both solar and wind in Area A.

2 Area A Node Results

This section presents the results of the modelling analysis for Area A. The levels of surplus, curtailment, and constraint that controllable solar and wind generators in Area A might expect to experience are reported on a nodal basis for the study scenarios. Details on the generation capacity at each node are also provided along with the assumed amount of controllable generation.

This section also presents a list of the generators at each node that are included in the study.

Figure 2-0 Area A

2.1 Ardnagappary

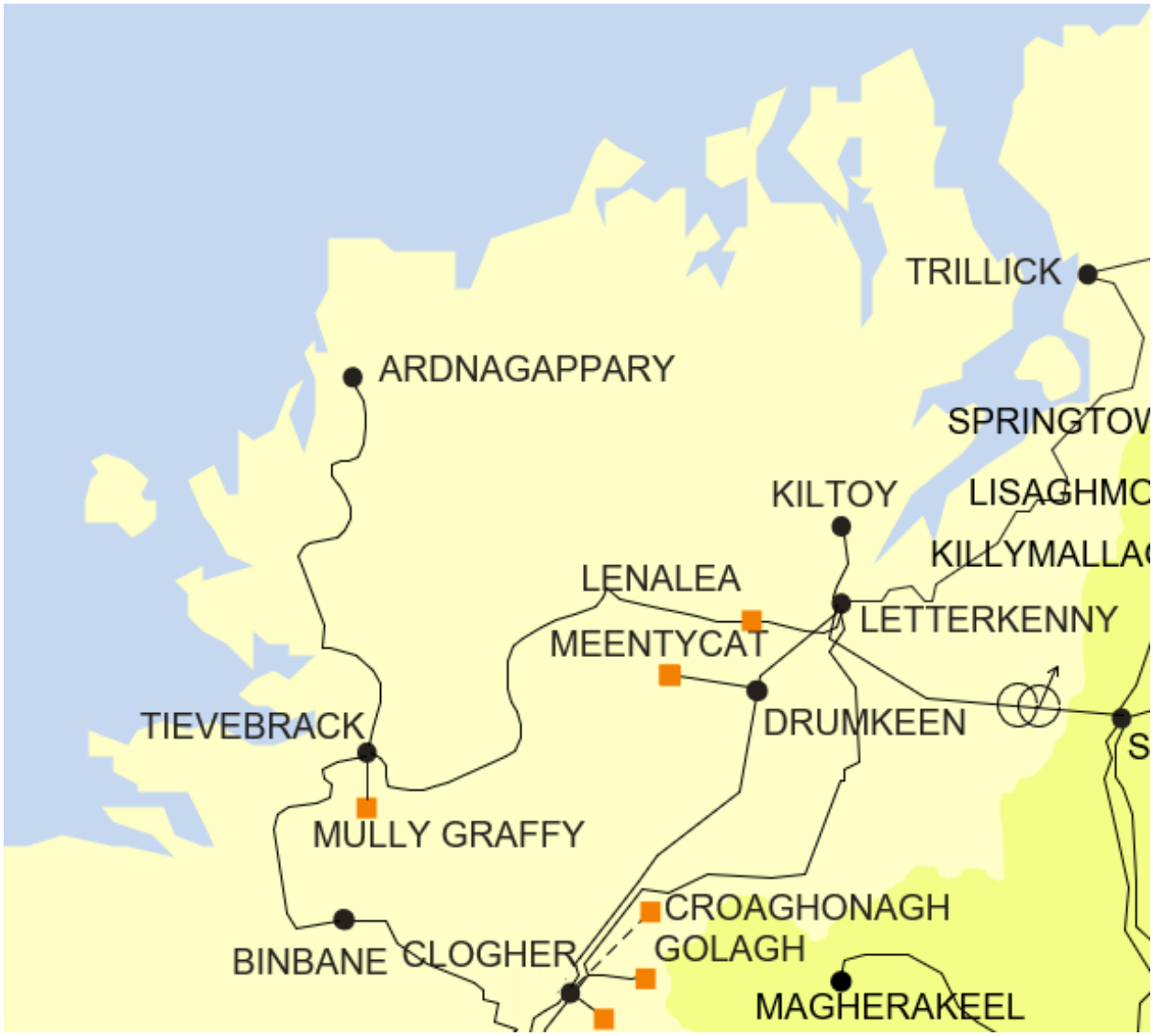

Figure 2-1 - Location of node Ardnagappary

Generator	SO	Capacity	Type	Status
Cronalaght (1)	DSO	4.98	wind uncontrolled	connected
Cronalaght (2)	DSO	17.96	wind not priority	connected
Cronalaght 3 Wind Farm	DSO	9.0	wind not priority	due to connect

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

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	18	22	27				
Installed Capacity (MW)	2029	18	22	27	27			
Installed Capacity (MW)	FG			27		27	27	27
Available Energy (GWh)	2027	52	65	78				
Available Energy (GWh)	2029	52	65	78	78			
Available Energy (GWh)	FG			78		78	78	78
Generation (GWh)	2027	34	44	47				
Generation (GWh)	2029	19	39	44	39			
Generation (GWh)	FG			55		55	51	47
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	63 %	36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027	34 %	32 %	40 %				
Total Dispatch Down (%)	2029	63 %	40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-2 - Surplus, Curtailment and Constraint for Wind non-priority at Ardnagappary

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	22	
Installed Capacity (MW)	2029 (pro-rata)	22	
Installed Capacity (MW)	FG (pro-rata)		27
Available Energy (GWh)	2027 (GF)	65	
Available Energy (GWh)	2029 (pro-rata)	65	
Available Energy (GWh)	FG (pro-rata)		78
Generation (GWh)	2027 (GF)	32	
Generation (GWh)	2029 (pro-rata)	49	
Generation (GWh)	FG (pro-rata)		59
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-3 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity at Ardnagappary

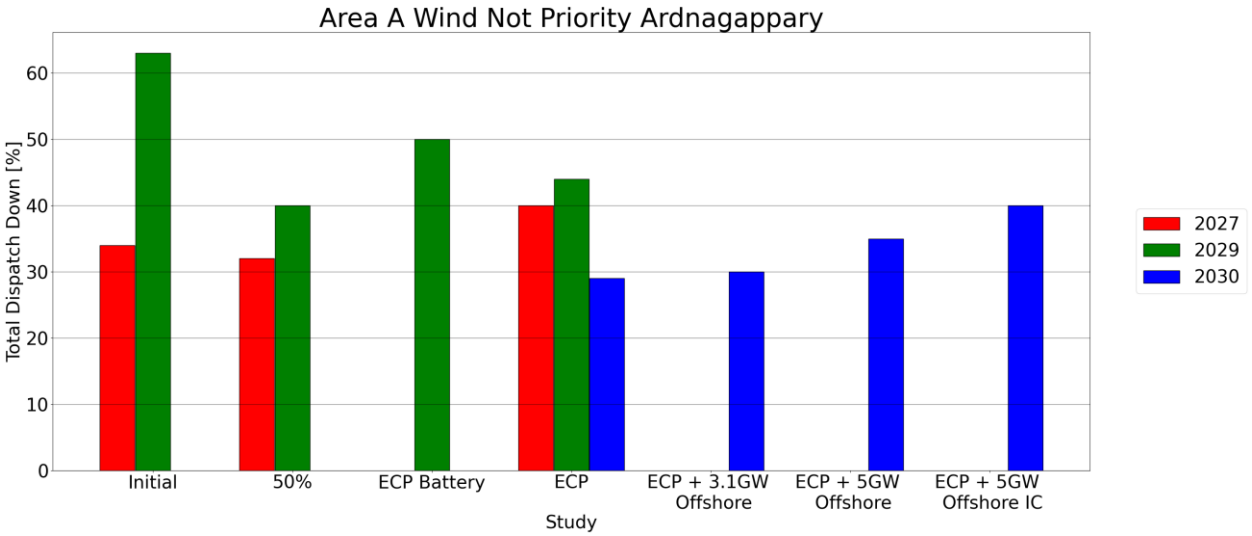

Figure 2-2 - Total Dispatch Down for Wind not priority for Node Ardnagappary

2.2 Arigna

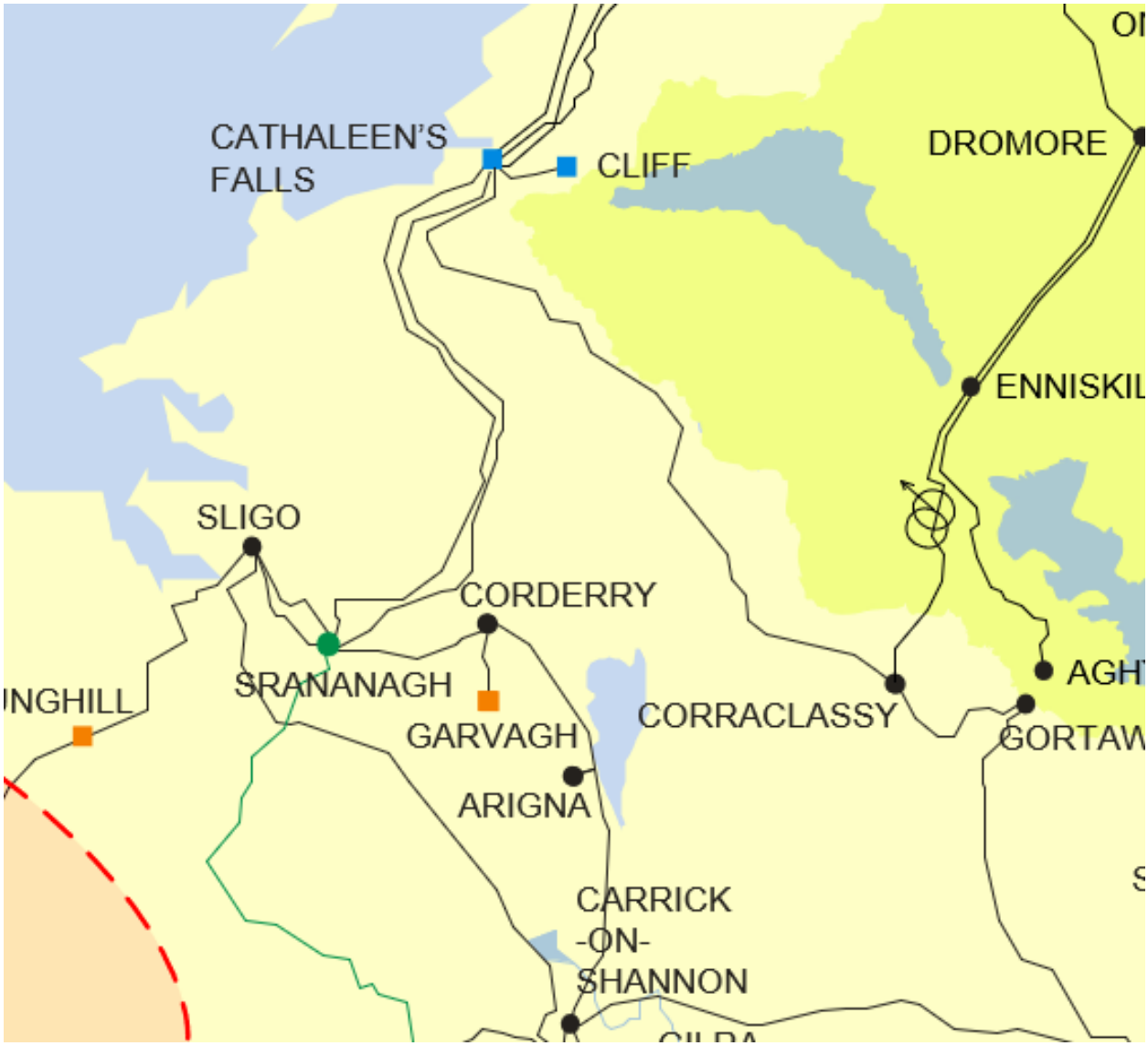

Figure 2-3 - Location of node Arigna

Generator	SO	Capacity	Type	Status
Kilronan (1)	DSO	5.0	wind uncontrolled	connected
Spion Kop (1)	DSO	1.2	wind uncontrolled	connected
Corrie Mountain (1)	DSO	4.8	wind uncontrolled	connected
Seltanaveeny (1)	DSO	4.6	wind uncontrolled	connected
Spion Kop Windfarm Ext. (Ext to DG978)	DSO	1.5	wind not priority	due to connect

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

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		1	2				
Installed Capacity (MW)	2029		1	2	2			
Installed Capacity (MW)	FG			2		2	2	2
Available Energy (GWh)	2027		2	4				
Available Energy (GWh)	2029		2	4	4			
Available Energy (GWh)	FG			4		4	4	4
Generation (GWh)	2027		1	3				
Generation (GWh)	2029		1	2	2			
Generation (GWh)	FG			3		3	3	3
Surplus (%)	2027		6 %	13 %				
Surplus (%)	2029		2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027		3 %	5 %				
Curtailment (%)	2029		1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		23 %	22 %				
Constraint (%)	2029		36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027		32 %	40 %				
Total Dispatch Down (%)	2029		40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-5 - Surplus, Curtailment and Constraint for Wind non-priority at Node Arigna

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	1	
Installed Capacity (MW)	2029 (pro-rata)	1	
Installed Capacity (MW)	FG (pro-rata)		2
Available Energy (GWh)	2027 (GF)	2	
Available Energy (GWh)	2029 (pro-rata)	2	
Available Energy (GWh)	FG (pro-rata)		4
Generation (GWh)	2027 (GF)	1	
Generation (GWh)	2029 (pro-rata)	2	
Generation (GWh)	FG (pro-rata)		3
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-6 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity at Node Arigna

