

TOP25 Mid-Season Overview



Introduction

The following slides are intended to give an overview of our ongoing TOP25 performance, focusing on the following:

- Outages that have been completed to date
- Why outages have been deferred/cancelled
- Any additional work that has been included
- Plan for remainder of TOP25

TOP25 Progress so far



TOP25 Performance Overview

TOP25 baseline programme included 791 outage weeks, which is similar to previous years.

25% of the works planned within TOP25 have been completed.

19% of planned works have been deferred entirely from TOP25

Other works have been added to the programme to make use of outage slots not taken up by the deferred works. Our end of year figures will include these additional outages.

Factors that impacted TOP25 outside of EirGrid and ESNB control (e.g. storm and land access) will also be accounted for in end of year figures

New Connections - Renewable South

- CP1062 Drombeg 110 kV Station : Drombeg Solar Farm 50 MW - **Delayed** (customer request) but ongoing
- CP1260 Dennistown 110 kV Station : Tracystown Solar Farm 101 MW - **On track**
- CP1269 Crory 110 kV Station : The Dell Solar Farm 20 MW (DSO Connection) - **On track**
- CP1351 Ballynadrideen 110 kV Station : Ballyroe Solar Farm 120 MW - **Some works complete, connection deferred to TOP26** (customer request)
- CP1353 Bendinstown 110 kV Station : Garreenleen Solar Farm 81 MW - **Delayed** (customer request) but still forecast in TOP25



New Connections - Renewable Central

- CP1272 Derryiron Busbar Uprate (Enabling Project) - Delayed approximately 6 weeks due to issues with land access for maintenance works
- CP1217 Philipstown 110 kV Station: Ballykilleen Wind Farm 50 MW - Ongoing but extended
- CP1231 Knockdrin 110 kV Station : Yellow River Wind Farm 101 MW (Permanent Connection) - Delayed (due to delays with CP1272) but still forecast in TOP25
- CP1234 Laurencetown 110 kV Station : Clonin North Solar Farm 50 MW - Delayed (due to delays with CP1272) but still forecast in TOP25
- CP1158 Rattin 110 kV Station : Clonfad Solar Farm 100 MW - being studied (due to delays with CP1272)
- CP1059 Raghra 220 kV Station : Shannonbridge B BESS 63 MW Battery - Complete

CP1272 Derryiron Busbar Uprate

- Temporary bypass arrangements have been installed in Derryiron 110 kV Station since early 2024
- This allows works to replace the old busbar with a new higher rated busbar with significantly reduced system impact
- Significant benefit allowing peaking generation at Rhode Station
- This is an enabling project for both :
 - CP1231 Knockdrin 110 kV Station - Delayed approximately 6 weeks
 - CP1234 Laurencetown 110 kV Station - Delayed approximately 6 weeks



New Connections - Renewable North & West

- CP1352 Gortatleva 110 kV Station : Ballymoneen Solar Farm 80 MW - on track
- CP1342 Drumcamill 110 kV Station : Monvallet Solar Farm 50 MW - Some works proceeding in TOP25, some deferred to TOP26 at customer request

New Connections - Conventional

- CP1255 Castlelost 220 kV Station (OCGT 275 MW) - Delayed approx. 2 months (customer request) but still on plan for TOP25
- CP1256 Barnakyle 110 kV Station (OCGT 100 MW) - Delayed, however still expected to connect in TOP25
- CP1259 Athlone 110 kV Station (OCGT 100 MW) - Delayed, however still expected to connect in TOP25



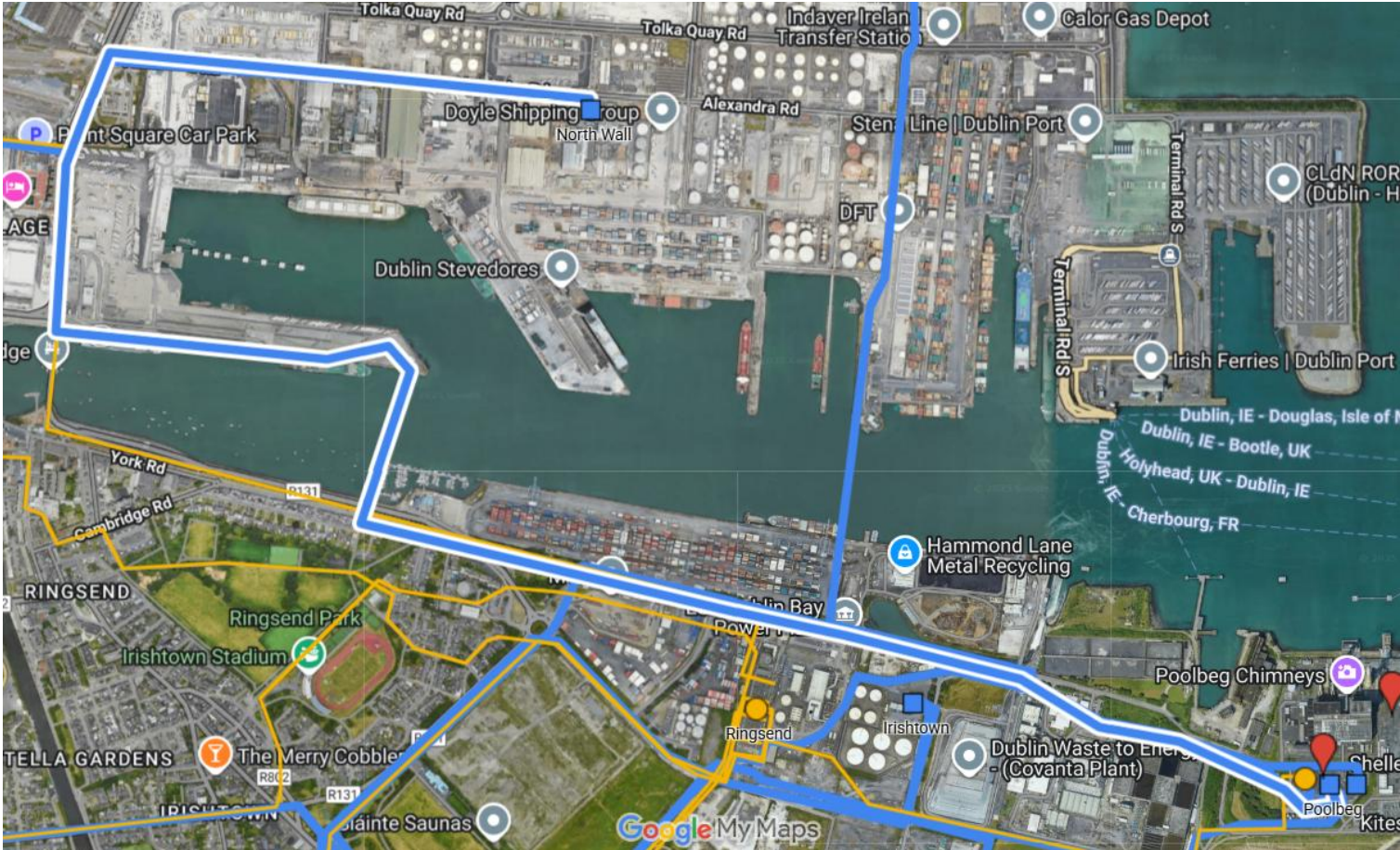
Line Upgrades/refurbs

- CP0817 Flagford Sliabh Bawn 110 kV Circuit (Old rating: 99/110/121 MVA; New rating: 178/194/209 MVA) - Complete
- CP0905 Louth Ratrussan 110 kV Circuit (Old rating: 104/113/122 MVA; New rating: 178/194/209 MVA) - Remains planned for TOP25
- CP1155 Glenree Moy 110 kV Circuit (Old rating: 104/113/122 MVA; New rating: 178/194/209 MVA) - Remains planned for TOP25
- CP1172 Crane Wexford 110 kV Circuit (Old rating: 135/137/137 MVA (no overload); New rating: 178/194/209 MVA) - Ongoing
- CP1167 Drybridge Oldbridge 110 kV Circuit & Oldbridge Platin 110 kV Circuit - (Old rating: 104/113/122 MVA; New rating: 178/194/209 MVA)
First circuit complete, second circuit ongoing
- CP1235 Louth Woodland 220 kV Circuit (Partial) (Old rating: 434/473/476 MVA; New rating: 786/807/823 MVA) - at risk due to interdependent project
- MC0383 Corduff Finglas 1 & 2 220 kV Bay Conductor Uprate (Old rating: 350/393/436 MVA (no overload); New rating: 434/473/513 MVA) - cancelled due to materials issue
- CP1156 Sligo Srananagh 1 ONE Bay Conductor Uprate (Old rating: 99/110/120 MVA (no overload); New rating: 104/113/122 MVA) - Remains planned for TOP25
- CP0857 Kilbarry Marina 1 & 2 Double Circuit - Ongoing

