

# Enduring Connection Policy 2.4

## Solar and Wind Constraints Report: Results for Area J

Version 1.0

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**Revision History**

Revision	Date	Description

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# Document Structure

This document is for customers wishing to see the estimated Total Dispatch Down for Area J. 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<sup>1</sup>.

This document contains two main sections:

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

**Section 2: Area J 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 J.

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<sup>1</sup> <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<sup>2</sup> 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.

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<sup>2</sup> ‘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 4<sup>th</sup> July 2019) and non-priority dispatch renewable generators (those installed on and after 4<sup>th</sup> July 2019) are treated in the SEM.

# 1 Results for Area J

## 1.1 Introduction

This section provides the surplus, curtailment and constraint results for Area J 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 J 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 J, 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 2<sup>nd</sup> 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 2<sup>nd</sup> 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 the 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 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 J in the “ECP” scenario is given in Table 1-1.

Node	SO	Status	Solar	Wind
Arodstown	TSO	due to connect	70	
Belcamp 220Kv	TSO	due to connect		250
Belcamp 220Kv	TSO	due to connect		250
Blundelstown	TSO	connected	60	
Bracklone	TSO	due to connect	60	
Bracklone	TSO	due to connect		58
Bracklyn	TSO	due to connect		65
Carrickmines 220Kv	TSO	due to connect		412
Carrickmines 220Kv	TSO	due to connect		412
Clonfad	TSO	due to connect	100	
Coolnabacky	TSO	due to connect	80	
Cushaling	TSO	connected		75
Derryiron	TSO	due to connect	132	
Derryiron	TSO	due to connect		110
Dunfirth	DSO	connected	14	
Dunfirth	DSO	due to connect	18	
Finglas	DSO	due to connect	11	
Finglas	TSO	due to connect	153	
Fosterstown	TSO	due to connect	79	
Gallanstown	TSO	connected	119	
Gallanstown	TSO	due to connect	64	
Glasmore	DSO	due to connect	4	
Grange	DSO	due to connect	40	
Griffinrath	DSO	due to connect	66	
Harristown	TSO	due to connect	42	
Kilteel	DSO	due to connect	15	
Maynooth	TSO	due to connect	50	
Monread	DSO	due to connect	8	
Mount Lucas	TSO	due to connect		56
Mount Lucas	TSO	connected		79
Mulgeeth	TSO	due to connect		60
Newbridge	DSO	due to connect	12	
Philipstown	TSO	due to connect	50	
Philipstown	TSO	due to connect		50
Poolbeg North 220Kv	TSO	due to connect		400
Poolbeg South 220Kv	TSO	due to connect		450
Poolbeg South 220Kv	TSO	due to connect		450
Portlaoise	DSO	due to connect	4	
Portlaoise	DSO	due to connect		45
Thornsberry	DSO	connected	4	
Thornsberry	DSO	due to connect	20	
Thornsberry	TSO	due to connect	90	
Timahoe	TSO	due to connect	360	
<b>Total</b>			<b>1725</b>	<b>3222</b>

Table 1-1 Wind and Solar Generation Summary (MW) in Area J for Generation Scenario “ECP”

Table 1-2 and Table 1-3 show installed solar and wind generation for Ireland and Area J, and the available solar and wind generation for Area J for each generation scenario.

Solar	ECP	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
<b>Installed Ireland (MW)</b>	7005	7005	7005	7005
<b>Installed Area J (MW)</b>	1724	1724	1724	1724
<b>Installed Controllable Area J (MW)</b>	1724	1724	1724	1724
<b>Available Controllable Area J (GWh)</b>	2209	2209	2209	2209

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

Wind	ECP	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
<b>Installed Ireland (MW)</b>	7358	10432	12358	12358
<b>Installed Area J (MW)</b>	598	3222	3222	3222
<b>Installed Controllable Area J (MW)</b>	598	3222	3222	3222
<b>Available Controllable Area J (GWh)</b>	1845	12699	12699	12699

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

## 1.4 Network Overview

The transmission network in Area J and the surrounding areas is shown in Figure 1-1. The 400 kV circuits are shown in red, the 220 kV circuits in green and the 110 kV circuits in black. Possible future transmission stations and lines for the connection of new generation are also shown on the map below.

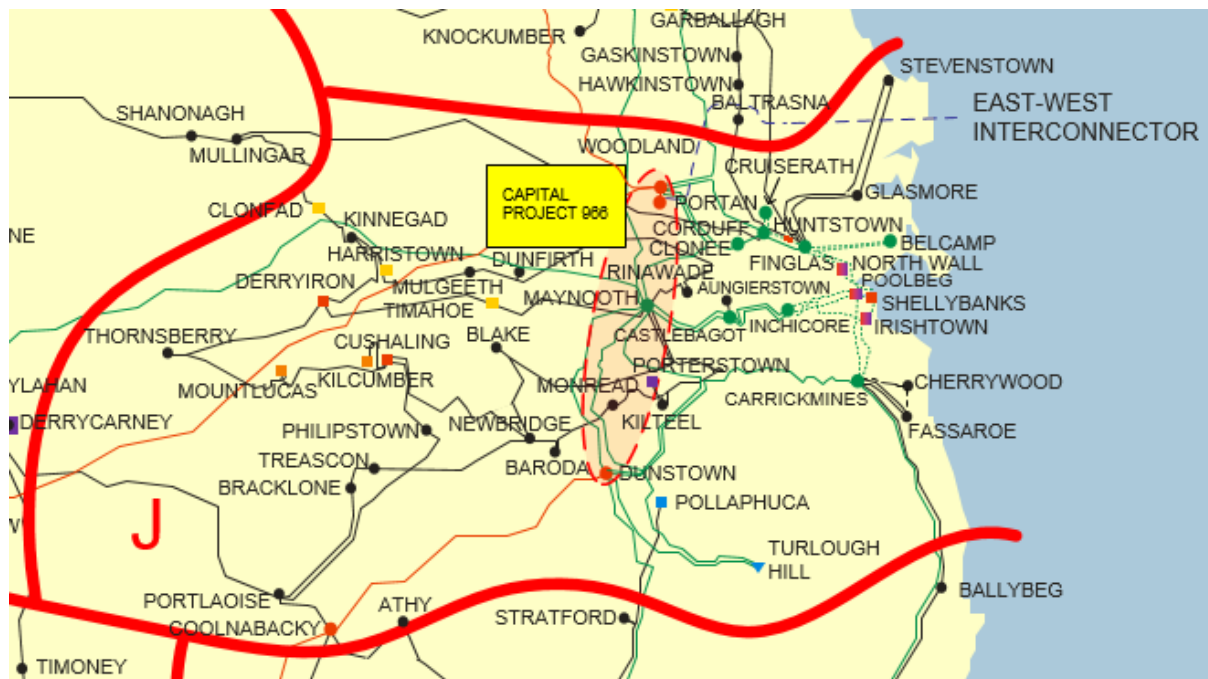


Figure 1-1 Network Map for Area J

Ireland's largest load centre is the greater Dublin area, which is located in Area J. This includes the majority of Large Energy User (LEU) demand that has been assumed for the study. The EWIC interconnector is also located in Area J and tends to be exporting when renewable generation is high. In general, when renewable generation is high, power flows are predominantly towards Area J from the rest of the system to supply the demand and the EWIC flow.

Constraints in Area J 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 J.

Area J has been split into two subgroups in this report; Area J City, G South subgroup and the Area J Country subgroup. Further detail on the Area J subgroups can be found in Section 1.6.5. Additional solar and wind generation coming into Area J Country is constrained by thermal limitations on the local 110 kV network in the midlands in the 2027 and 2029 studies. These constraints are reduced in the Future Grid scenario as a result of network reinforcements which are assumed in the area for this study, these reinforcements alleviate bottlenecks to reduce overall network constraints in Area J.

## 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 J - Average Results

The Total Dispatch Down results for Area J are provided below in Table 1-5 to Table 1-14 and Figure 1-3 to Figure 1-7. These include the breakdown between surplus, curtailment, and constraint. The Table 1-6, Table 1-8, Table 1-10, Table 1-12 and Table 1-14 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 J (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 14. 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 J under the Future Grid scenarios and associated sensitivity case is given in Table 1-5 to Table 1-14. 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 a number of 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 our experience of dispatch down on the real system. The subgroups are chosen to group those generators into a constraint group that are expected to experience similar constraint levels. The subgroups are selected on the basis that they share a common transmission bottleneck, or they are electrically close to a congested area within the network.

Area J includes the major Dublin load centres. The power in the meshed 110 kV circuits in the midland (J-Country) subgroup flows to the East, towards the 220 kV stations which feed the load centres (Figure 1-1). With increasing generation in the 110 kV network in the midlands, the power flow increases, which causes bottlenecks in the circuits that have lower ratings. A loss of a circuit in the midlands area creates overloading in other circuits and therefore results in RES generation being dispatched down. Between the initial and the full ECP scenario there is approximately 1.2 GW solar capacity increase. The contingency binding in the J-Country area improves with 2029 and Future Grid providing additional reinforcements. However, with high RES scenario this region is still getting congested. Further, additional power flow towards Dublin from other Areas will also affect the congestion in Area J.

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. Additionally, the loss of a 220 kV and 400 kV circuit exerts additional stress on the 110 kV circuits in the region.

The J City, G South subgroup is located in the east of Dublin. Future offshore wind connects into this area and is included in this constraint subgroup. The J City, G South subgroup mostly consists of circuits with 220

kV cables and is connected to the J Country subgroup through 110 kV and 220 kV stations. The J City, G South subgroup also consists of G South region generators, as they feed directly to the 220 kV stations in the North of Dublin.

Analysis of Area J identified two constraint subgroups for solar and wind generation: Area J City, G South subgroup and Area J Country subgroup. The subgroup nodes are given in Table 1-4. The individual node level dispatch down is given in Section 2.

Subgroup	Nodes
J City, G South	Arodstown
	Belcamp 220kV
	Carrickmines 220kV
	Finglas
	Gallanstown
	Glasmore
	Grange
	Griffinrath
	Poolbeg north 220kV
	Poolbeg south 220kV
J Country	Blundelstown
	Bracklone
	Bracklyn
	Clonfad
	Coolnabacky
	Cushaling
	Derryiron
	Dunfirth
	Fosterstown
	Harristown
	Kilteel
	Maynooth
	Monread
	Mount Lucas
	Mulgeeth
	Newbridge
	Philipstown
	Portlaoise
Thornsberry	
Timahoe	

Table 1-4 Area J generator nodes and their subgroups



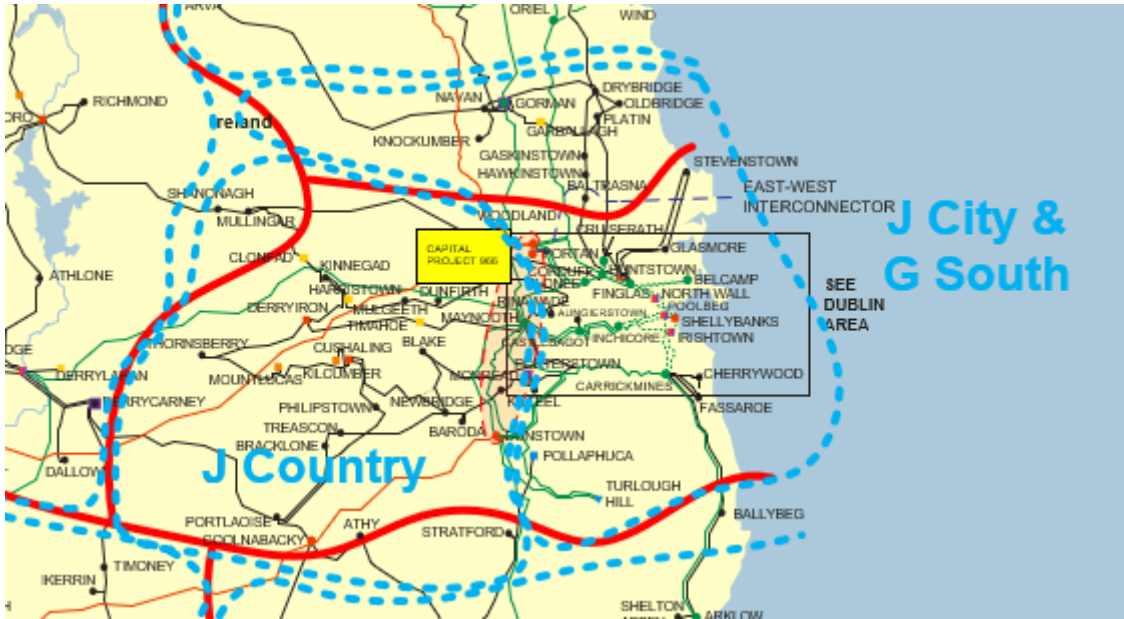


Figure 1-2 Subgroups J City & G South and J Country (subgroups outlined by blue dashed line)



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

Area J (J Country)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	247	722	1197				
Installed Capacity (MW)	2029	247	722	1197	1197			
Installed Capacity (MW)	FG			1197		1197	1197	1197
Available Energy (GWh)	2027	316	925	1534				
Available Energy (GWh)	2029	316	925	1534	1534			
Available Energy (GWh)	FG			1534		1534	1534	1534
Generation (GWh)	2027	280	438	523				
Generation (GWh)	2029	284	462	565	405			
Generation (GWh)	FG			759		783	760	731
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 1-5 - Surplus, Curtailement and Constraint for Solar Non-Priority in Area J (J Country)

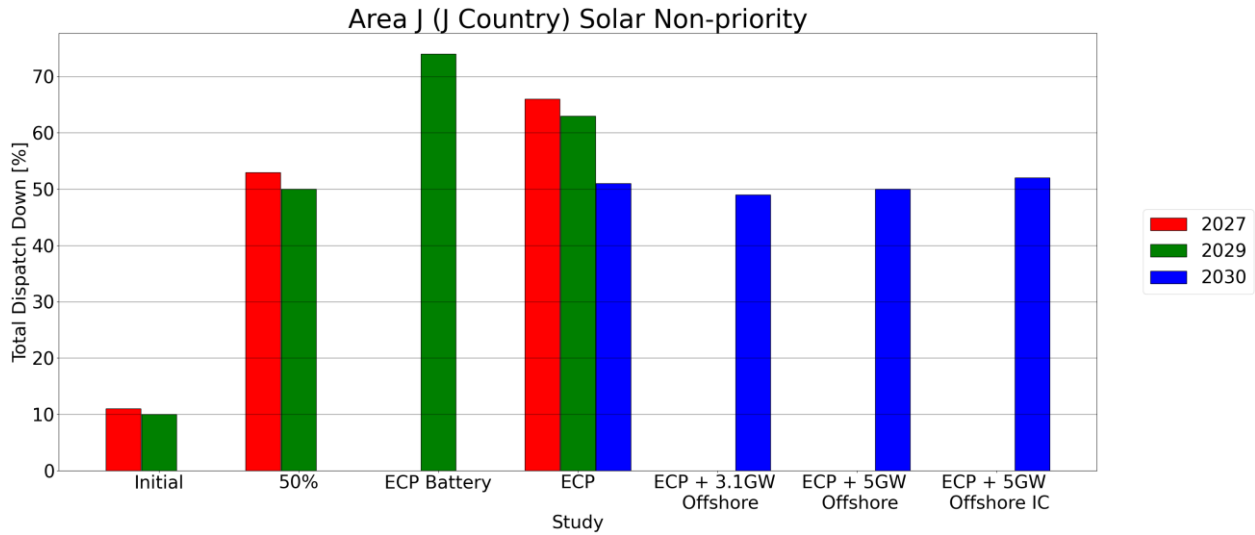


Figure 1-3 - Results Solar Non-Priority Area J (J Country)

Area J (J Country)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	722	
Installed Capacity (MW)	2029 (pro-rata)	722	
Installed Capacity (MW)	FG (pro-rata)		1197
Available Energy (GWh)	2027 (GF)	925	
Available Energy (GWh)	2029 (pro-rata)	925	
Available Energy (GWh)	FG (pro-rata)		1534
Generation (GWh)	2027 (GF)	438	
Generation (GWh)	2029 (pro-rata)	462	
Generation (GWh)	FG (pro-rata)		783
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 1-6 - Surplus, Curtailment and Constraint for Solar Non-Priority with Sensitivity in Area J (J Country)

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

Area J (J Country)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	120	320	519				
Installed Capacity (MW)	2029	120	320	519	519			
Installed Capacity (MW)	FG			519		519	519	519
Available Energy (GWh)	2027	370	985	1601				
Available Energy (GWh)	2029	370	985	1601	1601			
Available Energy (GWh)	FG			1601		1601	1601	1601
Generation (GWh)	2027	266	419	425				
Generation (GWh)	2029	251	393	371	342			
Generation (GWh)	FG			587		913	831	764
Surplus (%)	2027	1 %	7 %	14 %				
Surplus (%)	2029	0 %	2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailement (%)	2027	2 %	3 %	5 %				
Curtailement (%)	2029	0 %	1 %	3 %	3 %			
Curtailement (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	25 %	48 %	55 %				
Constraint (%)	2029	32 %	57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027	28 %	57 %	73 %				
Total Dispatch Down (%)	2029	32 %	60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 1-7 - Surplus, Curtailement and Constraint for Wind Non-Priority in Area J (J Country)

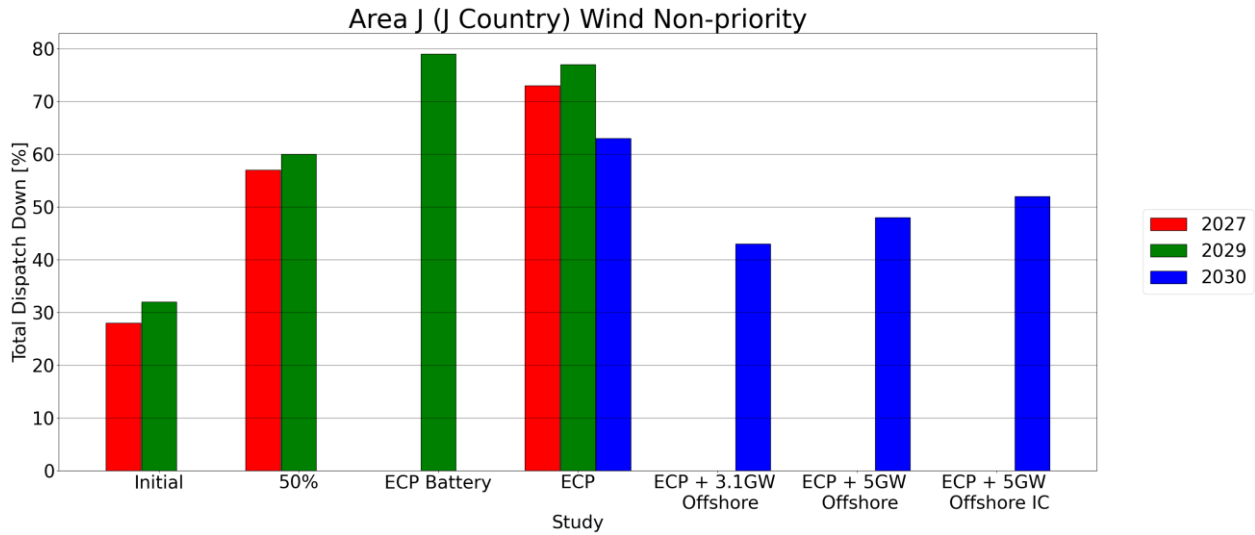


Figure 1-4 - Results Wind Non-Priority in Area J (J Country)

Area J (J Country)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	320	
Installed Capacity (MW)	2029 (pro-rata)	320	
Installed Capacity (MW)	FG (pro-rata)		519
Available Energy (GWh)	2027 (GF)	985	
Available Energy (GWh)	2029 (pro-rata)	985	
Available Energy (GWh)	FG (pro-rata)		1601
Generation (GWh)	2027 (GF)	319	
Generation (GWh)	2029 (pro-rata)	492	
Generation (GWh)	FG (pro-rata)		962
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

Table 1-8 - Surplus, Curtailement and Constraint for Wind Non-Priority with Sensitivity in Area J (J Country)

The wind priority data is given in the following table.

Area J (J Country)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
<b>Installed Capacity (MW)</b>	2027	79	79	79				
<b>Installed Capacity (MW)</b>	2029	79	79	79	79			
<b>Installed Capacity (MW)</b>	FG			79		79	79	79
<b>Available Energy (GWh)</b>	2027	244	244	244				
<b>Available Energy (GWh)</b>	2029	244	244	244	244			
<b>Available Energy (GWh)</b>	FG			244		244	244	244
<b>Generation (GWh)</b>	2027	178	117	94				
<b>Generation (GWh)</b>	2029	243	240	236	233			
<b>Generation (GWh)</b>	FG			242		237	234	232
<b>Surplus (%)</b>	2027	0 %	0 %	0 %				
<b>Surplus (%)</b>	2029	0 %	0 %	0 %	0 %			
<b>Surplus (%)</b>	FG			0 %		0 %	0 %	0 %
<b>Curtailed (%)</b>	2027	2 %	4 %	7 %				
<b>Curtailed (%)</b>	2029	0 %	2 %	4 %	5 %			
<b>Curtailed (%)</b>	FG			1 %		3 %	4 %	5 %
<b>Constraint (%)</b>	2027	25 %	48 %	55 %				
<b>Constraint (%)</b>	2029	0 %	0 %	0 %	0 %			
<b>Constraint (%)</b>	FG			0 %		0 %	0 %	0 %
<b>Total Dispatch Down (%)</b>	2027	27 %	52 %	62 %				
<b>Total Dispatch Down (%)</b>	2029	0 %	2 %	4 %	5 %			
<b>Total Dispatch Down (%)</b>	FG			1 %		3 %	4 %	5 %

Table 1-9 - Surplus, Curtailment and Constraint for Wind Priority in Area J (J Country)

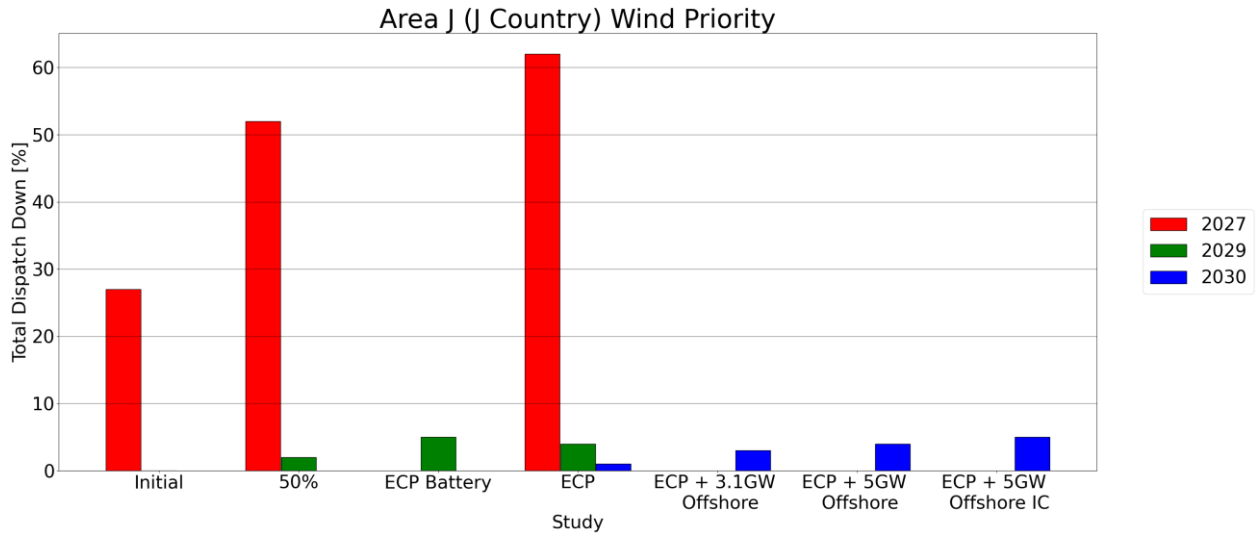


Figure 1-5 - Results Wind Priority Area J (J Country)

Area J (J Country)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	79	
Installed Capacity (MW)	2029 (pro-rata)	79	
Installed Capacity (MW)	FG (pro-rata)		79
Available Energy (GWh)	2027 (GF)	244	
Available Energy (GWh)	2029 (pro-rata)	244	
Available Energy (GWh)	FG (pro-rata)		244
Generation (GWh)	2027 (GF)	233	
Generation (GWh)	2029 (pro-rata)	126	
Generation (GWh)	FG (pro-rata)		179
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailement (%)	2027 (GF)	4 %	
Curtailement (%)	2029 (pro-rata)	2 %	
Curtailement (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	48 %	
Total Dispatch Down (%)	FG (pro-rata)		27 %

Table 1-10 - Surplus, Curtailement and Constraint for Wind Priority with Sensitivity in Area J (J Country)

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

Area J (J City, G South)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
<b>Installed Capacity (MW)</b>	2027	199	363	527				
<b>Installed Capacity (MW)</b>	2029	199	363	527	527			
<b>Installed Capacity (MW)</b>	FG			527		527	527	527
<b>Available Energy (GWh)</b>	2027	256	465	675				
<b>Available Energy (GWh)</b>	2029	256	465	675	675			
<b>Available Energy (GWh)</b>	FG			675		675	675	675
<b>Generation (GWh)</b>	2027	224	396	525				
<b>Generation (GWh)</b>	2029	235	423	576	514			
<b>Generation (GWh)</b>	FG			599		579	547	504
<b>Surplus (%)</b>	2027	1 %	6 %	14 %				
<b>Surplus (%)</b>	2029	0 %	3 %	9 %	15 %			
<b>Surplus (%)</b>	FG			5 %		11 %	15 %	21 %
<b>Curtailement (%)</b>	2027	1 %	2 %	4 %				
<b>Curtailement (%)</b>	2029	0 %	1 %	3 %	5 %			
<b>Curtailement (%)</b>	FG			1 %		2 %	2 %	2 %
<b>Constraint (%)</b>	2027	11 %	7 %	4 %				
<b>Constraint (%)</b>	2029	8 %	4 %	3 %	4 %			
<b>Constraint (%)</b>	FG			5 %		2 %	2 %	2 %
<b>Total Dispatch Down (%)</b>	2027	12 %	15 %	22 %				
<b>Total Dispatch Down (%)</b>	2029	8 %	9 %	15 %	24 %			
<b>Total Dispatch Down (%)</b>	FG			11 %		14 %	19 %	25 %

Table 1-11 - Surplus, Curtailement and Constraint for Solar Non-priority in Area J (J City, G South)

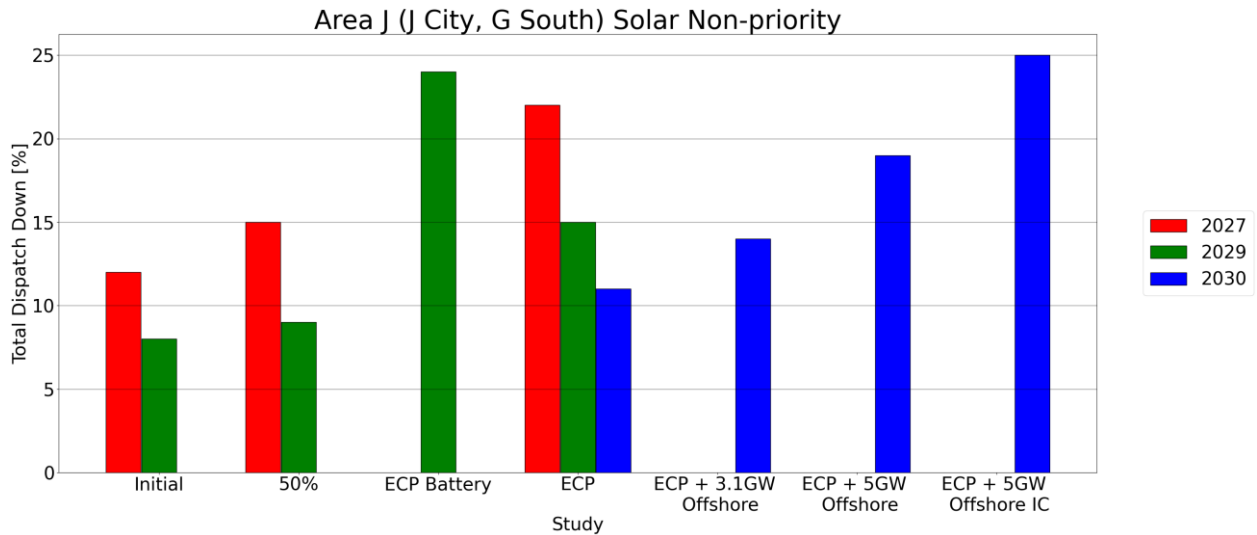


Figure 1-6 - Results Solar Non-priority Area J (J City, G South)

Area J (J City, G South)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	363	
Installed Capacity (MW)	2029 (pro-rata)	363	
Installed Capacity (MW)	FG (pro-rata)		527
Available Energy (GWh)	2027 (GF)	465	
Available Energy (GWh)	2029 (pro-rata)	465	
Available Energy (GWh)	FG (pro-rata)		675
Generation (GWh)	2027 (GF)	396	
Generation (GWh)	2029 (pro-rata)	423	
Generation (GWh)	FG (pro-rata)		579
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	7 %	
Constraint (%)	2029 (pro-rata)	4 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	15 %	
Total Dispatch Down (%)	2029 (pro-rata)	9 %	
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 1-12 - Surplus, Curtailement and Constraint for Solar Non-priority with Sensitivity in Area J (J City, G South)



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

Area J (J City, G South)	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027							
Installed Capacity (MW)	2029							
Installed Capacity (MW)	FG					2624	2624	2624
Available Energy (GWh)	2027							
Available Energy (GWh)	2029							
Available Energy (GWh)	FG					10854	10854	10854
Generation (GWh)	2027							
Generation (GWh)	2029							
Generation (GWh)	FG					9382	8059	7263
Surplus (%)	2027							
Surplus (%)	2029							
Surplus (%)	FG					11 %	21 %	30 %
Curtailement (%)	2027							
Curtailement (%)	2029							
Curtailement (%)	FG					2 %	2 %	3 %
Constraint (%)	2027							
Constraint (%)	2029							
Constraint (%)	FG					1 %	2 %	1 %
Total Dispatch Down (%)	2027							
Total Dispatch Down (%)	2029							
Total Dispatch Down (%)	FG					14 %	26 %	33 %

Table 1-13 - Surplus, Curtailement and Constraint for Wind Non-priority in Area J (J City, G South)

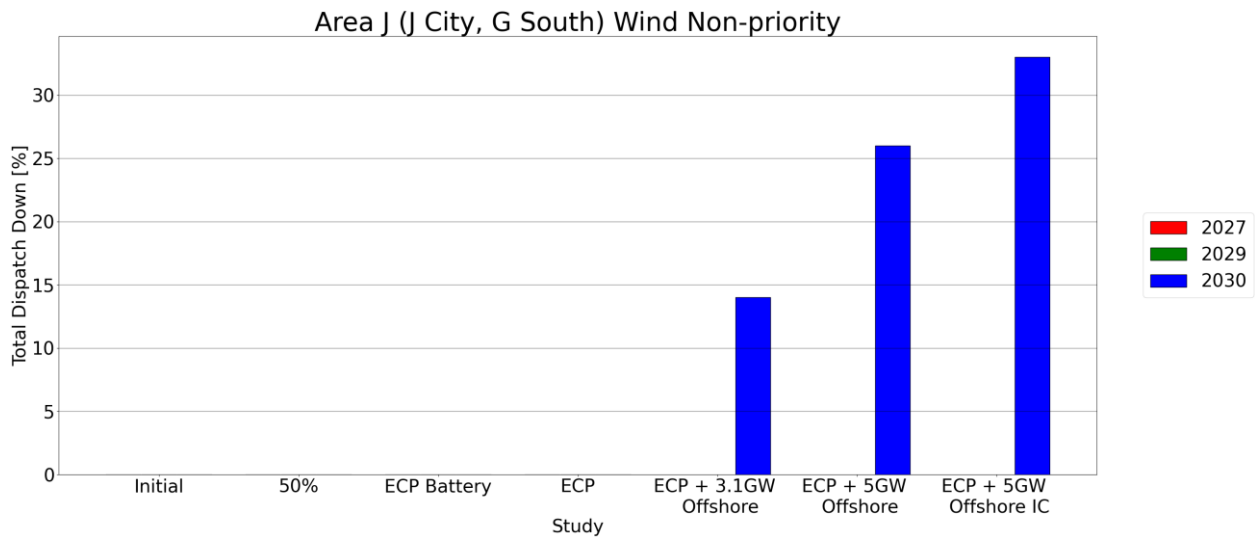


Figure 1-7 - Results Wind Non-priority Area J (J City, G South)

Area J (J City, G South)	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)		
Installed Capacity (MW)	2029 (pro-rata)		
Installed Capacity (MW)	FG (pro-rata)		2624
Available Energy (GWh)	2027 (GF)		
Available Energy (GWh)	2029 (pro-rata)		
Available Energy (GWh)	FG (pro-rata)		10854
Generation (GWh)	2027 (GF)		
Generation (GWh)	2029 (pro-rata)		
Generation (GWh)	FG (pro-rata)		9382
Surplus (%)	2027 (GF)		
Surplus (%)	2029 (pro-rata)		
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)		
Curtailement (%)	2029 (pro-rata)		
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)		
Constraint (%)	2029 (pro-rata)		
Constraint (%)	FG (pro-rata)		1 %
Total Dispatch Down (%)	2027 (GF)		
Total Dispatch Down (%)	2029 (pro-rata)		
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 1-14 - Surplus, Curtailement and Constraint for Wind Non-priority with Sensitivity in Area J (J City, G South)

## 1.7 Conclusion - Results for Area J

This section provides an overview of the estimated surplus, curtailment and constraint values for Area J 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 J.