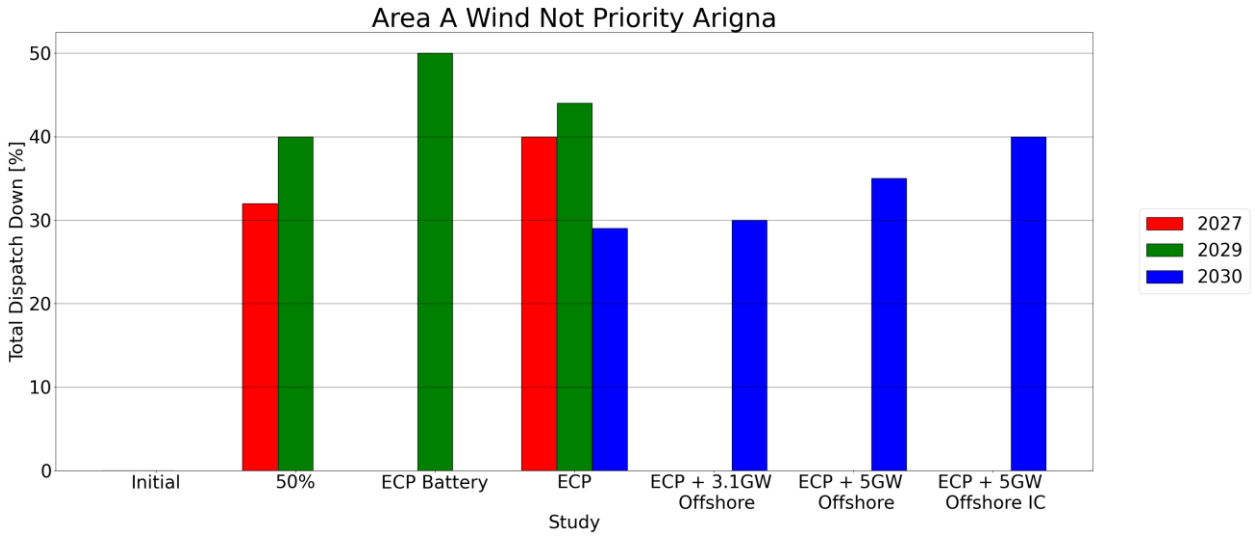

Figure 2-4 - Total Dispatch Down for Wind not priority for Node Arigna

2.3 Binbane

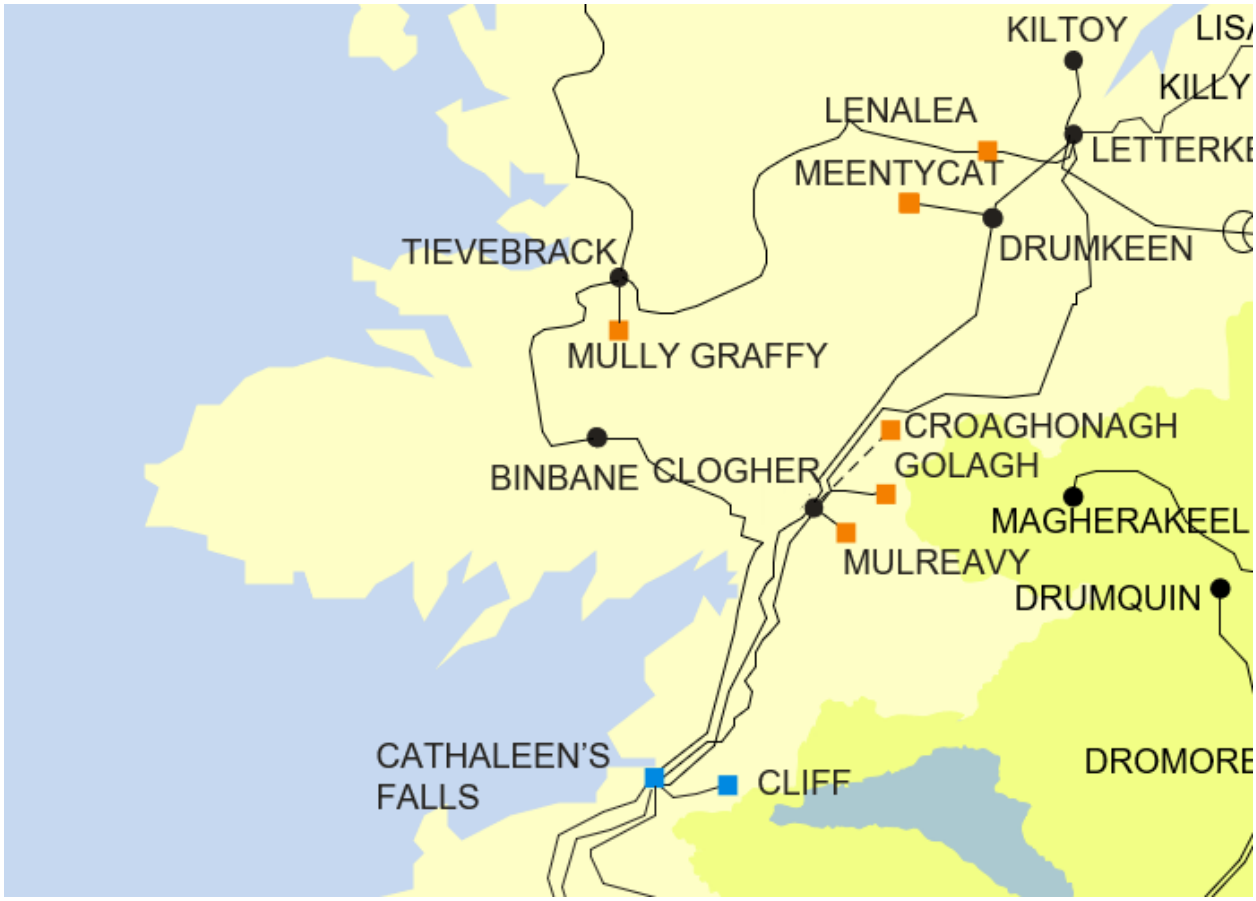

Figure 2-5 - Location of node Binbane

Generator	SO	Capacity	Type	Status
Killin Hill (1)	DSO	6.0	wind priority	connected
Corkermore (1)	DSO	9.99	wind priority	connected
Meenachullalan (1)	DSO	11.9	wind priority	connected
Loughderryduff (1)	DSO	7.65	wind priority	connected
Killybegs (1)	DSO	2.55	wind uncontrolled	connected
Shannagh (1) previously Kilcar	DSO	2.55	wind uncontrolled	connected
Clogheravaddy Wind Farm (Phase 2)	DSO	10.8	wind not priority	connected
Clogheravaddy Wind Farm (Phase 1)	DSO	9.2	wind not priority	connected
Corkermore (2)	DSO	9.4	wind not priority	due to connect
Meenachullalan (2)	DSO	1.9	wind not priority	due to connect
Clogheravaddy Wind Farm (Phase 3)	DSO	3.6	wind not priority	connected
Bradán Wind Farm (Killybegs Community Wind Turbine)	DSO	4.2	wind not priority	due to connect
Kilcar Community Wind Turbine	DSO	3.0	wind not priority	due to connect
Altcor Wind Farm	DSO	9.0	wind not priority	due to connect

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

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	24	37	51				
Installed Capacity (MW)	2029	24	37	51	51			
Installed Capacity (MW)	FG			51		51	51	51
Available Energy (GWh)	2027	68	108	148				
Available Energy (GWh)	2029	68	108	148	148			
Available Energy (GWh)	FG			148		148	148	148
Generation (GWh)	2027	45	73	89				
Generation (GWh)	2029	25	65	83	74			
Generation (GWh)	FG			105		104	96	88
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	63 %	36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027	34 %	32 %	40 %				
Total Dispatch Down (%)	2029	63 %	40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-8 - Surplus, Curtailment and Constraint for Wind non-priority at Node Binbane

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	37	
Installed Capacity (MW)	2029 (pro-rata)	37	
Installed Capacity (MW)	FG (pro-rata)		51
Available Energy (GWh)	2027 (GF)	108	
Available Energy (GWh)	2029 (pro-rata)	108	
Available Energy (GWh)	FG (pro-rata)		148
Generation (GWh)	2027 (GF)	54	
Generation (GWh)	2029 (pro-rata)	82	
Generation (GWh)	FG (pro-rata)		112
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-9 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity at Node Binbane

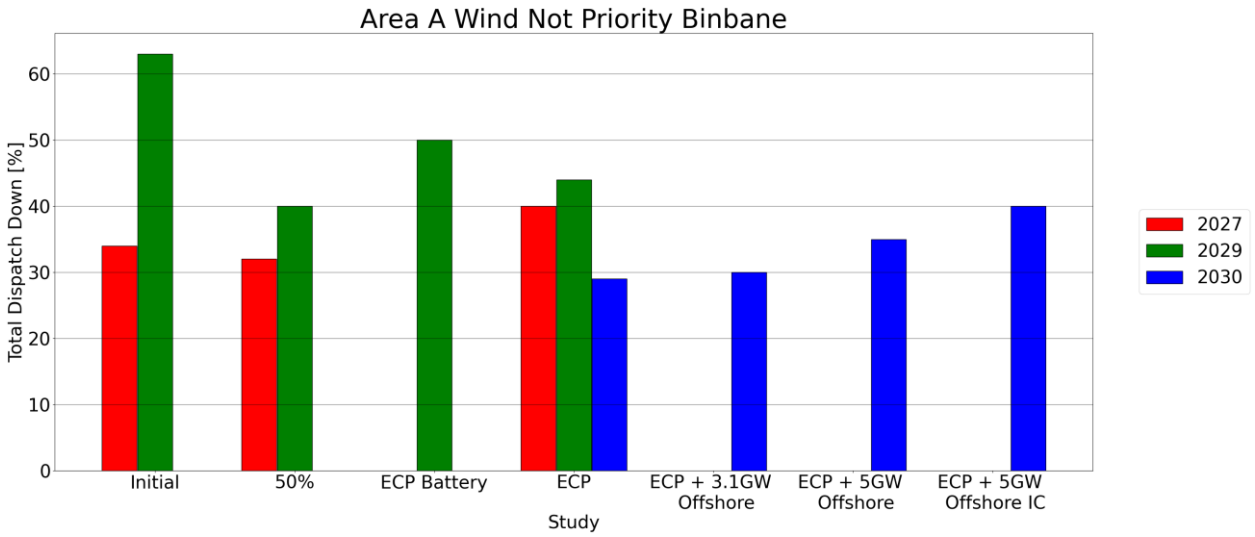

Figure 2-6 - Total Dispatch Down for Wind not priority for Node Binbane

The wind priority data is given in the following table.

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	36	36	36				
Installed Capacity (MW)	2029	36	36	36	36			
Installed Capacity (MW)	FG			36		36	36	36
Available Energy (GWh)	2027	103	103	103				
Available Energy (GWh)	2029	103	103	103	103			
Available Energy (GWh)	FG			103		103	103	103
Generation (GWh)	2027	69	75	73				
Generation (GWh)	2029	102	101	99	98			
Generation (GWh)	FG			102		100	99	98
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-10 - Surplus, Curtailment and Constraint for Wind priority at Node Binbane

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	36	
Installed Capacity (MW)	2029 (pro-rata)	36	
Installed Capacity (MW)	FG (pro-rata)		36
Available Energy (GWh)	2027 (GF)	103	
Available Energy (GWh)	2029 (pro-rata)	103	
Available Energy (GWh)	FG (pro-rata)		103
Generation (GWh)	2027 (GF)	99	
Generation (GWh)	2029 (pro-rata)	80	
Generation (GWh)	FG (pro-rata)		90
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 2-11 - Surplus, Curtailment and Constraint for Wind priority with sensitivity at Node Binbane

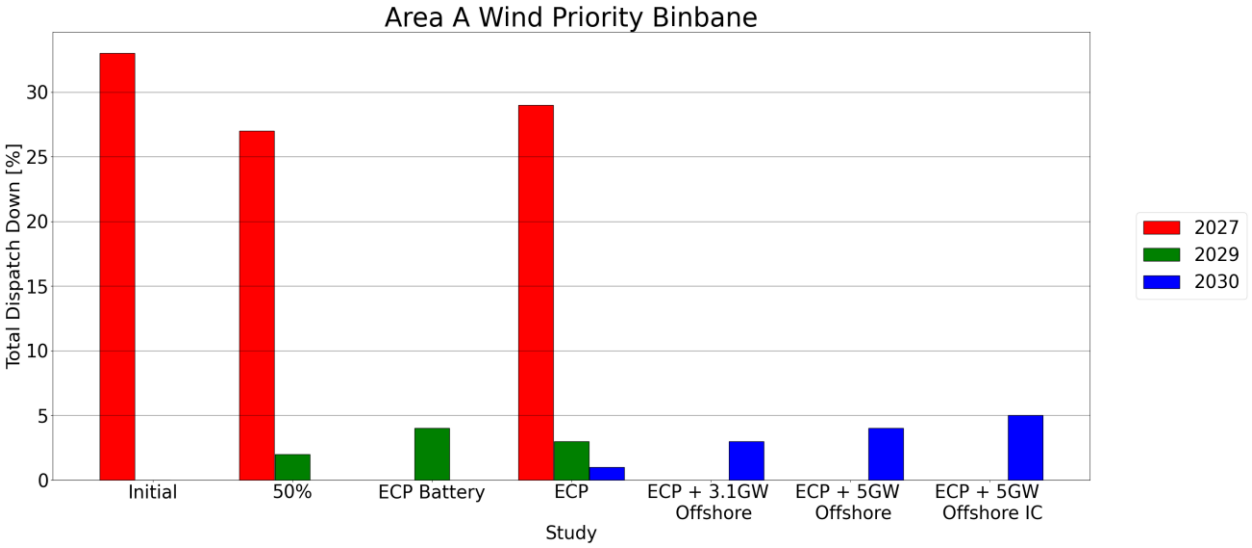

Figure 2-7 - Total Dispatch Down for Wind priority for Node Binbane

2.4 Cathaleen's fall

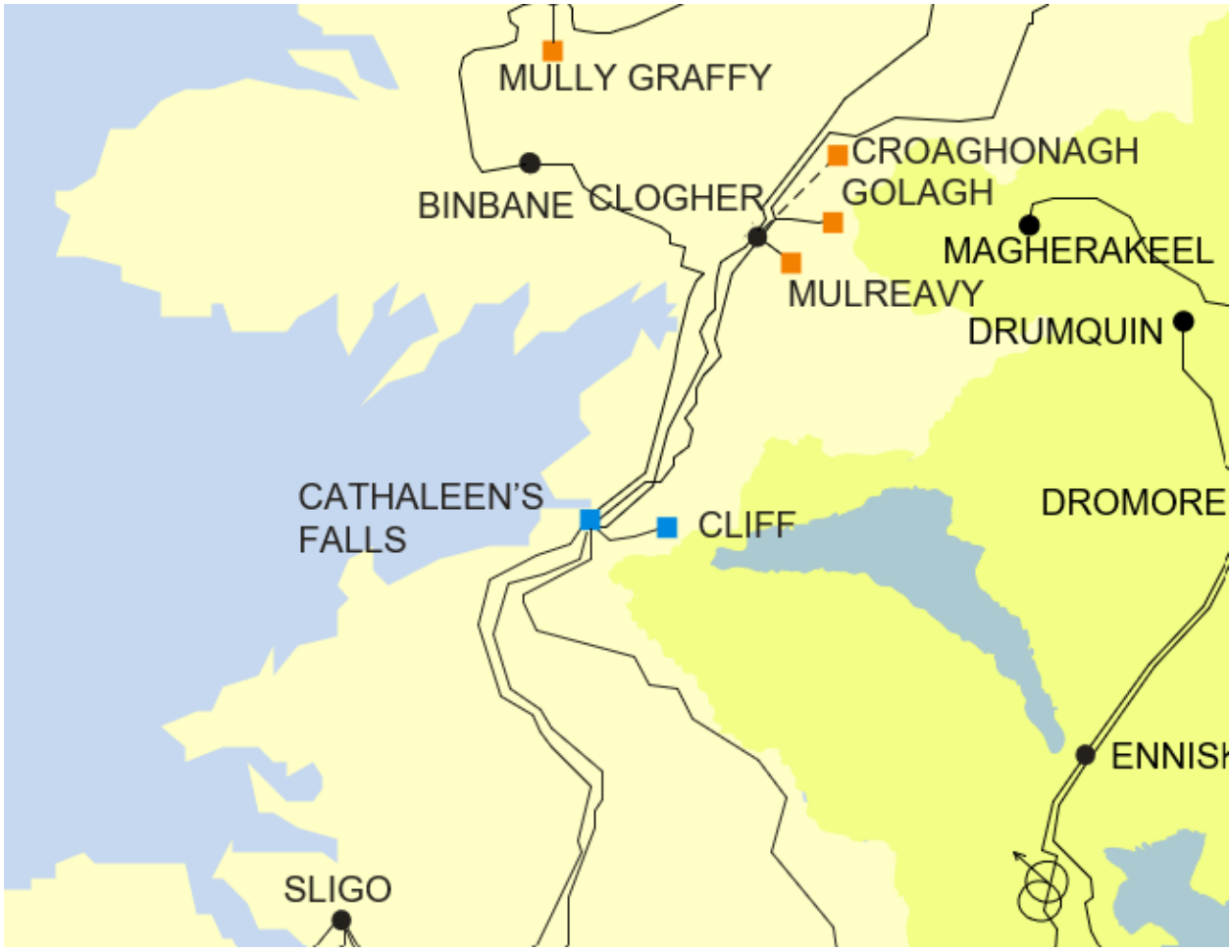

Figure 2-8 - Location of node Cathaleen's fall

Generator	SO	Capacity	Type	Status
Meenadreen (1)	DSO	3.4	wind uncontrolled	connected
Anarget (1)	DSO	1.98	wind uncontrolled	connected
Spaddan (1)	DSO	17.5	wind priority	connected
Derrykillew Wind Farm	DSO	37.5	wind not priority	due to connect

Table 2-12 - Generation Included in Study for Node Cathaleen's fall

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		19	38				
Installed Capacity (MW)	2029		19	38	38			
Installed Capacity (MW)	FG			38		38	38	38
Available Energy (GWh)	2027		54	108				
Available Energy (GWh)	2029		54	108	108			
Available Energy (GWh)	FG			108		108	108	108
Generation (GWh)	2027		37	65				
Generation (GWh)	2029		33	61	55			
Generation (GWh)	FG			77		76	71	65
Surplus (%)	2027		6 %	13 %				
Surplus (%)	2029		2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027		3 %	5 %				
Curtailment (%)	2029		1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		23 %	22 %				
Constraint (%)	2029		36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027		32 %	40 %				
Total Dispatch Down (%)	2029		40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-13 - Surplus, Curtailment and Constraint for Wind non-priority for Node Cathaleen's fall

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	19	
Installed Capacity (MW)	2029 (pro-rata)	19	
Installed Capacity (MW)	FG (pro-rata)		38
Available Energy (GWh)	2027 (GF)	54	
Available Energy (GWh)	2029 (pro-rata)	54	
Available Energy (GWh)	FG (pro-rata)		108
Generation (GWh)	2027 (GF)	27	
Generation (GWh)	2029 (pro-rata)	41	
Generation (GWh)	FG (pro-rata)		82
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-14 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Cathaleen's fall