Reinforcements/Reconfigurations

- CP0624 Killonan GIS - equipment issues, only pre work for 2 of 5 transfers complete, remainder deferred to TOP26
- CP0984 Belcamp Shellybanks Phase 2 - FO of North Wall - Poolbeg 220kV cable resulting in work deferred until TOP26
- CP0646 Finglas 110 kV GIS Transfers T2104 - Remains planned for TOP25
- CP0585 Laois Kilkenny (Coolnabacky) - Delayed but remains planned for TOP25
- CP0644 Bracklone 110 kV Station - Delayed but remains planned for TOP25
- CP0799 Louth 220 kV Station Refurbishment - some works deferred due to materials issue
- MC0398 Aghada Knockraha Additional Tower- Remains planned for TOP25
- CP0973 Knockraha Short Circuit Rating Mitigation - Remains planned for TOP25
- CP1113 - Corduff Deep Reinforcement - Complete

North Wall - Poolbeg 220kV Cable FO



Protection Upgrades

- CP1114 : Platin T105 - **Deferred to TOP26 due to storm**
- CP1152 : Ratrussan Shankill 110 kV Circuit - **Complete**
- CP1163 : Butlerstown Killoteran 110 kV Circuit - **Ongoing**
- CP1163 : Killoteran Waterford 110 kV Circuit - **Complete**
- MC0356 : Killoteran Waterford 110 kV Circuit - **Complete**
- CP1109 : Navan T142 - **Ongoing**
- CP1109 : Gorman Meath Hill 110 kV Circuit - **Complete**
- CP1109 : Gorman Meath Hill 110 kV Circuit - **Complete**
- CP1109 : Louth Meath Hill 110 kV Circuit - **Deferred due to delays with this project**
- CP1109 : Gorman T2101 - **Deferred due to delays with this project**



Protection Upgrades

- CP1164 : Clashavoon 110 kV K1-2 Coupler - Complete
- CP1164 : Carrigadrohid 110 kV Full Station - Deferred to TOP26 due to issues on site
- CP1164 : Carrigadrohid Macroom 110 kV Circuit - Ongoing
- CP1164 : Dunmanway Macroom 110 kV Circuit - Remains planned for TOP25
- CP1228 : Shannonbridge T2101 - Ongoing
- CP 1115 : Drybridge Gorman 110 kV Circuit - Remains planned for TOP25
- CP1137 : Carlow Kellis 1 ONE 110 kV Circuit - Deferred to TOP26 due to delays with other projects
- CP1111 : Cahir 110 kV K1-2 Coupler - Ongoing
- CP1111 : Cahir Doon 110 kV Circuit - Deferred to later in TOP25 due to outage conflict



Protection Upgrades

- CP1140 : Athy Portlaoise 110 kV Circuit - Deferred to later in TOP25 due to outage conflict
- CP1140 : Athy 110 kV A2 Busbar - Deferred to later in TOP25 due to outage conflict
- CP1139 : Sligo Srananagh 1 ONE 110 kV Circuit - Remains planned for TOP25
- CP1153 : Cashla Tynagh 220kV Circuit - Removed from TOP26 due to change in Generator outage
- CP1227 : Cashla Prospect 110kV Circuit - Remains planned for TOP25
- CP1227 : Cashla Ennis 110kV Circuit - Complete



Projects with Limited System Impact

- CP1201 New CT/VT in Bogtown on Mt.Lucas Bay - [Complete](#)
- CP1287 Ringsend Station Cable Diversion - [Complete](#)
- CP1215 Civil works for Celtic transformers - [Complete](#)
- CP1412 New Knockraha T2104 - [Remains planned for TOP25](#)



Summary of issues impacting TOP25

- Land access issues
- Customer programme changes
- Availability of materials to meet outage timelines
- Forced outage of 220kV Dublin cable
- Impact of Storm Eowyn on the start of the programme
- Underestimation of commissioning requirements/timelines
- Overrun of other project outages

Substantial works completed additional to baseline

The below works were not included in the TOP25 baseline, however, due to cancellation of other works outage slots became available to get the works done:

CP No.	Title / Description	Duration (WDs)
n/a	Dunstown - Moneypoint 400kV Line Maintenance	50
CP1236	Loop in of Timoney station to Ikerrin - Shannonbridge	115
CP1277	Line Diversion for Demand Facility	25
CP1322	DLR installation on Cathaleens Fall - Corraclassy	5

We will continue to identify outage opportunities wherever possible.

TOP25 Remainder of plan



Agenda



New Connections

Line Upgrades

Line Refurbishments

Network Reconfigurations

Protection Upgrades

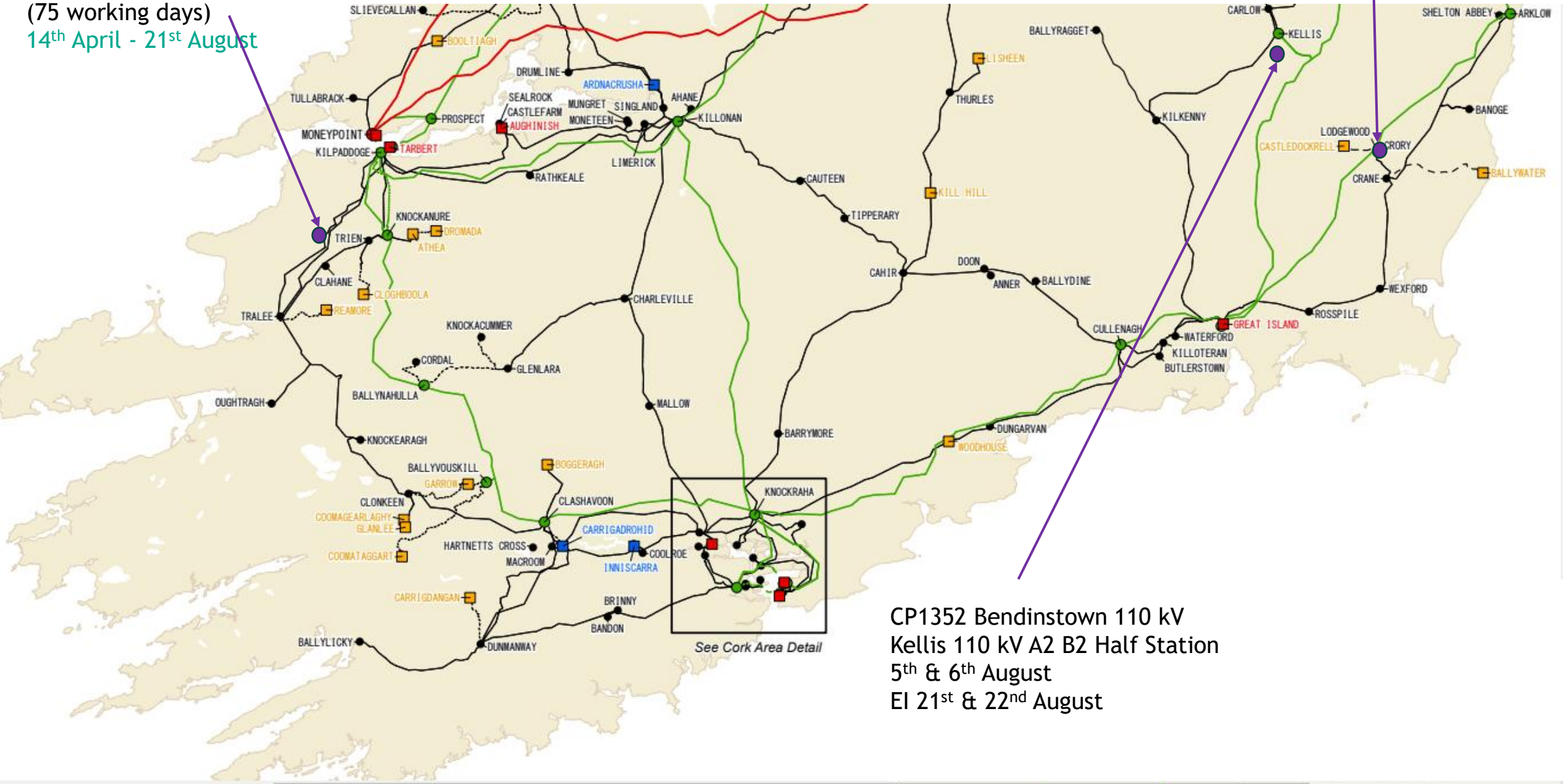
New Connections - Renewable South

- CP1062 Drombeg 110 kV Station : Drombeg Solar Farm 50 MW
- CP1269 Crory 110 kV Station : The Dell Solar Farm 20 MW (DSO Connection)
- CP1352 Bendinstown 110 kV Station : Garreenleen Solar Farm 81 MW