## 2 Area J Node Results

This section presents the results of the modelling analysis for Area J. The levels of surplus, curtailment and constraint that controllable solar and wind generators in Area J 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 2-1 Area J



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		35	70				
Installed Capacity (MW)	2029		35	70	70			
Installed Capacity (MW)	FG			70		70	70	70
Available Energy (GWh)	2027		45	90				
Available Energy (GWh)	2029		45	90	90			
Available Energy (GWh)	FG			90		90	90	90
Generation (GWh)	2027		38	70				
Generation (GWh)	2029		41	77	68			
Generation (GWh)	FG			80		77	73	67
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027		2 %	4 %				
Curtailement (%)	2029		1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		7 %	4 %				
Constraint (%)	2029		4 %	3 %	4 %			
Constraint (%)	FG			5 %		2 %	2 %	2 %
Total Dispatch Down (%)	2027		15 %	22 %				
Total Dispatch Down (%)	2029		9 %	15 %	24 %			
Total Dispatch Down (%)	FG			11 %		14 %	19 %	25 %

*Table 2-2 - Surplus, Curtailement and Constraint for Solar non-priority for Node Arodstown*

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	35	
Installed Capacity (MW)	2029 (pro-rata)	35	
Installed Capacity (MW)	FG (pro-rata)		70
Available Energy (GWh)	2027 (GF)	45	
Available Energy (GWh)	2029 (pro-rata)	45	
Available Energy (GWh)	FG (pro-rata)		90
Generation (GWh)	2027 (GF)	38	
Generation (GWh)	2029 (pro-rata)	41	
Generation (GWh)	FG (pro-rata)		77
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	7 %	
Constraint (%)	2029 (pro-rata)	4 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	15 %	
Total Dispatch Down (%)	2029 (pro-rata)	9 %	
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 2-3 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Arodstown

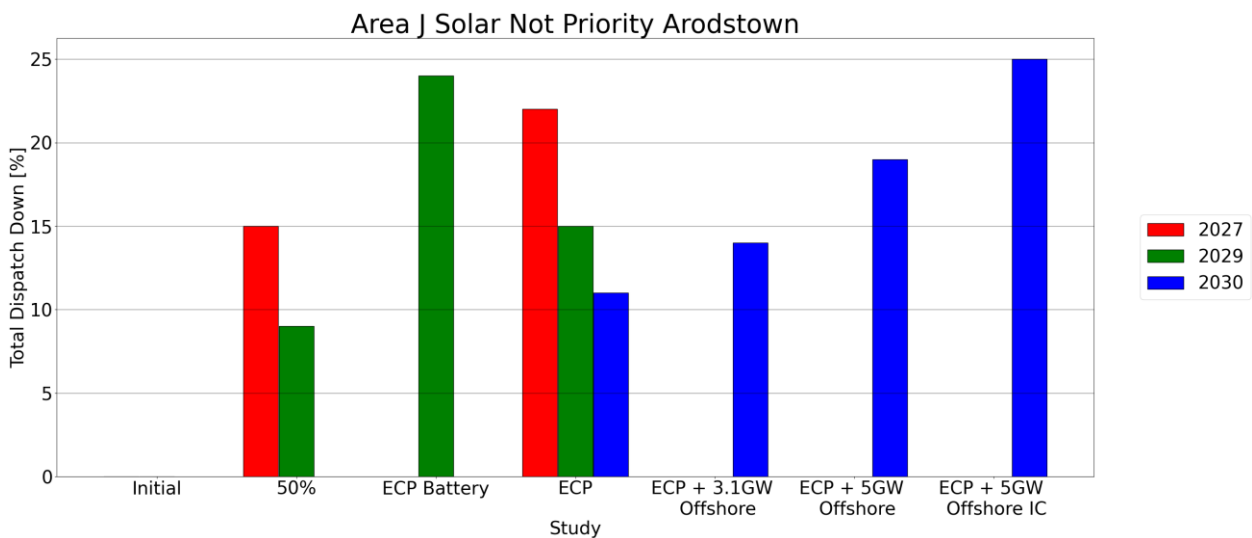


Figure 2-3 - Total Dispatch Down for Solar not priority for Node Arodstown

## 2.2 Belcamp 220kv



Figure 2-4 - Location of node Belcamp 220kv

Generator	SO	Capacity	Type	Status
North Irish Sea Array A	TSO	250.0	wind not priority	due to connect
North Irish Sea Array B	TSO	250.0	wind not priority	due to connect

Table 2-4 - Generation Included in Study for Node Belcamp 220kv



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027							
Installed Capacity (MW)	2029							
Installed Capacity (MW)	FG					500	500	500
Available Energy (GWh)	2027							
Available Energy (GWh)	2029							
Available Energy (GWh)	FG					2095	2095	2095
Generation (GWh)	2027							
Generation (GWh)	2029							
Generation (GWh)	FG					1812	1559	1406
Surplus (%)	2027							
Surplus (%)	2029							
Surplus (%)	FG					11 %	21 %	29 %
Curtailed (%)	2027							
Curtailed (%)	2029							
Curtailed (%)	FG					2 %	2 %	3 %
Constraint (%)	2027							
Constraint (%)	2029							
Constraint (%)	FG					1 %	2 %	1 %
Total Dispatch Down (%)	2027							
Total Dispatch Down (%)	2029							
Total Dispatch Down (%)	FG					13 %	26 %	33 %

Table 2-5 - Surplus, Curtailment and Constraint for Wind non-priority for Node Belcamp 220kv

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)		
Installed Capacity (MW)	2029 (pro-rata)		
Installed Capacity (MW)	FG (pro-rata)		500
Available Energy (GWh)	2027 (GF)		
Available Energy (GWh)	2029 (pro-rata)		
Available Energy (GWh)	FG (pro-rata)		2095
Generation (GWh)	2027 (GF)		
Generation (GWh)	2029 (pro-rata)		
Generation (GWh)	FG (pro-rata)		1812
Surplus (%)	2027 (GF)		
Surplus (%)	2029 (pro-rata)		
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)		
Curtailement (%)	2029 (pro-rata)		
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)		
Constraint (%)	2029 (pro-rata)		
Constraint (%)	FG (pro-rata)		1 %
Total Dispatch Down (%)	2027 (GF)		
Total Dispatch Down (%)	2029 (pro-rata)		
Total Dispatch Down (%)	FG (pro-rata)		13 %

Table 2-6 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Belcamp 220kv

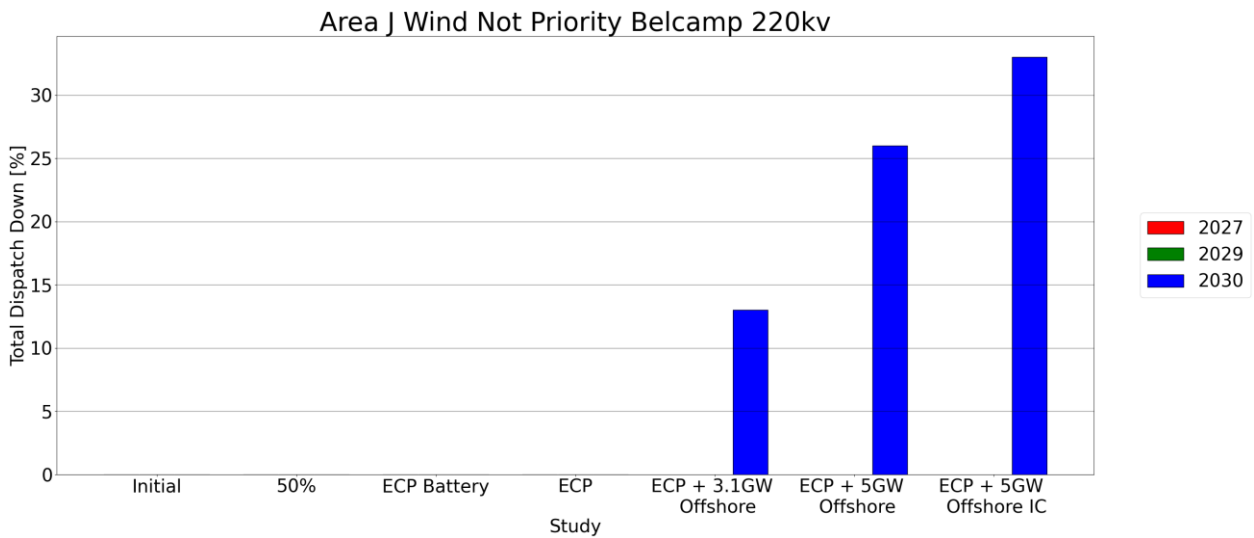


Figure 2-5 - Total Dispatch Down for Wind not priority for Node Belcamp 220kv

## 2.3 Blundelstown

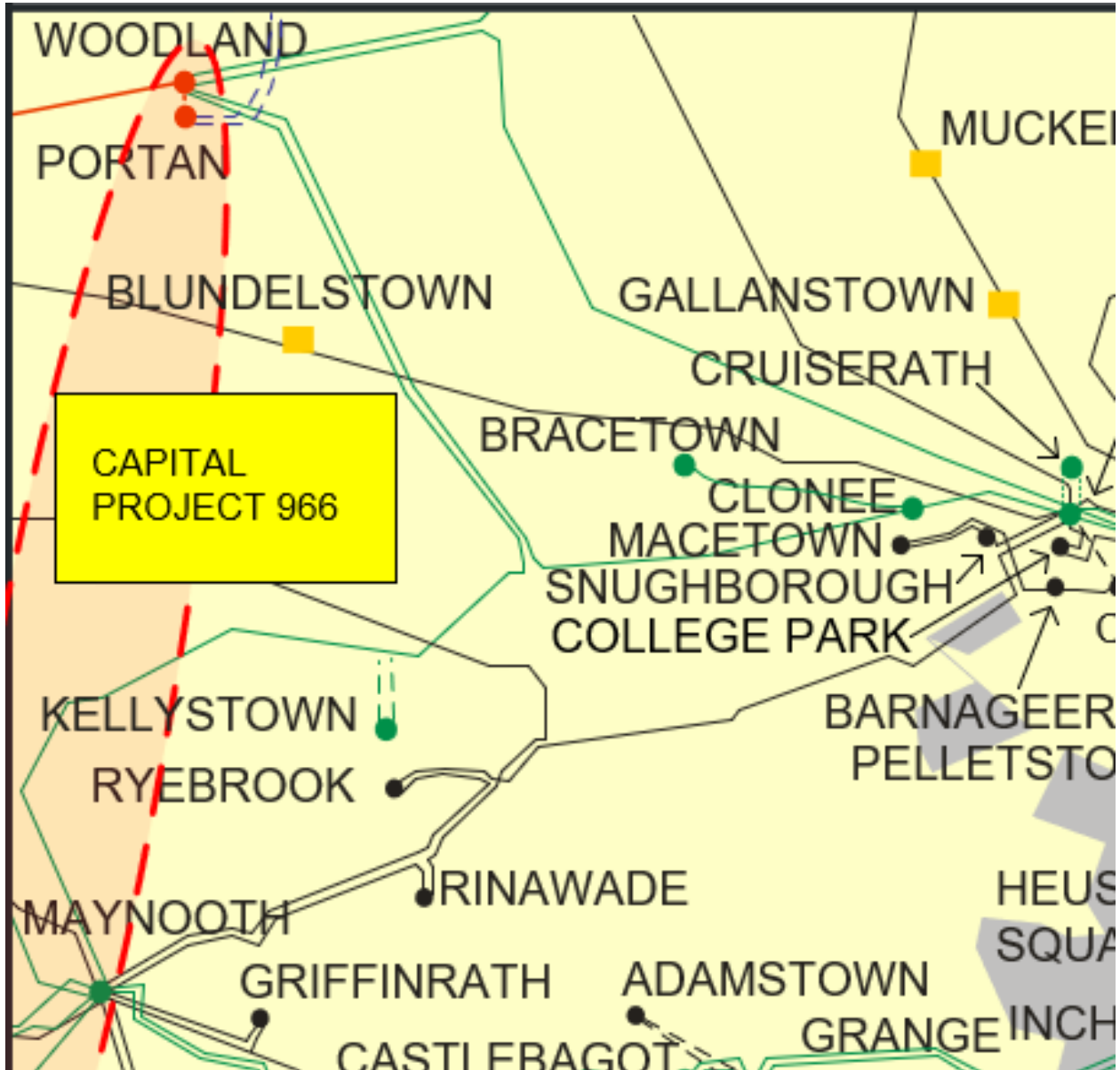


Figure 2-6 - Location of node Blundelstown

Generator	SO	Capacity	Type	Status
<b>Blundelstown</b>	TSO	60.0	solar not priority	connected

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

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	60	60	60				
Installed Capacity (MW)	2029	60	60	60	60			
Installed Capacity (MW)	FG			60		60	60	60
Available Energy (GWh)	2027	77	77	77				
Available Energy (GWh)	2029	77	77	77	77			
Available Energy (GWh)	FG			77		77	77	77
Generation (GWh)	2027	68	36	26				
Generation (GWh)	2029	69	38	28	20			
Generation (GWh)	FG			38		39	38	37
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-8 - Surplus, Curtailement and Constraint for Solar non-priority for Node Blundelstown

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	60	
Installed Capacity (MW)	2029 (pro-rata)	60	
Installed Capacity (MW)	FG (pro-rata)		60
Available Energy (GWh)	2027 (GF)	77	
Available Energy (GWh)	2029 (pro-rata)	77	
Available Energy (GWh)	FG (pro-rata)		77
Generation (GWh)	2027 (GF)	36	
Generation (GWh)	2029 (pro-rata)	38	
Generation (GWh)	FG (pro-rata)		39
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

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

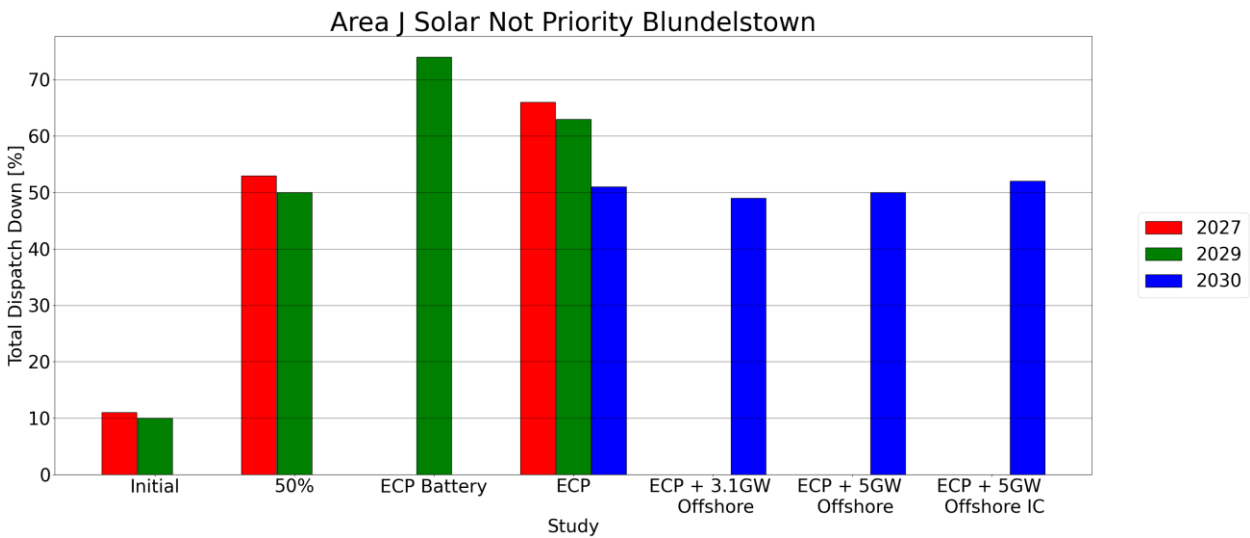


Figure 2-7 - Total Dispatch Down for Solar not priority for Node Blundelstown

## 2.4 Bracklone

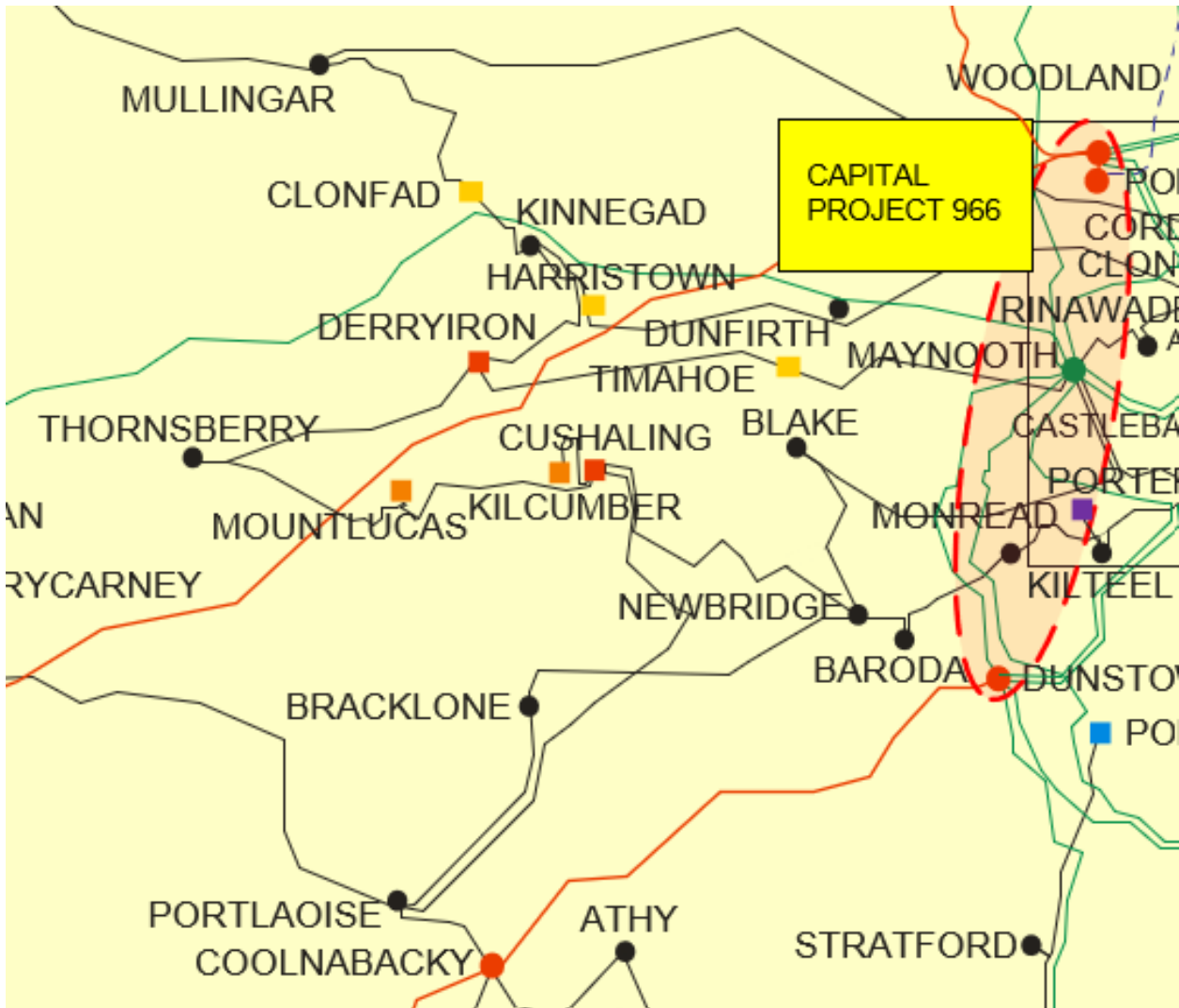


Figure 2-8 - Location of node Bracklone

Generator	SO	Capacity	Type	Status
Treascon Solar Farm	TSO	60.0	solar not priority	due to connect
Dernacart Windfarm	TSO	57.6	wind not priority	due to connect

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

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		30	60				
Installed Capacity (MW)	2029		30	60	60			
Installed Capacity (MW)	FG			60		60	60	60
Available Energy (GWh)	2027		38	77				
Available Energy (GWh)	2029		38	77	77			
Available Energy (GWh)	FG			77		77	77	77
Generation (GWh)	2027		18	26				
Generation (GWh)	2029		19	28	20			
Generation (GWh)	FG			38		39	38	37
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027		2 %	4 %				
Curtailement (%)	2029		1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		45 %	48 %				
Constraint (%)	2029		45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027		53 %	66 %				
Total Dispatch Down (%)	2029		50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-11 - Surplus, Curtailement and Constraint for Solar non-priority for Node Bracklone

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	30	
Installed Capacity (MW)	2029 (pro-rata)	30	
Installed Capacity (MW)	FG (pro-rata)		60
Available Energy (GWh)	2027 (GF)	38	
Available Energy (GWh)	2029 (pro-rata)	38	
Available Energy (GWh)	FG (pro-rata)		77
Generation (GWh)	2027 (GF)	18	
Generation (GWh)	2029 (pro-rata)	19	
Generation (GWh)	FG (pro-rata)		39
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-12 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Bracklone

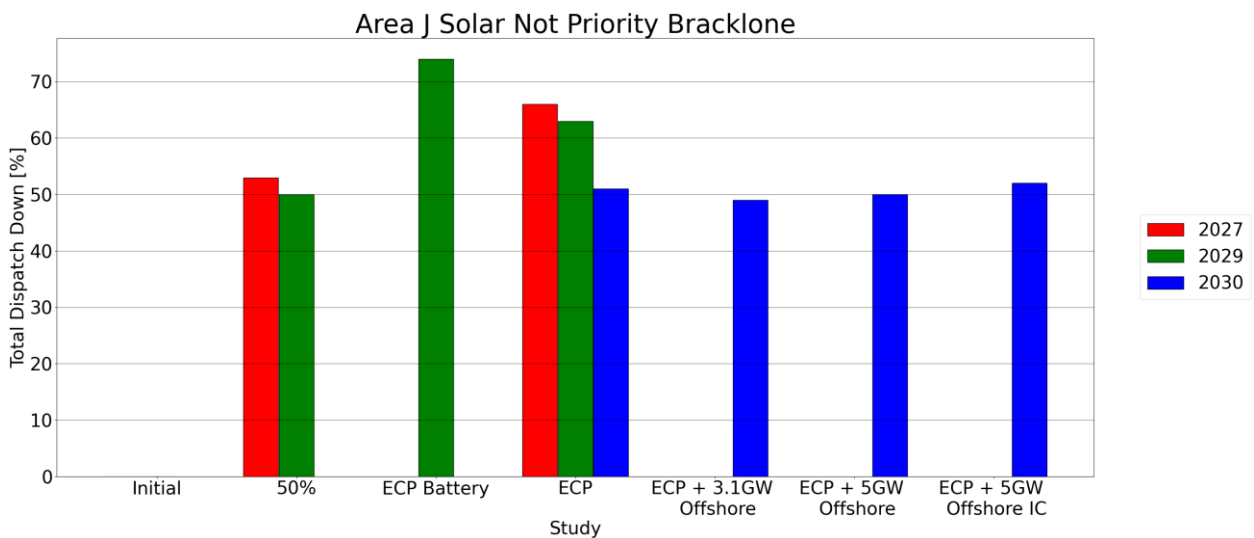


Figure 2-9 - Total Dispatch Down for Solar not priority for Node Bracklone



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		29	58				
Installed Capacity (MW)	2029		29	58	58			
Installed Capacity (MW)	FG			58		58	58	58
Available Energy (GWh)	2027		89	178				
Available Energy (GWh)	2029		89	178	178			
Available Energy (GWh)	FG			178		178	178	178
Generation (GWh)	2027		38	47				
Generation (GWh)	2029		35	41	38			
Generation (GWh)	FG			65		101	92	85
Surplus (%)	2027		7 %	14 %				
Surplus (%)	2029		2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailement (%)	2027		3 %	5 %				
Curtailement (%)	2029		1 %	3 %	3 %			
Curtailement (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		48 %	55 %				
Constraint (%)	2029		57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027		57 %	73 %				
Total Dispatch Down (%)	2029		60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 2-13 - Surplus, Curtailement and Constraint for Wind non-priority for Node Bracklone

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	29	
Installed Capacity (MW)	2029 (pro-rata)	29	
Installed Capacity (MW)	FG (pro-rata)		58
Available Energy (GWh)	2027 (GF)	89	
Available Energy (GWh)	2029 (pro-rata)	89	
Available Energy (GWh)	FG (pro-rata)		178
Generation (GWh)	2027 (GF)	29	
Generation (GWh)	2029 (pro-rata)	44	
Generation (GWh)	FG (pro-rata)		107
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

Table 2-14 - Surplus, Curtailement and Constraint for Wind non-priority with sensitivity for Node Bracklone

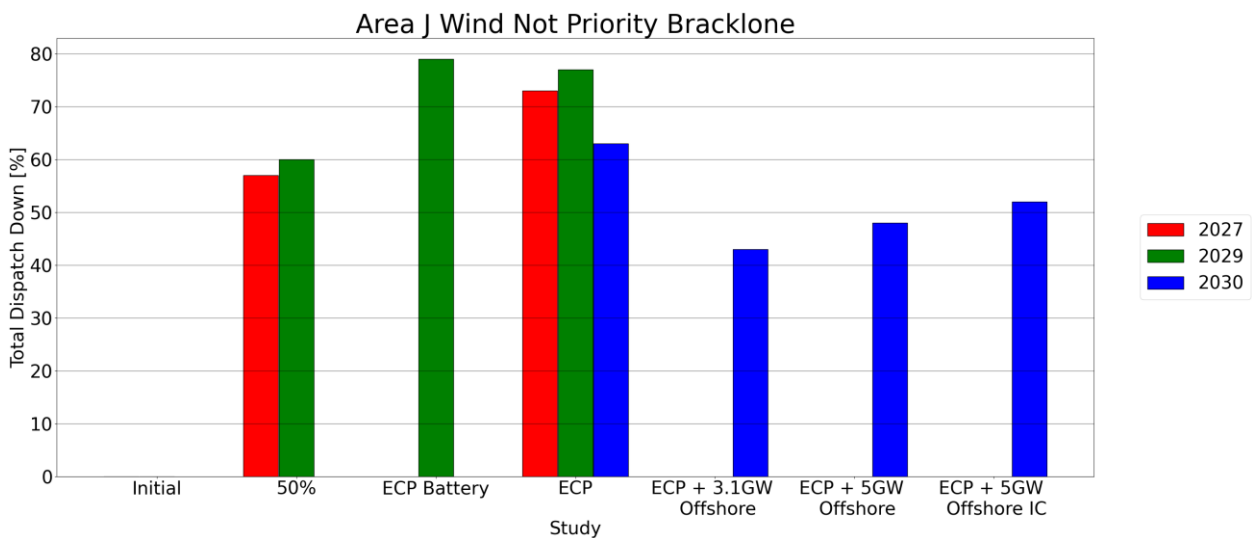


Figure 2-10 - Total Dispatch Down for Wind not priority for Node Bracklone

## 2.5 Bracklyn

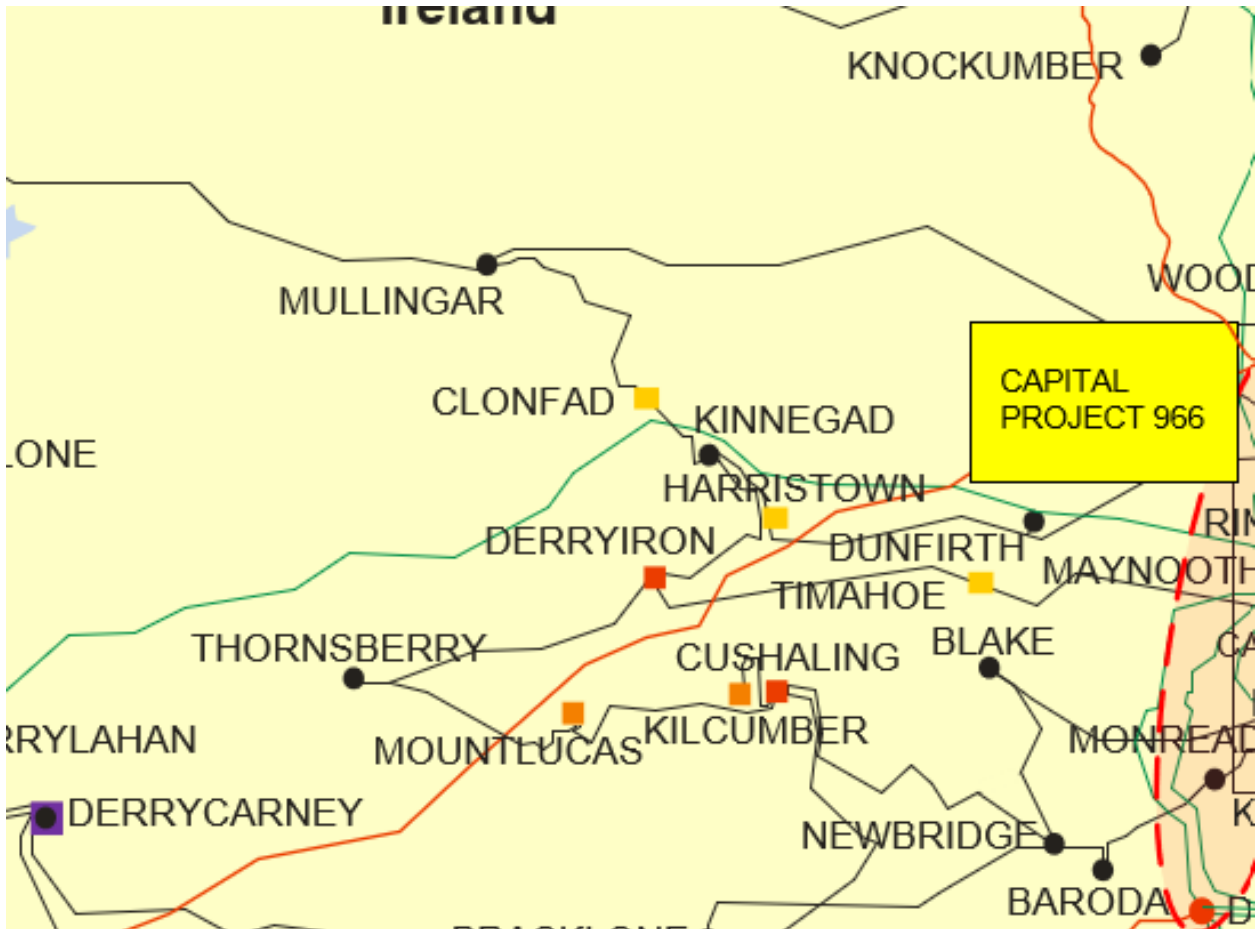


Figure 2-11 - Location of node Bracklyn

Generator	SO	Capacity	Type	Status
<b>Bracklyn Wind Farm (Wind)</b>	TSO	64.8	wind not priority	due to connect