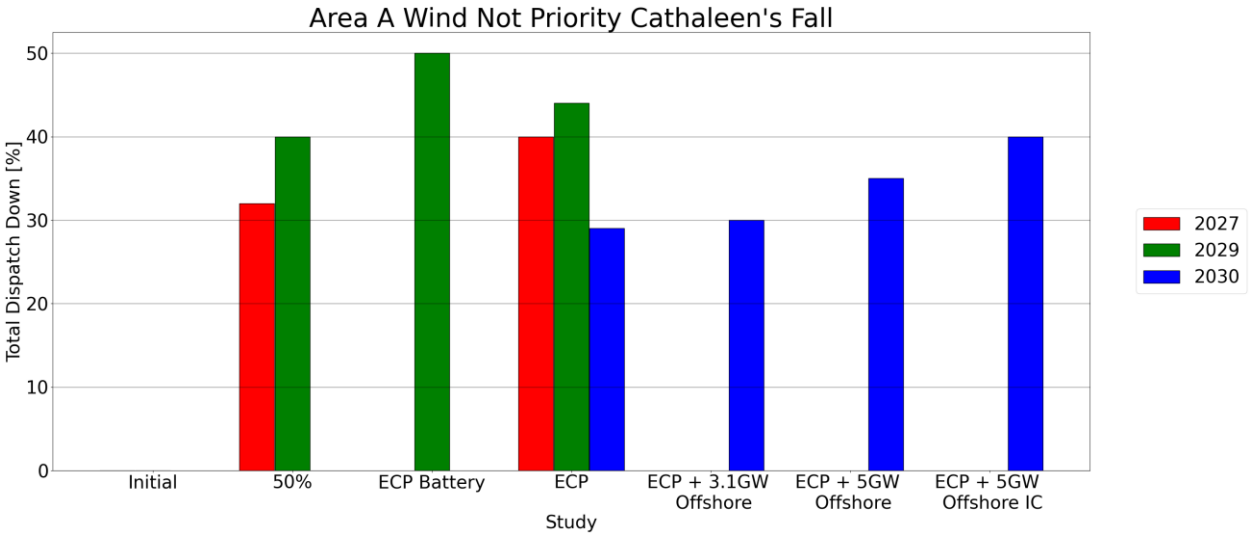

Figure 2-9 - Total Dispatch Down for Wind not priority for Node Cathaleen's fall

The wind priority data is given in the following table.

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	18	18	18				
Installed Capacity (MW)	2029	18	18	18	18			
Installed Capacity (MW)	FG			18		18	18	18
Available Energy (GWh)	2027	51	51	51				
Available Energy (GWh)	2029	51	51	51	51			
Available Energy (GWh)	FG			51		51	51	51
Generation (GWh)	2027	34	37	36				
Generation (GWh)	2029	50	50	49	48			
Generation (GWh)	FG			50		49	49	48
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-15 - Surplus, Curtailment and Constraint for Wind priority for Node Cathaleen's fall

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	18	
Installed Capacity (MW)	2029 (pro-rata)	18	
Installed Capacity (MW)	FG (pro-rata)		18
Available Energy (GWh)	2027 (GF)	51	
Available Energy (GWh)	2029 (pro-rata)	51	
Available Energy (GWh)	FG (pro-rata)		51
Generation (GWh)	2027 (GF)	49	
Generation (GWh)	2029 (pro-rata)	39	
Generation (GWh)	FG (pro-rata)		44
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 2-16 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Cathaleen's fall

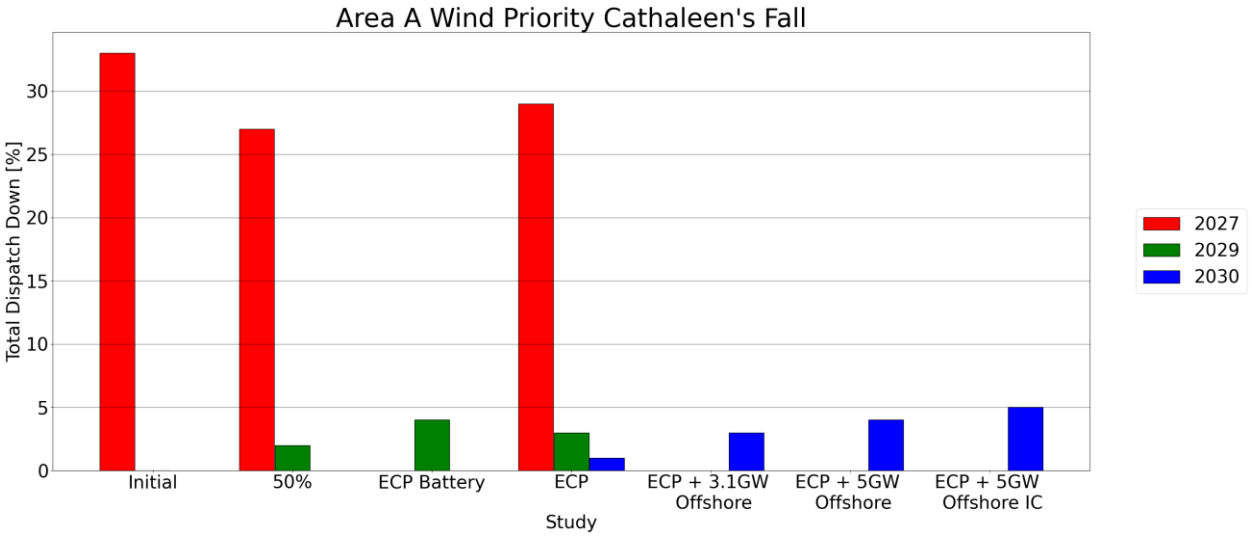

Figure 2-10 - Total Dispatch Down for Wind priority for Node Cathaleen's fall

2.5 Corderry

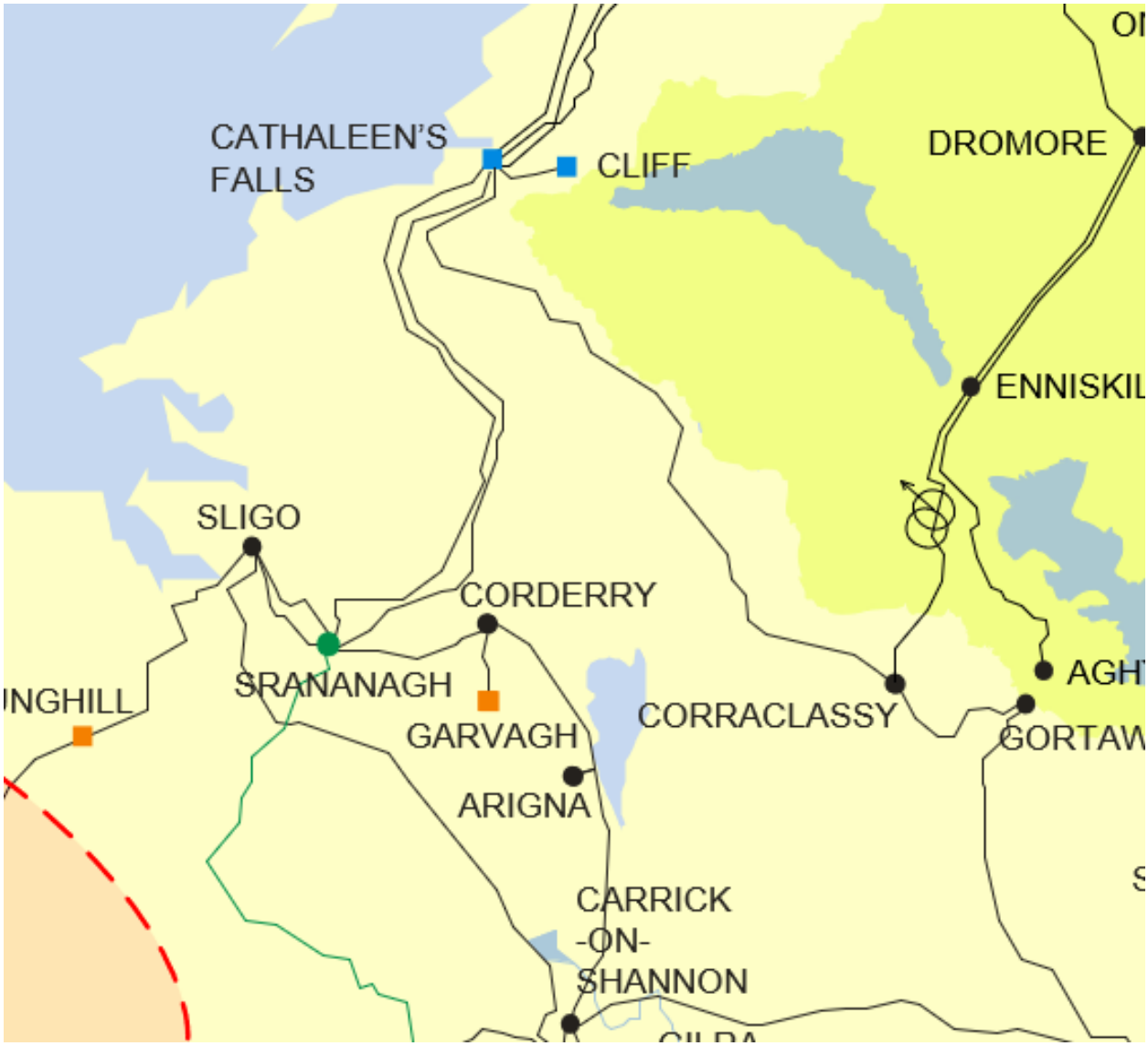

Figure 2-11 - Location of node Corderry

Generator	SO	Capacity	Type	Status
Carrane Hill (1)	DSO	3.4	wind uncontrolled	connected
Geevagh (1)	DSO	4.95	wind uncontrolled	connected
Moneenatieve (1)	DSO	3.96	wind uncontrolled	connected
Altagowlan (1)	DSO	7.65	wind priority	connected
Black Banks (2)	DSO	6.8	wind priority	connected
Black Banks (1)	DSO	3.4	wind uncontrolled	connected
Tullynamoyle 3 (Carrane Hill merged capacity)	DSO	1.598	wind uncontrolled	connected
Tullynamoyle (1)	DSO	9.0	wind priority	connected
Tullynamoyle 2 Wind Farm	DSO	10.225	wind priority	connected
Tullynamoyle Wind Farm 3 (Formerly Geevagh 2)	DSO	11.98	wind priority	connected
Tullynamoyle Wind Farm 5	DSO	16.35	wind not priority	due to connect
TULLYNAMOYLE WIND FARM 6	DSO	20.2	wind not priority	due to connect

Table 2-17 - Generation Included in Study for Node Corderry

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	16	26	37				
Installed Capacity (MW)	2029	16	26	37	37			
Installed Capacity (MW)	FG			37		37	37	37
Available Energy (GWh)	2027	47	77	106				
Available Energy (GWh)	2029	47	77	106	106			
Available Energy (GWh)	FG			106		106	106	106
Generation (GWh)	2027	31	52	63				
Generation (GWh)	2029	18	46	60	53			
Generation (GWh)	FG			75		74	69	63
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	63 %	36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027	34 %	32 %	40 %				
Total Dispatch Down (%)	2029	63 %	40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-18 - Surplus, Curtailment and Constraint for Wind non-priority for Node Corderry

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	26	
Installed Capacity (MW)	2029 (pro-rata)	26	
Installed Capacity (MW)	FG (pro-rata)		37
Available Energy (GWh)	2027 (GF)	77	
Available Energy (GWh)	2029 (pro-rata)	77	
Available Energy (GWh)	FG (pro-rata)		106
Generation (GWh)	2027 (GF)	38	
Generation (GWh)	2029 (pro-rata)	58	
Generation (GWh)	FG (pro-rata)		80
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-19 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Corderry

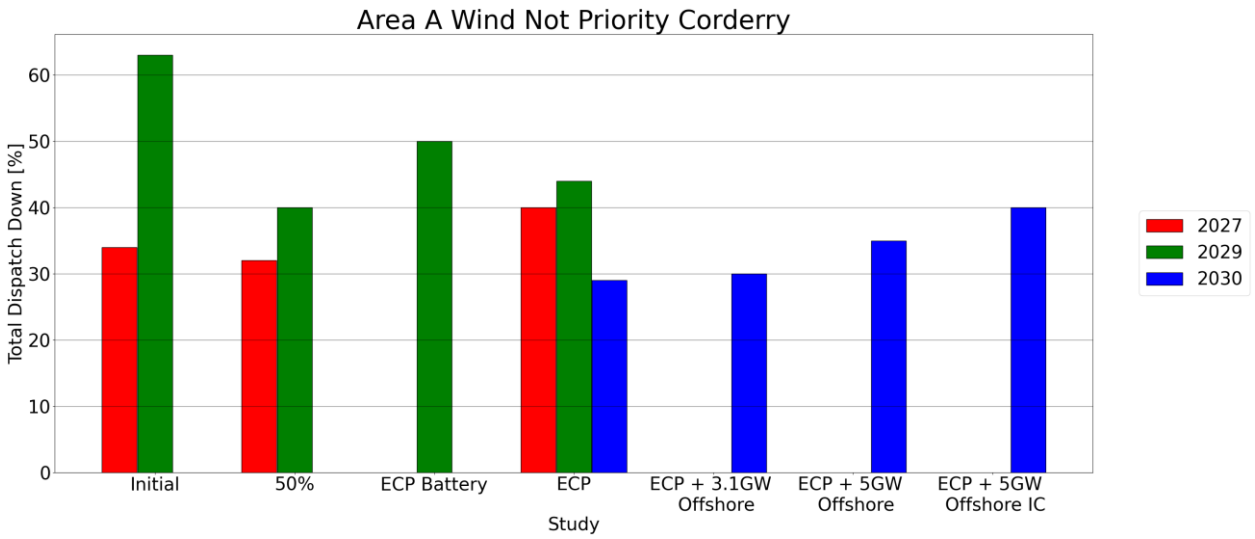

Figure 2-12 - Total Dispatch Down for Wind not priority for Node Corderry

The wind priority data is given in the following table.