CP1062 Drombeg 110 kV Station
Kilpaddoge Tralee 2 TWO 110 kV Circuit
~~10th February - 29th May~~
(75 working days)
14th April - 21st August

CP1269 Crory 110 kV Station - Dell Solar
Lodgewood 110 kV A2 22nd - 18th April
(5 working days) 22nd - 26th September



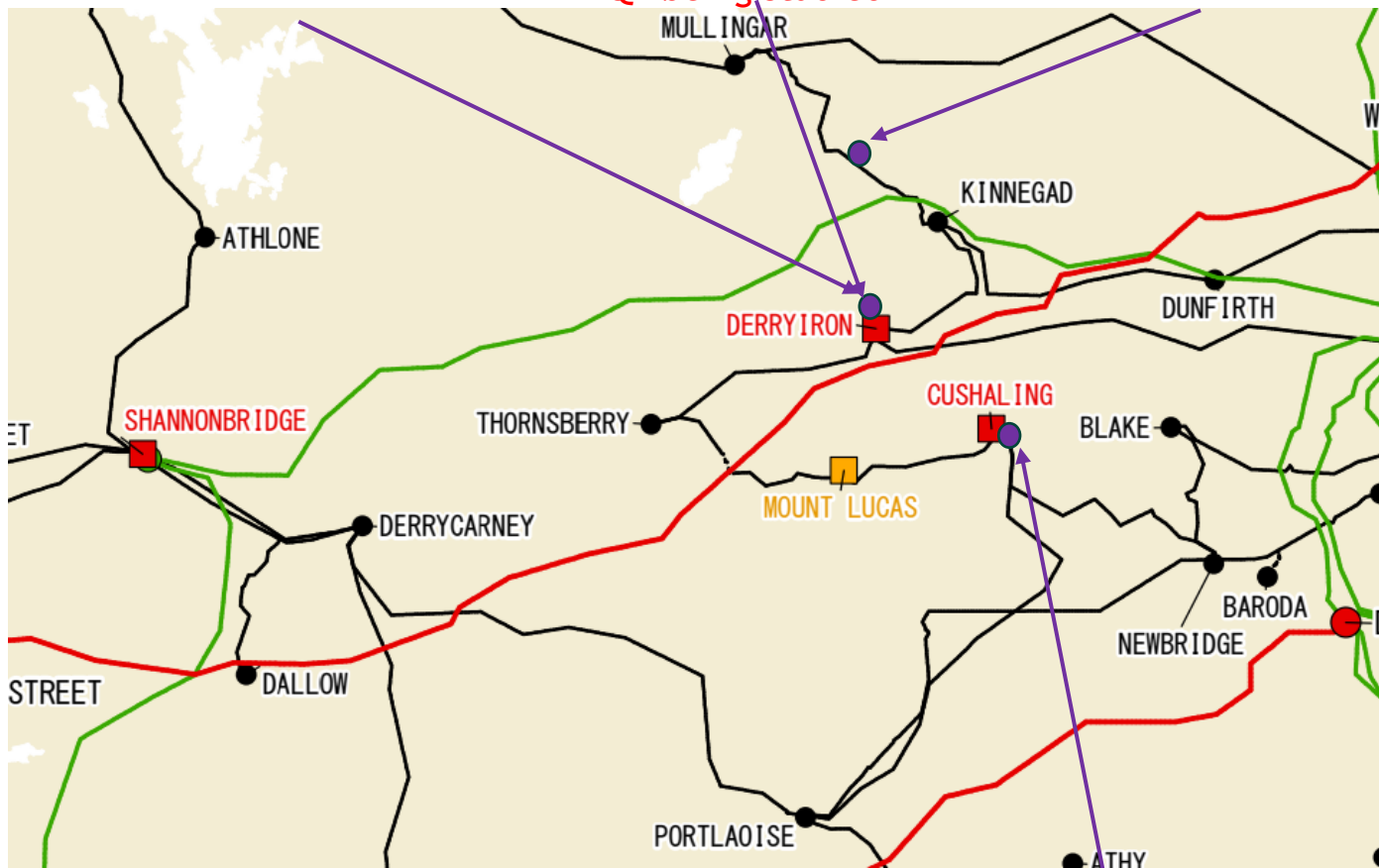
New Connections - Renewable Central

- CP1272 Derryiron Busbar Uprate (Enabling Project) ●
- CP1217 Philipstown 110 kV Station: Ballykilleen Wind Farm 50 MW ●
- CP1231 Knockdrin 110 kV Station : Yellow River Wind Farm 101 MW (Permanent Connection)
- CP1234 Laurencetown 110 kV Station : Clonin North Solar Farm 50 MW
- CP1158 Rattin 110 kV Station : Clonfad Solar Farm 100 MW ●
- CP1059 Raghra 220 kV Station : Shannonbridge B BESS 63 MW Battery
- CP1236 Timoney 110 kV Station : Erkina Solar Farm 156 MW

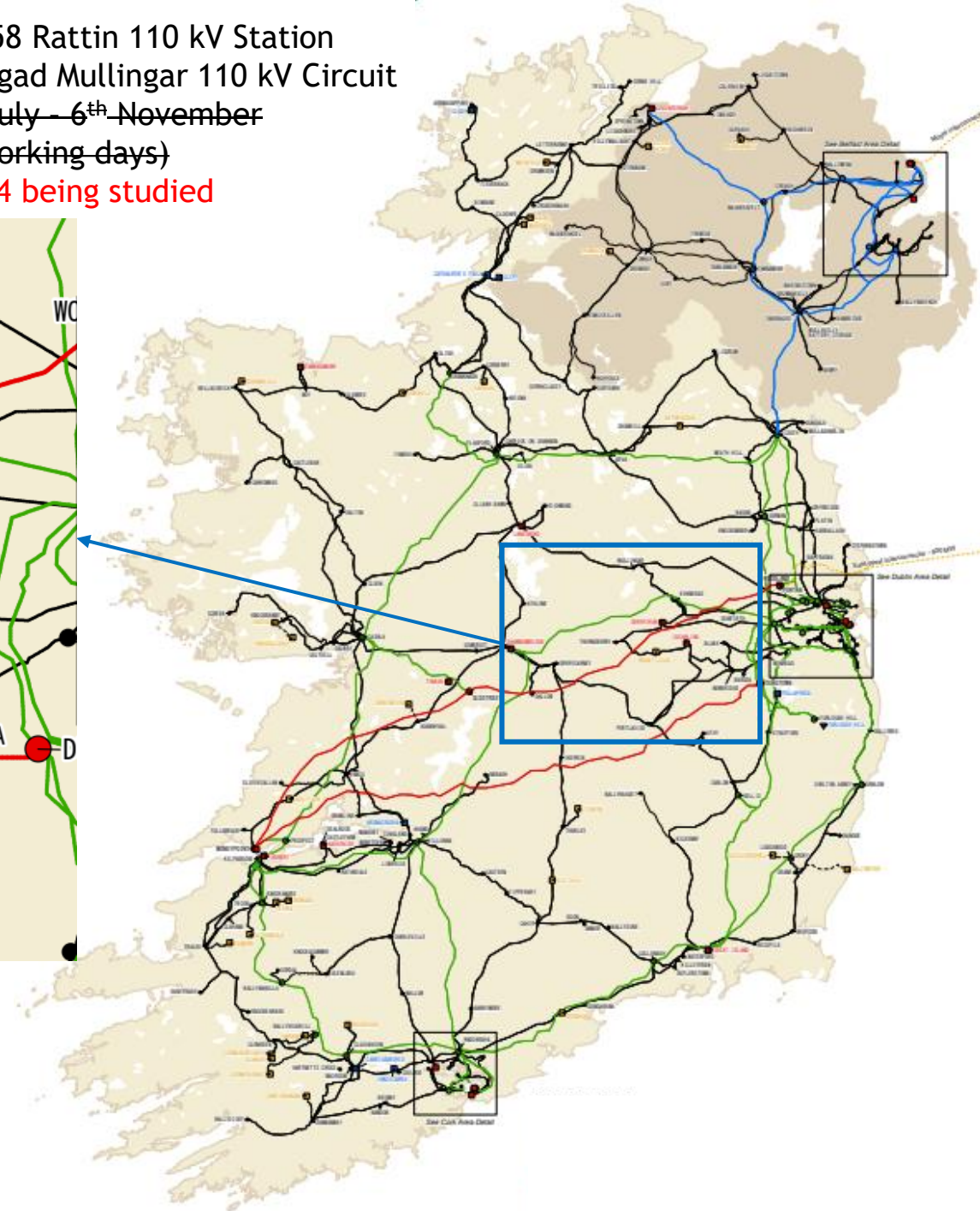
CP1231 Knockdrin 110 kV Station
Derryiron 110 kV A1
~~22nd – 30th September~~
Q4 being studied