Table 2-15 - Generation Included in Study for Node Bracklyn

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		32	65				
Installed Capacity (MW)	2029		32	65	65			
Installed Capacity (MW)	FG			65		65	65	65
Available Energy (GWh)	2027		100	200				
Available Energy (GWh)	2029		100	200	200			
Available Energy (GWh)	FG			200		200	200	200
Generation (GWh)	2027		43	53				
Generation (GWh)	2029		40	46	43			
Generation (GWh)	FG			73		114	104	95
Surplus (%)	2027		7 %	14 %				
Surplus (%)	2029		2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailed (%)	2027		3 %	5 %				
Curtailed (%)	2029		1 %	3 %	3 %			
Curtailed (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		48 %	55 %				
Constraint (%)	2029		57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027		57 %	73 %				
Total Dispatch Down (%)	2029		60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 2-16 - Surplus, Curtailment and Constraint for Wind non-priority for Node Bracklyn

Area J	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)		65
Available Energy (GWh)	2027 (GF)	100	
Available Energy (GWh)	2029 (pro-rata)	100	
Available Energy (GWh)	FG (pro-rata)		200
Generation (GWh)	2027 (GF)	32	
Generation (GWh)	2029 (pro-rata)	50	
Generation (GWh)	FG (pro-rata)		120
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

Table 2-17 - Surplus, Curtailement and Constraint for Wind non-priority with sensitivity for Node Bracklyn

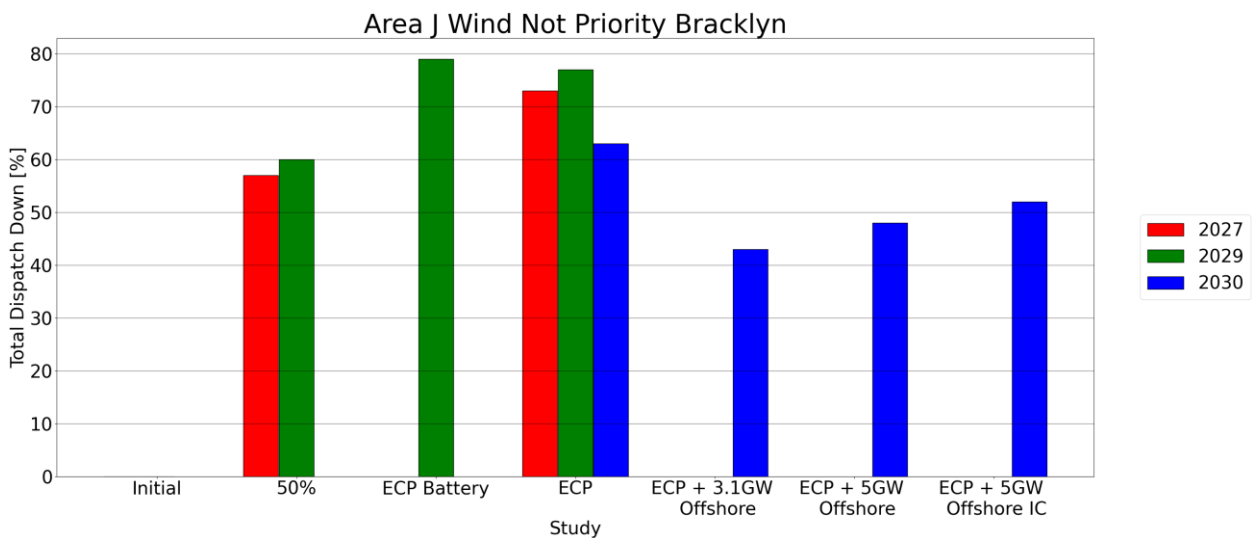


Figure 2-12 - Total Dispatch Down for Wind not priority for Node Bracklyn



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027							
Installed Capacity (MW)	2029							
Installed Capacity (MW)	FG					824	824	824
Available Energy (GWh)	2027							
Available Energy (GWh)	2029							
Available Energy (GWh)	FG					3313	3313	3313
Generation (GWh)	2027							
Generation (GWh)	2029							
Generation (GWh)	FG					2858	2447	2202
Surplus (%)	2027							
Surplus (%)	2029							
Surplus (%)	FG					11 %	21 %	30 %
Curtailed (%)	2027							
Curtailed (%)	2029							
Curtailed (%)	FG					2 %	2 %	3 %
Constraint (%)	2027							
Constraint (%)	2029							
Constraint (%)	FG					1 %	2 %	1 %
Total Dispatch Down (%)	2027							
Total Dispatch Down (%)	2029							
Total Dispatch Down (%)	FG					14 %	26 %	34 %

Table 2-19 - Surplus, Curtailment and Constraint for Wind non-priority for Node Carrickmines 220kv

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)		
Installed Capacity (MW)	2029 (pro-rata)		
Installed Capacity (MW)	FG (pro-rata)		824
Available Energy (GWh)	2027 (GF)		
Available Energy (GWh)	2029 (pro-rata)		
Available Energy (GWh)	FG (pro-rata)		3313
Generation (GWh)	2027 (GF)		
Generation (GWh)	2029 (pro-rata)		
Generation (GWh)	FG (pro-rata)		2858
Surplus (%)	2027 (GF)		
Surplus (%)	2029 (pro-rata)		
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)		
Curtailement (%)	2029 (pro-rata)		
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)		
Constraint (%)	2029 (pro-rata)		
Constraint (%)	FG (pro-rata)		1 %
Total Dispatch Down (%)	2027 (GF)		
Total Dispatch Down (%)	2029 (pro-rata)		
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 2-20 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Carrickmines 220kv

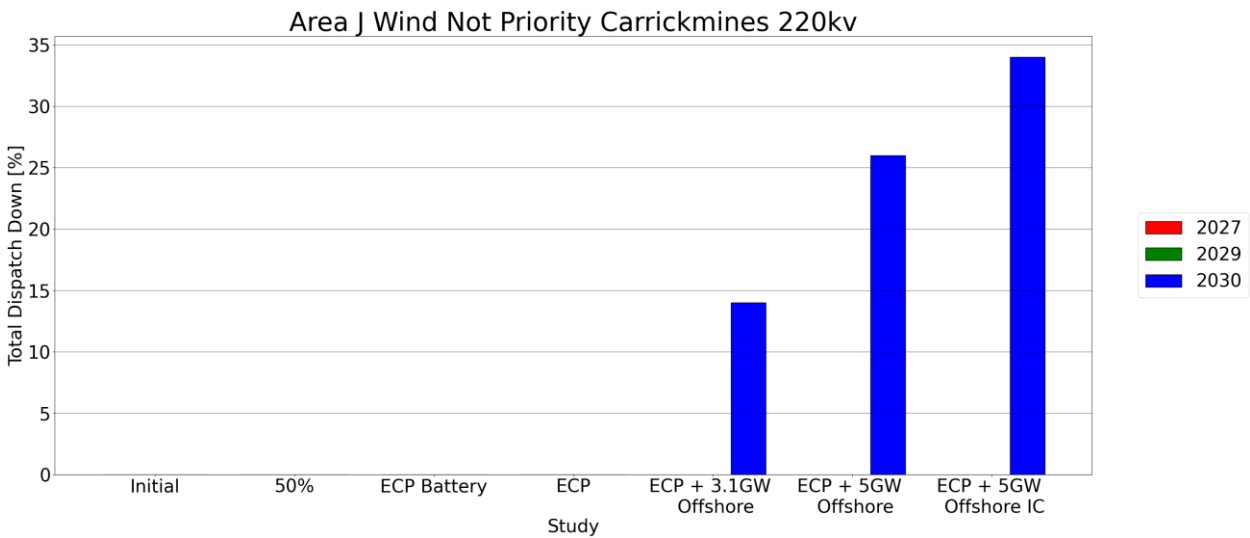


Figure 2-14 - Total Dispatch Down for Wind not priority for Node Carrickmines 220kv



## 2.7 Clonfad

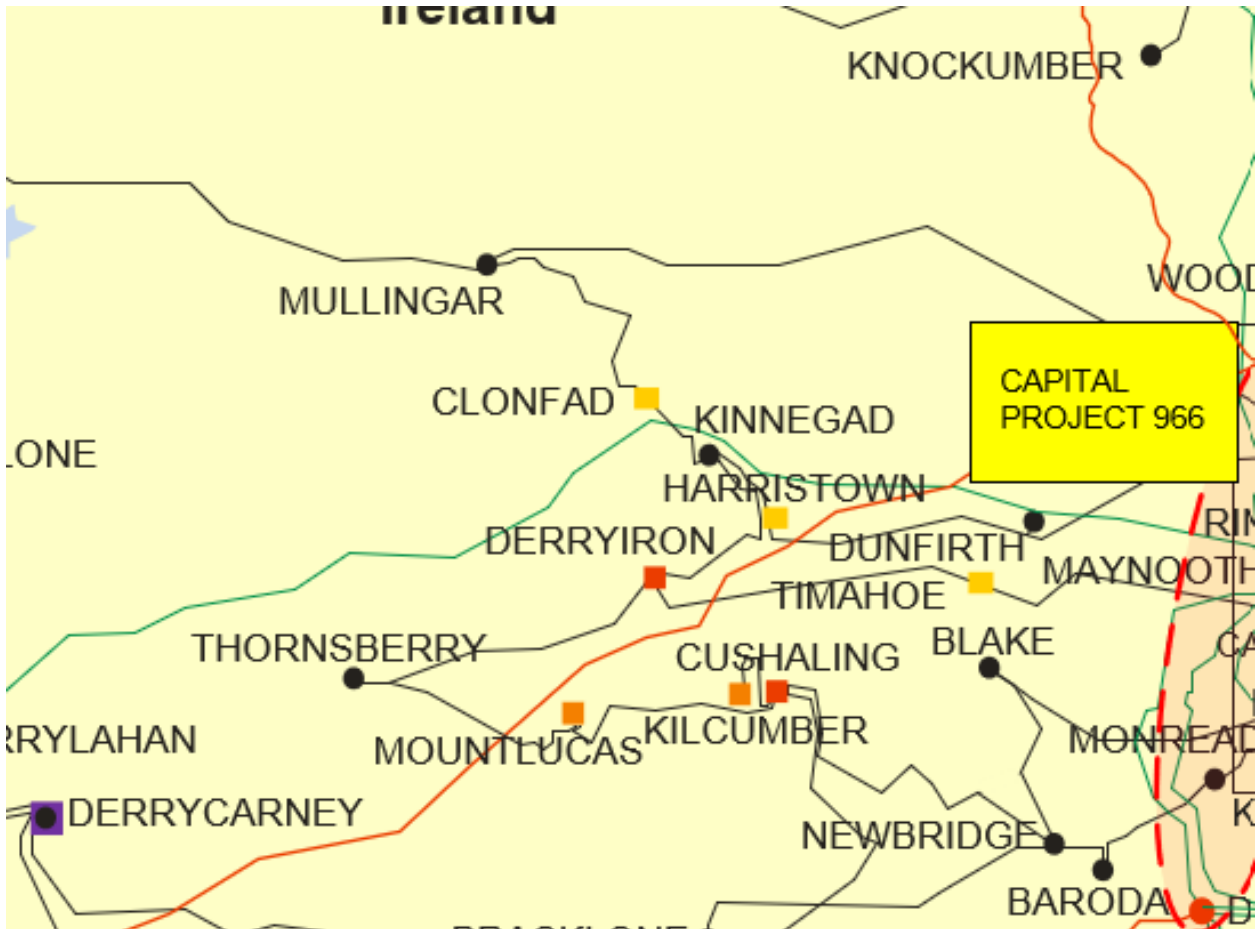


Figure 2-15 - Location of node Clonfad

Generator	SO	Capacity	Type	Status
Clonfad Solar	TSO	100.0	solar not priority	due to connect

Table 2-21 - Generation Included in Study for Node Clonfad

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		50	100				
Installed Capacity (MW)	2029		50	100	100			
Installed Capacity (MW)	FG			100		100	100	100
Available Energy (GWh)	2027		64	128				
Available Energy (GWh)	2029		64	128	128			
Available Energy (GWh)	FG			128		128	128	128
Generation (GWh)	2027		30	44				
Generation (GWh)	2029		32	47	34			
Generation (GWh)	FG			63		65	63	61
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailed (%)	2027		2 %	4 %				
Curtailed (%)	2029		1 %	3 %	5 %			
Curtailed (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		45 %	48 %				
Constraint (%)	2029		45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027		53 %	66 %				
Total Dispatch Down (%)	2029		50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-22 - Surplus, Curtailment and Constraint for Solar non-priority for Node Clonfad

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	50	
Installed Capacity (MW)	2029 (pro-rata)	50	
Installed Capacity (MW)	FG (pro-rata)		100
Available Energy (GWh)	2027 (GF)	64	
Available Energy (GWh)	2029 (pro-rata)	64	
Available Energy (GWh)	FG (pro-rata)		128
Generation (GWh)	2027 (GF)	30	
Generation (GWh)	2029 (pro-rata)	32	
Generation (GWh)	FG (pro-rata)		65
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-23 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Clonfad

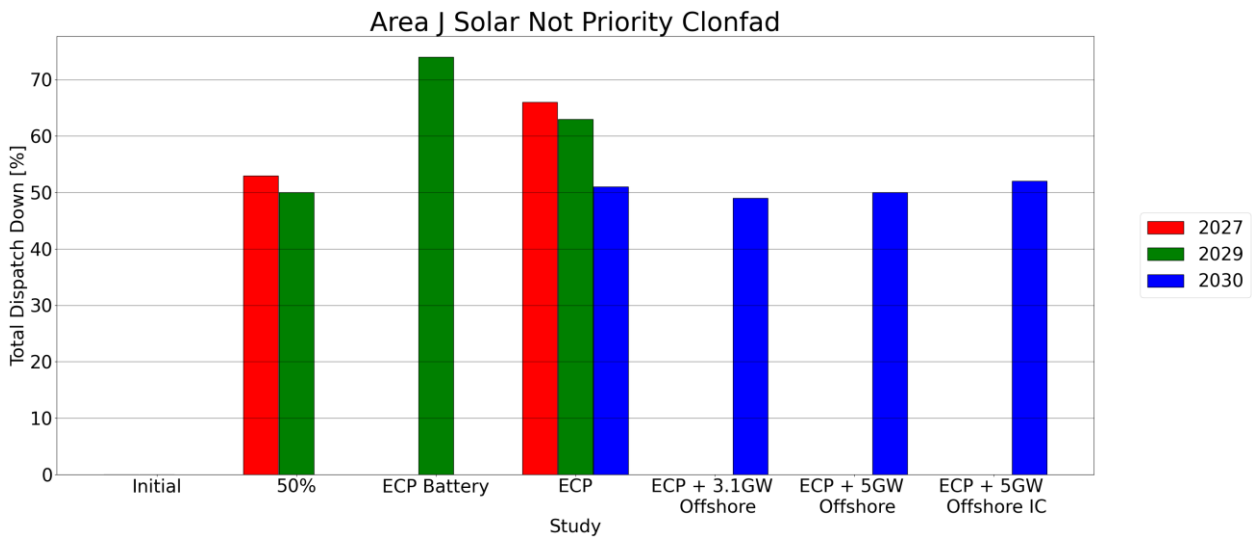


Figure 2-16 - Total Dispatch Down for Solar not priority for Node Clonfad

## 2.8 Coolnabacky

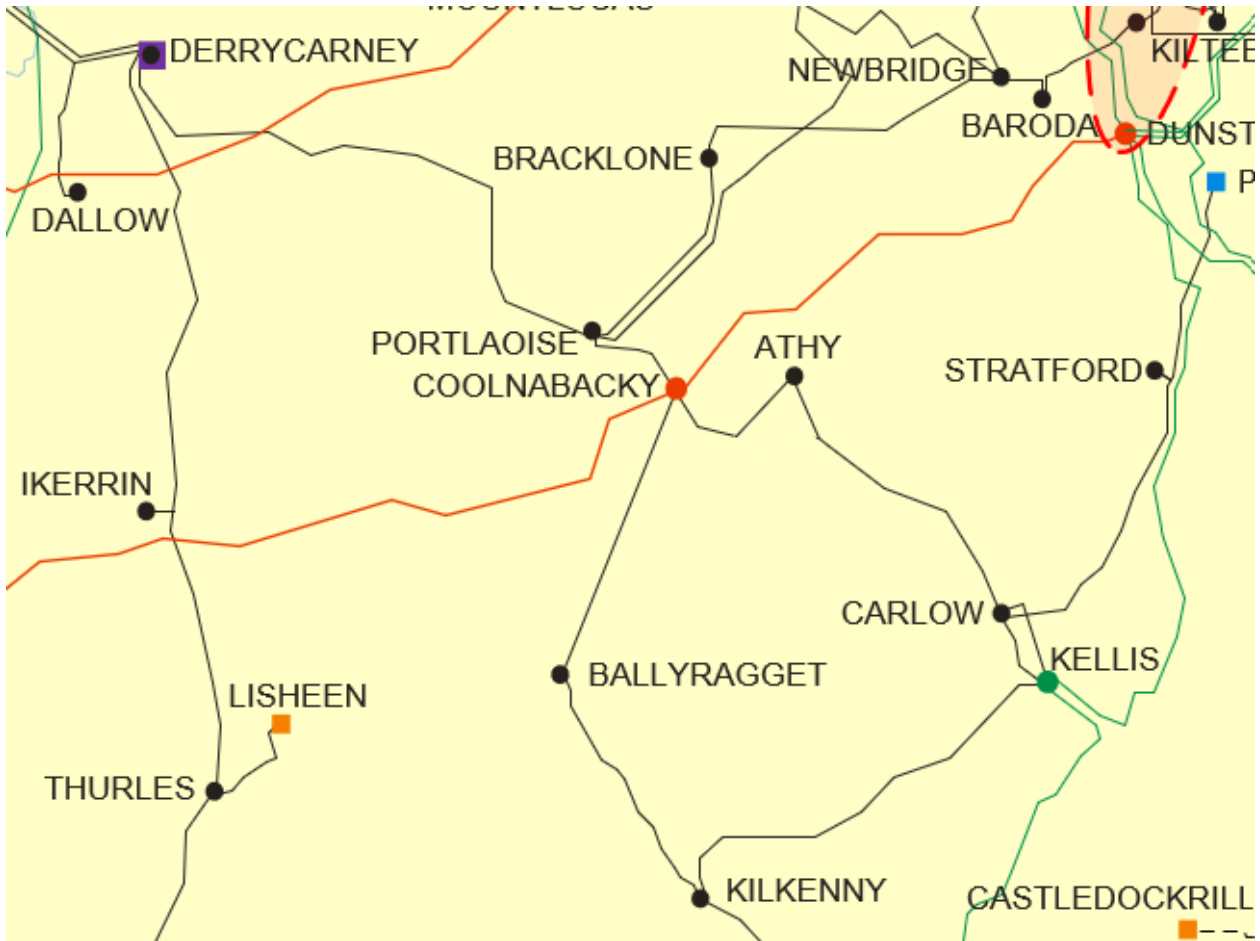


Figure 2-17 - Location of node Coolnabacky

Generator	SO	Capacity	Type	Status
Loughteague	TSO	55.0	solar not priority	due to connect
East Laois Solar Farm Extension	TSO	25.0	solar not priority	due to connect

Table 2-24 - Generation Included in Study for Node Coolnabacky

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		40	80				
Installed Capacity (MW)	2029		40	80	80			
Installed Capacity (MW)	FG			80		80	80	80
Available Energy (GWh)	2027		51	103				
Available Energy (GWh)	2029		51	103	103			
Available Energy (GWh)	FG			103		103	103	103
Generation (GWh)	2027		24	35				
Generation (GWh)	2029		26	38	27			
Generation (GWh)	FG			51		52	51	49
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailed (%)	2027		2 %	4 %				
Curtailed (%)	2029		1 %	3 %	5 %			
Curtailed (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		45 %	48 %				
Constraint (%)	2029		45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027		53 %	66 %				
Total Dispatch Down (%)	2029		50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-25 - Surplus, Curtailment and Constraint for Solar non-priority for Node Coolnabacky

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	40	
Installed Capacity (MW)	2029 (pro-rata)	40	
Installed Capacity (MW)	FG (pro-rata)		80
Available Energy (GWh)	2027 (GF)	51	
Available Energy (GWh)	2029 (pro-rata)	51	
Available Energy (GWh)	FG (pro-rata)		103
Generation (GWh)	2027 (GF)	24	
Generation (GWh)	2029 (pro-rata)	26	
Generation (GWh)	FG (pro-rata)		52
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-26 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Coolnabacky

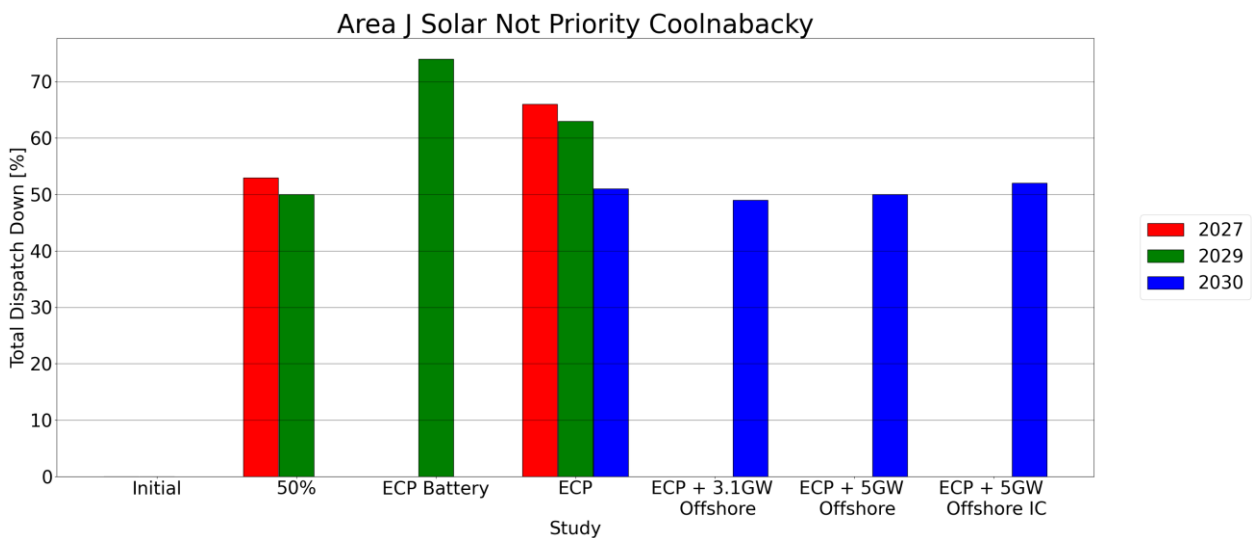


Figure 2-18 - Total Dispatch Down for Solar not priority for Node Coolnabacky

## 2.9 Cushaling

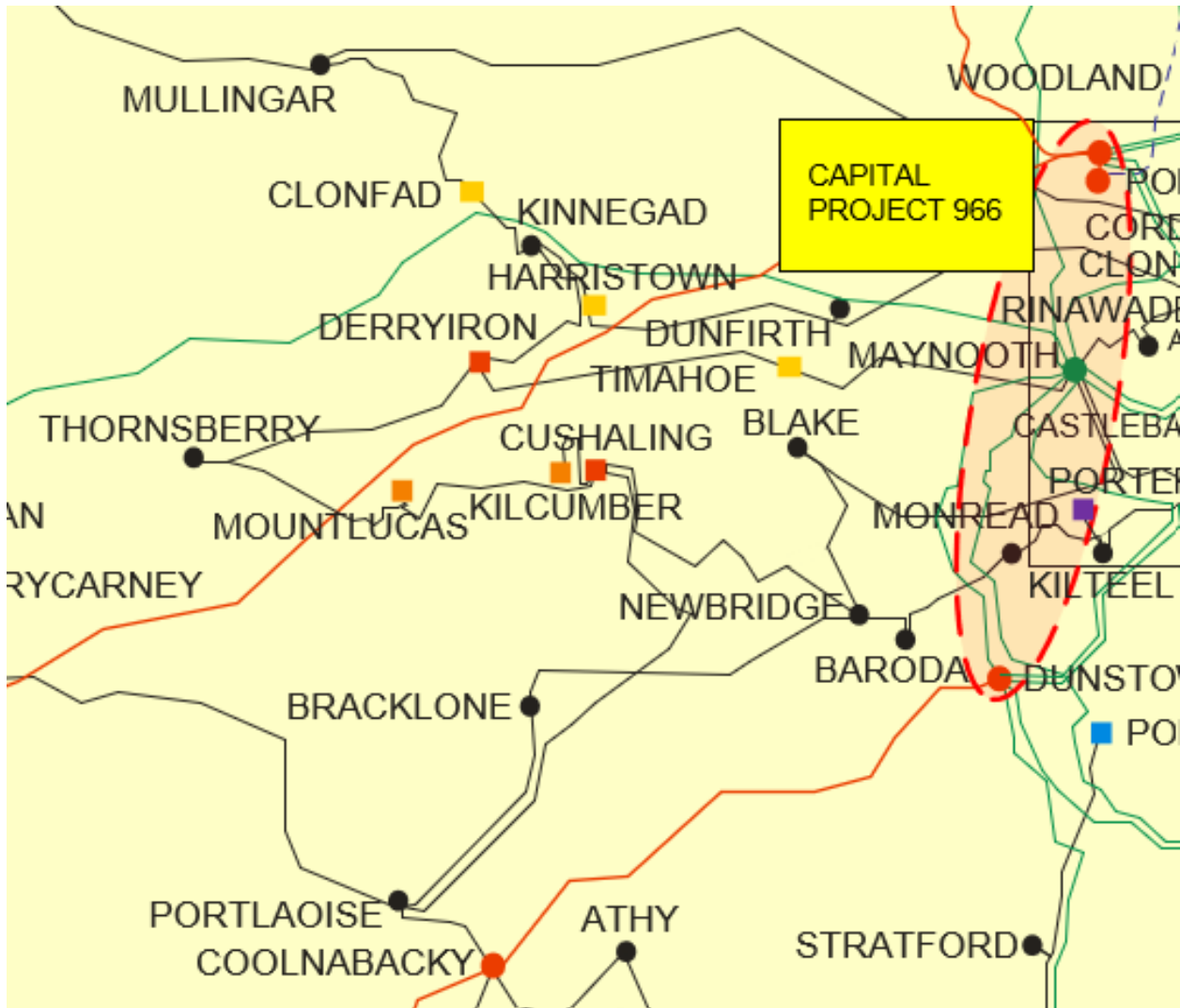


Figure 2-19 - Location of node Cushaling

Generator	SO	Capacity	Type	Status
Cloncreen Wind farm	TSO	75.0	wind not priority	connected

Table 2-27 - Generation Included in Study for Node Cushaling

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	75	75	75				
Installed Capacity (MW)	2029	75	75	75	75			
Installed Capacity (MW)	FG			75		75	75	75
Available Energy (GWh)	2027	231	231	231				
Available Energy (GWh)	2029	231	231	231	231			
Available Energy (GWh)	FG			231		231	231	231
Generation (GWh)	2027	167	98	61				
Generation (GWh)	2029	157	92	54	49			
Generation (GWh)	FG			85		132	120	110
Surplus (%)	2027	1 %	7 %	14 %				
Surplus (%)	2029	0 %	2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailement (%)	2027	2 %	3 %	5 %				
Curtailement (%)	2029	0 %	1 %	3 %	3 %			
Curtailement (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	25 %	48 %	55 %				
Constraint (%)	2029	32 %	57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027	28 %	57 %	73 %				
Total Dispatch Down (%)	2029	32 %	60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 2-28 - Surplus, Curtailement and Constraint for Wind non-priority for Node Cushaling



Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	75	
Installed Capacity (MW)	2029 (pro-rata)	75	
Installed Capacity (MW)	FG (pro-rata)		75
Available Energy (GWh)	2027 (GF)	231	
Available Energy (GWh)	2029 (pro-rata)	231	
Available Energy (GWh)	FG (pro-rata)		231
Generation (GWh)	2027 (GF)	75	
Generation (GWh)	2029 (pro-rata)	115	
Generation (GWh)	FG (pro-rata)		139
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