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	46	46	46				
Installed Capacity (MW)	2029	46	46	46	46			
Installed Capacity (MW)	FG			46		46	46	46
Available Energy (GWh)	2027	132	132	132				
Available Energy (GWh)	2029	132	132	132	132			
Available Energy (GWh)	FG			132		132	132	132
Generation (GWh)	2027	88	96	94				
Generation (GWh)	2029	132	130	128	126			
Generation (GWh)	FG			131		128	127	126
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-20 - Surplus, Curtailment and Constraint for Wind priority for Node Corderry

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	46	
Installed Capacity (MW)	2029 (pro-rata)	46	
Installed Capacity (MW)	FG (pro-rata)		46
Available Energy (GWh)	2027 (GF)	132	
Available Energy (GWh)	2029 (pro-rata)	132	
Available Energy (GWh)	FG (pro-rata)		132
Generation (GWh)	2027 (GF)	127	
Generation (GWh)	2029 (pro-rata)	103	
Generation (GWh)	FG (pro-rata)		116
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 2-21 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Corderry

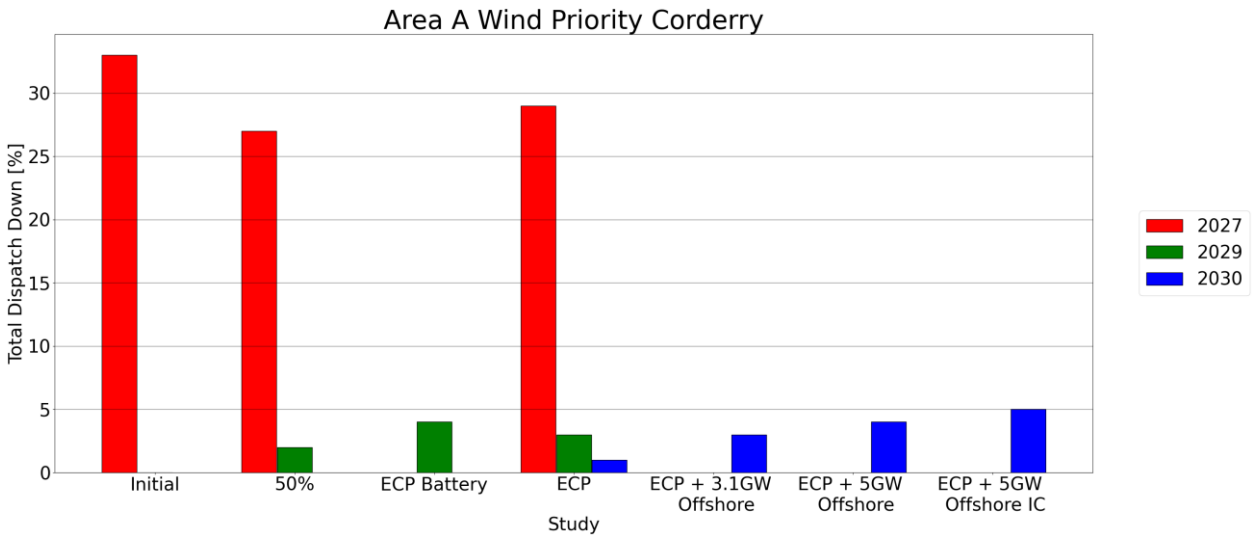

Figure 2-13 - Total Dispatch Down for Wind priority for Node Corderry

2.6 Croaghonagh

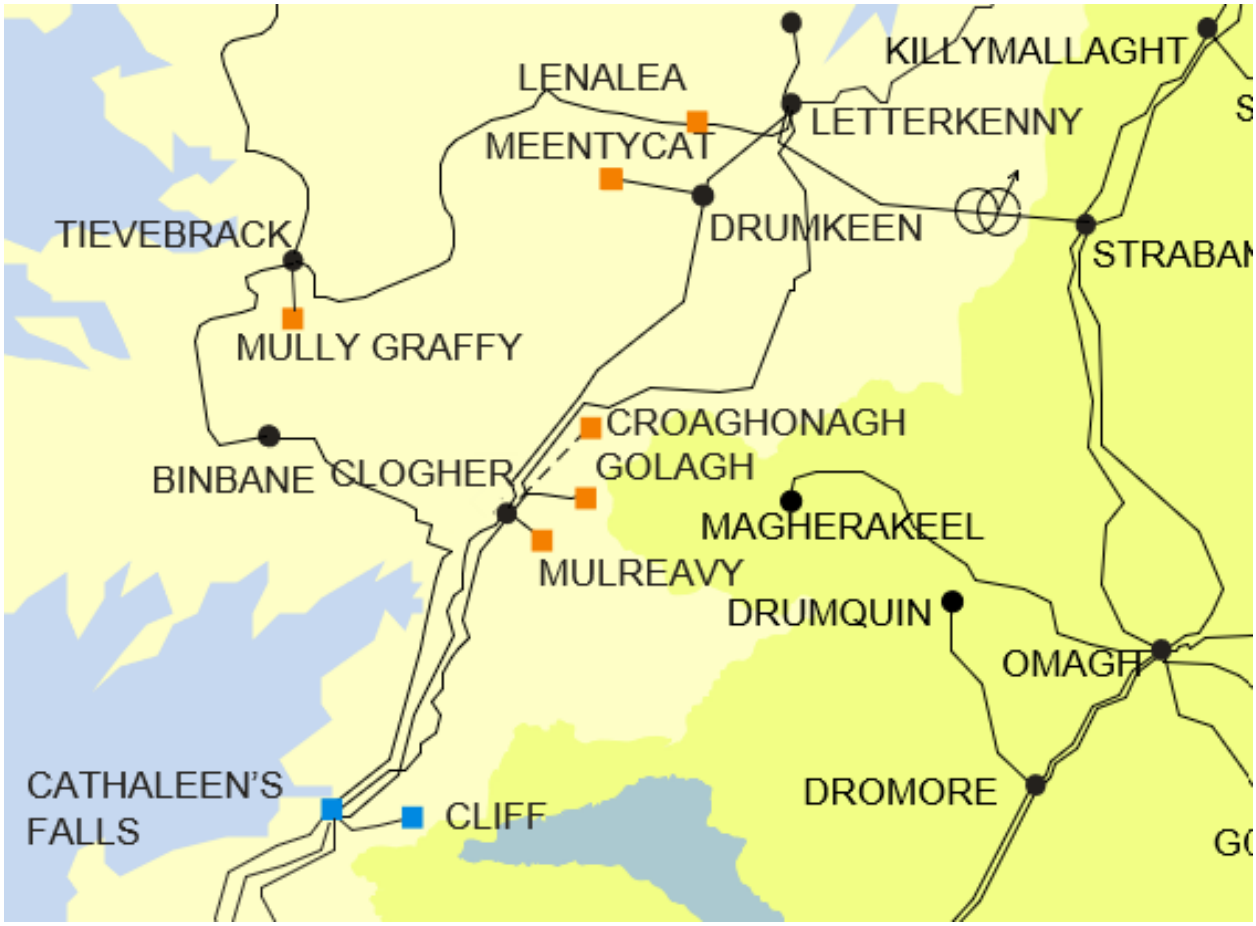

Figure 2-14 - Location of node Croaghonagh

Generator	SO	Capacity	Type	Status
Croaghonagh 1 Windfarm (Merged with Carrickalangan)	TSO	138.1	wind not priority	connected

Table 2-22 - Generation Included in Study for Node Croaghonagh

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	138	138	138				
Installed Capacity (MW)	2029	138	138	138	138			
Installed Capacity (MW)	FG			138		138	138	138
Available Energy (GWh)	2027	399	399	399				
Available Energy (GWh)	2029	399	399	399	399			
Available Energy (GWh)	FG			399		399	399	399
Generation (GWh)	2027	263	270	240				
Generation (GWh)	2029	148	241	225	201			
Generation (GWh)	FG			284		281	260	239
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	63 %	36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027	34 %	32 %	40 %				
Total Dispatch Down (%)	2029	63 %	40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-23 - Surplus, Curtailment and Constraint for Wind non-priority for Node Croaghonagh

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	138	
Installed Capacity (MW)	2029 (pro-rata)	138	
Installed Capacity (MW)	FG (pro-rata)		138
Available Energy (GWh)	2027 (GF)	399	
Available Energy (GWh)	2029 (pro-rata)	399	
Available Energy (GWh)	FG (pro-rata)		399
Generation (GWh)	2027 (GF)	199	
Generation (GWh)	2029 (pro-rata)	304	
Generation (GWh)	FG (pro-rata)		303
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-24 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Croaghonagh

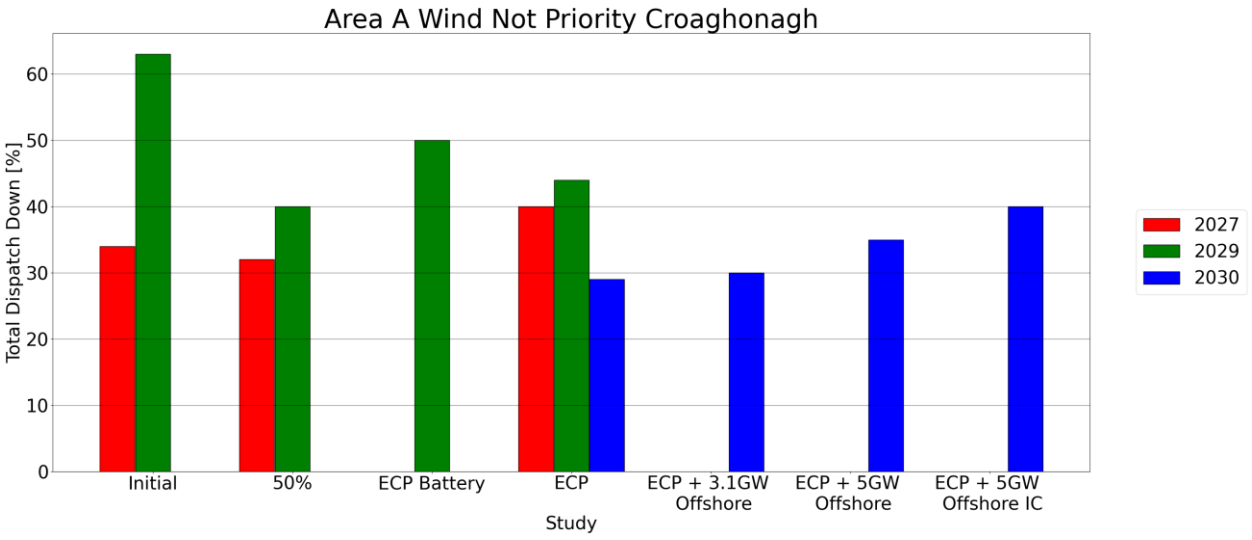

Figure 2-15 - Total Dispatch Down for Wind not priority for Node Croaghonagh

2.7 Garvagh

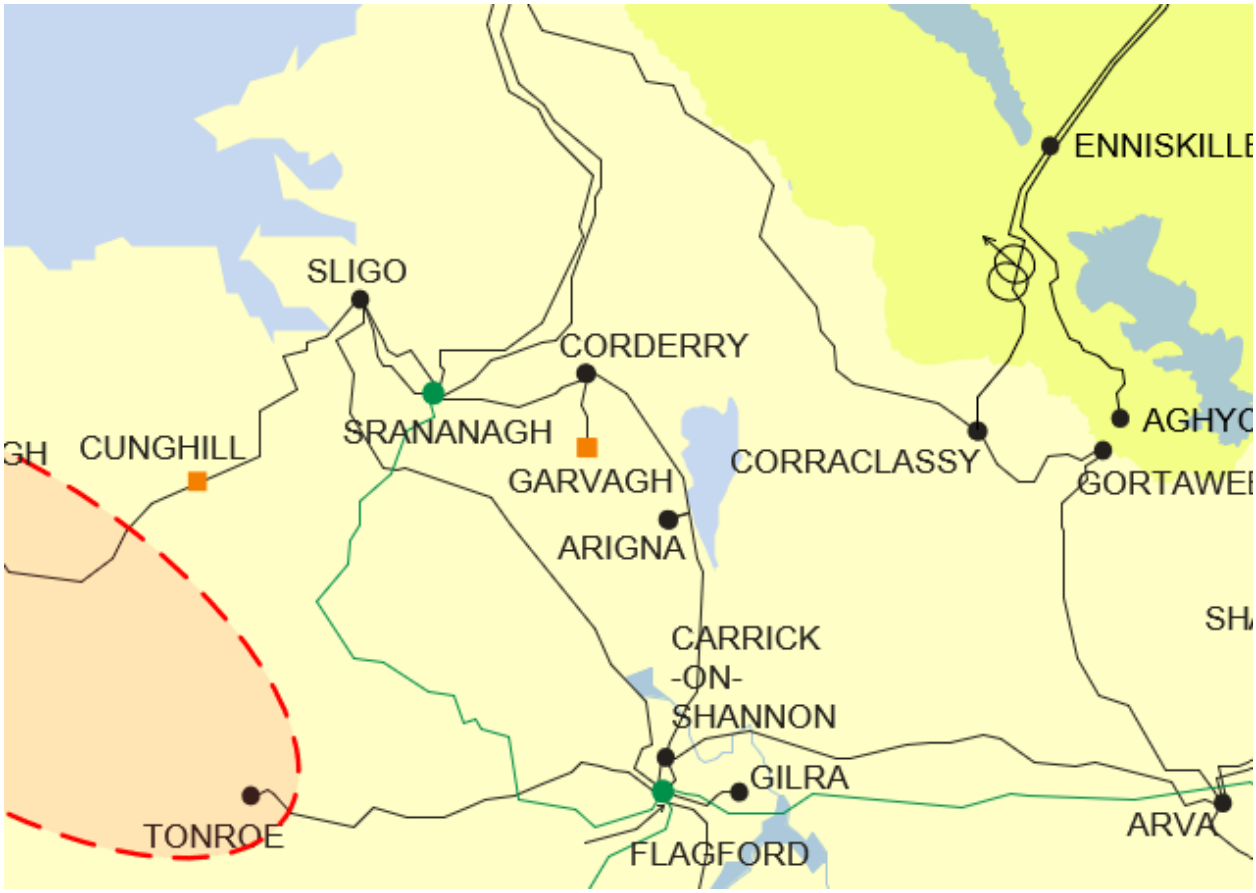

Figure 2-16 - Location of node Garvagh

Generator	SO	Capacity	Type	Status
Garvagh - Glebe (1a)	TSO	26.0	wind priority	connected
Garvagh - Tullynahaw (1c)	TSO	22.0	wind priority	connected
Derrysallagh Wind Farm (Formerly Kilronan 2)	DSO	34.0	wind not priority	connected
Glen Solar	TSO	40.0	solar not priority	due to connect

Table 2-25 - Generation Included in Study for Node Garvagh

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		20	40				
Installed Capacity (MW)	2029		20	40	40			
Installed Capacity (MW)	FG			40		40	40	40
Available Energy (GWh)	2027		21	42				
Available Energy (GWh)	2029		21	42	42			
Available Energy (GWh)	FG			42		42	42	42
Generation (GWh)	2027		17	31				
Generation (GWh)	2029		18	33	30			
Generation (GWh)	FG			37		36	34	32
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailment (%)	2027		2 %	4 %				
Curtailment (%)	2029		1 %	3 %	5 %			
Curtailment (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		9 %	7 %				
Constraint (%)	2029		10 %	9 %	9 %			
Constraint (%)	FG			5 %		3 %	2 %	1 %
Total Dispatch Down (%)	2027		17 %	25 %				
Total Dispatch Down (%)	2029		15 %	21 %	29 %			
Total Dispatch Down (%)	FG			11 %		15 %	19 %	25 %

Table 2-26 - Surplus, Curtailment and Constraint for Solar non-priority Node Garvagh

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	20	
Installed Capacity (MW)	2029 (pro-rata)	20	
Installed Capacity (MW)	FG (pro-rata)		40
Available Energy (GWh)	2027 (GF)	21	
Available Energy (GWh)	2029 (pro-rata)	21	
Available Energy (GWh)	FG (pro-rata)		42
Generation (GWh)	2027 (GF)	17	
Generation (GWh)	2029 (pro-rata)	18	
Generation (GWh)	FG (pro-rata)		36
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailment (%)	2027 (GF)	2 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	9 %	
Constraint (%)	2029 (pro-rata)	10 %	
Constraint (%)	FG (pro-rata)		3 %
Total Dispatch Down (%)	2027 (GF)	17 %	
Total Dispatch Down (%)	2029 (pro-rata)	15 %	
Total Dispatch Down (%)	FG (pro-rata)		15 %

Table 2-27 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity Node Garvagh

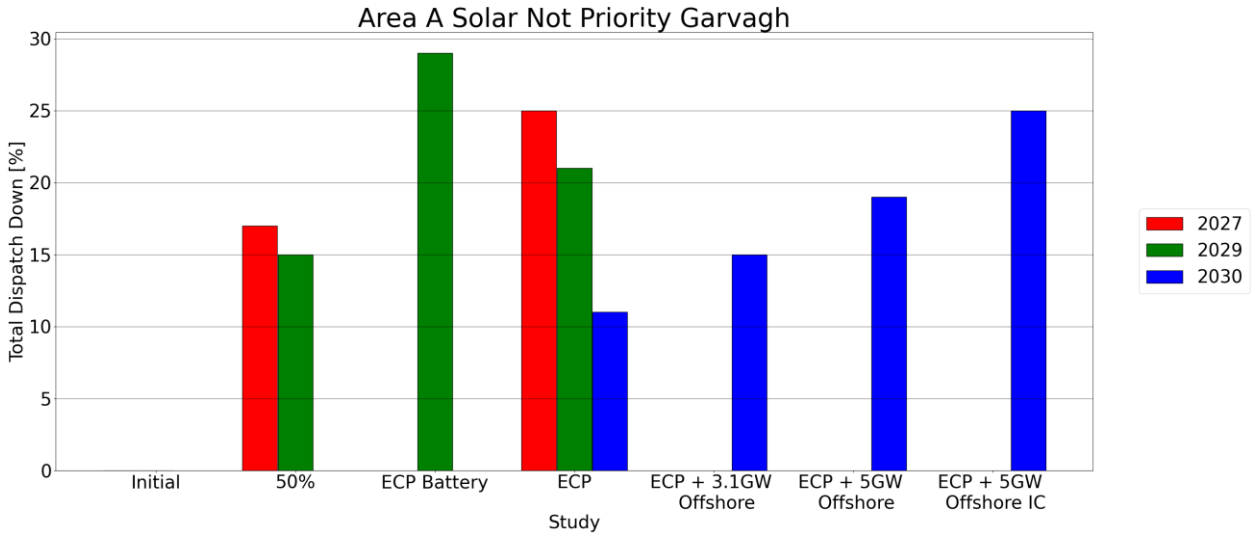

Figure 2-17 - Total Dispatch Down for Solar not priority for Node Garvagh

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	34	34	34				
Installed Capacity (MW)	2029	34	34	34	34			
Installed Capacity (MW)	FG			34		34	34	34
Available Energy (GWh)	2027	98	98	98				
Available Energy (GWh)	2029	98	98	98	98			
Available Energy (GWh)	FG			98		98	98	98
Generation (GWh)	2027	65	66	59				
Generation (GWh)	2029	36	59	55	50			
Generation (GWh)	FG			70		69	64	59
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	63 %	36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027	34 %	32 %	40 %				
Total Dispatch Down (%)	2029	63 %	40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-28 - Surplus, Curtailment and Constraint for Wind non-priority Node Garvagh