CP1234 Laurencetown 110 kV
Station
Derryiron 110 kV A2
~~8th – 16th October~~
Q4 being studied

CP1158 Rattin 110 kV Station
Kinnegad Mullingar 110 kV Circuit
~~30th July – 6th November~~
(70 working days)
Q3/Q4 being studied

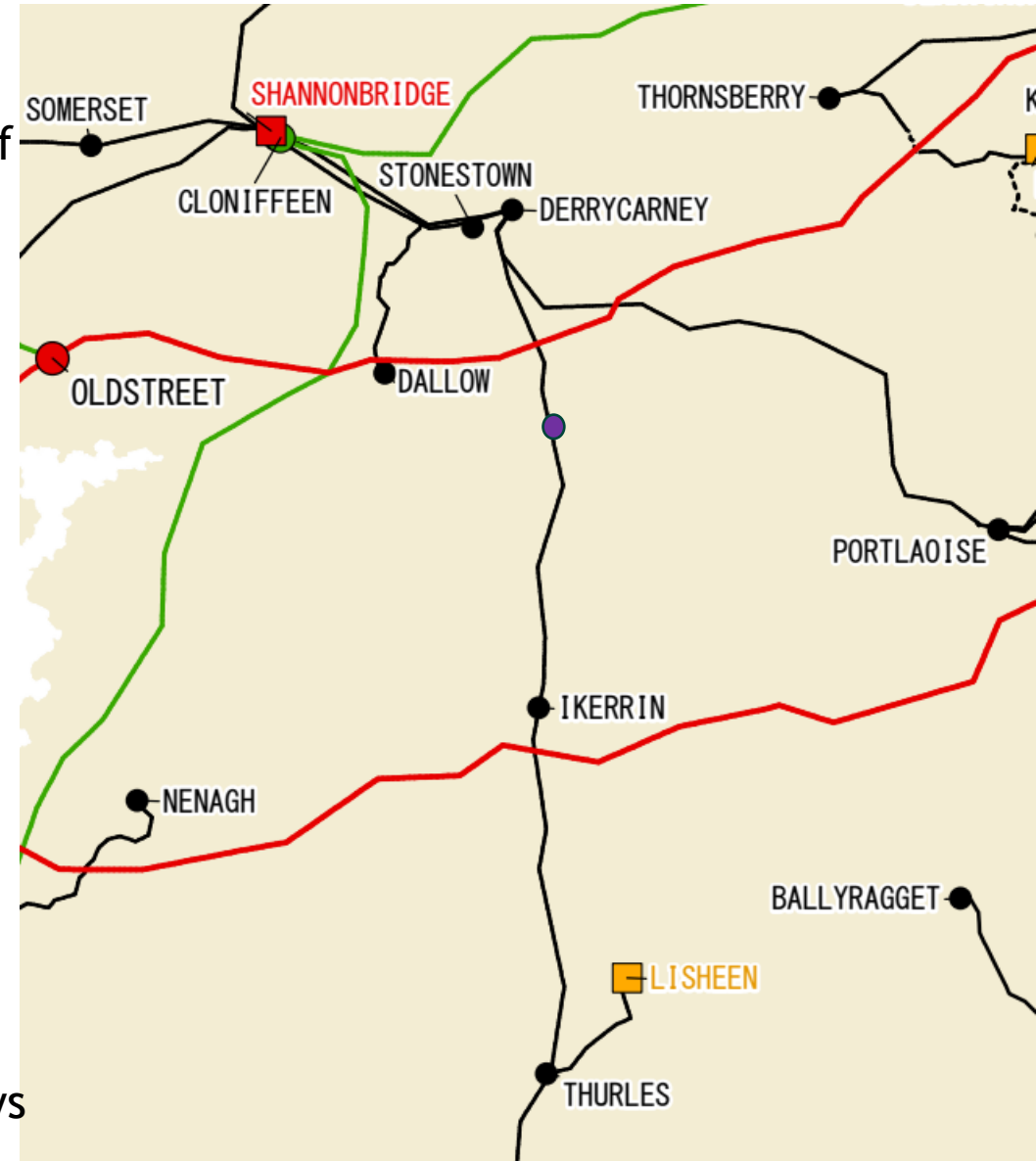


CP1217 Philipstown 110 kV Station
Cushaling Portlaoise 110 kV Circuit
~~11th December '24 – 17th April~~
(87 working days)
11th December '24 - 20th July
(151 working days)



CP1236 Timoney 110 kV Station

- Additional project included in TOP25
- Would not have been possible to accommodate if Cauten Killonan transfer had proceeded
- Has resulted in delays to Cahir Doon protection upgrade
- Due to limitation on DSO outages of Ikerrin T141 works have to be completed in stages
- Ikerrin Tee Thurles 110 kV Circuit
 - 24th April - 25th June : 43 working days
- Full Ikerrin Tee Thurles Shannonbridge
 - 25th June - 8th July : 10 working days
- Ikerrin Tee Shannonbridge
 - 8th July - 3rd September : 41 working days
- Full Ikerrin Tee Thurles Shannonbridge
 - 4th September - 1st October : 20 working days



New Connections - Conventional

- CP1255 Castlelost 220 kV Station : Castlelost OCGT 275 MW ●
- CP1256 Barnakyle 110 kV Station : Profile Park OCGT 100 MW
- CP1259 Athlone 110 kV Station : Cuilleen OCGT 100 MW ●

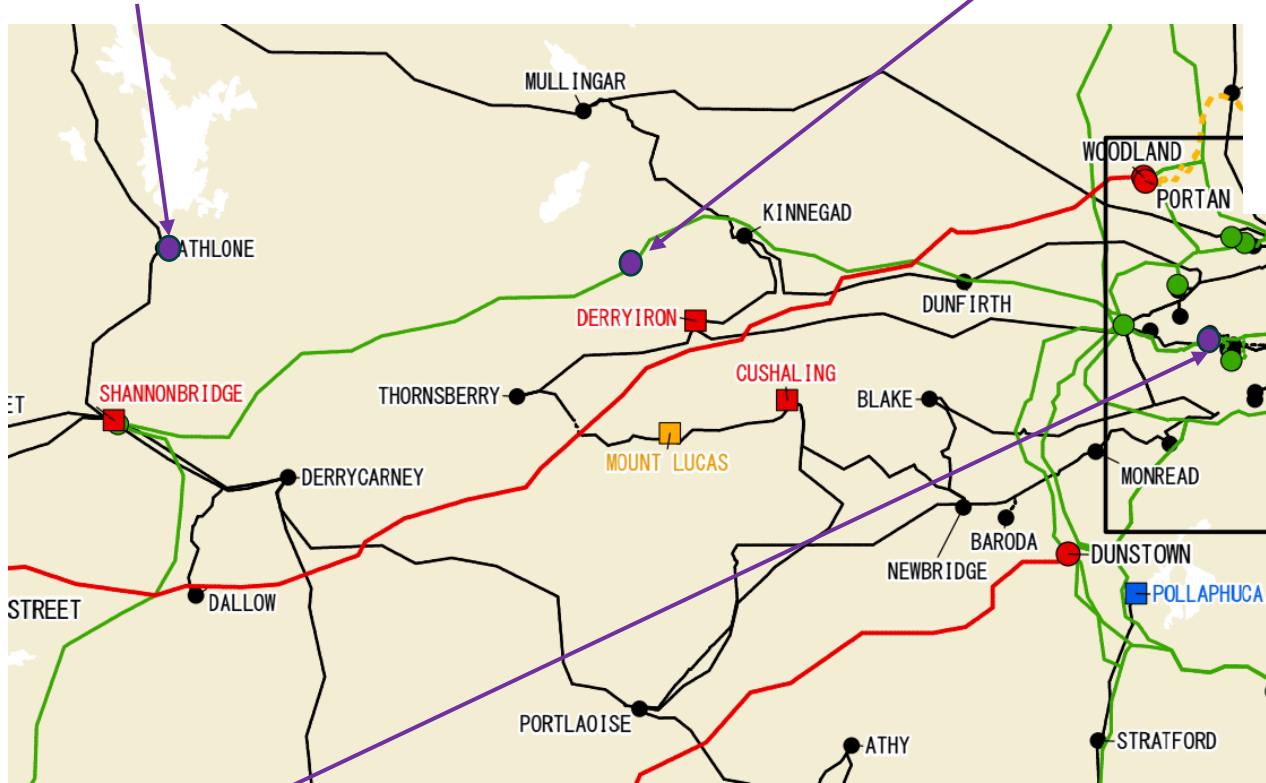


CP1259 Athlone 110 kV Station :