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

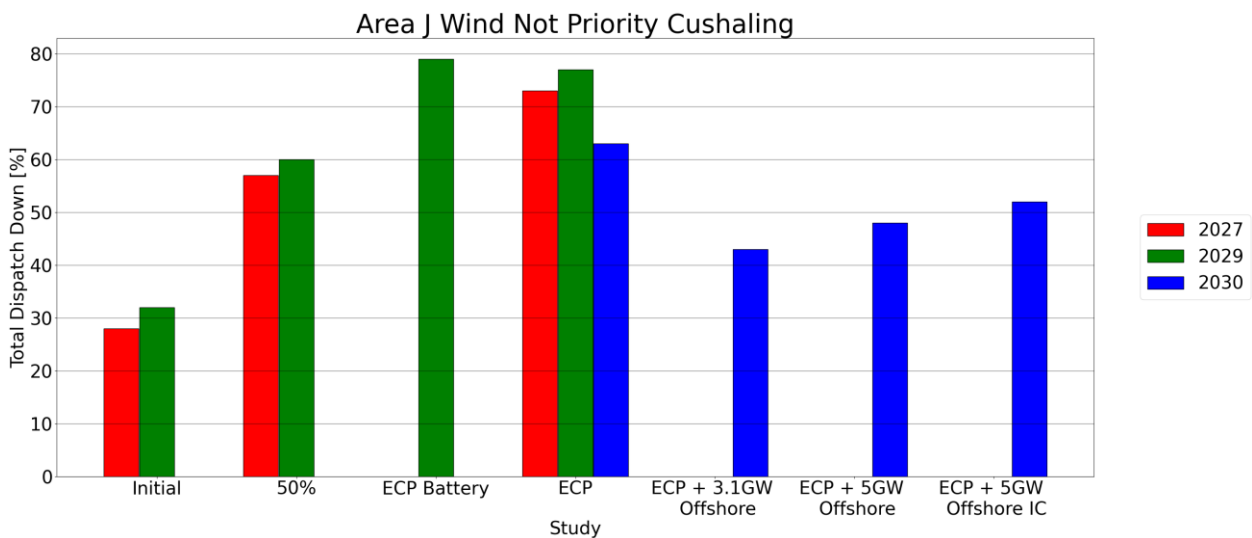


Figure 2-20 - Total Dispatch Down for Wind not priority for Node Cushaling

## 2.10 Derryiron

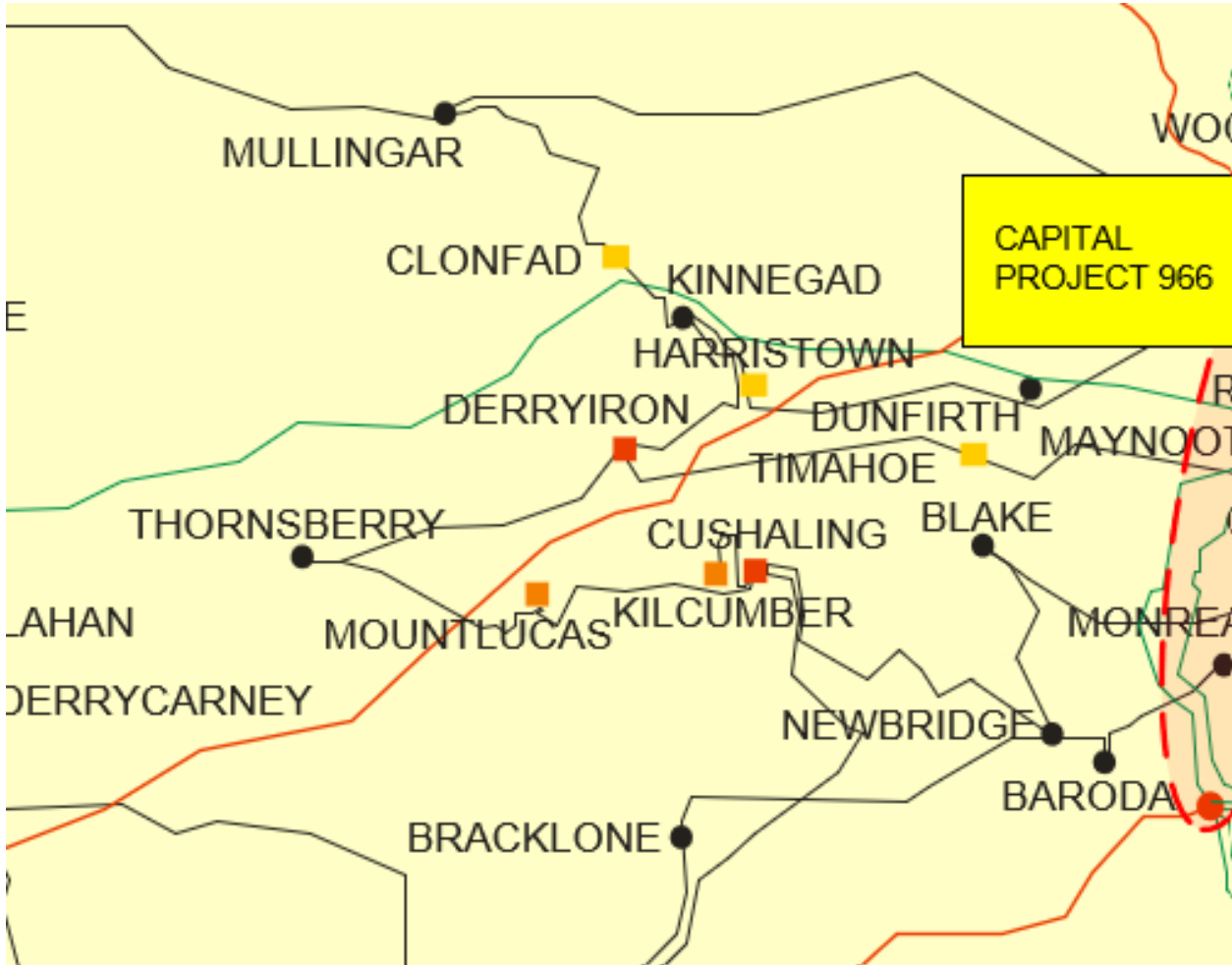


Figure 2-21 - Location of node Derryiron

Generator	SO	Capacity	Type	Status
Clonin North solar	TSO	47.0	solar not priority	due to connect
Yellow River Wind Farm	TSO	110.2	wind not priority	due to connect
Garr Solar & Storage	TSO	85.0	solar not priority	due to connect

Table 2-30 - Generation Included in Study for Node Derryiron

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		66	132				
Installed Capacity (MW)	2029		66	132	132			
Installed Capacity (MW)	FG			132		132	132	132
Available Energy (GWh)	2027		85	169				
Available Energy (GWh)	2029		85	169	169			
Available Energy (GWh)	FG			169		169	169	169
Generation (GWh)	2027		40	58				
Generation (GWh)	2029		42	62	45			
Generation (GWh)	FG			84		86	84	81
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027		2 %	4 %				
Curtailement (%)	2029		1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		45 %	48 %				
Constraint (%)	2029		45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027		53 %	66 %				
Total Dispatch Down (%)	2029		50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-31 - Surplus, Curtailement and Constraint for Solar non-priority for Node Derryiron

Area J	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)		132
Available Energy (GWh)	2027 (GF)	85	
Available Energy (GWh)	2029 (pro-rata)	85	
Available Energy (GWh)	FG (pro-rata)		169
Generation (GWh)	2027 (GF)	40	
Generation (GWh)	2029 (pro-rata)	42	
Generation (GWh)	FG (pro-rata)		86
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-32 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Derryiron

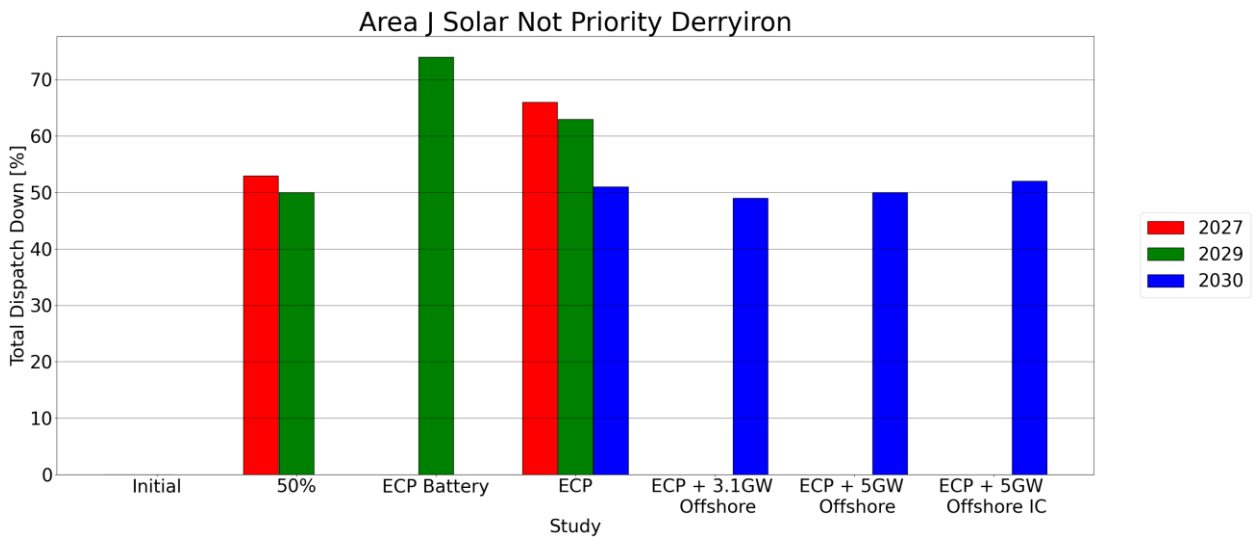


Figure 2-22 - Total Dispatch Down for Solar not priority for Node Derryiron

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		55	110				
Installed Capacity (MW)	2029		55	110	110			
Installed Capacity (MW)	FG			110		110	110	110
Available Energy (GWh)	2027		170	340				
Available Energy (GWh)	2029		170	340	340			
Available Energy (GWh)	FG			340		340	340	340
Generation (GWh)	2027		72	90				
Generation (GWh)	2029		68	79	73			
Generation (GWh)	FG			125		194	177	162
Surplus (%)	2027		7 %	14 %				
Surplus (%)	2029		2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailement (%)	2027		3 %	5 %				
Curtailement (%)	2029		1 %	3 %	3 %			
Curtailement (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		48 %	55 %				
Constraint (%)	2029		57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027		57 %	73 %				
Total Dispatch Down (%)	2029		60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 2-33 - Surplus, Curtailement and Constraint for Wind non-priority for Node Derryiron

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	55	
Installed Capacity (MW)	2029 (pro-rata)	55	
Installed Capacity (MW)	FG (pro-rata)		110
Available Energy (GWh)	2027 (GF)	170	
Available Energy (GWh)	2029 (pro-rata)	170	
Available Energy (GWh)	FG (pro-rata)		340
Generation (GWh)	2027 (GF)	55	
Generation (GWh)	2029 (pro-rata)	85	
Generation (GWh)	FG (pro-rata)		204
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

Table 2-34 - Surplus, Curtailement and Constraint for Wind non-priority with sensitivity for Node Derryiron

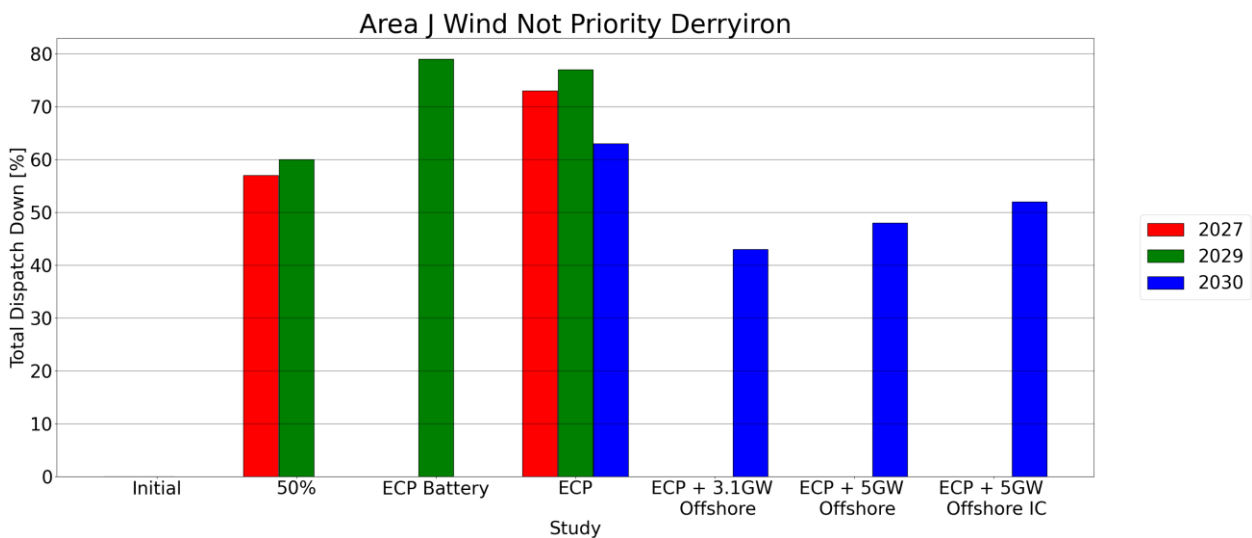


Figure 2-23 - Total Dispatch Down for Wind not priority for Node Derryiron

## 2.11 Dunfirth

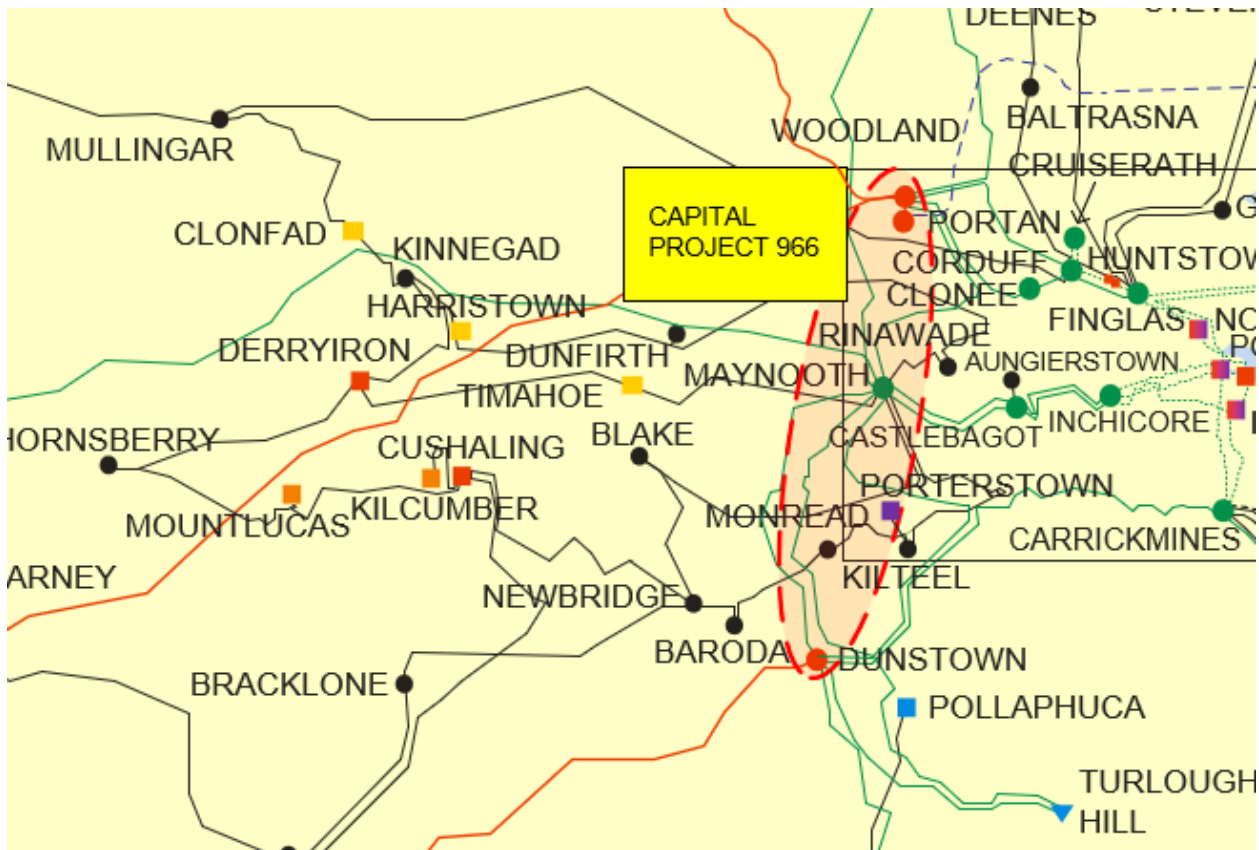


Figure 2-24 - Location of node Dunfirth

Generator	SO	Capacity	Type	Status
Hortland PV (from merge Knockanally and Hortland)	DSO	14.0	solar not priority	connected
Dysart PV	DSO	17.5	solar not priority	due to connect

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

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	32	32	32				
Installed Capacity (MW)	2029	32	32	32	32			
Installed Capacity (MW)	FG			32		32	32	32
Available Energy (GWh)	2027	40	40	40				
Available Energy (GWh)	2029	40	40	40	40			
Available Energy (GWh)	FG			40		40	40	40
Generation (GWh)	2027	36	19	14				
Generation (GWh)	2029	36	20	15	11			
Generation (GWh)	FG			20		21	20	19
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

*Table 2-36 - Surplus, Curtailement and Constraint for Solar non-priority for Node Dunfirth*



Area J	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)		32
Available Energy (GWh)	2027 (GF)	40	
Available Energy (GWh)	2029 (pro-rata)	40	
Available Energy (GWh)	FG (pro-rata)		40
Generation (GWh)	2027 (GF)	19	
Generation (GWh)	2029 (pro-rata)	20	
Generation (GWh)	FG (pro-rata)		21
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-37 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Dunfirth

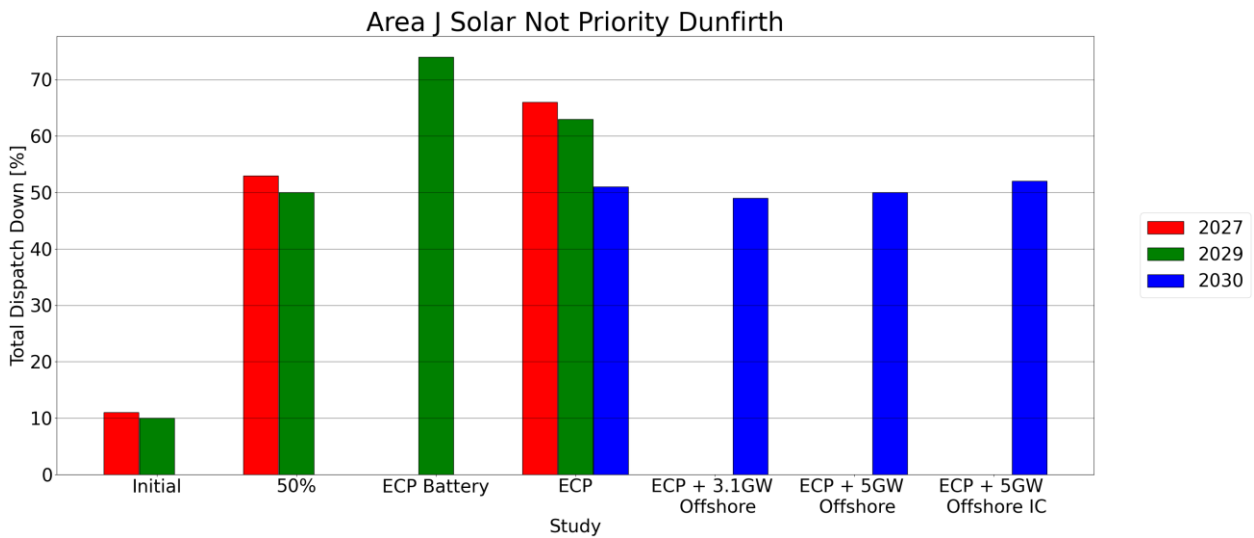


Figure 2-25 - Total Dispatch Down for Solar not priority for Node Dunfirth

## 2.12 Finglas

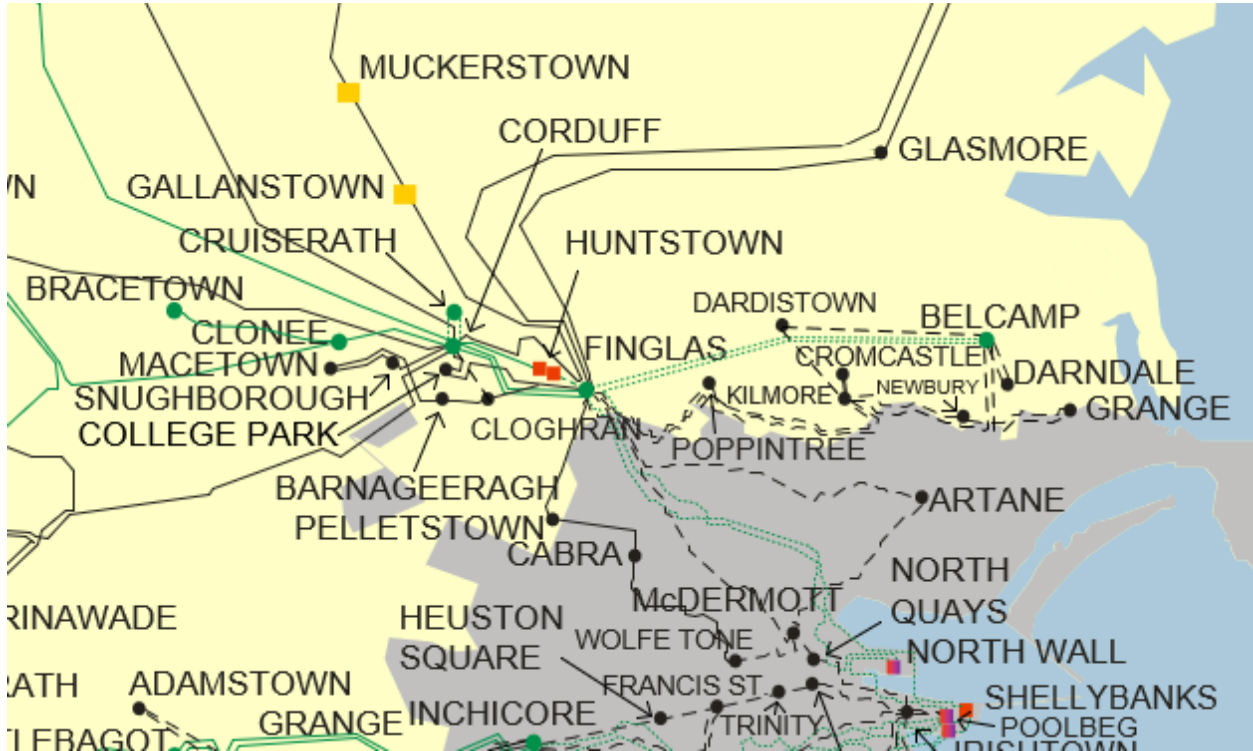


Figure 2-26 - Location of node Finglas

Generator	SO	Capacity	Type	Status
Bullstown Solar Farm	DSO	8.42	solar not priority	due to connect
Fieldstown Solar	TSO	75.0	solar not priority	due to connect
Fieldstown Solar Farm Ext	TSO	18.27	solar not priority	due to connect
LT SolarFruit	DSO	2.8	solar not priority	due to connect
Fieldstown Extension No.2	TSO	60.0	solar not priority	due to connect

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

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		82	164				
Installed Capacity (MW)	2029		82	164	164			
Installed Capacity (MW)	FG			164		164	164	164
Available Energy (GWh)	2027		105	211				
Available Energy (GWh)	2029		105	211	211			
Available Energy (GWh)	FG			211		211	211	211
Generation (GWh)	2027		90	164				
Generation (GWh)	2029		96	180	160			
Generation (GWh)	FG			187		181	171	157
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027		2 %	4 %				
Curtailement (%)	2029		1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		7 %	4 %				
Constraint (%)	2029		4 %	3 %	4 %			
Constraint (%)	FG			5 %		2 %	2 %	2 %
Total Dispatch Down (%)	2027		15 %	22 %				
Total Dispatch Down (%)	2029		9 %	15 %	24 %			
Total Dispatch Down (%)	FG			11 %		14 %	19 %	25 %

Table 2-39 - Surplus, Curtailement and Constraint for Solar non-priority for Node Finglas

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	82	
Installed Capacity (MW)	2029 (pro-rata)	82	
Installed Capacity (MW)	FG (pro-rata)		164
Available Energy (GWh)	2027 (GF)	105	
Available Energy (GWh)	2029 (pro-rata)	105	
Available Energy (GWh)	FG (pro-rata)		211
Generation (GWh)	2027 (GF)	90	
Generation (GWh)	2029 (pro-rata)	96	
Generation (GWh)	FG (pro-rata)		181
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	7 %	
Constraint (%)	2029 (pro-rata)	4 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	15 %	
Total Dispatch Down (%)	2029 (pro-rata)	9 %	
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 2-40 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Finglas

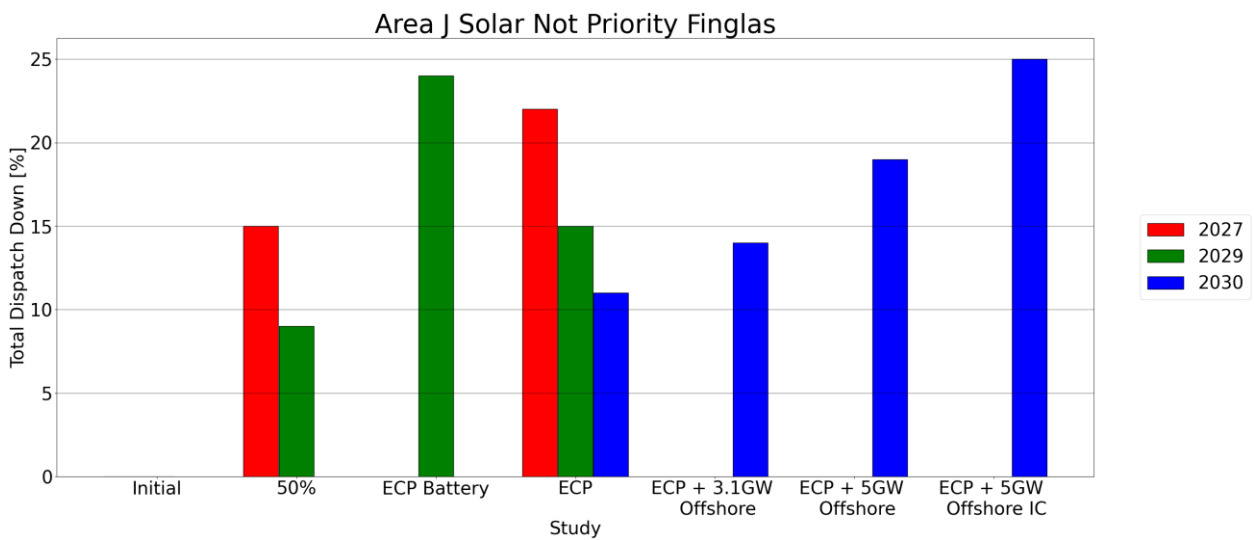


Figure 2-27 - Total Dispatch Down for Solar not priority for Node Finglas



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		39	79				
Installed Capacity (MW)	2029		39	79	79			
Installed Capacity (MW)	FG			79		79	79	79
Available Energy (GWh)	2027		50	101				
Available Energy (GWh)	2029		50	101	101			
Available Energy (GWh)	FG			101		101	101	101
Generation (GWh)	2027		24	34				
Generation (GWh)	2029		25	37	27			
Generation (GWh)	FG			50		52	50	48
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailed (%)	2027		2 %	4 %				
Curtailed (%)	2029		1 %	3 %	5 %			
Curtailed (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		45 %	48 %				
Constraint (%)	2029		45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027		53 %	66 %				
Total Dispatch Down (%)	2029		50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-42 - Surplus, Curtailment and Constraint for Solar non-priority for Node Fosterstown

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	39	
Installed Capacity (MW)	2029 (pro-rata)	39	
Installed Capacity (MW)	FG (pro-rata)		79
Available Energy (GWh)	2027 (GF)	50	
Available Energy (GWh)	2029 (pro-rata)	50	
Available Energy (GWh)	FG (pro-rata)		101
Generation (GWh)	2027 (GF)	24	
Generation (GWh)	2029 (pro-rata)	25	
Generation (GWh)	FG (pro-rata)		52
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-43 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Fosterstown

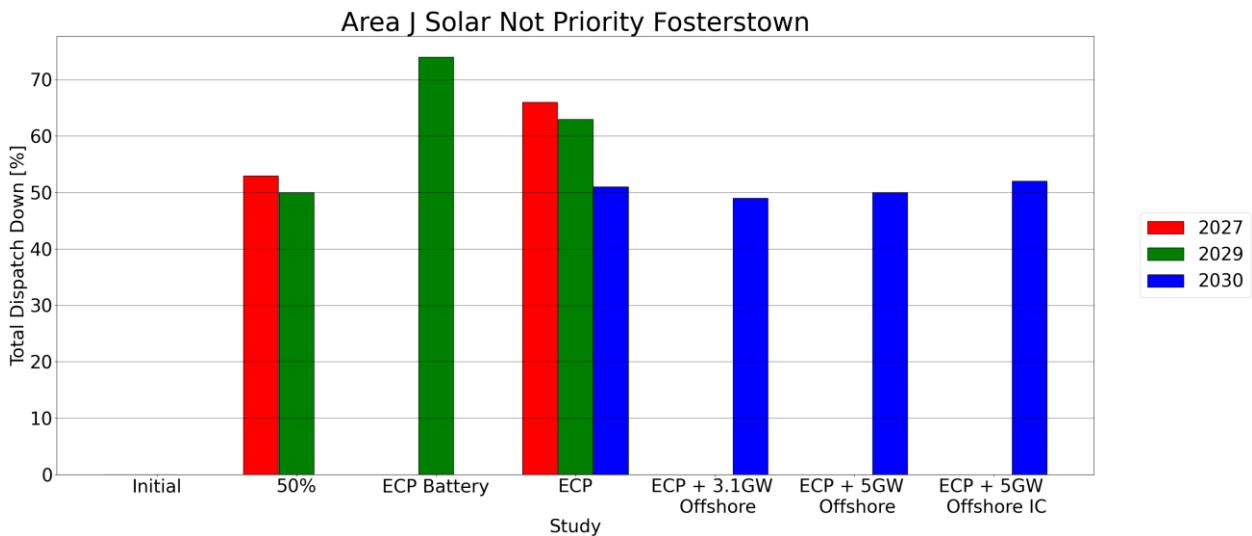


Figure 2-29 - Total Dispatch Down for Solar not priority for Node Fosterstown

## 2.14 Gallanstown



Figure 2-30 - Location of node Gallanstown

Generator	SO	Capacity	Type	Status
Gallanstown Solar	TSO	119.0	solar not priority	connected
Harlockstown Solar (Gallanstown Solar Extension)	TSO	50.5	solar not priority	due to connect
Darthogue Solar Farm Ext 2	TSO	13.5	solar not priority	due to connect