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	34	
Installed Capacity (MW)	2029 (pro-rata)	34	
Installed Capacity (MW)	FG (pro-rata)		34
Available Energy (GWh)	2027 (GF)	98	
Available Energy (GWh)	2029 (pro-rata)	98	
Available Energy (GWh)	FG (pro-rata)		98
Generation (GWh)	2027 (GF)	49	
Generation (GWh)	2029 (pro-rata)	75	
Generation (GWh)	FG (pro-rata)		75
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-29 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity Node Garvagh

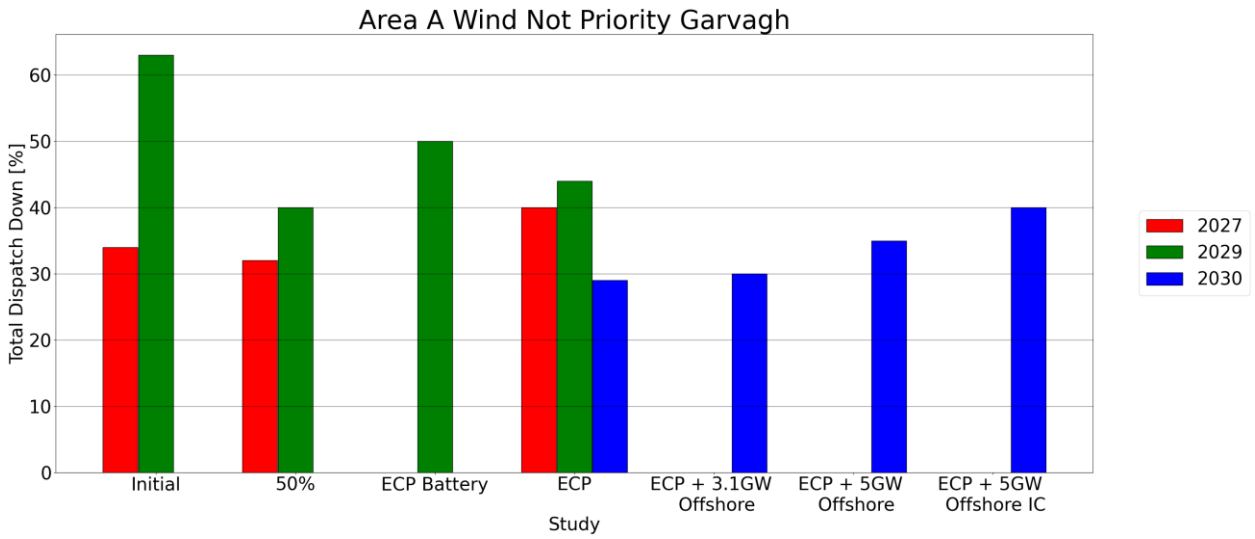

Figure 2-18 - Total Dispatch Down for Wind not priority for Node Garvagh

The wind priority data is given in the following table.

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	48	48	48				
Installed Capacity (MW)	2029	48	48	48	48			
Installed Capacity (MW)	FG			48		48	48	48
Available Energy (GWh)	2027	139	139	139				
Available Energy (GWh)	2029	139	139	139	139			
Available Energy (GWh)	FG			139		139	139	139
Generation (GWh)	2027	93	101	99				
Generation (GWh)	2029	138	137	134	133			
Generation (GWh)	FG			138		135	134	132
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-30 - Surplus, Curtailment and Constraint for Wind priority Node Garvagh

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	48	
Installed Capacity (MW)	2029 (pro-rata)	48	
Installed Capacity (MW)	FG (pro-rata)		48
Available Energy (GWh)	2027 (GF)	139	
Available Energy (GWh)	2029 (pro-rata)	139	
Available Energy (GWh)	FG (pro-rata)		139
Generation (GWh)	2027 (GF)	133	
Generation (GWh)	2029 (pro-rata)	108	
Generation (GWh)	FG (pro-rata)		122
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 2-31 - Surplus, Curtailment and Constraint for Wind priority with sensitivity Node Garvagh

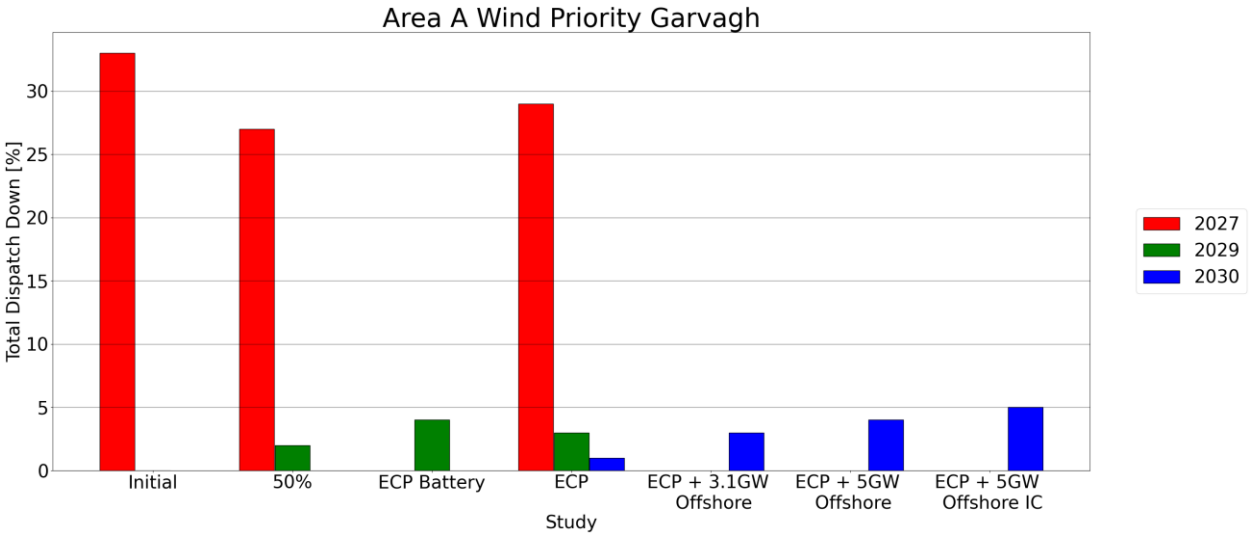

Figure 2-19 - Total Dispatch Down for Wind priority for Node Garvagh

2.8 Golagh

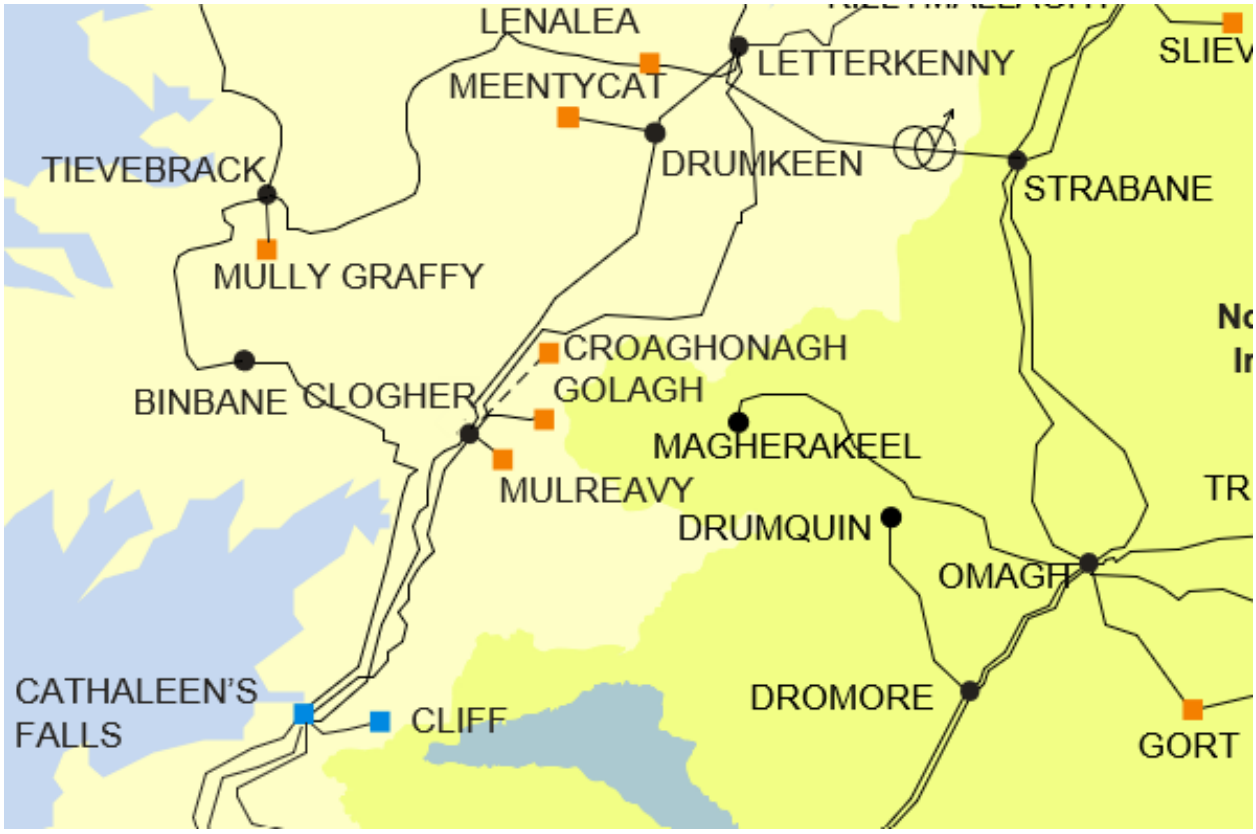

Figure 2-20 - Location of node Golagh

Generator	SO	Capacity	Type	Status
Golagh (1)	TSO	15.0	wind uncontrolled	connected
Barnesmore Windfarm Repowering	TSO	63.0	wind not priority	due to connect

Table 2-32 - Generation Included in Study for Node Golagh

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		32	63				
Installed Capacity (MW)	2029		32	63	63			
Installed Capacity (MW)	FG			63		63	63	63
Available Energy (GWh)	2027		91	182				
Available Energy (GWh)	2029		91	182	182			
Available Energy (GWh)	FG			182		182	182	182
Generation (GWh)	2027		62	109				
Generation (GWh)	2029		55	103	92			
Generation (GWh)	FG			130		128	119	109
Surplus (%)	2027		6 %	13 %				
Surplus (%)	2029		2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027		3 %	5 %				
Curtailment (%)	2029		1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		23 %	22 %				
Constraint (%)	2029		36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027		32 %	40 %				
Total Dispatch Down (%)	2029		40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-33 - Surplus, Curtailment and Constraint for Wind non-priority for Node Golagh

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	32	
Installed Capacity (MW)	2029 (pro-rata)	32	
Installed Capacity (MW)	FG (pro-rata)		63
Available Energy (GWh)	2027 (GF)	91	
Available Energy (GWh)	2029 (pro-rata)	91	
Available Energy (GWh)	FG (pro-rata)		182
Generation (GWh)	2027 (GF)	45	
Generation (GWh)	2029 (pro-rata)	69	
Generation (GWh)	FG (pro-rata)		138
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-34 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Golagh

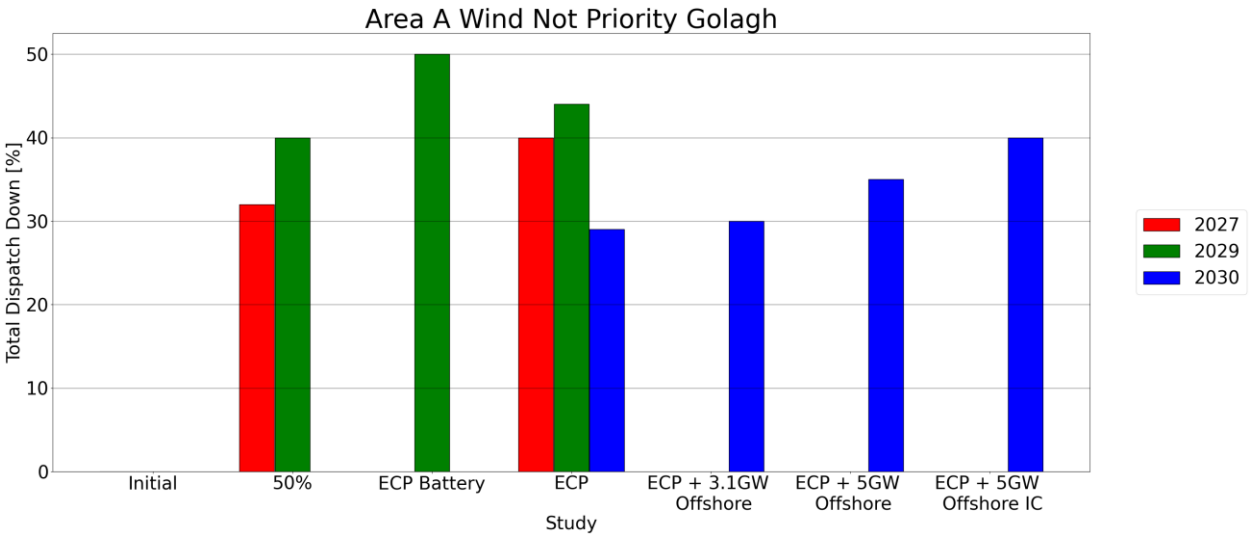

Figure 2-21 - Total Dispatch Down for Wind not priority for Node Golagh

2.9 Gortawee

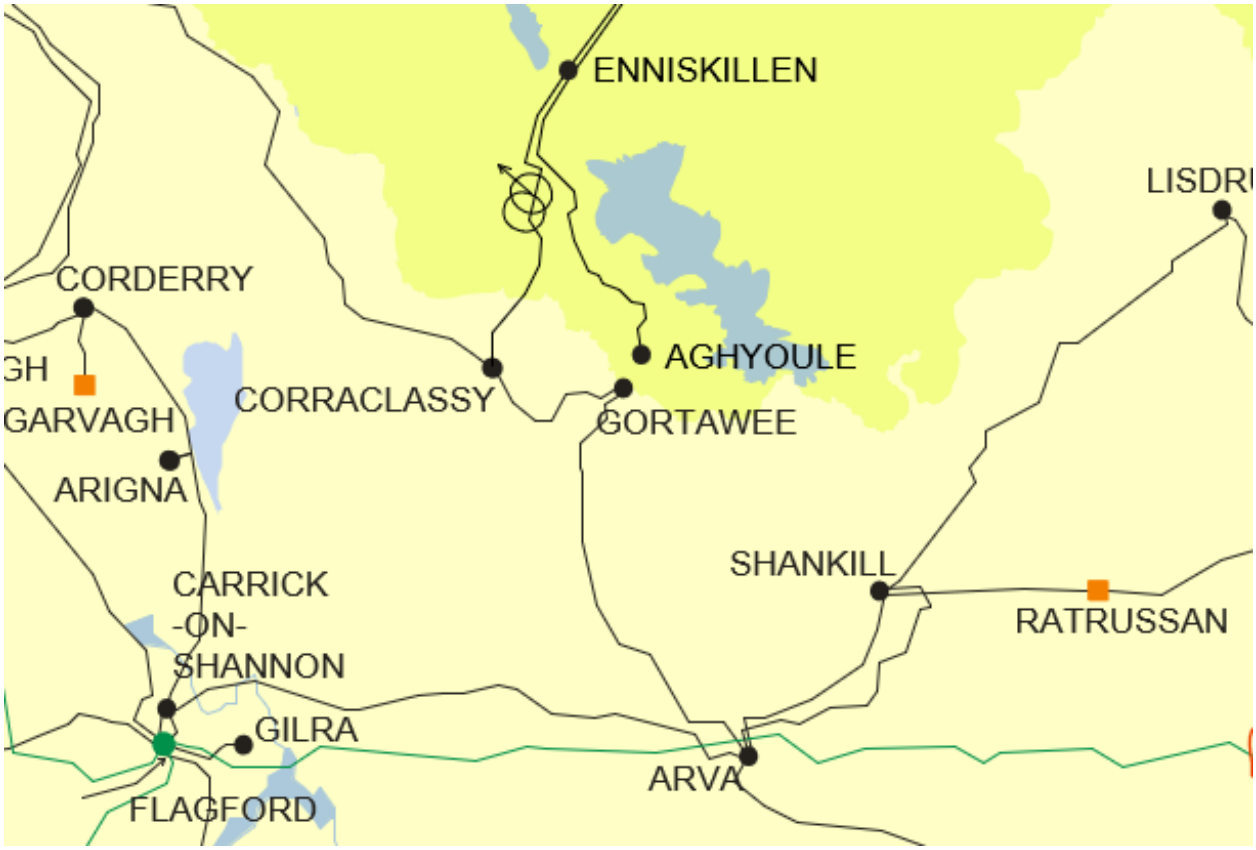

Figure 2-22 - Location of node Gortawee

Generator	SO	Capacity	Type	Status
Coreen (1)	DSO	3.0	wind uncontrolled	connected
Tullyhaw Community Wind Turbine	DSO	4.2	wind not priority	due to connect