Under Review

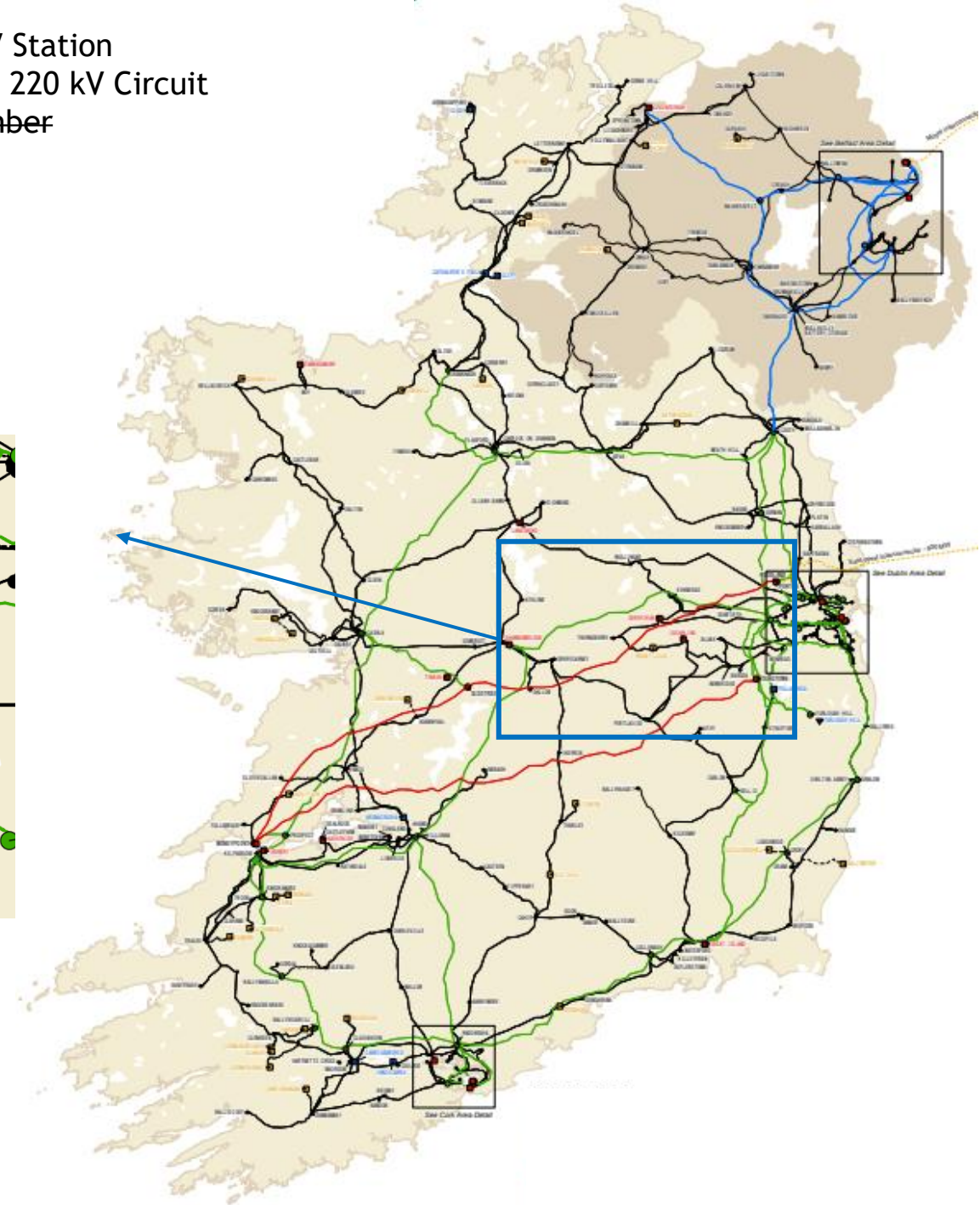
Multiple outages 10-15-day outages in Athlone
Station during the period March to October

CP1255 Castlelost 220 kV Station
Maynooth Shannonbridge 220 kV Circuit
22nd April – 22nd September
(96 working days)
2nd July - 14th November



CP1256 Profile Park
Barnakyle A2 110 kV Busbar
13th January - 18th March - 16th June
(45 working days) (104 working days)

Initial outage granted. All works not completed. Subsequent outages will be required

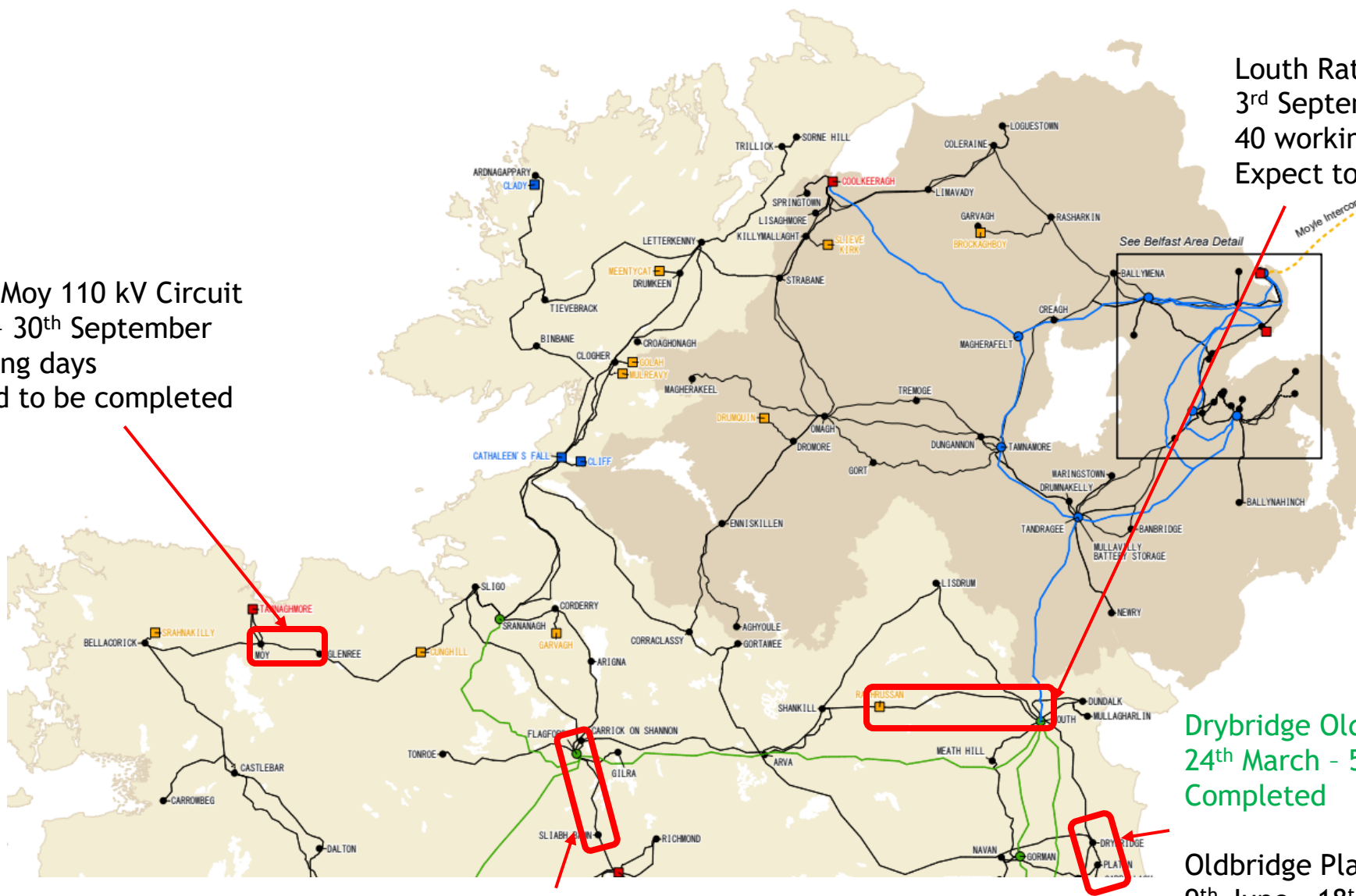


Line Upgrades

- CP0905 Louth Rattrussan 110 kV Circuit ●
- CP1155 Glenree Moy 110 kV Circuit ●
- CP1172 Crane Wexford 110 kV Circuit ●
- CP1167 Drybridge Oldbridge 110 kV Circuit & Oldbridge Platin 110 kV Circuit ●
- CP1235 Louth Woodland 220 kV Circuit (Partial) ●



Glenree Moy 110 kV Circuit
8th July - 30th September
60 working days
Expected to be completed