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



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	119	151	183				
Installed Capacity (MW)	2029	119	151	183	183			
Installed Capacity (MW)	FG			183		183	183	183
Available Energy (GWh)	2027	152	193	234				
Available Energy (GWh)	2029	152	193	234	234			
Available Energy (GWh)	FG			234		234	234	234
Generation (GWh)	2027	134	165	182				
Generation (GWh)	2029	140	176	200	179			
Generation (GWh)	FG			208		201	190	175
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	11 %	7 %	4 %				
Constraint (%)	2029	8 %	4 %	3 %	4 %			
Constraint (%)	FG			5 %		2 %	2 %	2 %
Total Dispatch Down (%)	2027	12 %	15 %	22 %				
Total Dispatch Down (%)	2029	8 %	9 %	15 %	24 %			
Total Dispatch Down (%)	FG			11 %		14 %	19 %	25 %

*Table 2-45 - Surplus, Curtailement and Constraint for Solar non-priority for Node Gallanstown*

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	151	
Installed Capacity (MW)	2029 (pro-rata)	151	
Installed Capacity (MW)	FG (pro-rata)		183
Available Energy (GWh)	2027 (GF)	193	
Available Energy (GWh)	2029 (pro-rata)	193	
Available Energy (GWh)	FG (pro-rata)		234
Generation (GWh)	2027 (GF)	165	
Generation (GWh)	2029 (pro-rata)	176	
Generation (GWh)	FG (pro-rata)		201
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	7 %	
Constraint (%)	2029 (pro-rata)	4 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	15 %	
Total Dispatch Down (%)	2029 (pro-rata)	9 %	
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 2-46 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Gallanstown

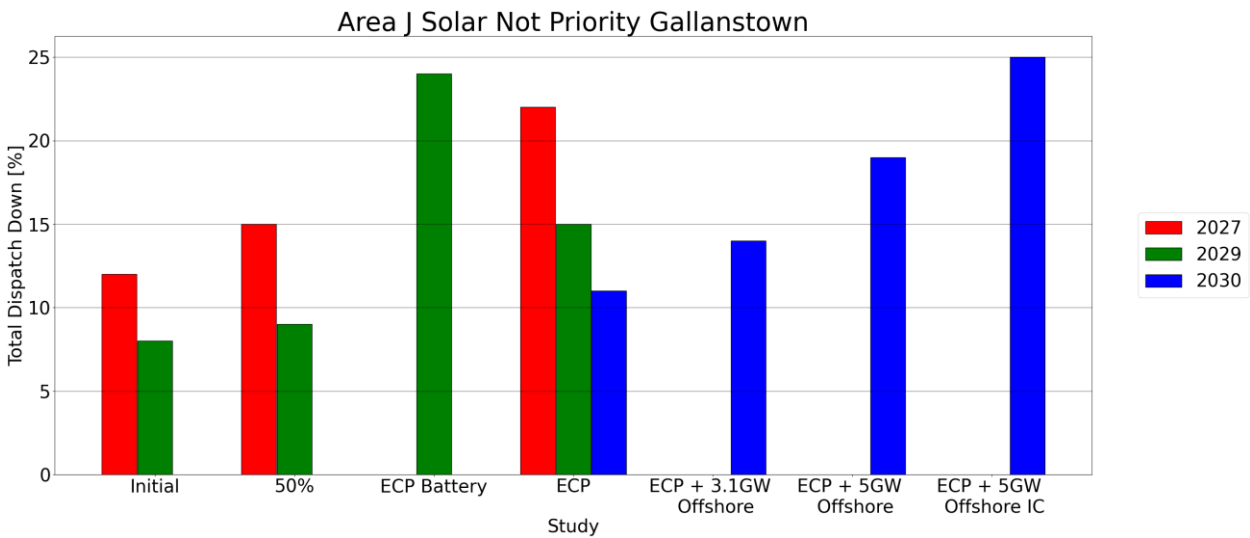


Figure 2-31 - Total Dispatch Down for Solar not priority for Node Gallanstown

## 2.15 Glasmore

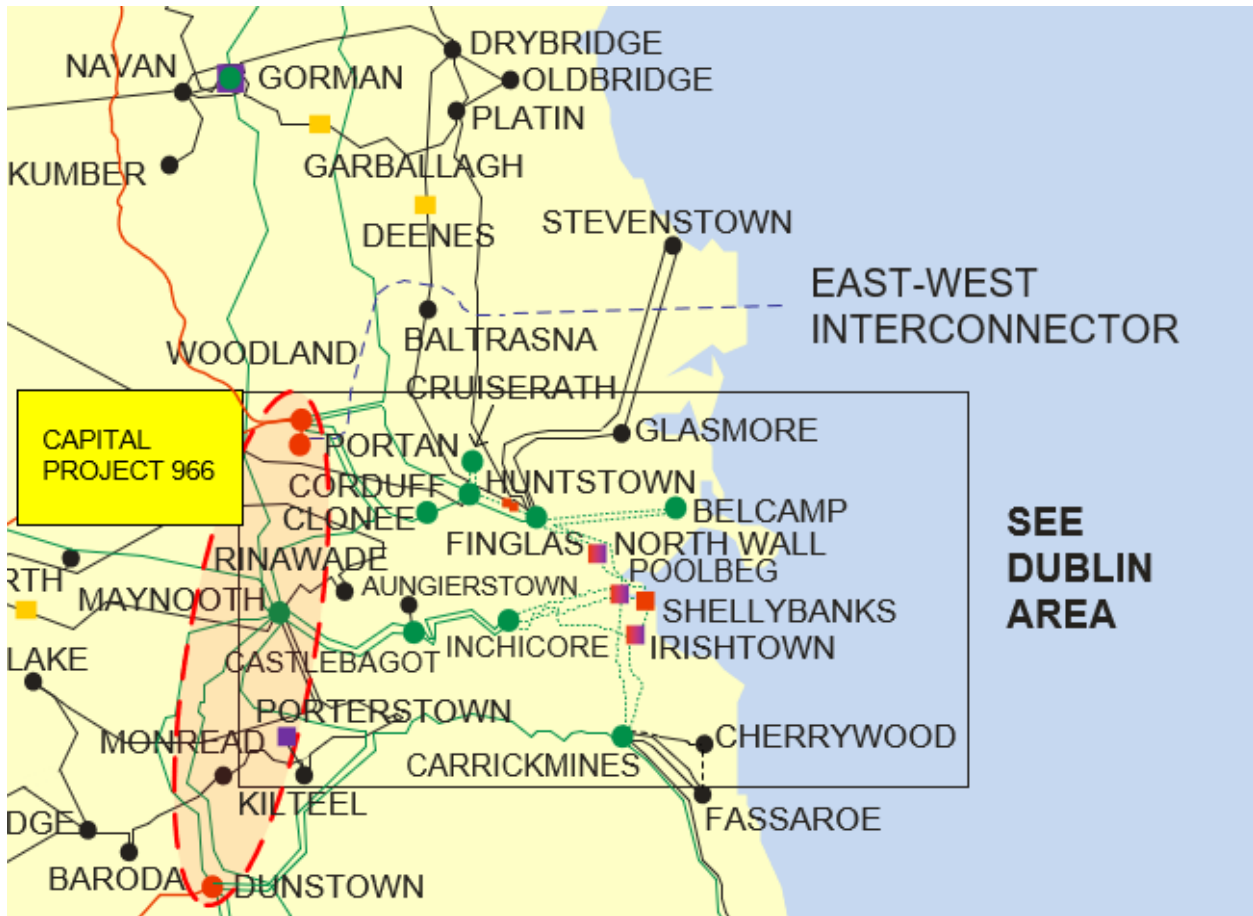


Figure 2-32 - Location of node Glasmore

Generator	SO	Capacity	Type	Status
Featherbed Lane Solar	DSO	4.0	solar not priority	due to connect

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

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		2	4				
Installed Capacity (MW)	2029		2	4	4			
Installed Capacity (MW)	FG			4		4	4	4
Available Energy (GWh)	2027		3	5				
Available Energy (GWh)	2029		3	5	5			
Available Energy (GWh)	FG			5		5	5	5
Generation (GWh)	2027		2	4				
Generation (GWh)	2029		2	4	4			
Generation (GWh)	FG			5		4	4	4
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027		2 %	4 %				
Curtailement (%)	2029		1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		7 %	4 %				
Constraint (%)	2029		4 %	3 %	4 %			
Constraint (%)	FG			5 %		2 %	2 %	2 %
Total Dispatch Down (%)	2027		15 %	22 %				
Total Dispatch Down (%)	2029		9 %	15 %	24 %			
Total Dispatch Down (%)	FG			11 %		14 %	19 %	25 %

Table 2-48 - Surplus, Curtailement and Constraint for Solar non-priority for Node Glasmore

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	2	
Installed Capacity (MW)	2029 (pro-rata)	2	
Installed Capacity (MW)	FG (pro-rata)		4
Available Energy (GWh)	2027 (GF)	3	
Available Energy (GWh)	2029 (pro-rata)	3	
Available Energy (GWh)	FG (pro-rata)		5
Generation (GWh)	2027 (GF)	2	
Generation (GWh)	2029 (pro-rata)	2	
Generation (GWh)	FG (pro-rata)		4
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	7 %	
Constraint (%)	2029 (pro-rata)	4 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	15 %	
Total Dispatch Down (%)	2029 (pro-rata)	9 %	
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 2-49 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Glasmore

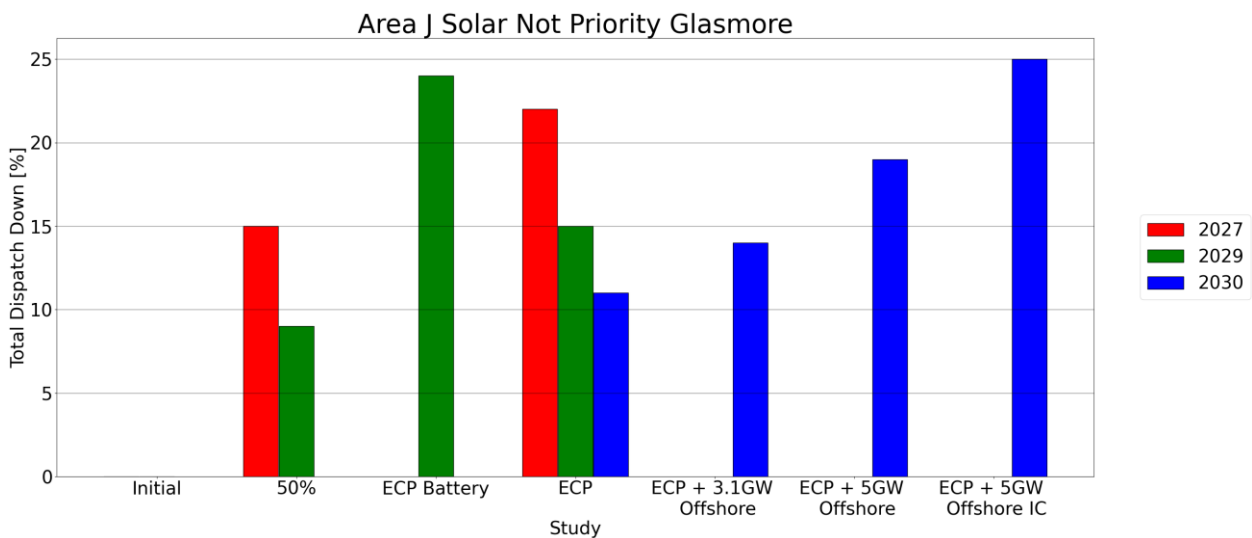


Figure 2-33 - Total Dispatch Down for Solar not priority for Node Glasmore

## 2.16 Grange



Figure 2-34 - Location of Node Grange

Generator	SO	Capacity	Type	Status
Mainscourt	DSO	39.99	solar not priority	due to connect

Table 2-50 - Generation Included in Study for Node Grange

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	40	40	40				
Installed Capacity (MW)	2029	40	40	40	40			
Installed Capacity (MW)	FG			40		40	40	40
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	45	44	40				
Generation (GWh)	2029	47	47	44	39			
Generation (GWh)	FG			45		44	41	38
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	11 %	7 %	4 %				
Constraint (%)	2029	8 %	4 %	3 %	4 %			
Constraint (%)	FG			5 %		2 %	2 %	2 %
Total Dispatch Down (%)	2027	12 %	15 %	22 %				
Total Dispatch Down (%)	2029	8 %	9 %	15 %	24 %			
Total Dispatch Down (%)	FG			11 %		14 %	19 %	25 %

Table 2-51 - Surplus, Curtailement and Constraint for Solar non-priority for Node Grange

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	40	
Installed Capacity (MW)	2029 (pro-rata)	40	
Installed Capacity (MW)	FG (pro-rata)		40
Available Energy (GWh)	2027 (GF)	51	
Available Energy (GWh)	2029 (pro-rata)	51	
Available Energy (GWh)	FG (pro-rata)		51
Generation (GWh)	2027 (GF)	44	
Generation (GWh)	2029 (pro-rata)	47	
Generation (GWh)	FG (pro-rata)		44
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	7 %	
Constraint (%)	2029 (pro-rata)	4 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	15 %	
Total Dispatch Down (%)	2029 (pro-rata)	9 %	
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 2-52 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Grange

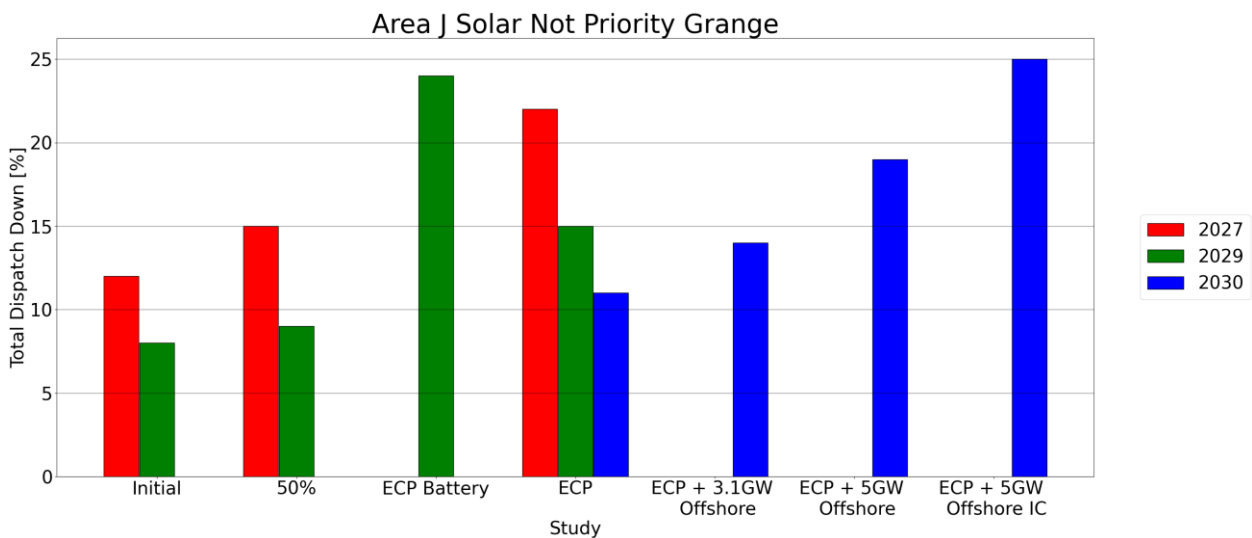


Figure 2-35 - Total Dispatch Down for Solar not priority for Node Grange



## 2.17 Griffinrath

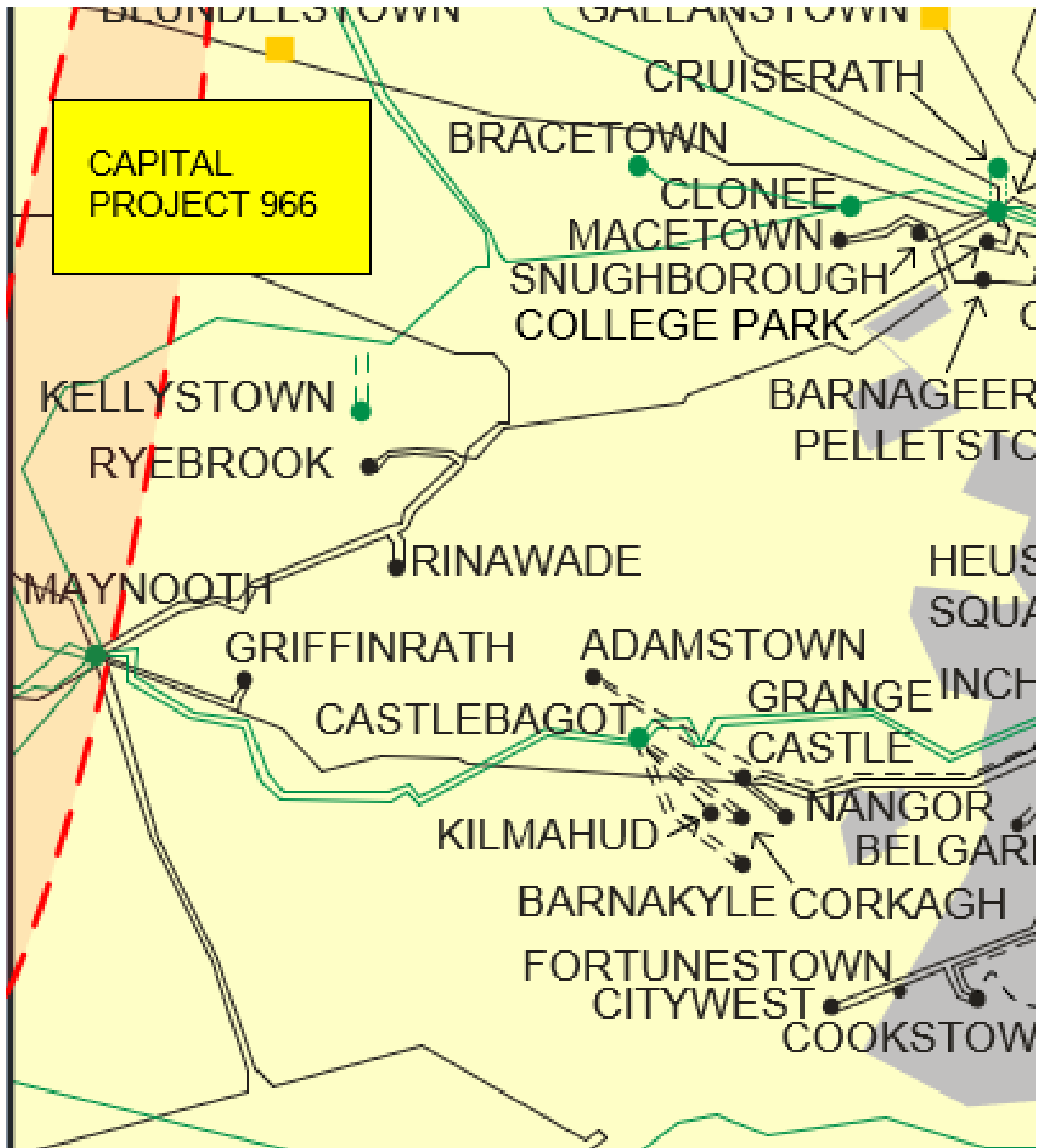


Figure 2-36 - Location of node Griffinrath

Generator	SO	Capacity	Type	Status
Taghadoe Solar Farm	DSO	25.0	solar not priority	due to connect
Confey Solar Park	DSO	15.5	solar not priority	due to connect
Smithstown	DSO	25.0	solar not priority	due to connect

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

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	40	53	66				
Installed Capacity (MW)	2029	40	53	66	66			
Installed Capacity (MW)	FG			66		66	66	66
Available Energy (GWh)	2027	52	68	84				
Available Energy (GWh)	2029	52	68	84	84			
Available Energy (GWh)	FG			84		84	84	84
Generation (GWh)	2027	46	58	65				
Generation (GWh)	2029	48	62	72	64			
Generation (GWh)	FG			74		72	68	63
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	11 %	7 %	4 %				
Constraint (%)	2029	8 %	4 %	3 %	4 %			
Constraint (%)	FG			5 %		2 %	2 %	2 %
Total Dispatch Down (%)	2027	12 %	15 %	22 %				
Total Dispatch Down (%)	2029	8 %	9 %	15 %	24 %			
Total Dispatch Down (%)	FG			11 %		14 %	19 %	25 %

Table 2-54 - Surplus, Curtailement and Constraint for Solar non-priority for Node Griffirath

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	53	
Installed Capacity (MW)	2029 (pro-rata)	53	
Installed Capacity (MW)	FG (pro-rata)		66
Available Energy (GWh)	2027 (GF)	68	
Available Energy (GWh)	2029 (pro-rata)	68	
Available Energy (GWh)	FG (pro-rata)		84
Generation (GWh)	2027 (GF)	58	
Generation (GWh)	2029 (pro-rata)	62	
Generation (GWh)	FG (pro-rata)		72
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	7 %	
Constraint (%)	2029 (pro-rata)	4 %	
Constraint (%)	FG (pro-rata)		2 %
Total Dispatch Down (%)	2027 (GF)	15 %	
Total Dispatch Down (%)	2029 (pro-rata)	9 %	
Total Dispatch Down (%)	FG (pro-rata)		14 %

Table 2-55 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Griffinrath

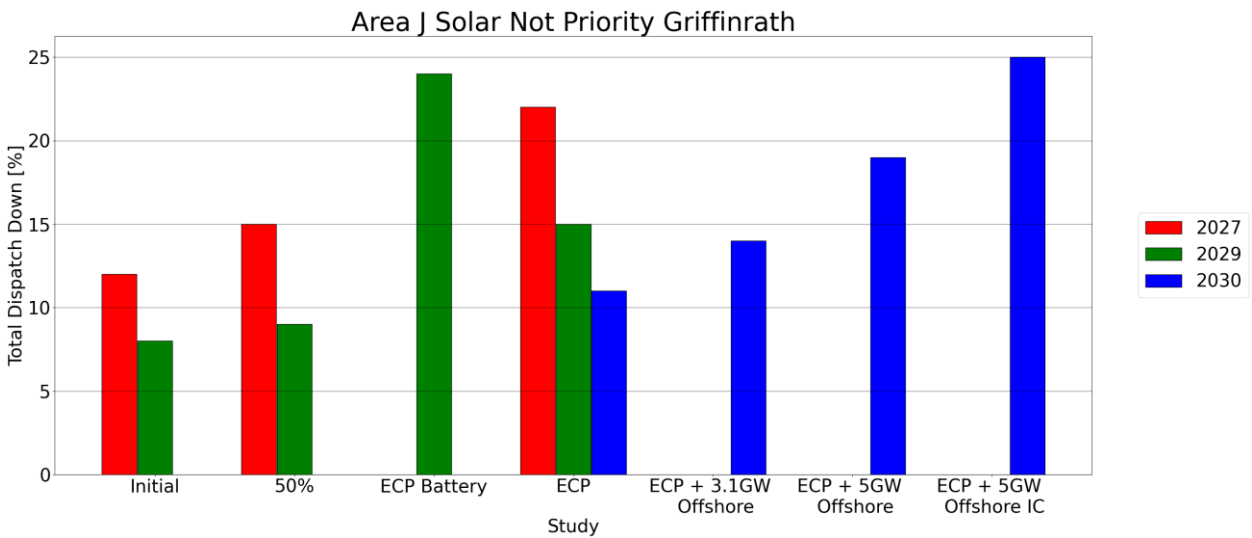


Figure 2-37 - Total Dispatch Down for Solar not priority for Node Griffinrath

## 2.18 Harristown

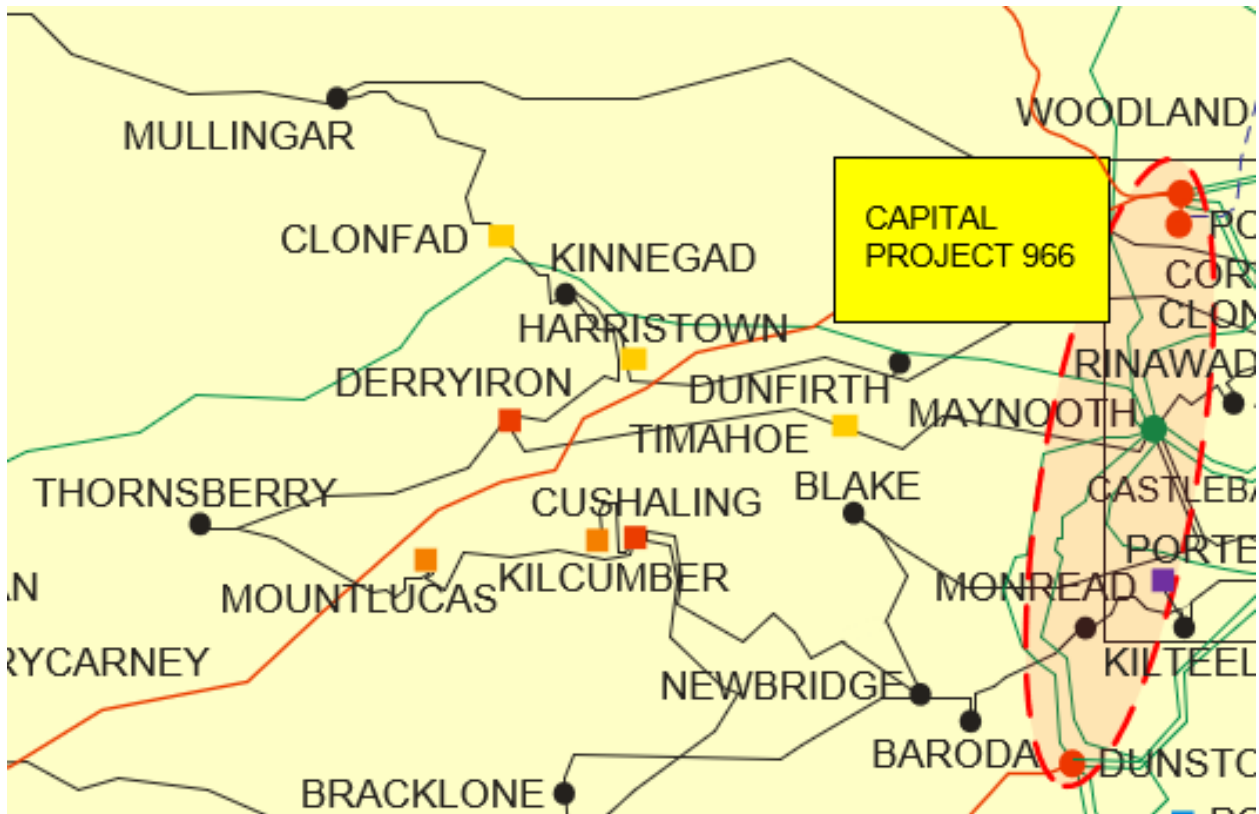


Figure 2-38 - Location of node Harristown

Generator	SO	Capacity	Type	Status
Harristown Solar PV	TSO	42.3	solar not priority	due to connect

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

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	42	42	42				
Installed Capacity (MW)	2029	42	42	42	42			
Installed Capacity (MW)	FG			42		42	42	42
Available Energy (GWh)	2027	54	54	54				
Available Energy (GWh)	2029	54	54	54	54			
Available Energy (GWh)	FG			54		54	54	54
Generation (GWh)	2027	48	26	18				
Generation (GWh)	2029	49	27	20	14			
Generation (GWh)	FG			27		28	27	26
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-57 - Surplus, Curtailement and Constraint for Solar non-priority for Node Harristown

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	42	
Installed Capacity (MW)	2029 (pro-rata)	42	
Installed Capacity (MW)	FG (pro-rata)		42
Available Energy (GWh)	2027 (GF)	54	
Available Energy (GWh)	2029 (pro-rata)	54	
Available Energy (GWh)	FG (pro-rata)		54
Generation (GWh)	2027 (GF)	26	
Generation (GWh)	2029 (pro-rata)	27	
Generation (GWh)	FG (pro-rata)		28
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-58 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Harristown