Table 2-35 - Generation Included in Study for Node Gortawee

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	4	4	4				
Installed Capacity (MW)	2029	4	4	4	4			
Installed Capacity (MW)	FG			4		4	4	4
Available Energy (GWh)	2027	12	12	12				
Available Energy (GWh)	2029	12	12	12	12			
Available Energy (GWh)	FG			12		12	12	12
Generation (GWh)	2027	12	10	9				
Generation (GWh)	2029	12	10	10	6			
Generation (GWh)	FG			6		10	9	8
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	2 %	9 %	10 %				
Constraint (%)	2029	5 %	10 %	11 %	35 %			
Constraint (%)	FG			49 %		4 %	1 %	0 %
Total Dispatch Down (%)	2027	4 %	18 %	28 %				
Total Dispatch Down (%)	2029	5 %	14 %	19 %	48 %			
Total Dispatch Down (%)	FG			52 %		19 %	26 %	34 %

Table 2-36 - Surplus, Curtailment and Constraint for Wind non-priority for Node Gortawee

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	4	
Installed Capacity (MW)	2029 (pro-rata)	4	
Installed Capacity (MW)	FG (pro-rata)		4
Available Energy (GWh)	2027 (GF)	12	
Available Energy (GWh)	2029 (pro-rata)	12	
Available Energy (GWh)	FG (pro-rata)		12
Generation (GWh)	2027 (GF)	9	
Generation (GWh)	2029 (pro-rata)	11	
Generation (GWh)	FG (pro-rata)		10
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	19 %	
Constraint (%)	2029 (pro-rata)	5 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	28 %	
Total Dispatch Down (%)	2029 (pro-rata)	8 %	
Total Dispatch Down (%)	FG (pro-rata)		17 %

Table 2-37 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Gortawee

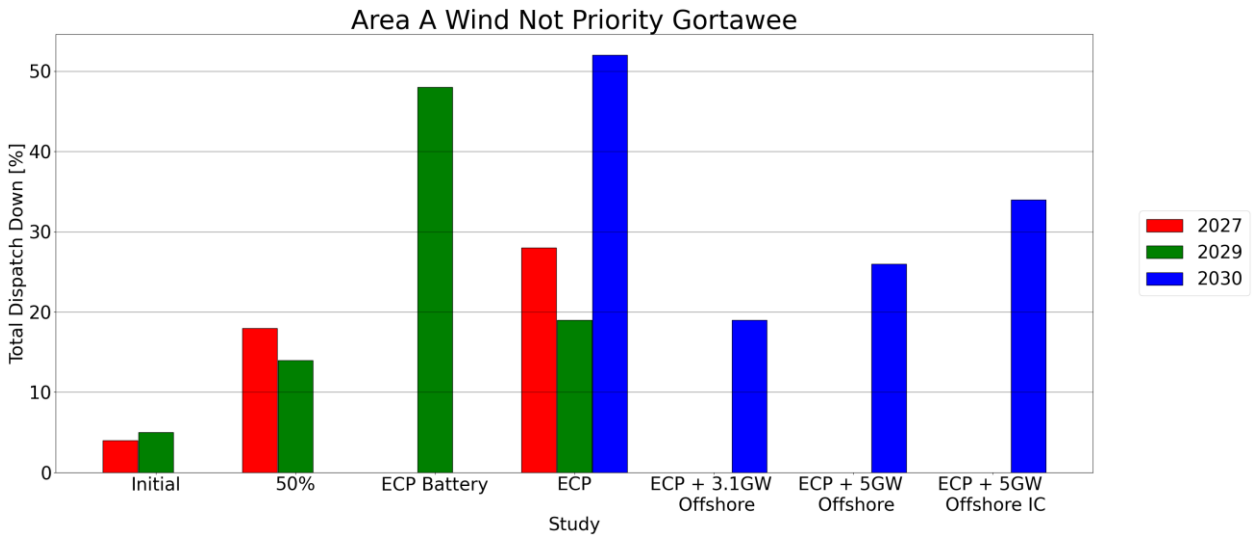

Figure 2-23 - Total Dispatch Down for Wind not priority for Node Gortawee

2.10 Lenalea

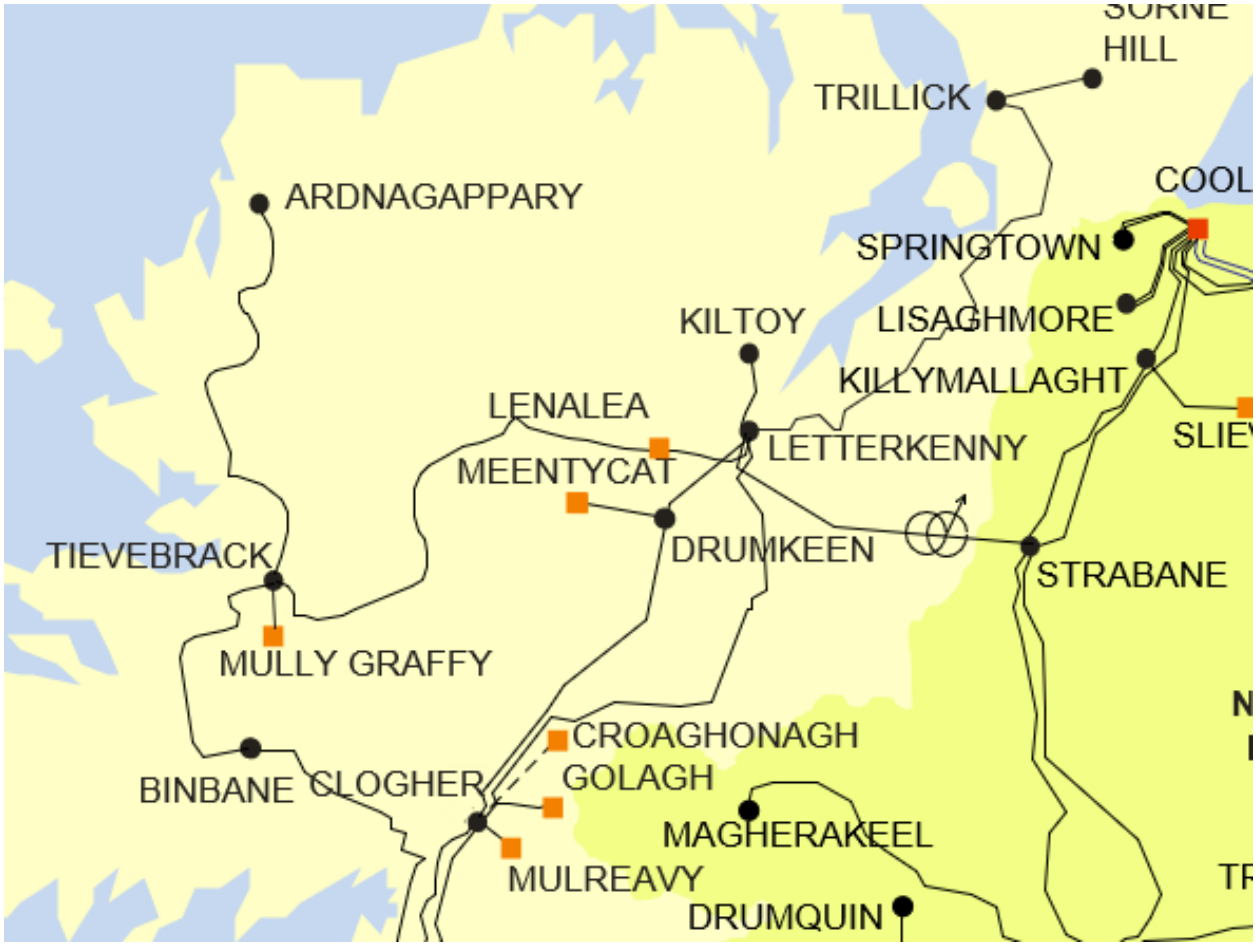

Figure 2-24 - Location of node Lenalea

Generator	SO	Capacity	Type	Status
Lenalea Wind Farm	TSO	30.1	wind not priority	connected
Drumnahough Wind Farm	TSO	72.0	wind not priority	due to connect

Table 2-38 - Generation Included in Study for Node Lenalea

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	30	66	102				
Installed Capacity (MW)	2029	30	66	102	102			
Installed Capacity (MW)	FG			102		102	102	102
Available Energy (GWh)	2027	87	191	295				
Available Energy (GWh)	2029	87	191	295	295			
Available Energy (GWh)	FG			295		295	295	295
Generation (GWh)	2027	57	129	177				
Generation (GWh)	2029	32	115	167	149			
Generation (GWh)	FG			210		208	192	177
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	63 %	36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027	34 %	32 %	40 %				
Total Dispatch Down (%)	2029	63 %	40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-39 - Surplus, Curtailment and Constraint for Wind non-priority for Node Lenalea

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	66	
Installed Capacity (MW)	2029 (pro-rata)	66	
Installed Capacity (MW)	FG (pro-rata)		102
Available Energy (GWh)	2027 (GF)	191	
Available Energy (GWh)	2029 (pro-rata)	191	
Available Energy (GWh)	FG (pro-rata)		295
Generation (GWh)	2027 (GF)	95	
Generation (GWh)	2029 (pro-rata)	145	
Generation (GWh)	FG (pro-rata)		224
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-40 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Lenalea

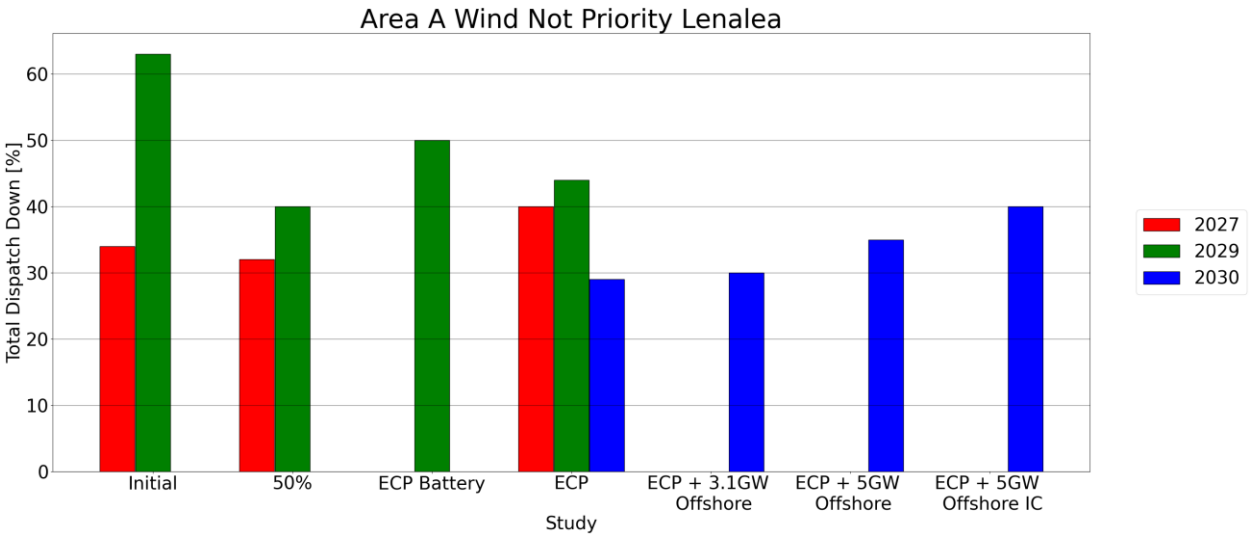

Figure 2-25 - Total Dispatch Down for Wind not priority for Node Lenalea

2.11 Letterkenny

Figure 2-26 - Location of node Letterkenny

Generator	SO	Capacity	Type	Status
Meenanilta (2)	DSO	2.45	wind uncontrolled	connected
Meenanilta (1)	DSO	2.55	wind uncontrolled	connected
Culliagh (1)	DSO	11.88	wind uncontrolled	connected
Cark (1)	DSO	15.0	wind uncontrolled	connected
Lurganboy (1)	DSO	4.99	wind uncontrolled	connected
Meenanilta (3)	DSO	3.4	wind uncontrolled	connected
Lettergull (1)	DSO	20.0	wind not priority	due to connect

Table 2-41 - Generation Included in Study for Node Letterkenny

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	20	20	20				
Installed Capacity (MW)	2029	20	20	20	20			
Installed Capacity (MW)	FG			20		20	20	20
Available Energy (GWh)	2027	58	58	58				
Available Energy (GWh)	2029	58	58	58	58			
Available Energy (GWh)	FG			58		58	58	58
Generation (GWh)	2027	38	39	35				
Generation (GWh)	2029	21	35	33	29			
Generation (GWh)	FG			41		41	38	35
Surplus (%)	2027	1 %	6 %	13 %				
Surplus (%)	2029	0 %	2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027	2 %	3 %	5 %				
Curtailment (%)	2029	0 %	1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	63 %	36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027	34 %	32 %	40 %				
Total Dispatch Down (%)	2029	63 %	40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-42 - Surplus, Curtailment and Constraint for Wind non-priority for Node Letterkenny

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	20	
Installed Capacity (MW)	2029 (pro-rata)	20	
Installed Capacity (MW)	FG (pro-rata)		20
Available Energy (GWh)	2027 (GF)	58	
Available Energy (GWh)	2029 (pro-rata)	58	
Available Energy (GWh)	FG (pro-rata)		58
Generation (GWh)	2027 (GF)	29	
Generation (GWh)	2029 (pro-rata)	44	
Generation (GWh)	FG (pro-rata)		44
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-43 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Letterkenny