Louth Rattrassan 110 kV Circuit
3rd September - 29th October
40 working days
Expect to be completed

Drybridge Oldbridge 110 kV Circuit
24th March - 5th June : 50 WD
Completed

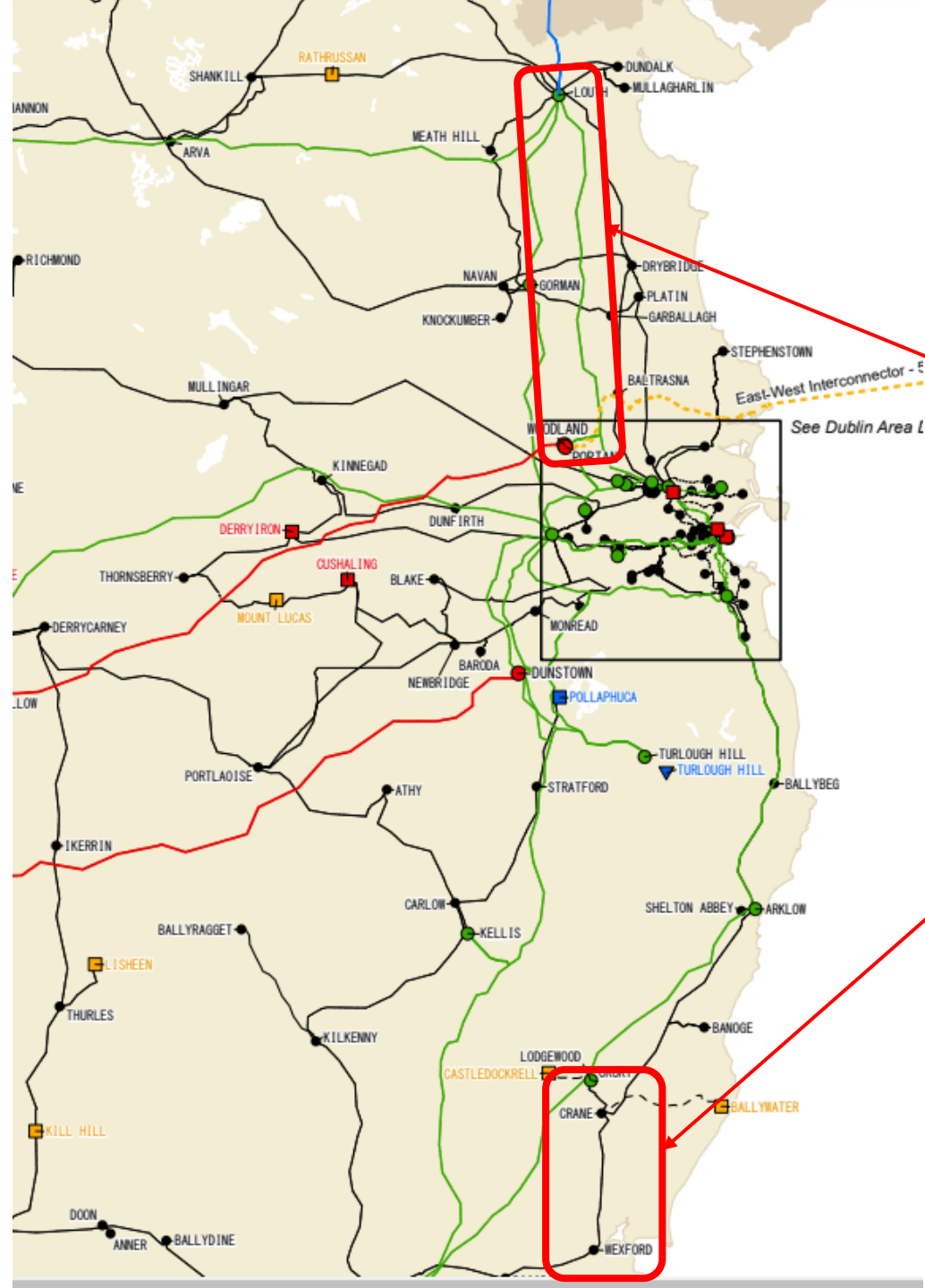
Oldbridge Platin 110 kV Circuit
9th June - 18th August : 50 WD
Expected to be completed

Flagford Sliah Bawn 110 kV Circuit
Completed 20th June

Progress in 2025

CP0817 Flagford Sliabh Bawn





Louth Woodland 220 kV Circuit Uprate

October : 25 working days

Partial Outage, opportunistic to align with CP0799 works

Crane Wexford 110 kV Circuit Uprate

29th April - 18th September : 100 working days

Expected to be completed

Line Refurbishments

CP0857 Kilbarry Marina 1 & 2 Double Circuit

- Tower painting and replacement of tower members
- 18th March - 19th September (129 working days)
- 20th October - 8th December (35 working days)



Network Reconfigurations

- ~~CP0624 Killonan GIS~~
- ~~CP0984 Belcamp Shellybanks Phase 2~~
- CP0646 Finglas 110 kV GIS Transfers ~~T2104~~ T2103
- CP0585 Laois Kilkenny (Coolnabacky) ●
- CP0644 Bracklone 110 kV Station ●
- CP0808 Maynooth GIS ●
- CP1277 Intel Line Diversion ●
- CP0799 Louth 220 kV Station Refurbishment ●
- MC0398 Aghada Knockraha Additional Tower
- CP0973 Knockraha Short Circuit Rating Mitigation



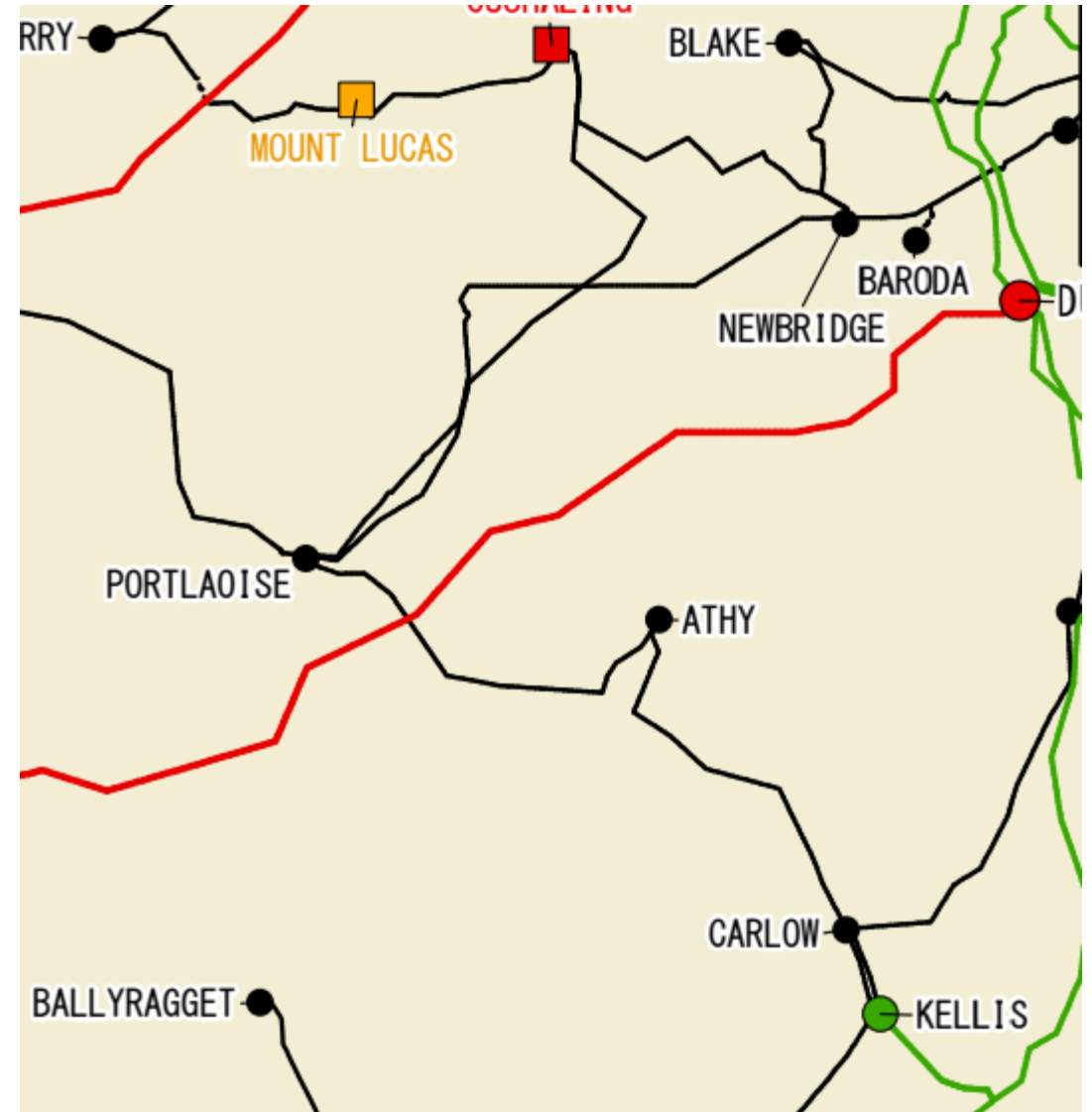
Network Reconfigurations

CP0585 Laois Kilkenny (Coolnabacky)