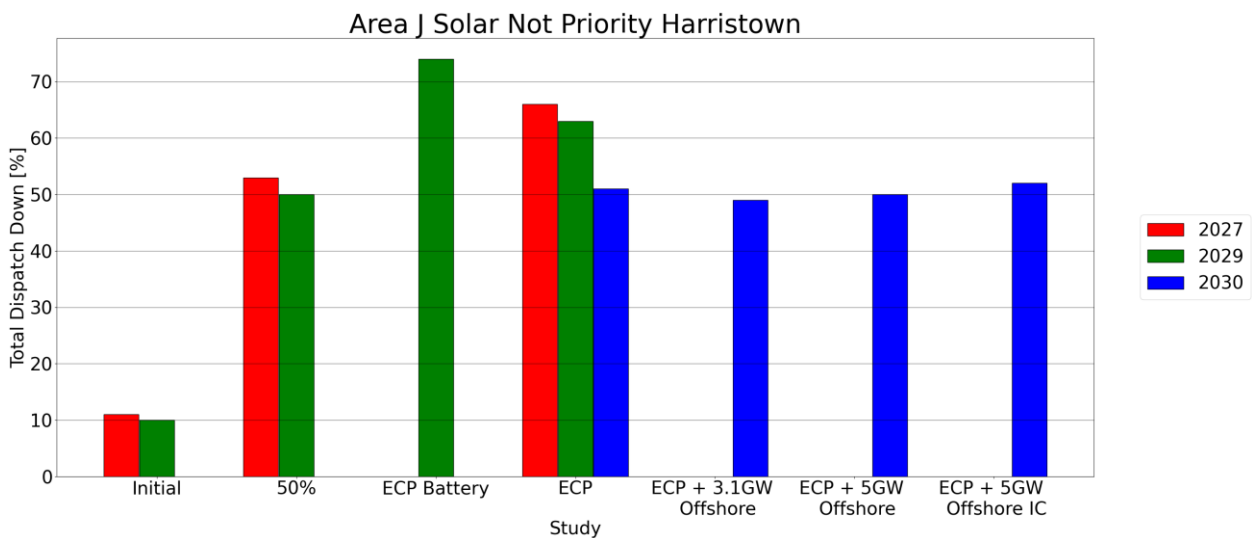


Figure 2-39 - Total Dispatch Down for Solar not priority for Node Harristown

## 2.19 Kiltel

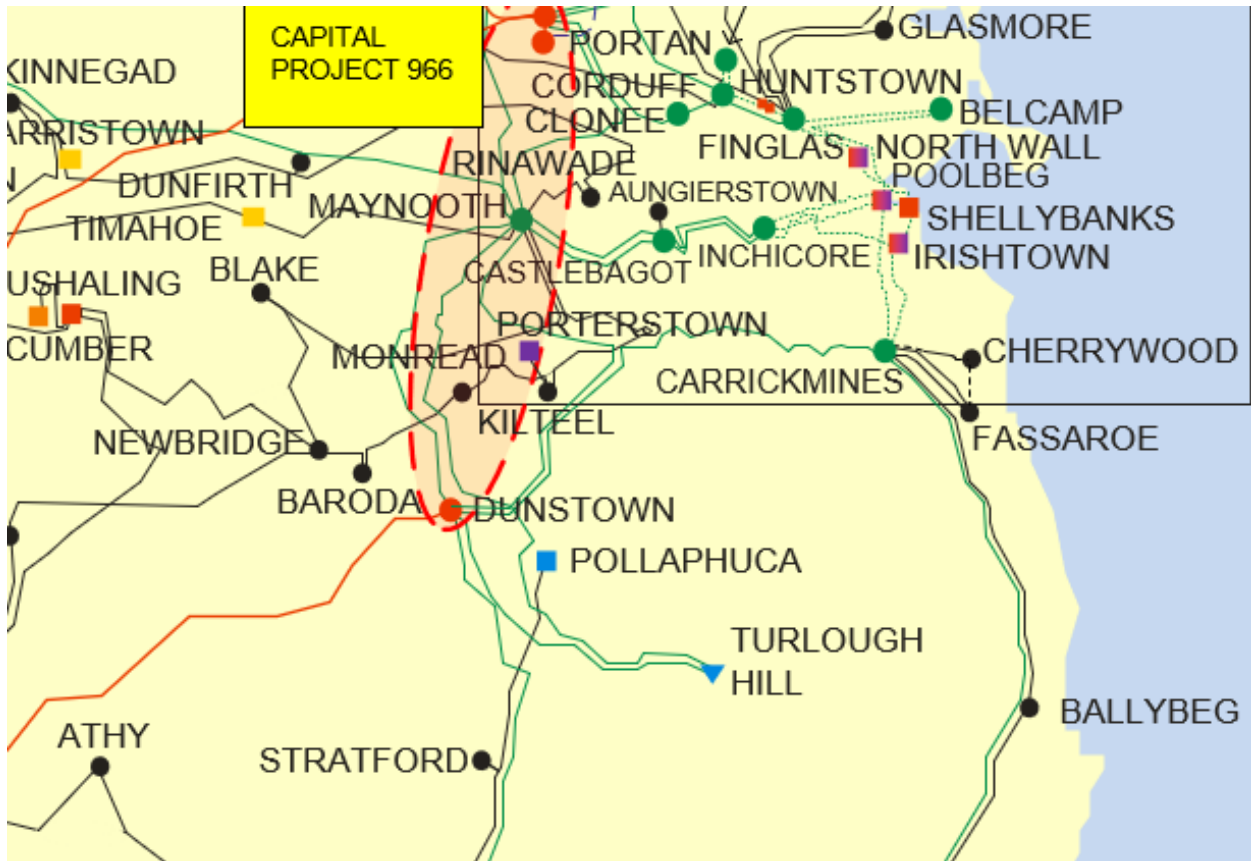


Figure 2-40 - Location of node Kiltel

Generator	SO	Capacity	Type	Status
Threecastles Solar Farm	DSO	15.0	solar not priority	due to connect

Table 2-59 - Generation Included in Study for Node Kiltel

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	15	15	15				
Installed Capacity (MW)	2029	15	15	15	15			
Installed Capacity (MW)	FG			15		15	15	15
Available Energy (GWh)	2027	19	19	19				
Available Energy (GWh)	2029	19	19	19	19			
Available Energy (GWh)	FG			19		19	19	19
Generation (GWh)	2027	17	9	7				
Generation (GWh)	2029	17	10	7	5			
Generation (GWh)	FG			10		10	10	9
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-60 - Surplus, Curtailement and Constraint for Solar non-priority for Node Kiltel



Area J	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)		15
Available Energy (GWh)	2027 (GF)	19	
Available Energy (GWh)	2029 (pro-rata)	19	
Available Energy (GWh)	FG (pro-rata)		19
Generation (GWh)	2027 (GF)	9	
Generation (GWh)	2029 (pro-rata)	10	
Generation (GWh)	FG (pro-rata)		10
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-61 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Kiltel

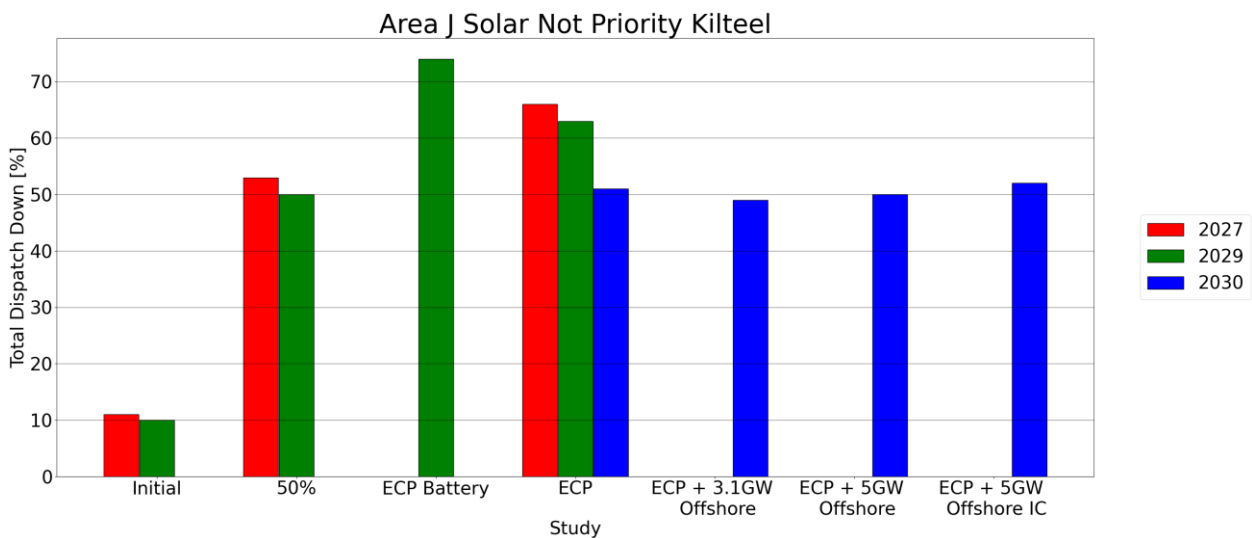


Figure 2-41 - Total Dispatch Down for Solar not priority for Node Kiltel

## 2.20 Maynooth

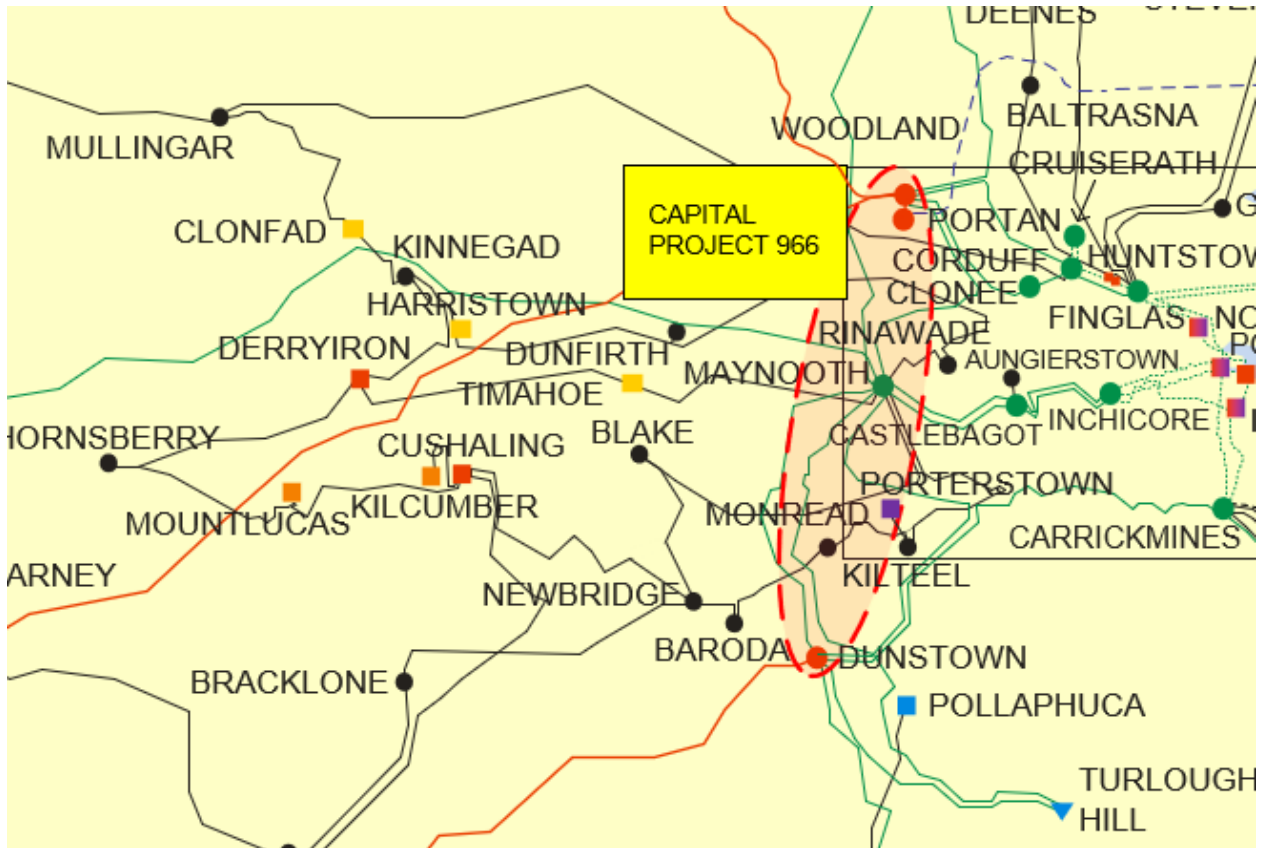


Figure 2-42 - Location of node Maynooth

Generator	SO	Capacity	Type	Status
Toolestown Solar	TSO	50.0	solar not priority	due to connect

Table 2-62 - Generation Included in Study for Node Maynooth

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		25	50				
Installed Capacity (MW)	2029		25	50	50			
Installed Capacity (MW)	FG			50		50	50	50
Available Energy (GWh)	2027		32	64				
Available Energy (GWh)	2029		32	64	64			
Available Energy (GWh)	FG			64		64	64	64
Generation (GWh)	2027		15	22				
Generation (GWh)	2029		16	24	17			
Generation (GWh)	FG			32		33	32	31
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027		2 %	4 %				
Curtailement (%)	2029		1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		45 %	48 %				
Constraint (%)	2029		45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027		53 %	66 %				
Total Dispatch Down (%)	2029		50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-63 - Surplus, Curtailement and Constraint for Solar non-priority for Node Maynooth

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	25	
Installed Capacity (MW)	2029 (pro-rata)	25	
Installed Capacity (MW)	FG (pro-rata)		50
Available Energy (GWh)	2027 (GF)	32	
Available Energy (GWh)	2029 (pro-rata)	32	
Available Energy (GWh)	FG (pro-rata)		64
Generation (GWh)	2027 (GF)	15	
Generation (GWh)	2029 (pro-rata)	16	
Generation (GWh)	FG (pro-rata)		33
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-64 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Maynooth

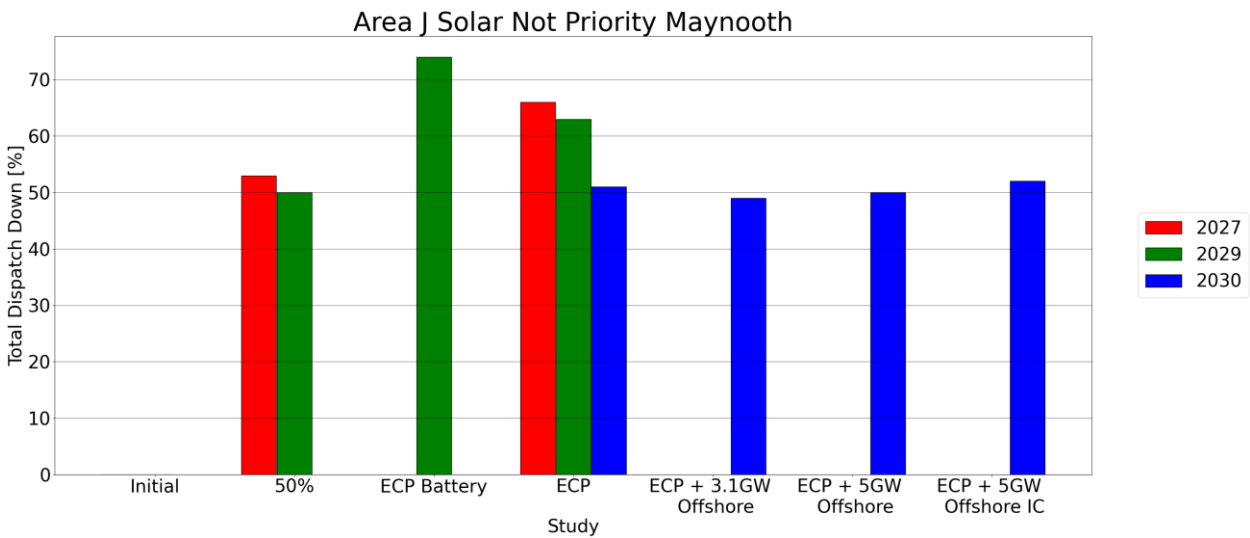


Figure 2-43 - Total Dispatch Down for Solar not priority for Node Maynooth

## 2.21 Monread

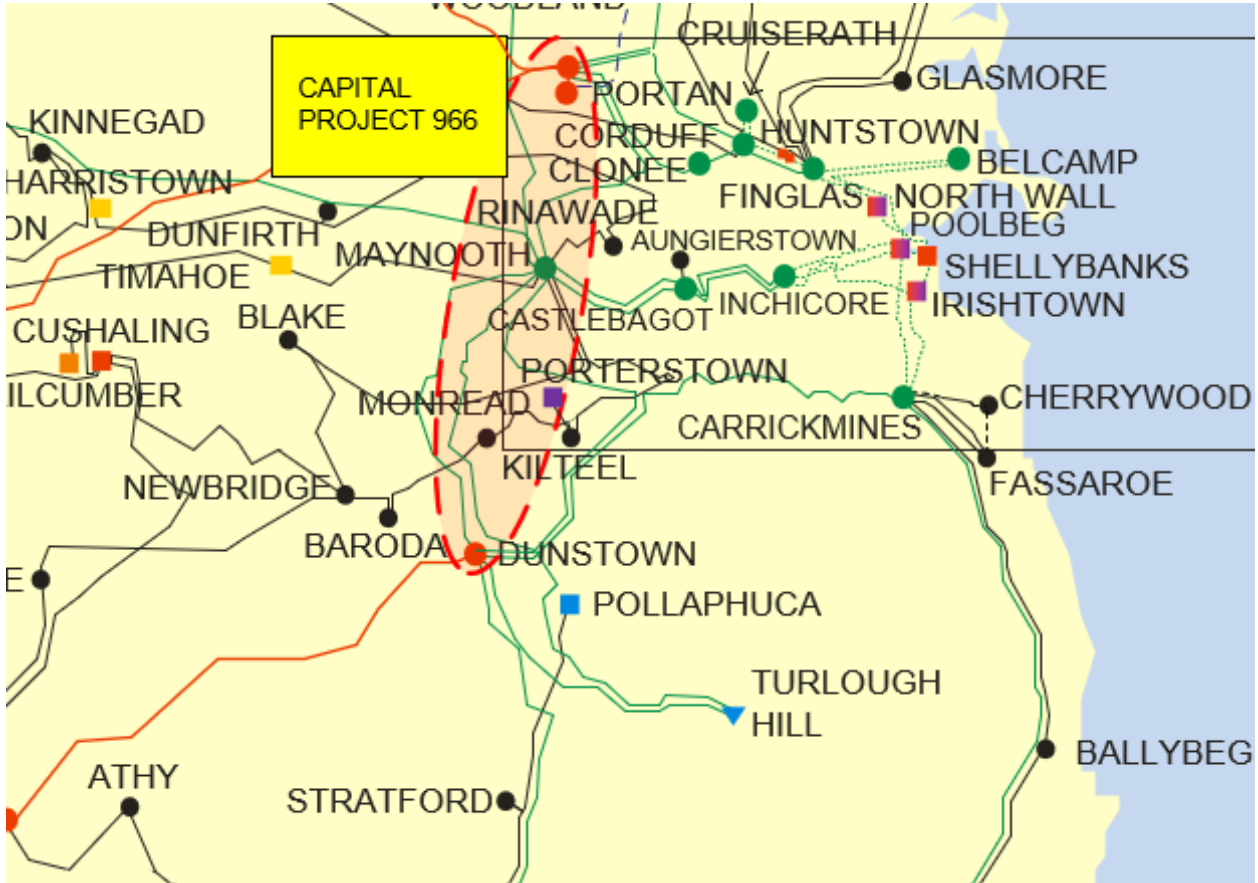


Figure 2-44 - Location of node Monread

Generator	SO	Capacity	Type	Status
Bodenstown Solar Farm	DSO	4.0	solar not priority	due to connect
Kerdiffstown PV	DSO	4.0	solar not priority	due to connect

Table 2-65 - Generation Included in Study for Node Monread

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	8	8	8				
Installed Capacity (MW)	2029	8	8	8	8			
Installed Capacity (MW)	FG			8		8	8	8
Available Energy (GWh)	2027	10	10	10				
Available Energy (GWh)	2029	10	10	10	10			
Available Energy (GWh)	FG			10		10	10	10
Generation (GWh)	2027	9	5	3				
Generation (GWh)	2029	9	5	4	3			
Generation (GWh)	FG			5		5	5	5
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-66 - Surplus, Curtailement and Constraint for Solar non-priority for Node Monread

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	8	
Installed Capacity (MW)	2029 (pro-rata)	8	
Installed Capacity (MW)	FG (pro-rata)		8
Available Energy (GWh)	2027 (GF)	10	
Available Energy (GWh)	2029 (pro-rata)	10	
Available Energy (GWh)	FG (pro-rata)		10
Generation (GWh)	2027 (GF)	5	
Generation (GWh)	2029 (pro-rata)	5	
Generation (GWh)	FG (pro-rata)		5
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-67 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Monread

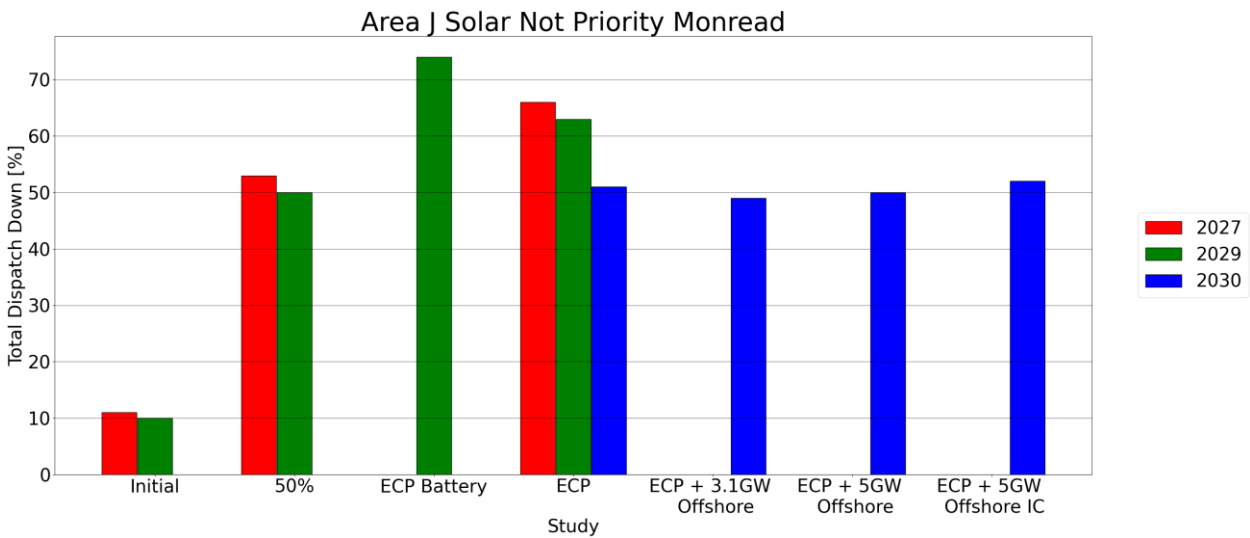


Figure 2-45 - Total Dispatch Down for Solar not priority for Node Monread

## 2.22 Mount lucas

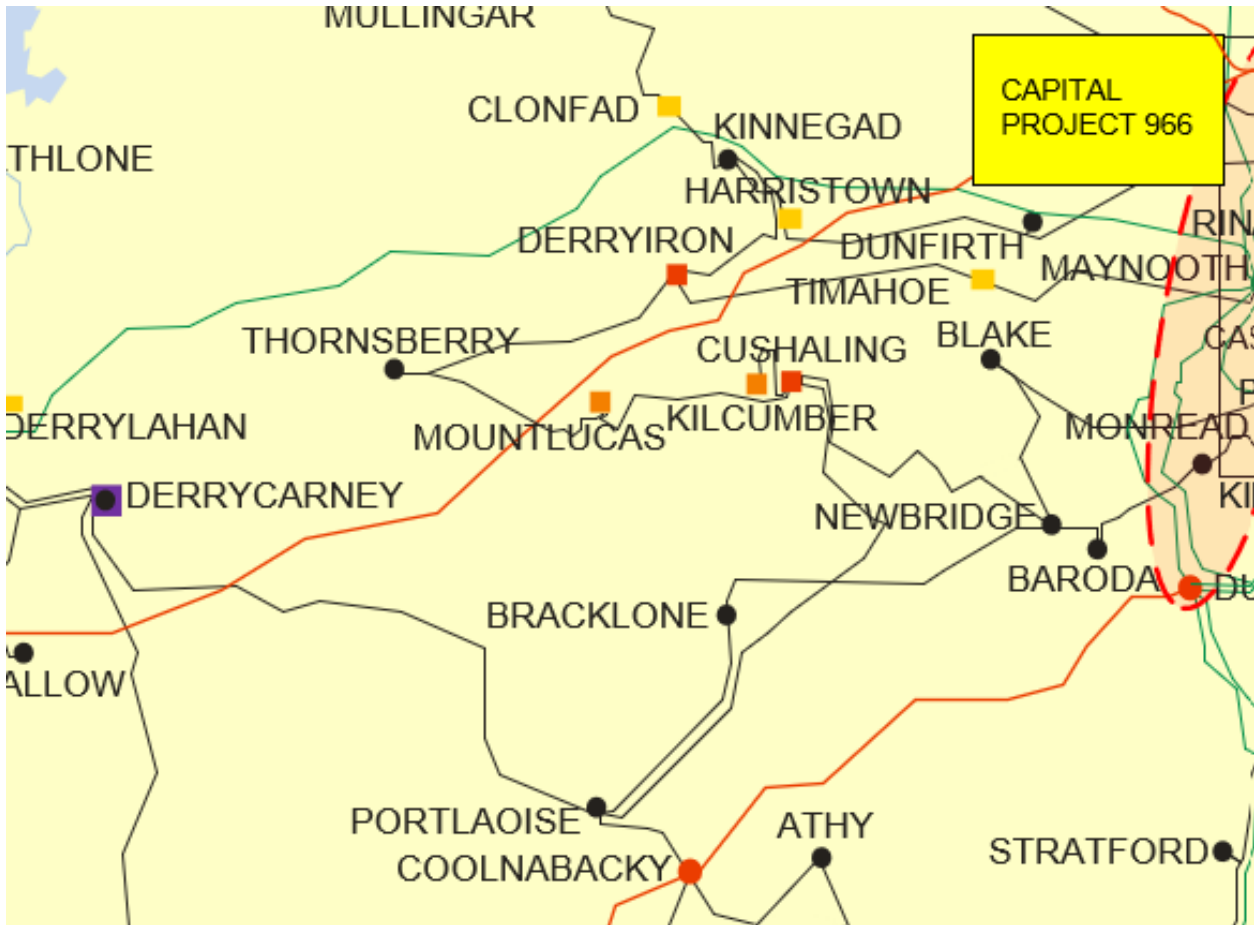


Figure 2-46 - Location of node Mount Lucas

Generator	SO	Capacity	Type	Status
<b>Mount Lucas (1)</b>	TSO	79.2	wind priority	connected
<b>Moanvane wind</b>	TSO	56.4	wind not priority	due to connect

Table 2-68 - Generation Included in Study for Node Mount Lucas



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		28	56				
Installed Capacity (MW)	2029		28	56	56			
Installed Capacity (MW)	FG			56		56	56	56
Available Energy (GWh)	2027		87	174				
Available Energy (GWh)	2029		87	174	174			
Available Energy (GWh)	FG			174		174	174	174
Generation (GWh)	2027		37	46				
Generation (GWh)	2029		35	40	37			
Generation (GWh)	FG			64		99	90	83
Surplus (%)	2027		7 %	14 %				
Surplus (%)	2029		2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailed (%)	2027		3 %	5 %				
Curtailed (%)	2029		1 %	3 %	3 %			
Curtailed (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		48 %	55 %				
Constraint (%)	2029		57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027		57 %	73 %				
Total Dispatch Down (%)	2029		60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 2-69 - Surplus, Curtailment and Constraint for Wind non-priority for Node Mount Lucas

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	28	
Installed Capacity (MW)	2029 (pro-rata)	28	
Installed Capacity (MW)	FG (pro-rata)		56
Available Energy (GWh)	2027 (GF)	87	
Available Energy (GWh)	2029 (pro-rata)	87	
Available Energy (GWh)	FG (pro-rata)		174
Generation (GWh)	2027 (GF)	28	
Generation (GWh)	2029 (pro-rata)	43	
Generation (GWh)	FG (pro-rata)		105
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

Table 2-70 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Mount Lucas

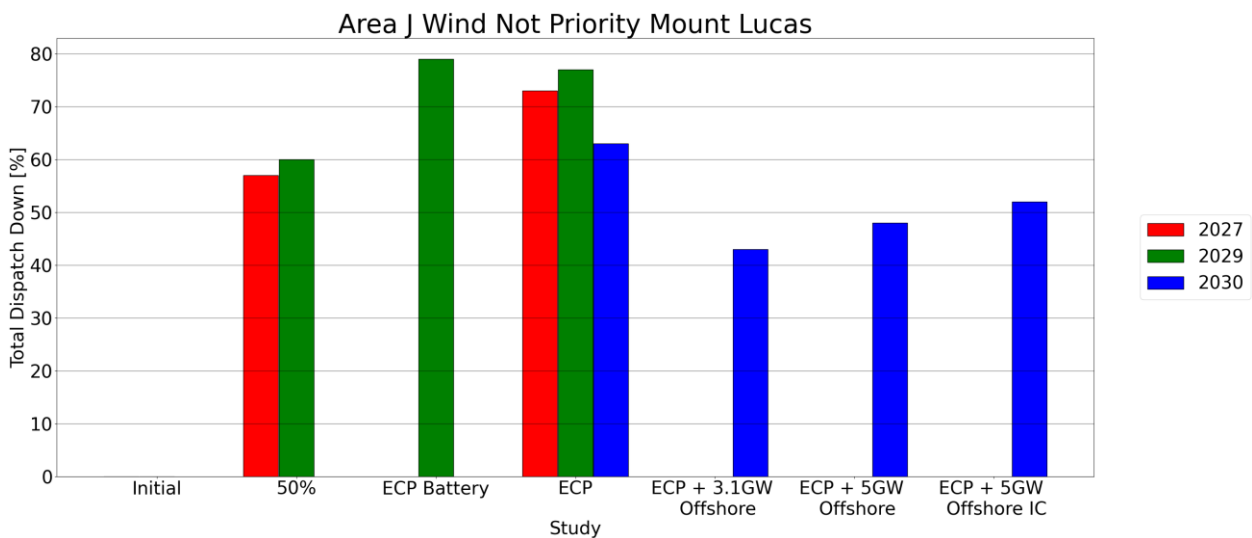


Figure 2-47 - Total Dispatch Down for Wind not priority for Node Mount Lucas

The wind priority data is given in the following table.