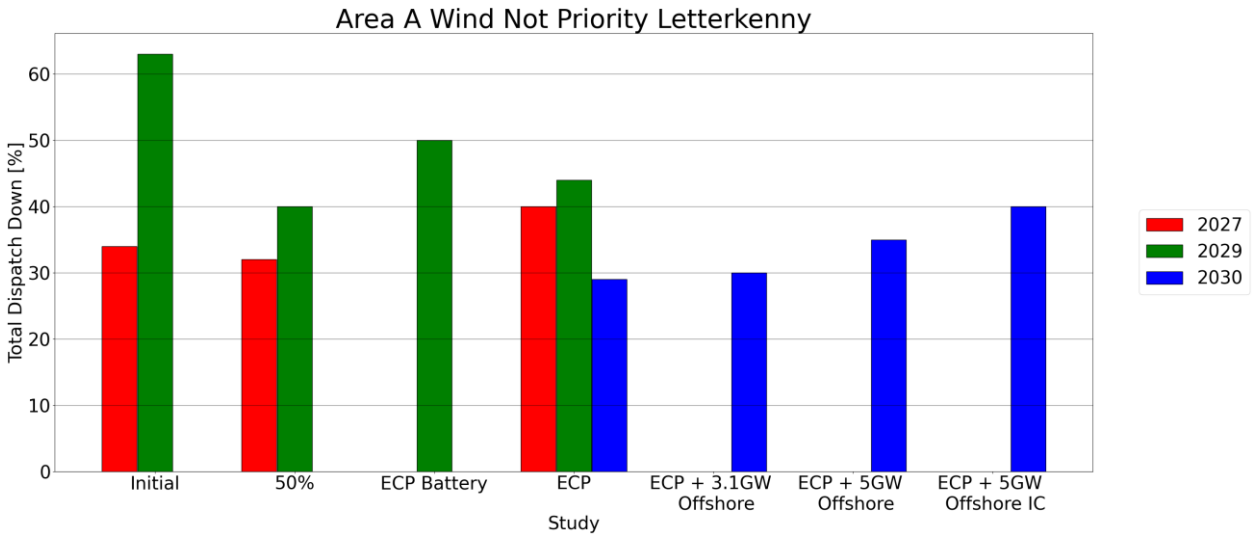

Figure 2-27 - Total Dispatch Down for Wind not priority for Node Letterkenny

2.12 Meentycat

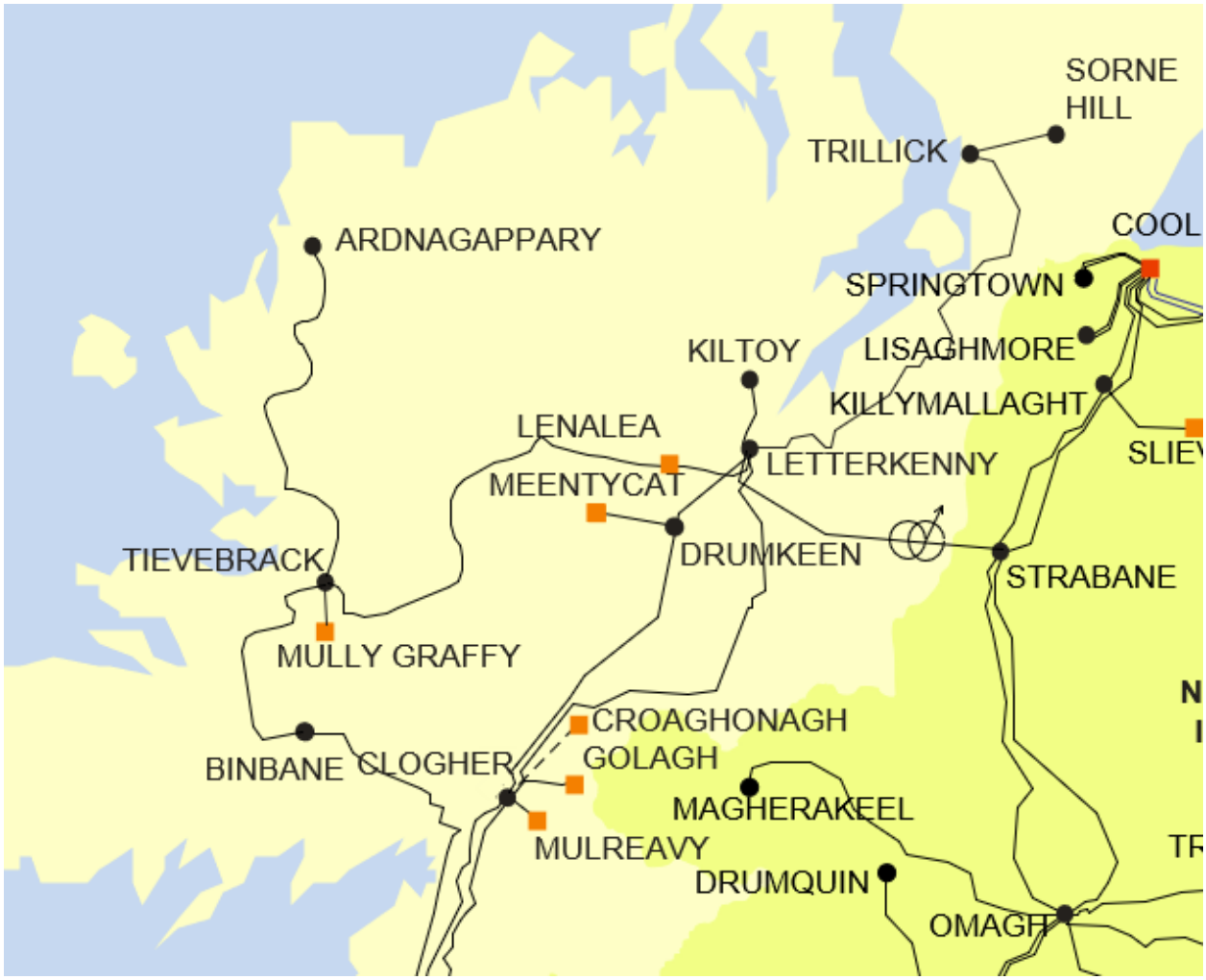

Figure 2-28 - Location of node Meentycat

Meentycat (1)	TSO	70.96	wind priority	connected
Meentycat (2)	TSO	14.0	wind priority	connected

Table 2-44 - Generation Included in Study for Node Meentycat

The wind priority data is given in the following table.

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	85	85	85				
Installed Capacity (MW)	2029	85	85	85	85			
Installed Capacity (MW)	FG			85		85	85	85
Available Energy (GWh)	2027	246	246	246				
Available Energy (GWh)	2029	246	246	246	246			
Available Energy (GWh)	FG			246		246	246	246
Generation (GWh)	2027	164	178	174				
Generation (GWh)	2029	245	242	238	235			
Generation (GWh)	FG			244		239	237	234
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-45 - Surplus, Curtailment and Constraint for Wind priority for Node Meentycat

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	85	
Installed Capacity (MW)	2029 (pro-rata)	85	
Installed Capacity (MW)	FG (pro-rata)		85
Available Energy (GWh)	2027 (GF)	246	
Available Energy (GWh)	2029 (pro-rata)	246	
Available Energy (GWh)	FG (pro-rata)		246
Generation (GWh)	2027 (GF)	236	
Generation (GWh)	2029 (pro-rata)	191	
Generation (GWh)	FG (pro-rata)		216
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 2-46 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Meentycat

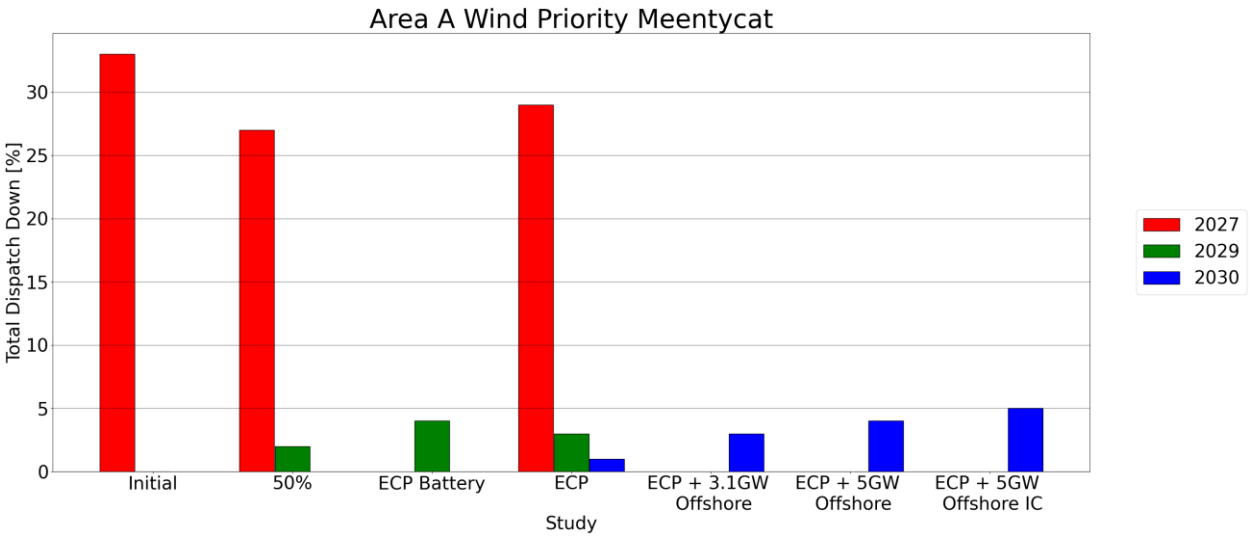

Figure 2-29 - Total Dispatch Down for Wind priority for Node Meentycat

2.13 Mulreavy

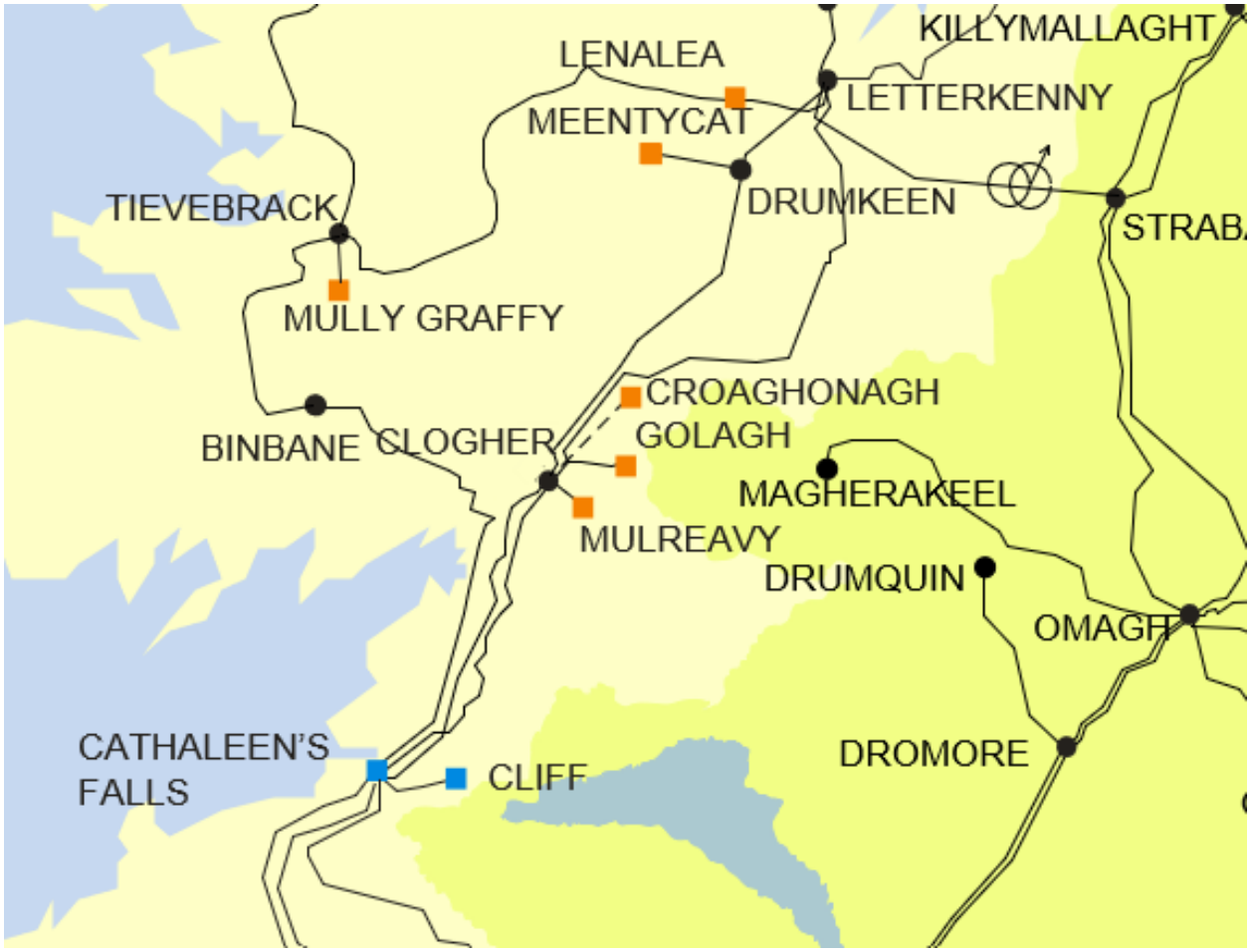

Figure 2-30 - Location of node Mulreavy

Generator	SO	Capacity	Type	Status
Mulreavy (Mulreavy (1))	TSO	82.0	wind priority	connected
Mulreavy Ext (Croaghnameal (1))	TSO	4.25	wind priority	connected
Mulreavy Ext (Meenadreen South (1))	TSO	3.6	wind priority	connected
Mulreavy Ext (Meenadreen South (2))	TSO	5.4	wind priority	connected

Table 2-47 - Generation Included in Study for Node Mulreavy

The wind priority data is given in the following table.

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	95	95	95				
Installed Capacity (MW)	2029	95	95	95	95			
Installed Capacity (MW)	FG			95		95	95	95
Available Energy (GWh)	2027	276	276	276				
Available Energy (GWh)	2029	276	276	276	276			
Available Energy (GWh)	FG			276		276	276	276
Generation (GWh)	2027	184	200	196				
Generation (GWh)	2029	275	271	266	263			
Generation (GWh)	FG			273		268	265	263
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-48 - Surplus, Curtailment and Constraint for Wind priority for Node Mulreavy

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	95	
Installed Capacity (MW)	2029 (pro-rata)	95	
Installed Capacity (MW)	FG (pro-rata)		95
Available Energy (GWh)	2027 (GF)	276	
Available Energy (GWh)	2029 (pro-rata)	276	
Available Energy (GWh)	FG (pro-rata)		276
Generation (GWh)	2027 (GF)	264	
Generation (GWh)	2029 (pro-rata)	214	
Generation (GWh)	FG (pro-rata)		242
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 2-49 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Mulreavy

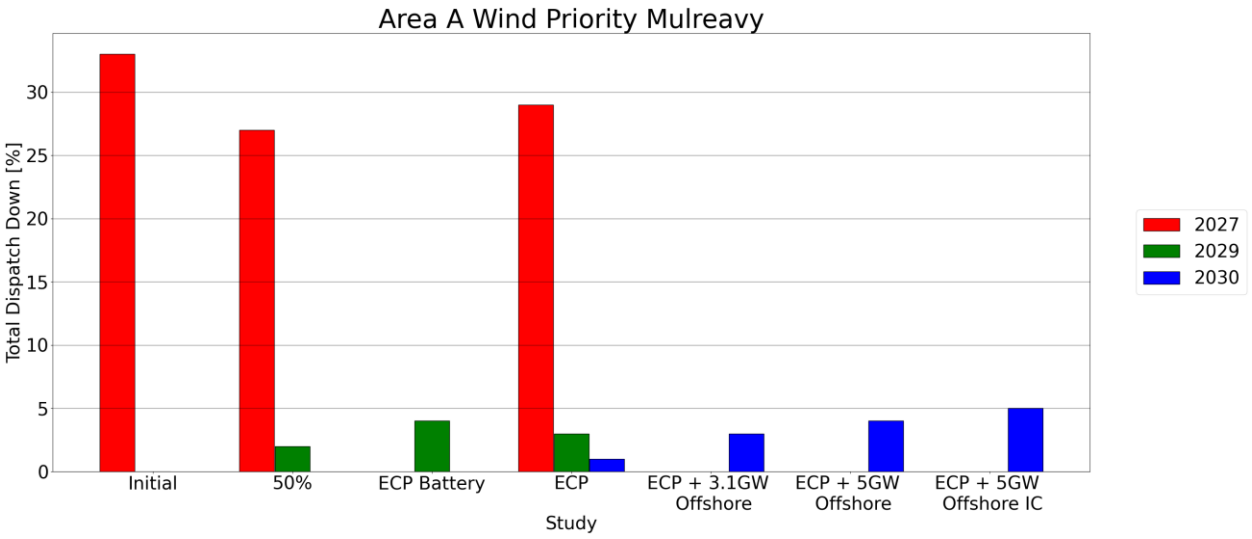

Figure 2-31 - Total Dispatch Down for Wind priority for Node Mulreavy

2.14 Sorne hill

Figure 2-32 - Location of node Sorne hill

Generator	SO	Capacity	Type	Status
Sorne Hill (1)	DSO	31.5	wind priority	connected
Sorne Hill Single Turbine (Enros)	DSO	2.3	wind uncontrolled	connected
Three Trees (1)	DSO	4.25	wind uncontrolled	connected
Flughland (1)	DSO	9.2	wind priority	connected
Meenkeeragh (1)	DSO	4.2	wind uncontrolled	connected
Glackmore Hill (2)	DSO	1.4	wind uncontrolled	connected
Sorne Hill (2)	DSO	7.4	wind priority	connected
Corvin Wind Turbine	DSO	2.1	wind uncontrolled	connected

Table 2-50 - Generation Included in Study for Node Sorne hill

The wind priority data is given in the following table.