- Earth wire retrofit and partial reconductoring
- Enabling works for loop in of Coolnabacky 110 kV Station in 2026
- ~~23rd June – 1st September (50 working days)~~
- 22nd July – 30th September (50 working days)

CP0644 Bracklone 110 kV Station

- Enabling works for Bracklone 110 kV Station (DSO Demand Station) in 2026
- Fibre wrap
- ~~3rd September – 19th November (55 working days)~~
- 1st October – 17th December (55 working days)



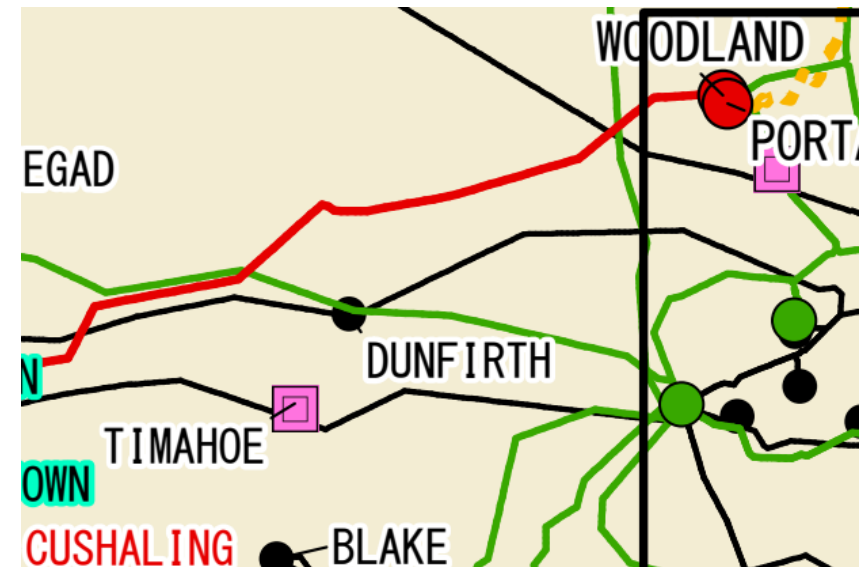
Network Reconfigurations

CP1277 Intel Line Diversion

- Line diversion works
- Dunfirth Tee Rinawade and Maynooth Ryebrook double circuit outage
- 25 days requested
- TBC - 30th July - 3rd September

CP0808 Maynooth GIS

- Enabling works new Maynooth GIS station, move a line cable interface mast to allow construction of GIS building
- Maynooth Timahoe 110 kV Circuit outage
- 60 days requested
- TBC - 15th September - 8th December



Network Reconfigurations

Aghada Knockraha 220 kV Double Circuit Outage

~~24th September – 14th October (15 working days)~~

22nd September – 10th October (15 working days)

Partially overlaps with Generator outage, will be reconsidered closer to time based on generation margins

3 projects to be completed under this outage

CP0973 Knockraha Short Circuit Mitigation

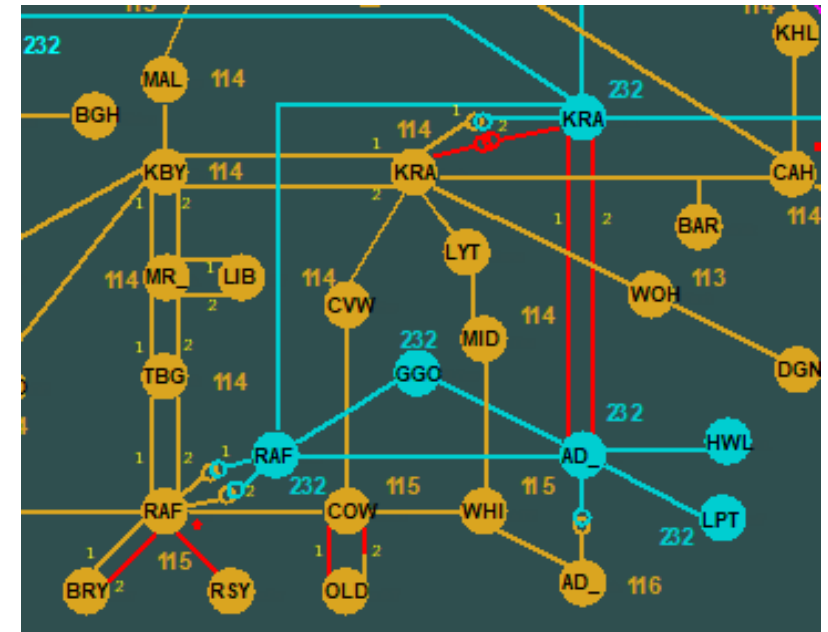
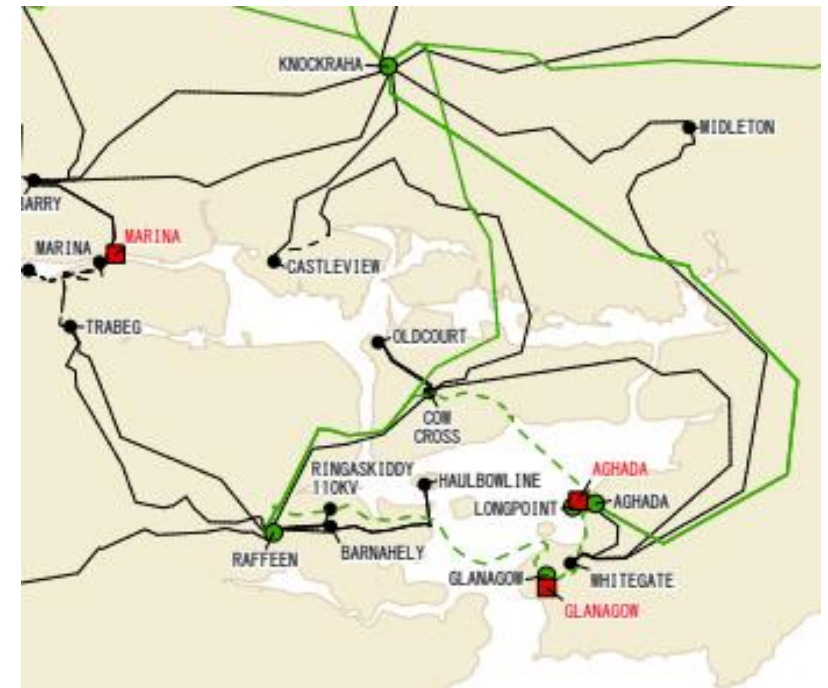
- Busbars in turn and Knockraha T2102 overlapping
- Install Busbar Spaces to increase Short Circuit Rating prerequisite of Celtic Interconnector

MC0390 Knockraha Lead in Droppers Aghada Station

- Uprate lead in dropper in Aghada Station, increased rating and 10% overload capability once completed