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	79	79	79				
Installed Capacity (MW)	2029	79	79	79	79			
Installed Capacity (MW)	FG			79		79	79	79
Available Energy (GWh)	2027	244	244	244				
Available Energy (GWh)	2029	244	244	244	244			
Available Energy (GWh)	FG			244		244	244	244
Generation (GWh)	2027	178	117	94				
Generation (GWh)	2029	243	240	236	233			
Generation (GWh)	FG			242		237	234	232
Surplus (%)	2027	0 %	0 %	0 %				
Surplus (%)	2029	0 %	0 %	0 %	0 %			
Surplus (%)	FG			0 %		0 %	0 %	0 %
Curtailement (%)	2027	2 %	4 %	7 %				
Curtailement (%)	2029	0 %	2 %	4 %	5 %			
Curtailement (%)	FG			1 %		3 %	4 %	5 %
Constraint (%)	2027	25 %	48 %	55 %				
Constraint (%)	2029	0 %	0 %	0 %	0 %			
Constraint (%)	FG			0 %		0 %	0 %	0 %
Total Dispatch Down (%)	2027	27 %	52 %	62 %				
Total Dispatch Down (%)	2029	0 %	2 %	4 %	5 %			
Total Dispatch Down (%)	FG			1 %		3 %	4 %	5 %

Table 2-71 - Surplus, Curtailement and Constraint for Wind priority for Node Mount Lucas

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	79	
Installed Capacity (MW)	2029 (pro-rata)	79	
Installed Capacity (MW)	FG (pro-rata)		79
Available Energy (GWh)	2027 (GF)	244	
Available Energy (GWh)	2029 (pro-rata)	244	
Available Energy (GWh)	FG (pro-rata)		244
Generation (GWh)	2027 (GF)	233	
Generation (GWh)	2029 (pro-rata)	126	
Generation (GWh)	FG (pro-rata)		179
Surplus (%)	2027 (GF)	0 %	
Surplus (%)	2029 (pro-rata)	0 %	
Surplus (%)	FG (pro-rata)		0 %
Curtailement (%)	2027 (GF)	4 %	
Curtailement (%)	2029 (pro-rata)	2 %	
Curtailement (%)	FG (pro-rata)		3 %
Constraint (%)	2027 (GF)	0 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	4 %	
Total Dispatch Down (%)	2029 (pro-rata)	48 %	
Total Dispatch Down (%)	FG (pro-rata)		27 %

Table 2-72 - Surplus, Curtailement and Constraint for Wind priority with sensitivity for Node Mount Lucas

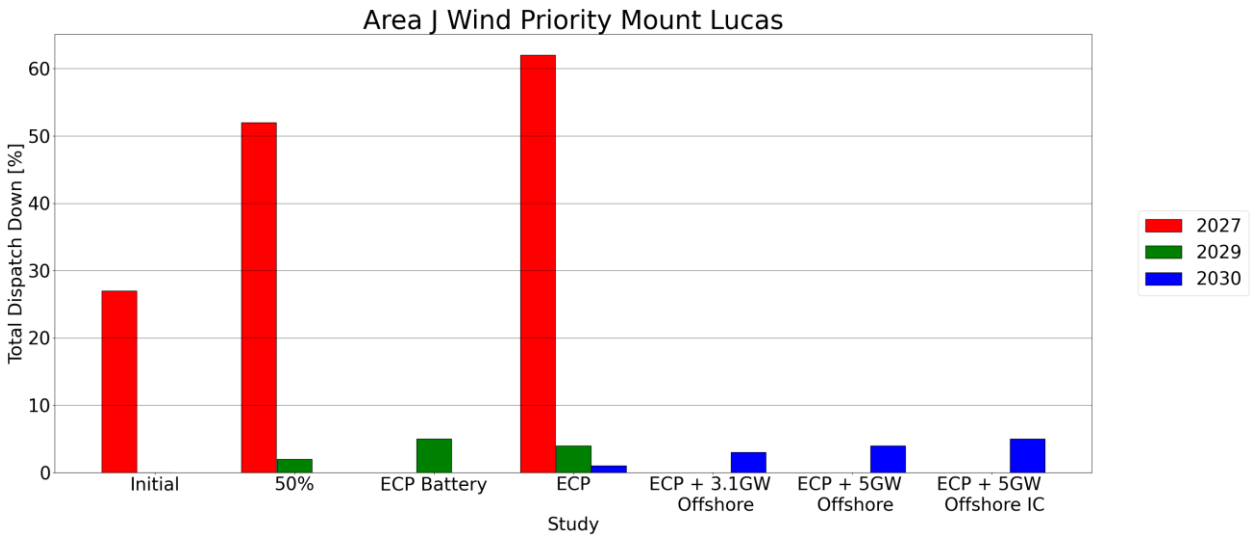


Figure 2-48 - Total Dispatch Down for Wind priority for Node Mount Lucas

## 2.23 Mulgeeth

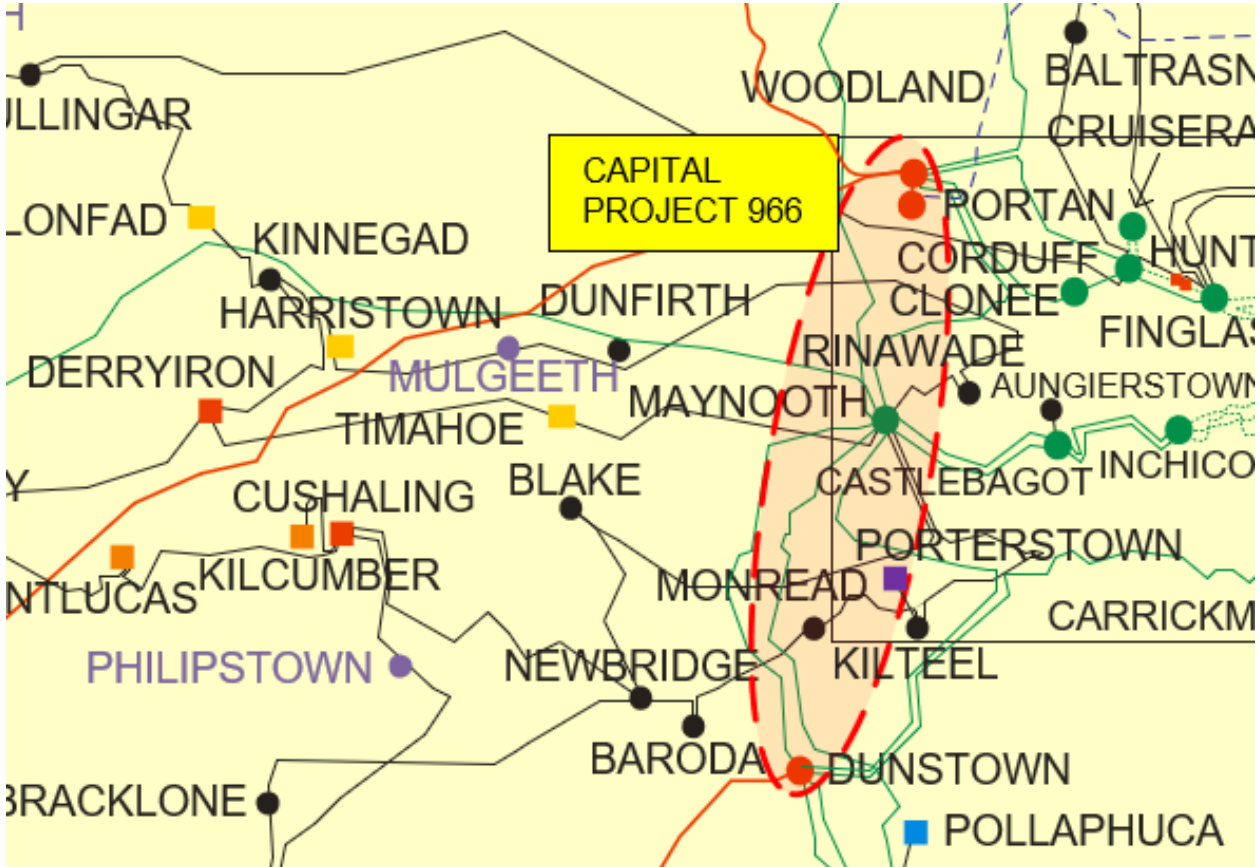


Figure 2-49 - Location of node Mulgeeth

Generator	SO	Capacity	Type	Status
Drehid wind	TSO	60.0	wind not priority	due to connect

Table 2-73 - Generation Included in Study for Node Mulgeeth

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		30	60				
Installed Capacity (MW)	2029		30	60	60			
Installed Capacity (MW)	FG			60		60	60	60
Available Energy (GWh)	2027		93	185				
Available Energy (GWh)	2029		93	185	185			
Available Energy (GWh)	FG			185		185	185	185
Generation (GWh)	2027		39	49				
Generation (GWh)	2029		37	43	40			
Generation (GWh)	FG			68		106	96	88
Surplus (%)	2027		7 %	14 %				
Surplus (%)	2029		2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailement (%)	2027		3 %	5 %				
Curtailement (%)	2029		1 %	3 %	3 %			
Curtailement (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		48 %	55 %				
Constraint (%)	2029		57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027		57 %	73 %				
Total Dispatch Down (%)	2029		60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 2-74 - Surplus, Curtailement and Constraint for Wind non-priority for Node Mulgeeth

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	30	
Installed Capacity (MW)	2029 (pro-rata)	30	
Installed Capacity (MW)	FG (pro-rata)		60
Available Energy (GWh)	2027 (GF)	93	
Available Energy (GWh)	2029 (pro-rata)	93	
Available Energy (GWh)	FG (pro-rata)		185
Generation (GWh)	2027 (GF)	30	
Generation (GWh)	2029 (pro-rata)	46	
Generation (GWh)	FG (pro-rata)		111
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

Table 2-75 - Surplus, Curtailement and Constraint for Wind non-priority with sensitivity for Node Mulgeeth

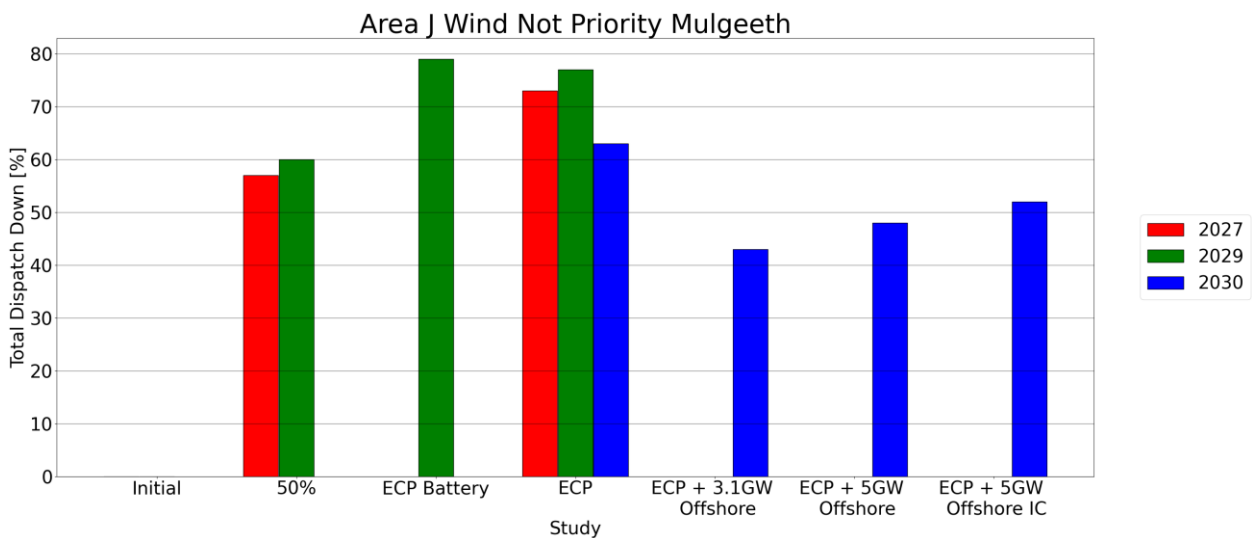


Figure 2-50 - Total Dispatch Down for Wind not priority for Node Mulgeeth

## 2.24 Newbridge

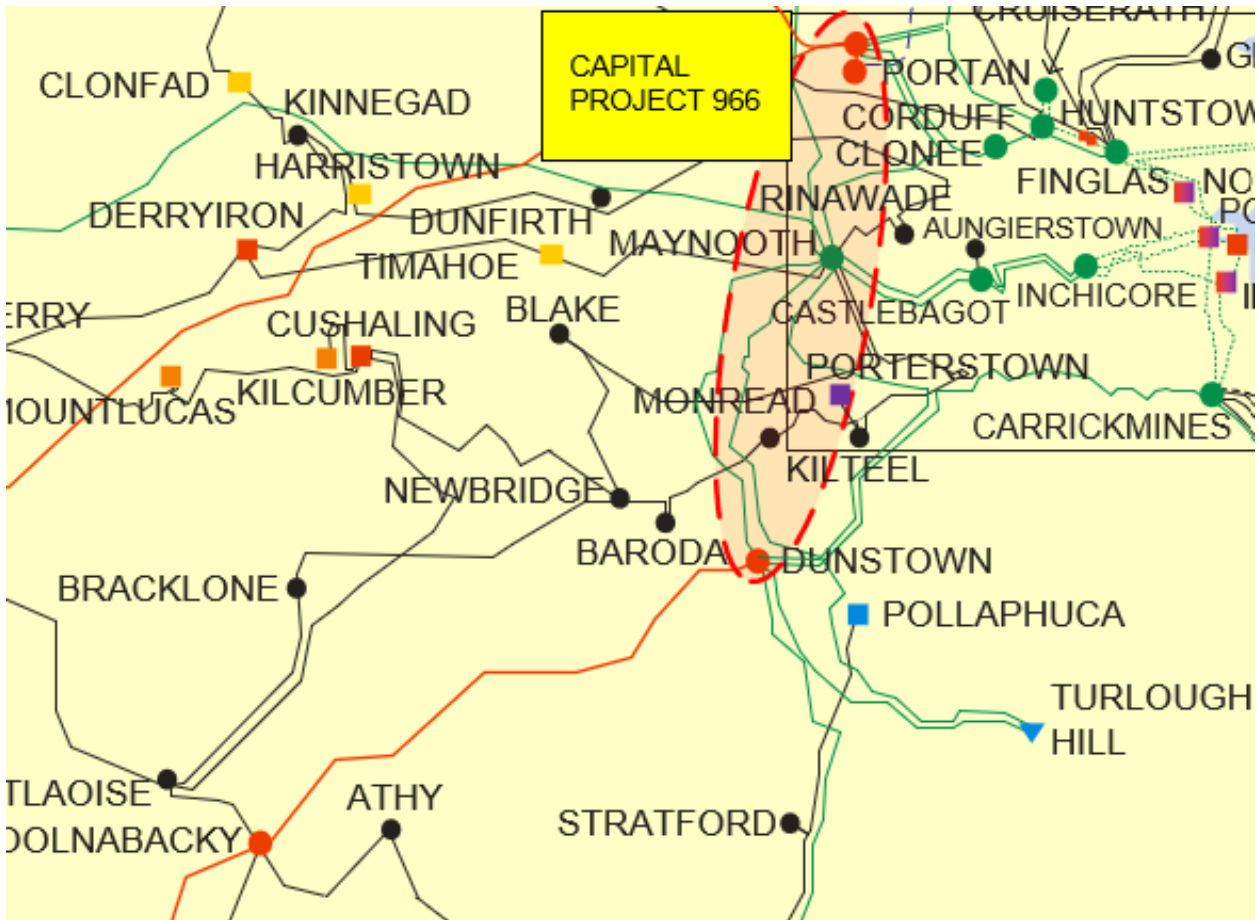


Figure 2-51 - Location of node Newbridge

Generator	SO	Capacity	Type	Status
Dunmurry Springs PV	DSO	12.0	solar not priority	due to connect

Table 2-76 - Generation Included in Study for Node Newbridge



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	12	12	12				
Installed Capacity (MW)	2029	12	12	12	12			
Installed Capacity (MW)	FG			12		12	12	12
Available Energy (GWh)	2027	15	15	15				
Available Energy (GWh)	2029	15	15	15	15			
Available Energy (GWh)	FG			15		15	15	15
Generation (GWh)	2027	14	7	5				
Generation (GWh)	2029	14	8	6	4			
Generation (GWh)	FG			8		8	8	7
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-77 - Surplus, Curtailement and Constraint for Solar non-priority for Node Newbridge

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	12	
Installed Capacity (MW)	2029 (pro-rata)	12	
Installed Capacity (MW)	FG (pro-rata)		12
Available Energy (GWh)	2027 (GF)	15	
Available Energy (GWh)	2029 (pro-rata)	15	
Available Energy (GWh)	FG (pro-rata)		15
Generation (GWh)	2027 (GF)	7	
Generation (GWh)	2029 (pro-rata)	8	
Generation (GWh)	FG (pro-rata)		8
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-78 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Newbridge

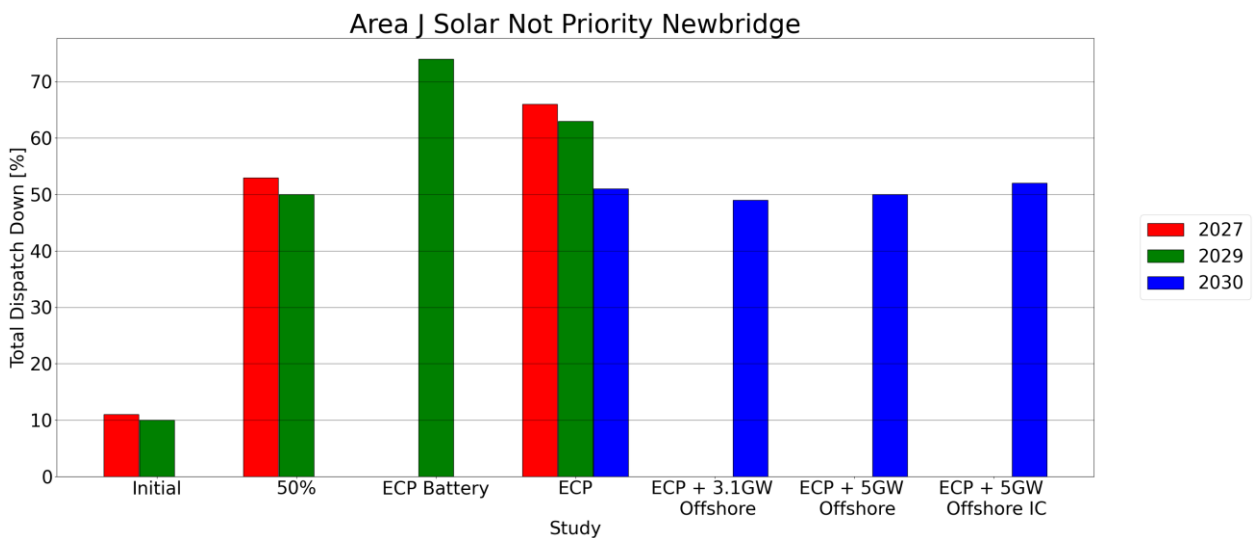


Figure 2-52 - Total Dispatch Down for Solar not priority for Node Newbridge

## 2.25 Philipstown

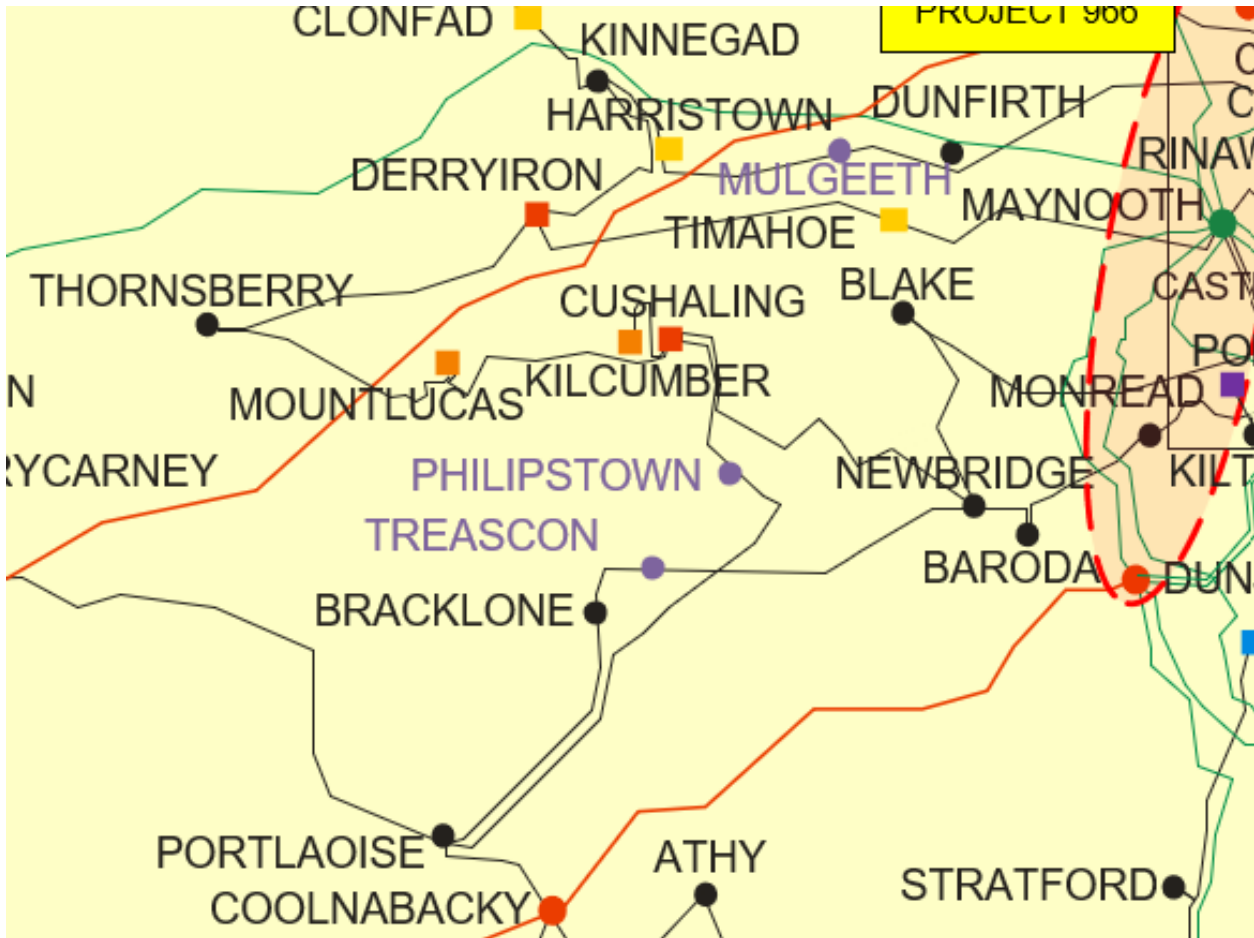


Figure 2-53 - Location of node Philipstown

Generator	SO	Capacity	Type	Status
Cushaling wind (loop into Cushaling - Newbridge)	TSO	50.0	wind not priority	due to connect
Kilcush Solar Farm	TSO	50.0	solar not priority	due to connect

Table 2-79 - Generation Included in Study for Node Philipstown

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		25	50				
Installed Capacity (MW)	2029		25	50	50			
Installed Capacity (MW)	FG			50		50	50	50
Available Energy (GWh)	2027		32	64				
Available Energy (GWh)	2029		32	64	64			
Available Energy (GWh)	FG			64		64	64	64
Generation (GWh)	2027		15	22				
Generation (GWh)	2029		16	24	17			
Generation (GWh)	FG			32		33	32	31
Surplus (%)	2027		6 %	14 %				
Surplus (%)	2029		3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailed (%)	2027		2 %	4 %				
Curtailed (%)	2029		1 %	3 %	5 %			
Curtailed (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027		45 %	48 %				
Constraint (%)	2029		45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027		53 %	66 %				
Total Dispatch Down (%)	2029		50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-80 - Surplus, Curtailment and Constraint for Solar non-priority for Node Philipstown

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	25	
Installed Capacity (MW)	2029 (pro-rata)	25	
Installed Capacity (MW)	FG (pro-rata)		50
Available Energy (GWh)	2027 (GF)	32	
Available Energy (GWh)	2029 (pro-rata)	32	
Available Energy (GWh)	FG (pro-rata)		64
Generation (GWh)	2027 (GF)	15	
Generation (GWh)	2029 (pro-rata)	16	
Generation (GWh)	FG (pro-rata)		33
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-81 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Philipstown

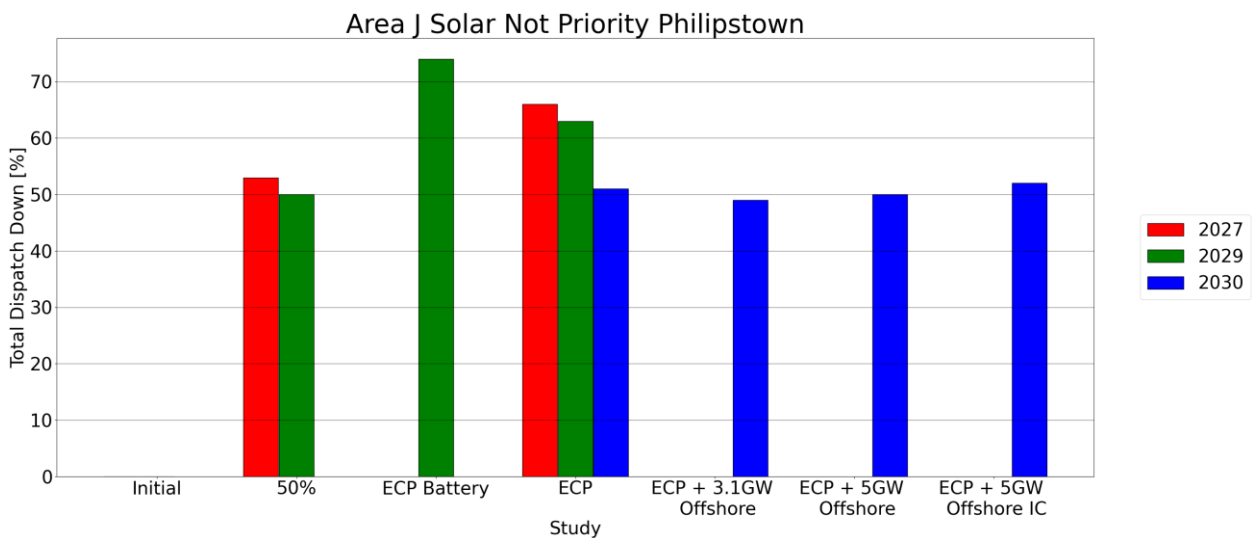


Figure 2-54 - Total Dispatch Down for Solar not priority for Node Philipstown

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027		25	50				
Installed Capacity (MW)	2029		25	50	50			
Installed Capacity (MW)	FG			50		50	50	50
Available Energy (GWh)	2027		77	154				
Available Energy (GWh)	2029		77	154	154			
Available Energy (GWh)	FG			154		154	154	154
Generation (GWh)	2027		33	41				
Generation (GWh)	2029		31	36	33			
Generation (GWh)	FG			57		88	80	74
Surplus (%)	2027		7 %	14 %				
Surplus (%)	2029		2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailed (%)	2027		3 %	5 %				
Curtailed (%)	2029		1 %	3 %	3 %			
Curtailed (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027		48 %	55 %				
Constraint (%)	2029		57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027		57 %	73 %				
Total Dispatch Down (%)	2029		60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 2-82 - Surplus, Curtailment and Constraint for Wind non-priority for Node Philipstown

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	25	
Installed Capacity (MW)	2029 (pro-rata)	25	
Installed Capacity (MW)	FG (pro-rata)		50
Available Energy (GWh)	2027 (GF)	77	
Available Energy (GWh)	2029 (pro-rata)	77	
Available Energy (GWh)	FG (pro-rata)		154
Generation (GWh)	2027 (GF)	25	
Generation (GWh)	2029 (pro-rata)	38	
Generation (GWh)	FG (pro-rata)		93
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

Table 2-83 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Philipstown

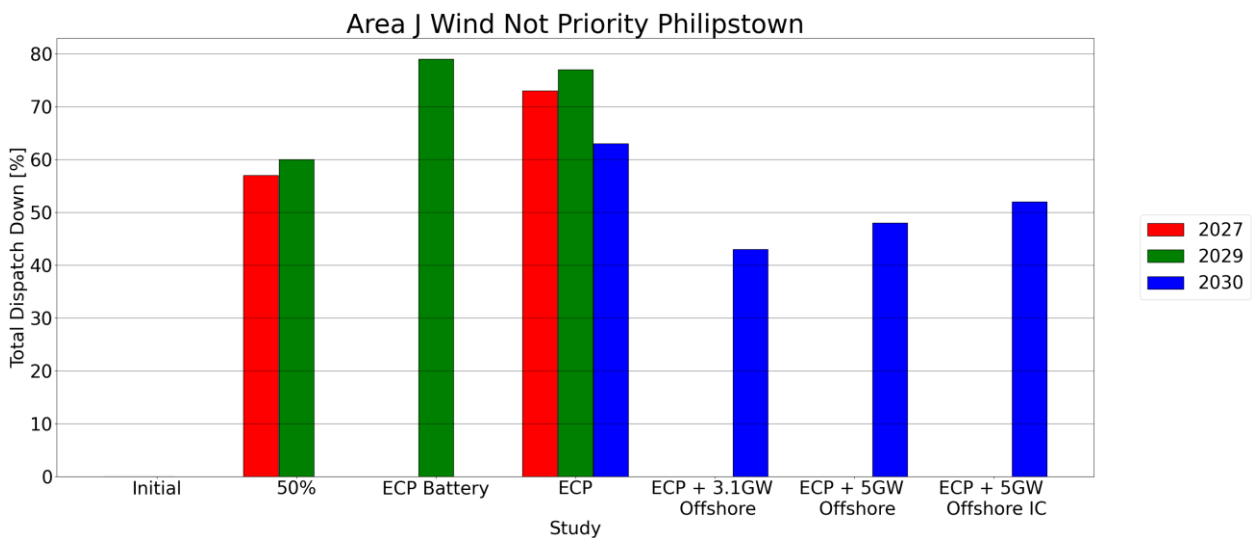


Figure 2-55 - Total Dispatch Down for Wind not priority for Node Philipstown

## 2.26 Poolbeg north 220kv



Figure 2-56 - Location of node Poolbeg north 220kv

Generator	SO	Capacity	Type	Status
Codling Offshore Wind A	TSO	400.0	wind not priority	due to connect

Table 2-84 - Generation Included in Study for Node Poolbeg north 220kv



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027							
Installed Capacity (MW)	2029							
Installed Capacity (MW)	FG					400	400	400
Available Energy (GWh)	2027							
Available Energy (GWh)	2029							
Available Energy (GWh)	FG					1676	1676	1676
Generation (GWh)	2027							
Generation (GWh)	2029							
Generation (GWh)	FG					1450	1247	1125
Surplus (%)	2027							
Surplus (%)	2029							
Surplus (%)	FG					11 %	21 %	29 %
Curtailement (%)	2027							
Curtailement (%)	2029							
Curtailement (%)	FG					2 %	2 %	3 %
Constraint (%)	2027							
Constraint (%)	2029							
Constraint (%)	FG					1 %	2 %	1 %
Total Dispatch Down (%)	2027							
Total Dispatch Down (%)	2029							
Total Dispatch Down (%)	FG					13 %	26 %	33 %

Table 2-85 - Surplus, Curtailement and Constraint for Wind non-priority for Node Poolbeg north 220kv

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)		
Installed Capacity (MW)	2029 (pro-rata)		
Installed Capacity (MW)	FG (pro-rata)		400
Available Energy (GWh)	2027 (GF)		
Available Energy (GWh)	2029 (pro-rata)		
Available Energy (GWh)	FG (pro-rata)		1676
Generation (GWh)	2027 (GF)		
Generation (GWh)	2029 (pro-rata)		
Generation (GWh)	FG (pro-rata)		1450
Surplus (%)	2027 (GF)		
Surplus (%)	2029 (pro-rata)		
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)		
Curtailement (%)	2029 (pro-rata)		
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)		
Constraint (%)	2029 (pro-rata)		
Constraint (%)	FG (pro-rata)		1 %
Total Dispatch Down (%)	2027 (GF)		
Total Dispatch Down (%)	2029 (pro-rata)		
Total Dispatch Down (%)	FG (pro-rata)		13 %

Table 2-86 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Poolbeg north 220kv