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	48	48	48				
Installed Capacity (MW)	2029	48	48	48	48			
Installed Capacity (MW)	FG			48		48	48	48
Available Energy (GWh)	2027	139	139	139				
Available Energy (GWh)	2029	139	139	139	139			
Available Energy (GWh)	FG			139		139	139	139
Generation (GWh)	2027	93	101	99				
Generation (GWh)	2029	139	137	135	133			
Generation (GWh)	FG			138		135	134	133
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-51 - Surplus, Curtailment and Constraint for Wind priority for Node Sorne hill

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	48	
Installed Capacity (MW)	2029 (pro-rata)	48	
Installed Capacity (MW)	FG (pro-rata)		48
Available Energy (GWh)	2027 (GF)	139	
Available Energy (GWh)	2029 (pro-rata)	139	
Available Energy (GWh)	FG (pro-rata)		139
Generation (GWh)	2027 (GF)	133	
Generation (GWh)	2029 (pro-rata)	108	
Generation (GWh)	FG (pro-rata)		122
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 2-52 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Sorne hill

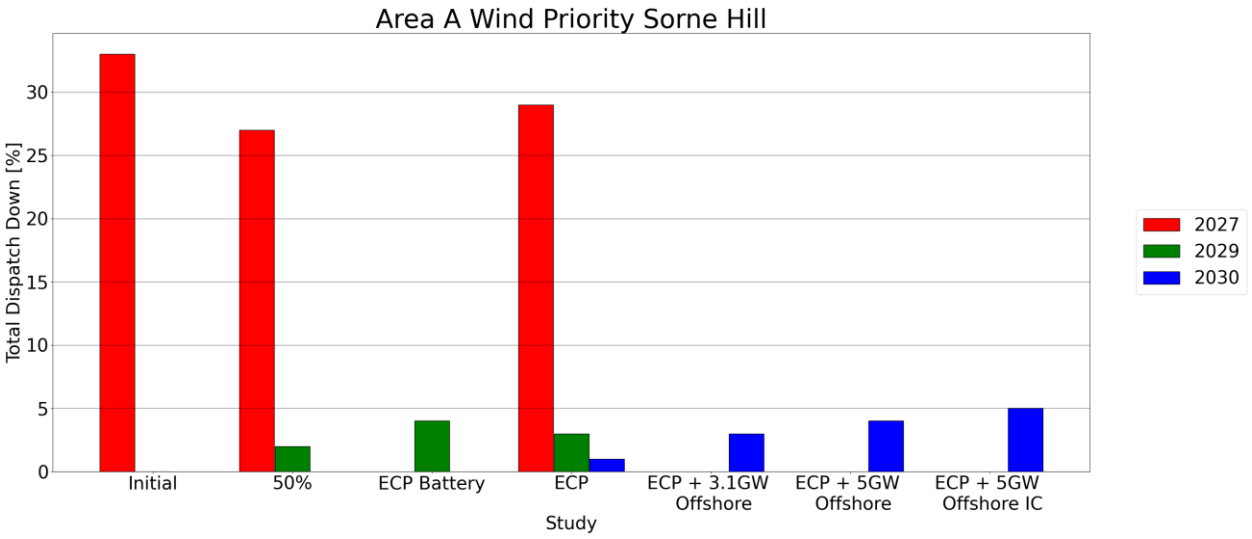

Figure 2-33 - Total Dispatch Down for Wind priority for Node Sorne hill

2.15 Tievebrack

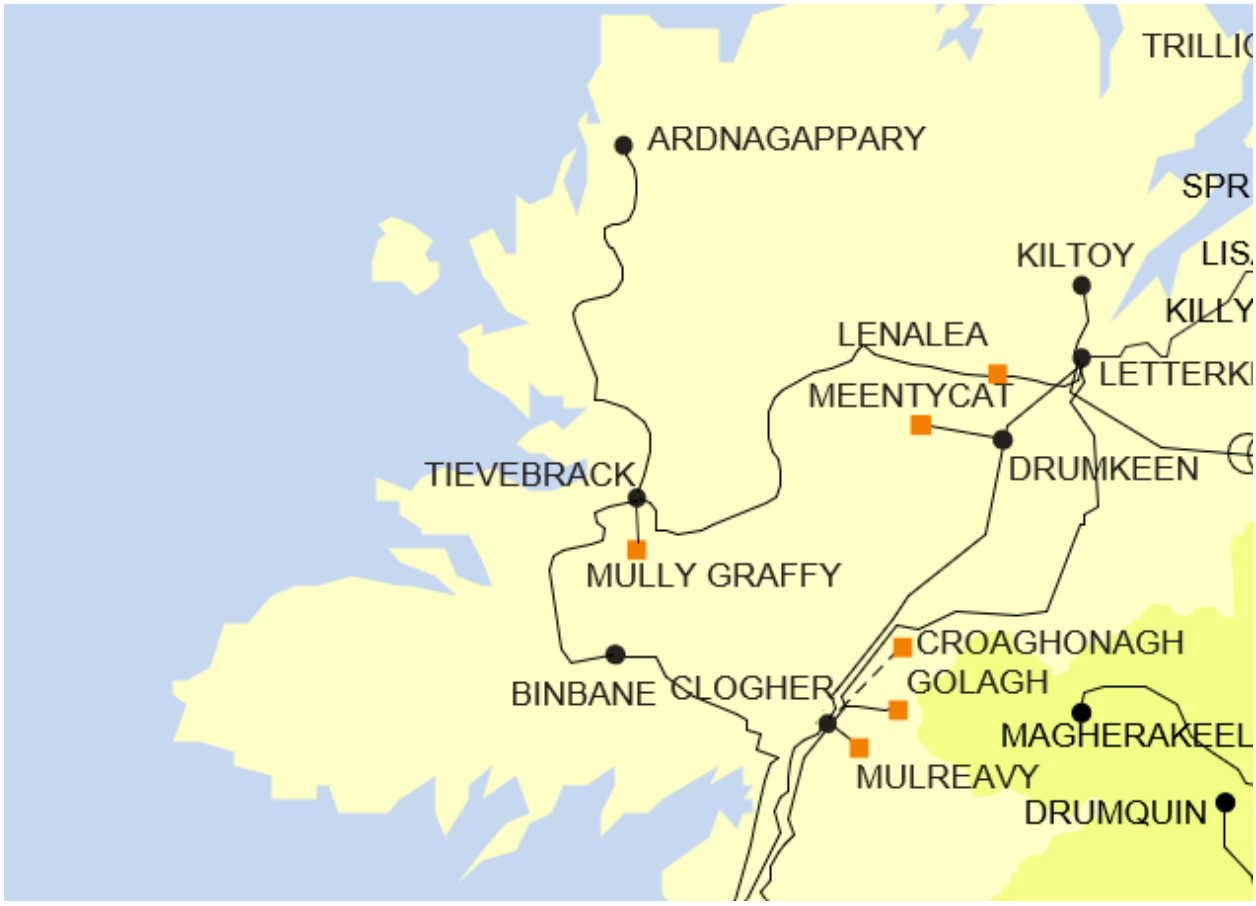

Figure 2-34 - Location of node Tievebrack

Generator	SO	Capacity	Type	Status
Mully Graffy Windfarm (Kilgorman)	TSO	29.9	wind not priority	due to connect

Table 2-53 - Generation Included in Study for Node Tievebrack

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

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		15	30				
Installed Capacity (MW)	2029		15	30	30			
Installed Capacity (MW)	FG			30		30	30	30
Available Energy (GWh)	2027		43	86				
Available Energy (GWh)	2029		43	86	86			
Available Energy (GWh)	FG			86		86	86	86
Generation (GWh)	2027		29	52				
Generation (GWh)	2029		26	49	44			
Generation (GWh)	FG			62		61	56	52
Surplus (%)	2027		6 %	13 %				
Surplus (%)	2029		2 %	6 %	9 %			
Surplus (%)	FG			3 %		13 %	23 %	31 %
Curtailment (%)	2027		3 %	5 %				
Curtailment (%)	2029		1 %	3 %	3 %			
Curtailment (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		23 %	22 %				
Constraint (%)	2029		36 %	35 %	37 %			
Constraint (%)	FG			25 %		15 %	10 %	6 %
Total Dispatch Down (%)	2027		32 %	40 %				
Total Dispatch Down (%)	2029		40 %	44 %	50 %			
Total Dispatch Down (%)	FG			29 %		30 %	35 %	40 %

Table 2-54 - Surplus, Curtailment and Constraint for Wind non-priority for Node Tievebrack

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	15	
Installed Capacity (MW)	2029 (pro-rata)	15	
Installed Capacity (MW)	FG (pro-rata)		30
Available Energy (GWh)	2027 (GF)	43	
Available Energy (GWh)	2029 (pro-rata)	43	
Available Energy (GWh)	FG (pro-rata)		86
Generation (GWh)	2027 (GF)	22	
Generation (GWh)	2029 (pro-rata)	33	
Generation (GWh)	FG (pro-rata)		66
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		13 %
Curtailment (%)	2027 (GF)	3 %	
Curtailment (%)	2029 (pro-rata)	1 %	
Curtailment (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	41 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	50 %	
Total Dispatch Down (%)	2029 (pro-rata)	24 %	
Total Dispatch Down (%)	FG (pro-rata)		24 %

Table 2-55 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Tievebrack

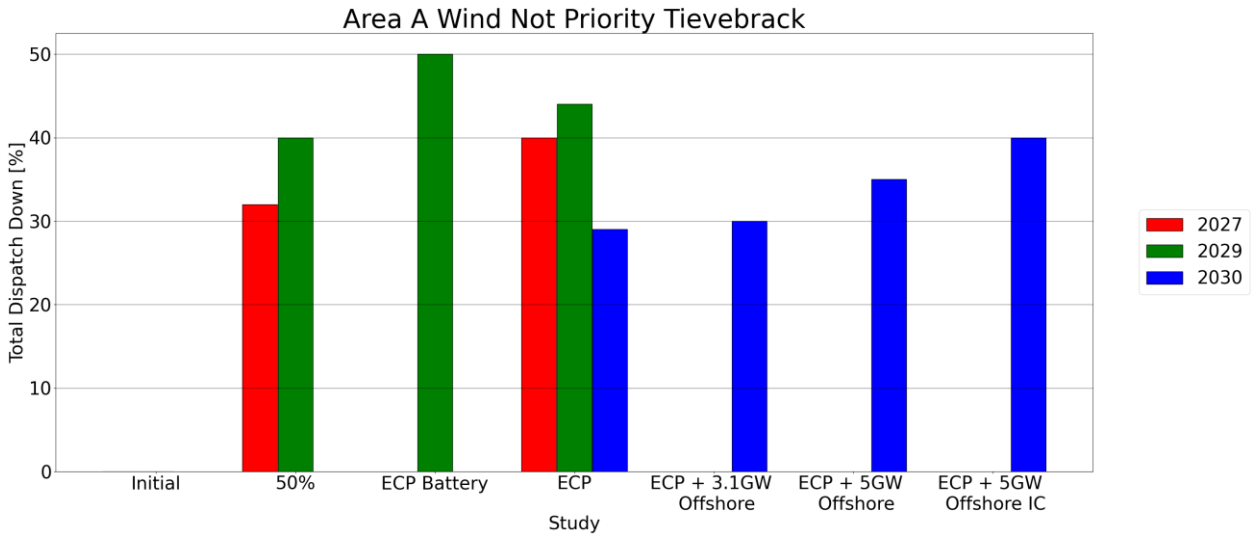

Figure 2-35 - Total Dispatch Down for Wind not priority for Node Tievebrack

2.16 Trillick

Figure 2-36 - Location of node Trillick

Generator	SO	Capacity	Type	Status
Drumlough Hill (2)	DSO	9.99	wind priority	connected
Beam Hill (1)	DSO	14.0	wind priority	connected
Crockahenny (1)	DSO	5.0	wind uncontrolled	connected
Drumlough Hill (1)	DSO	4.8	wind uncontrolled	connected
Meenaward	DSO	6.9	wind priority	connected
Cooly (1)	DSO	4.0	wind uncontrolled	connected

Table 2-56 - Generation Included in Study for Node Trillick

The wind priority data is given in the following table.

Area A	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	31	31	31				
Installed Capacity (MW)	2029	31	31	31	31			
Installed Capacity (MW)	FG			31		31	31	31
Available Energy (GWh)	2027	89	89	89				
Available Energy (GWh)	2029	89	89	89	89			
Available Energy (GWh)	FG			89		89	89	89
Generation (GWh)	2027	60	65	63				
Generation (GWh)	2029	89	88	86	85			
Generation (GWh)	FG			89		87	86	85
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailment (%)	2027	2 %	4 %	7 %				
Curtailment (%)	2029	0 %	2 %	3 %	4 %			
Curtailment (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	32 %	23 %	22 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	33 %	27 %	29 %				
Total Dispatch Down (%)	2029	0 %	2 %	3 %	4 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-57 - Surplus, Curtailment and Constraint for Wind priority for Node Trillick

Area A	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	31	
Installed Capacity (MW)	2029 (pro-rata)	31	
Installed Capacity (MW)	FG (pro-rata)		31
Available Energy (GWh)	2027 (GF)	89	
Available Energy (GWh)	2029 (pro-rata)	89	
Available Energy (GWh)	FG (pro-rata)		89
Generation (GWh)	2027 (GF)	86	
Generation (GWh)	2029 (pro-rata)	70	
Generation (GWh)	FG (pro-rata)		78
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailment (%)	2027 (GF)	4 %	
Curtailment (%)	2029 (pro-rata)	2 %	
Curtailment (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	21 %	
Constraint (%)	FG (pro-rata)		10 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	22 %	
Total Dispatch Down (%)	FG (pro-rata)		12 %

Table 2-58 - Surplus, Curtailment and Constraint for Wind priority with sensitivity for Node Trillick

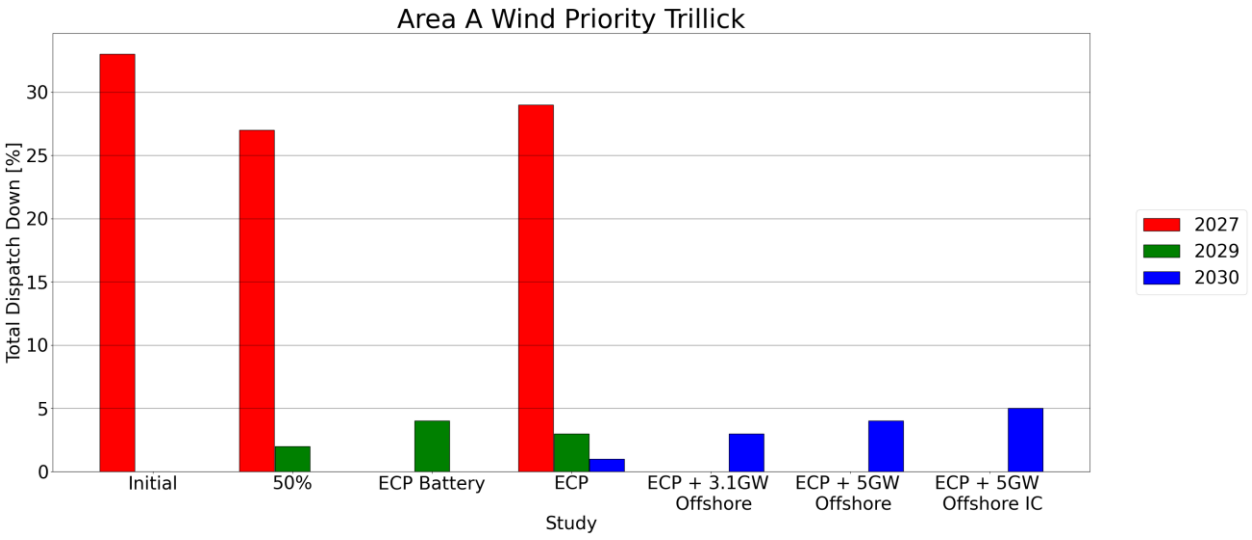

Figure 2-37 - Total Dispatch Down for Wind not priority for Node Trillick