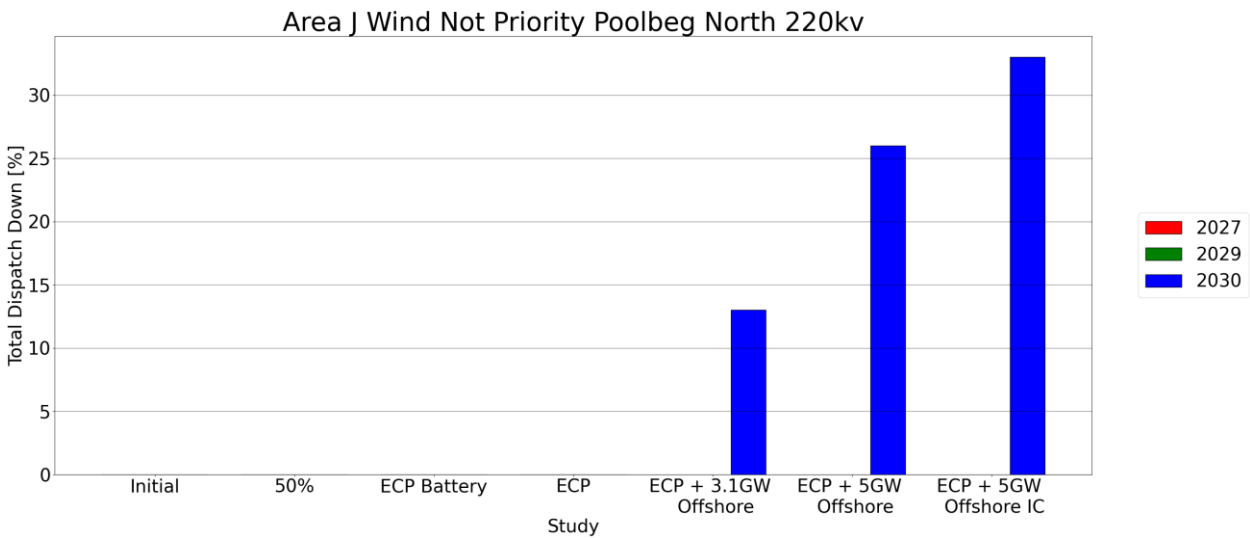


Figure 2-57 - Total Dispatch Down for Wind not priority for Node Poolbeg north 220kv

## 2.27 Poolbeg south 220kv



Figure 2-58 - Location of node Poolbeg south 220kv

Generator	SO	Capacity	Type	Status
Codling Offshore Wind B	TSO	450.0	wind not priority	due to connect
Codling Offshore Wind C	TSO	450.0	wind not priority	due to connect

Table 2-87 - Generation Included in Study for Node Poolbeg south 220kv

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027							
Installed Capacity (MW)	2029							
Installed Capacity (MW)	FG					900	900	900
Available Energy (GWh)	2027							
Available Energy (GWh)	2029							
Available Energy (GWh)	FG					3771	3771	3771
Generation (GWh)	2027							
Generation (GWh)	2029							
Generation (GWh)	FG					3262	2806	2531
Surplus (%)	2027							
Surplus (%)	2029							
Surplus (%)	FG					11 %	21 %	29 %
Curtailement (%)	2027							
Curtailement (%)	2029							
Curtailement (%)	FG					2 %	2 %	3 %
Constraint (%)	2027							
Constraint (%)	2029							
Constraint (%)	FG					1 %	2 %	1 %
Total Dispatch Down (%)	2027							
Total Dispatch Down (%)	2029							
Total Dispatch Down (%)	FG					13 %	26 %	33 %

Table 2-88 - Surplus, Curtailement and Constraint for Wind non-priority for Node Poolbeg south 220kv

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)		
Installed Capacity (MW)	2029 (pro-rata)		
Installed Capacity (MW)	FG (pro-rata)		900
Available Energy (GWh)	2027 (GF)		
Available Energy (GWh)	2029 (pro-rata)		
Available Energy (GWh)	FG (pro-rata)		3771
Generation (GWh)	2027 (GF)		
Generation (GWh)	2029 (pro-rata)		
Generation (GWh)	FG (pro-rata)		3262
Surplus (%)	2027 (GF)		
Surplus (%)	2029 (pro-rata)		
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)		
Curtailement (%)	2029 (pro-rata)		
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)		
Constraint (%)	2029 (pro-rata)		
Constraint (%)	FG (pro-rata)		1 %
Total Dispatch Down (%)	2027 (GF)		
Total Dispatch Down (%)	2029 (pro-rata)		
Total Dispatch Down (%)	FG (pro-rata)		13 %

Table 2-89 - Surplus, Curtailment and Constraint for Wind non-priority with sensitivity for Node Poolbeg south 220kv

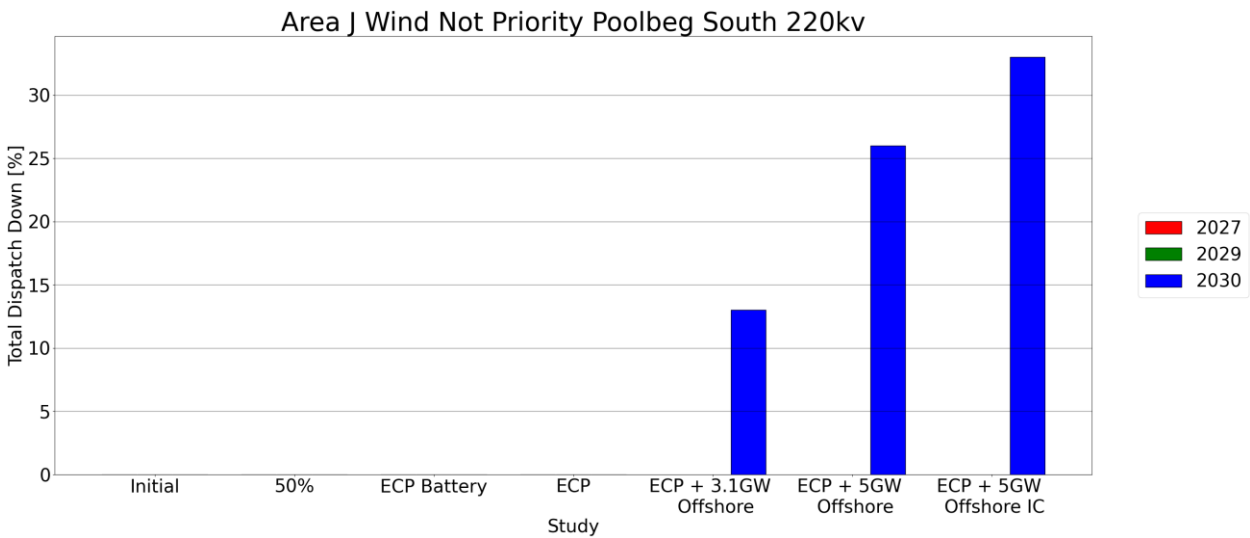


Figure 2-59 - Total Dispatch Down for Wind not priority for Node Poolbeg south 220kv

## 2.28 Portlaoise

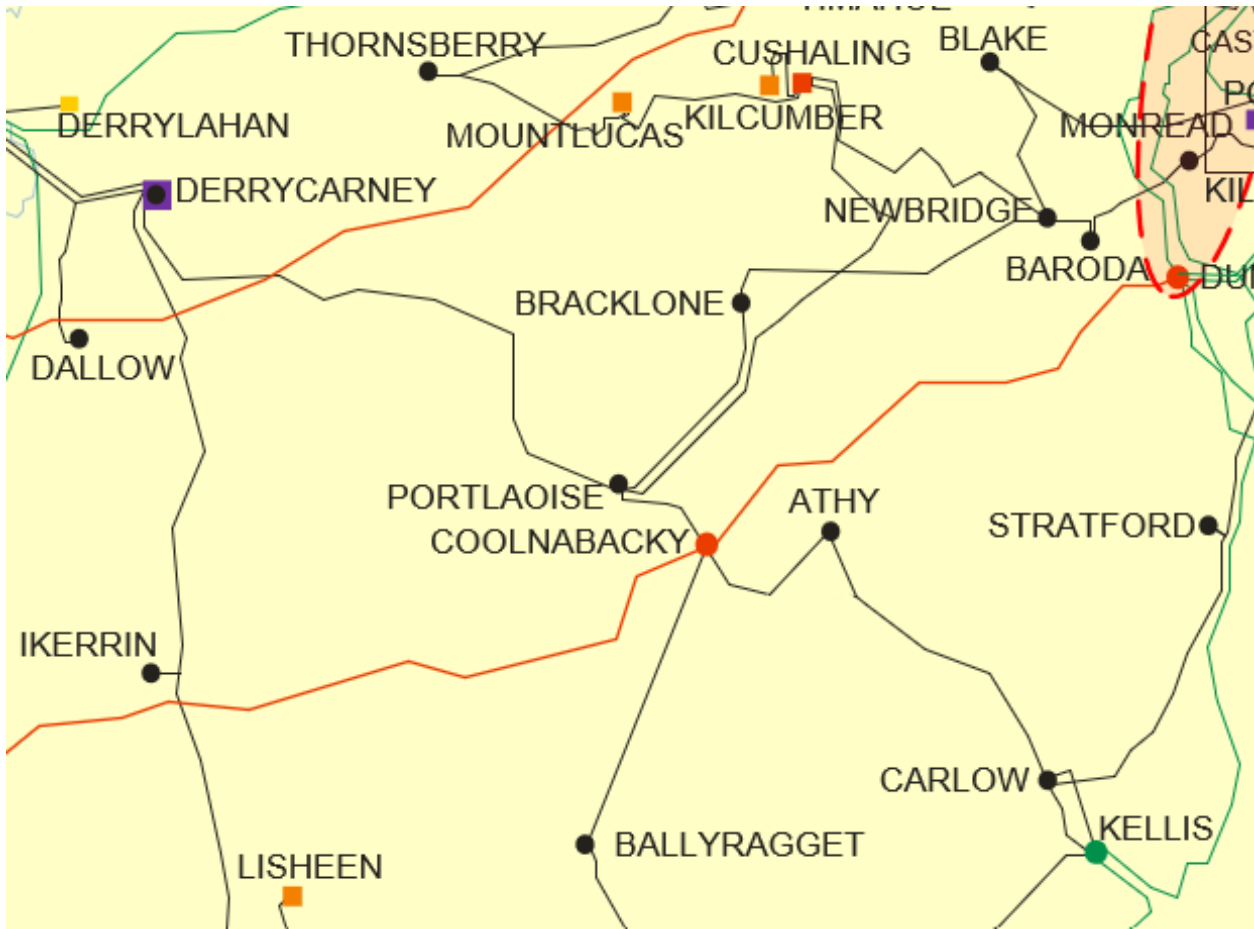


Figure 2-60 - Location of node Portlaoise

Generator	SO	Capacity	Type	Status
Dooray WF	DSO	45.001	wind not priority	due to connect
Shanderry Solar Farm	DSO	4.0	solar not priority	due to connect

Table 2-90 - Generation Included in Study for Node Portlaoise

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

Area J	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	5	5	5				
Available Energy (GWh)	2029	5	5	5	5			
Available Energy (GWh)	FG			5		5	5	5
Generation (GWh)	2027	5	2	2				
Generation (GWh)	2029	5	3	2	1			
Generation (GWh)	FG			3		3	3	2
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-91 - Surplus, Curtailement and Constraint for Solar non-priority for Node Portlaoise

Area J	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)	5	
Available Energy (GWh)	2029 (pro-rata)	5	
Available Energy (GWh)	FG (pro-rata)		5
Generation (GWh)	2027 (GF)	2	
Generation (GWh)	2029 (pro-rata)	3	
Generation (GWh)	FG (pro-rata)		3
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-92 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Portlaoise

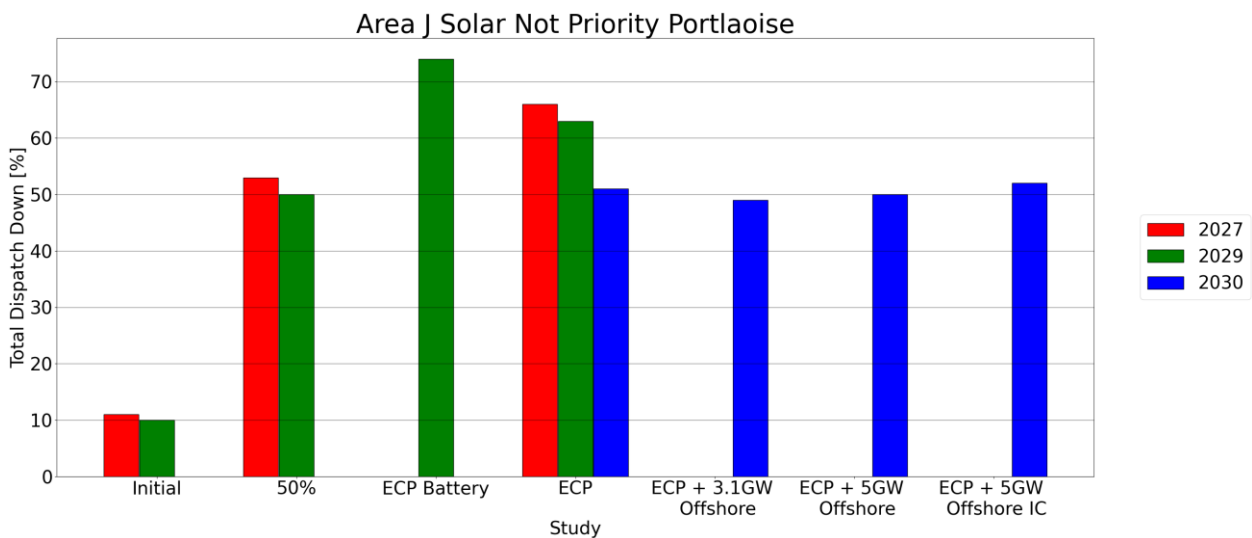


Figure 2-61 - Total Dispatch Down for Solar not priority for Node Portlaoise



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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	45	45	45				
Installed Capacity (MW)	2029	45	45	45	45			
Installed Capacity (MW)	FG			45		45	45	45
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	100	59	37				
Generation (GWh)	2029	94	55	32	30			
Generation (GWh)	FG			51		79	72	66
Surplus (%)	2027	1 %	7 %	14 %				
Surplus (%)	2029	0 %	2 %	6 %	10 %			
Surplus (%)	FG			3 %		14 %	25 %	34 %
Curtailement (%)	2027	2 %	3 %	5 %				
Curtailement (%)	2029	0 %	1 %	3 %	3 %			
Curtailement (%)	FG			1 %		2 %	2 %	3 %
Constraint (%)	2027	25 %	48 %	55 %				
Constraint (%)	2029	32 %	57 %	68 %	66 %			
Constraint (%)	FG			60 %		27 %	20 %	15 %
Total Dispatch Down (%)	2027	28 %	57 %	73 %				
Total Dispatch Down (%)	2029	32 %	60 %	77 %	79 %			
Total Dispatch Down (%)	FG			63 %		43 %	48 %	52 %

Table 2-93 - Surplus, Curtailement and Constraint for Wind non-priority for Node Portlaoise

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	45	
Installed Capacity (MW)	2029 (pro-rata)	45	
Installed Capacity (MW)	FG (pro-rata)		45
Available Energy (GWh)	2027 (GF)	139	
Available Energy (GWh)	2029 (pro-rata)	139	
Available Energy (GWh)	FG (pro-rata)		139
Generation (GWh)	2027 (GF)	45	
Generation (GWh)	2029 (pro-rata)	69	
Generation (GWh)	FG (pro-rata)		83
Surplus (%)	2027 (GF)	7 %	
Surplus (%)	2029 (pro-rata)	2 %	
Surplus (%)	FG (pro-rata)		14 %
Curtailement (%)	2027 (GF)	3 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	58 %	
Constraint (%)	2029 (pro-rata)	47 %	
Constraint (%)	FG (pro-rata)		24 %
Total Dispatch Down (%)	2027 (GF)	68 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		40 %

Table 2-94 - Surplus, Curtailement and Constraint for Wind non-priority with sensitivity for Node Portlaoise

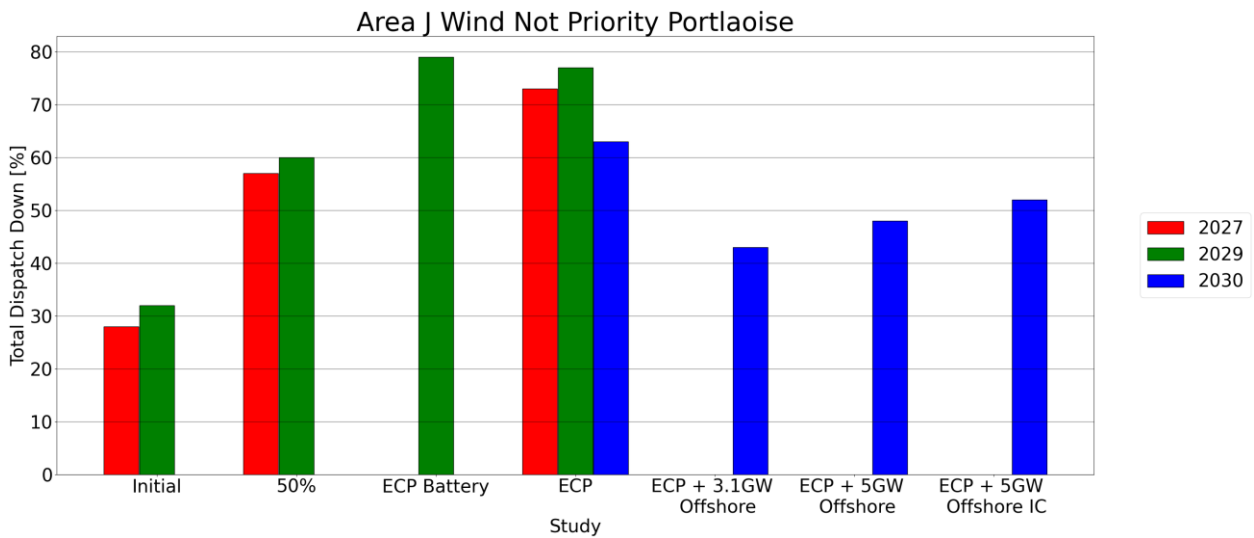


Figure 2-62 - Total Dispatch Down for Wind not priority for Node Portlaoise

## 2.29 Thornsberry



Figure 2-63 - Location of node Thornsberry

Generator	SO	Capacity	Type	Status
Lehinch Solar Farm	DSO	4.0	solar not priority	connected
Muinagh Solar Farm	DSO	4.0	solar not priority	due to connect
Muinagh Solar Farm phase 2	DSO	1.8	solar not priority	due to connect
Ballyboughlin Solar Farm	DSO	14.0	solar not priority	due to connect
Ballyteige Solar Park	TSO	90.0	solar not priority	due to connect

Table 2-95 - Generation Included in Study for Node Thornsberry

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	4	59	114				
Installed Capacity (MW)	2029	4	59	114	114			
Installed Capacity (MW)	FG			114		114	114	114
Available Energy (GWh)	2027	5	75	146				
Available Energy (GWh)	2029	5	75	146	146			
Available Energy (GWh)	FG			146		146	146	146
Generation (GWh)	2027	5	36	50				
Generation (GWh)	2029	5	38	54	39			
Generation (GWh)	FG			72		74	72	69
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

Table 2-96 - Surplus, Curtailement and Constraint for Solar non-priority for Node Thornsberry

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	59	
Installed Capacity (MW)	2029 (pro-rata)	59	
Installed Capacity (MW)	FG (pro-rata)		114
Available Energy (GWh)	2027 (GF)	75	
Available Energy (GWh)	2029 (pro-rata)	75	
Available Energy (GWh)	FG (pro-rata)		146
Generation (GWh)	2027 (GF)	36	
Generation (GWh)	2029 (pro-rata)	38	
Generation (GWh)	FG (pro-rata)		74
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-97 - Surplus, Curtailement and Constraint for Solar non-priority with sensitivity for Node Thornsberry

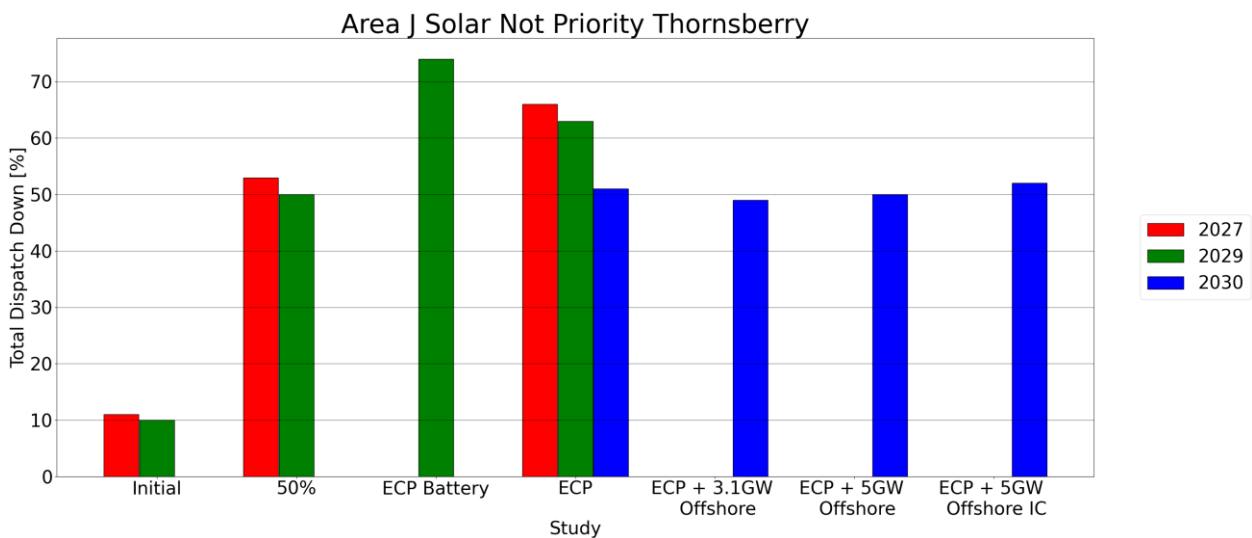


Figure 2-64 - Total Dispatch Down for Solar not priority for Node Thornsberry

## 2.30 Timahoe

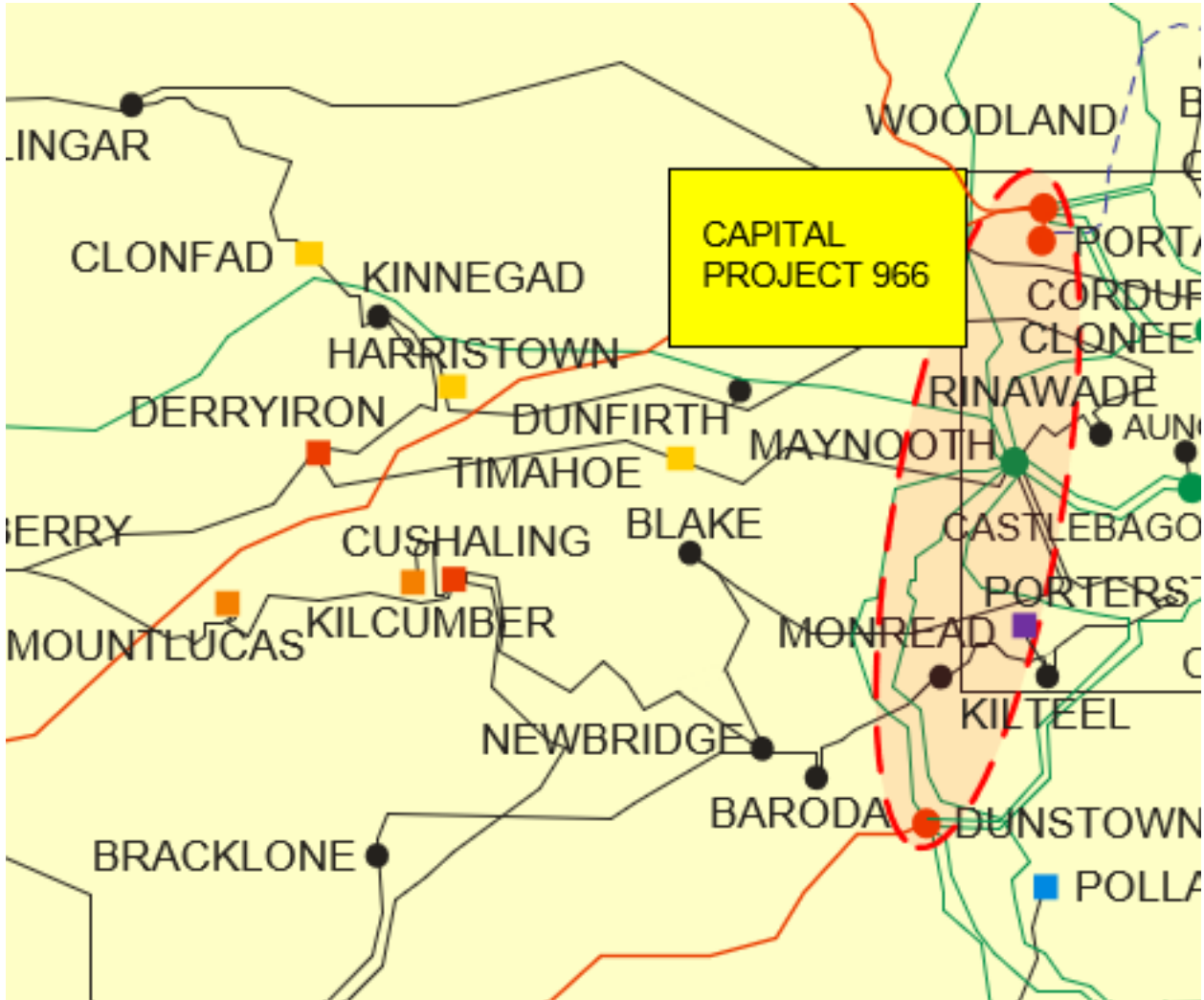


Figure 2-65 - Location of node Timahoe

Generator	SO	Capacity	Type	Status
Timahoe North solar	TSO	70.0	solar not priority	due to connect
Timahoe North Phase 2 Solar Farm	TSO	80.0	solar not priority	due to connect
Old Court Solar Farm	TSO	90.0	solar not priority	due to connect
Coolcarrigan Solar P2	TSO	120.0	solar not priority	due to connect

Table 2-98 - Generation Included in Study for Node Timahoe

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

Area J	Year	Initial	50%	ECP	ECP Battery	ECP + 3.1GW Offshore	ECP + 5GW Offshore	ECP + 5GW Offshore IC
Installed Capacity (MW)	2027	70	215	360				
Installed Capacity (MW)	2029	70	215	360	360			
Installed Capacity (MW)	FG			360		360	360	360
Available Energy (GWh)	2027	90	275	461				
Available Energy (GWh)	2029	90	275	461	461			
Available Energy (GWh)	FG			461		461	461	461
Generation (GWh)	2027	79	130	157				
Generation (GWh)	2029	80	138	170	122			
Generation (GWh)	FG			228		235	228	220
Surplus (%)	2027	1 %	6 %	14 %				
Surplus (%)	2029	0 %	3 %	9 %	15 %			
Surplus (%)	FG			5 %		11 %	15 %	21 %
Curtailement (%)	2027	1 %	2 %	4 %				
Curtailement (%)	2029	0 %	1 %	3 %	5 %			
Curtailement (%)	FG			1 %		2 %	2 %	2 %
Constraint (%)	2027	10 %	45 %	48 %				
Constraint (%)	2029	10 %	45 %	51 %	54 %			
Constraint (%)	FG			44 %		36 %	33 %	29 %
Total Dispatch Down (%)	2027	11 %	53 %	66 %				
Total Dispatch Down (%)	2029	10 %	50 %	63 %	74 %			
Total Dispatch Down (%)	FG			51 %		49 %	50 %	52 %

*Table 2-99 - Surplus, Curtailement and Constraint for Solar non-priority for Node Timahoe*

Area J	Year	50%	ECP + 3.1GW Offshore
Installed Capacity (MW)	2027 (GF)	215	
Installed Capacity (MW)	2029 (pro-rata)	215	
Installed Capacity (MW)	FG (pro-rata)		360
Available Energy (GWh)	2027 (GF)	275	
Available Energy (GWh)	2029 (pro-rata)	275	
Available Energy (GWh)	FG (pro-rata)		461
Generation (GWh)	2027 (GF)	130	
Generation (GWh)	2029 (pro-rata)	138	
Generation (GWh)	FG (pro-rata)		235
Surplus (%)	2027 (GF)	6 %	
Surplus (%)	2029 (pro-rata)	3 %	
Surplus (%)	FG (pro-rata)		11 %
Curtailement (%)	2027 (GF)	2 %	
Curtailement (%)	2029 (pro-rata)	1 %	
Curtailement (%)	FG (pro-rata)		2 %
Constraint (%)	2027 (GF)	45 %	
Constraint (%)	2029 (pro-rata)	45 %	
Constraint (%)	FG (pro-rata)		36 %
Total Dispatch Down (%)	2027 (GF)	53 %	
Total Dispatch Down (%)	2029 (pro-rata)	50 %	
Total Dispatch Down (%)	FG (pro-rata)		49 %

Table 2-100 - Surplus, Curtailment and Constraint for Solar non-priority with sensitivity for Node Timahoe

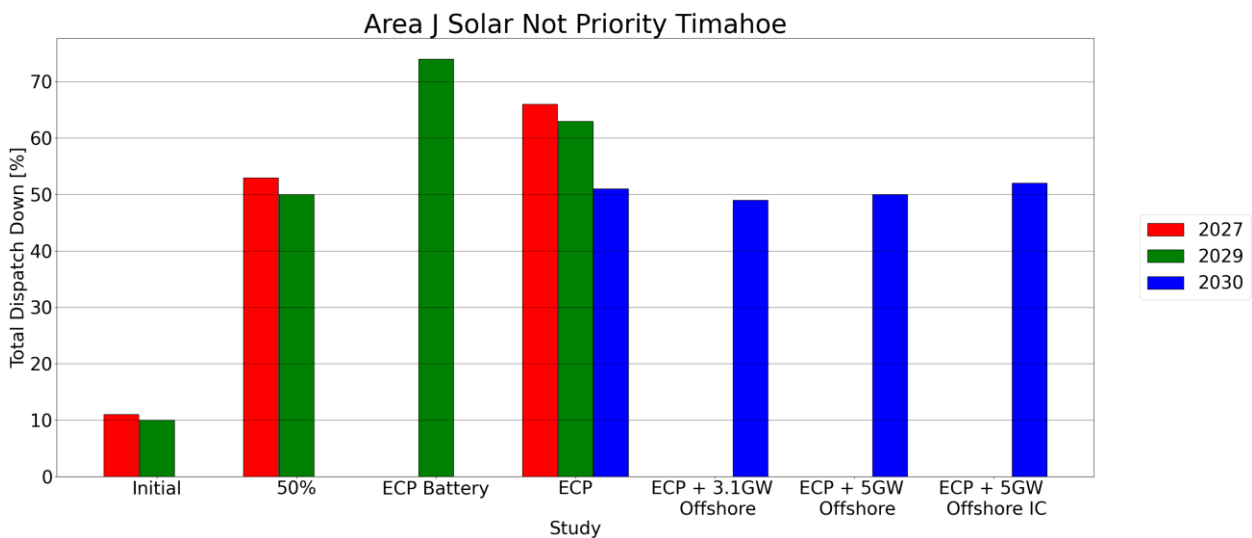


Figure 2-66 - Total Dispatch Down for Solar not priority for Node Timahoe