MC0398 Minor Capital Project Additional Tower

- Required to resolve clearance infringement



Network Reconfigurations

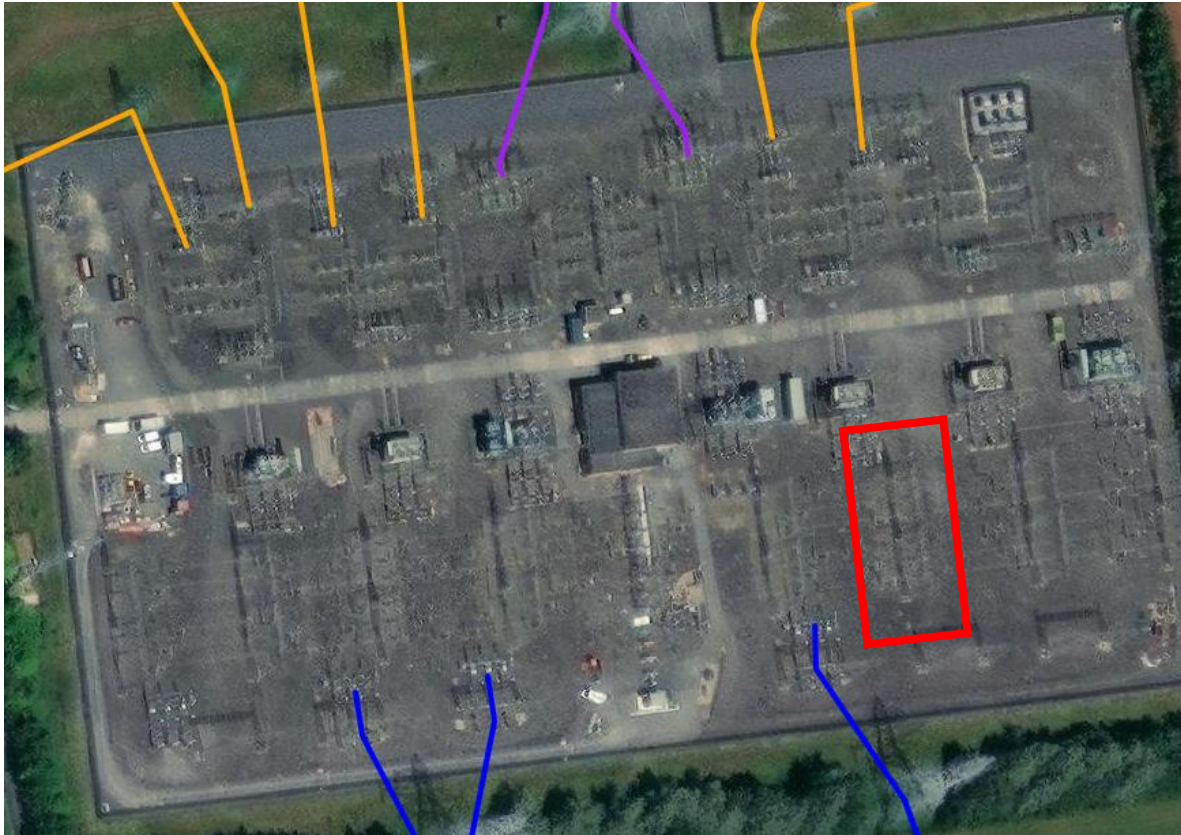
CP0799 Louth 220 kV Station Refurb

- Louth AT3
- ~~30th June - 17th October (79 working days)~~
- 30th June - 28 August (43 working days)
- New bay at 220 kV, new offline build
- ~~At 275 kV new DL/DE new Circuit Breaker~~
- Louth Woodland 220 kV Circuit
- October (25 working day outage)
- New offline bays being built at both ends
- 10 day proximity of Corduff Woodland 220 kV Circuit (Dates in October TBC)
- Within this 5 day Woodland 220 kV A2 B2 Half Station (Dates in October TBC)



Network Reconfigurations

Louth 275 kV Station



Woodland 400 kV Station



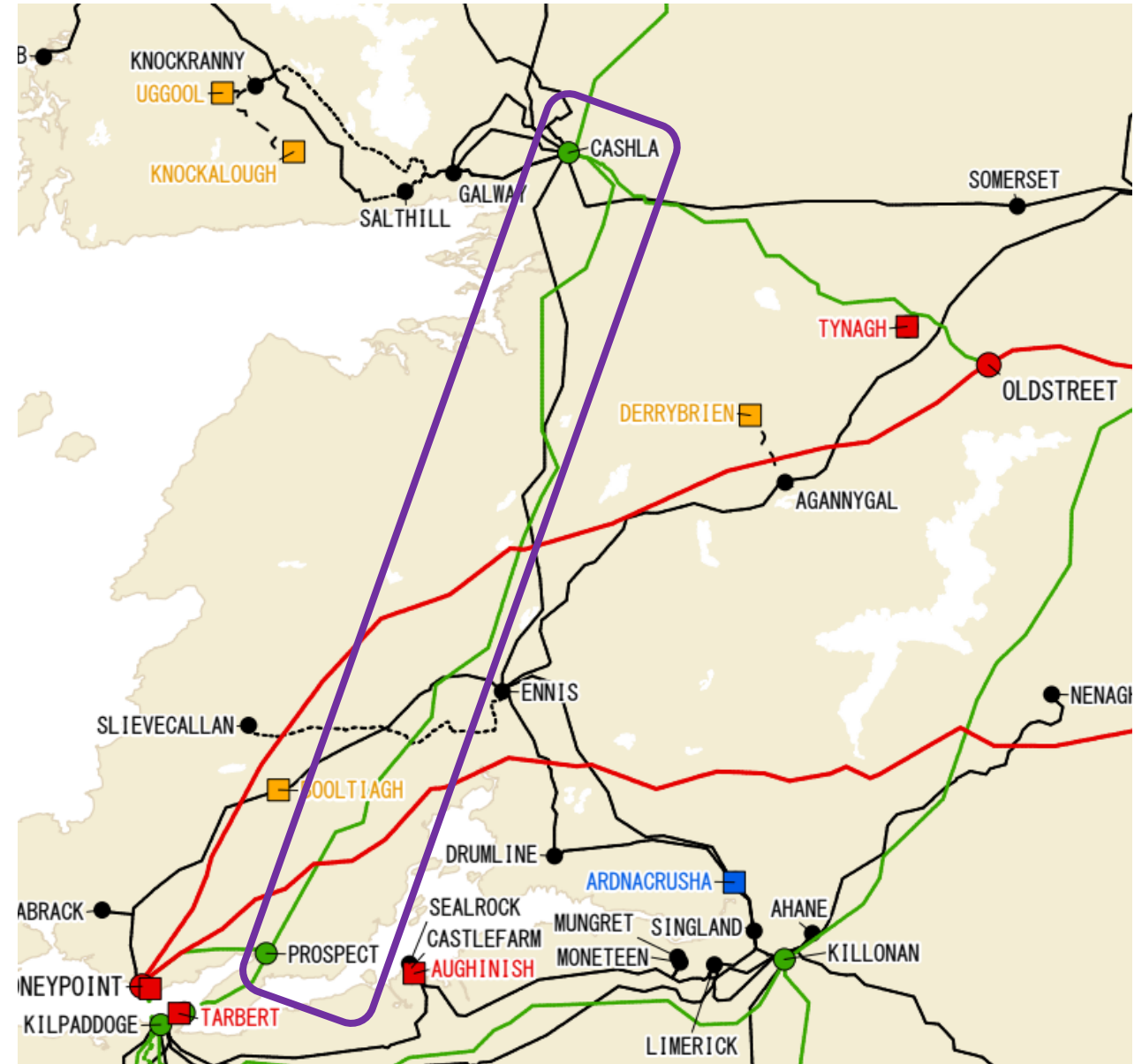
Protection Upgrades

CP1153 Oldstreet Cashla Tynagh Protection Upgrade

- ~~Full station outage of Tynagh 220 kV Station~~
- ~~24th June - 30th July (27 working days)~~
- 27th August - 2nd October (27 working days)
- T2001/2 protection relay replacement and install coupler
- Aligns with generator outage
- ~~Cashla Tynagh 220 kV Circuit~~
- ~~19th June - 21st August : 45 WD~~

CP1227 Cashla and Connected Station Protection Upgrade

- Cashla Prospect 220 kV Circuit
- 22nd September - 17th November : 40 WD



Protection Upgrades

- CP1111 : Cahir 110 kV K1-2 Coupler - 28th April - ~~10th June : 30 WD~~ 15th July 55 WD
- CP1164 : Carrigadrohid 110 kV Full Station - ~~1st May - 15th May : 10WD~~ 7th July - 18th July
- CP1164 : Carrigadrohid Macrooom 110 kV Circuit - 1st May - ~~4th July: 45 WD~~ 18th July 55 WD
- CP1163 Butlerstown Killoteran - ~~19th May - 14th July : 40 WD~~ 3rd June - 12th August 50 WD

Protection Upgrades

- CP1228 : Shannonbridge T2102 : 7th July - 22nd September : 55 WD
- CP1164 Dunmanway Macrooom 11th August - 5th September : 20 WD
- ~~CP1111 : Cahir Doon 110 kV Circuit - 15th September - 10th November : 40 WD~~
- CP1115 : Drybridge Gorman 110 kV Circuit - 13th October - 8th December: 40 WD

Questions

Questions (1 of 2)

Q: What is the magnitude of benefit derived from DLR installation?

A: A trial on a radial circuit in Ireland found that the dynamic line rating was substantially higher than the prevailing seasonal line rating for most of the time; at least 20% higher than the prevailing static line rating for more than 95% of the time and at least 55% higher for more than 50% of the time. On rare occasions (0.1% of the time) the dynamic line rating was lower than the applicable static line rating. More information can be found here:

<https://www.e-cigre.org/publications/detail/b2-10900-2024-maximizing-power-transfer-and-res-integration-using-dynamic-line-rating-dlr-ireland-tso-experience.html>

(CIGRE membership is required to view)

Q: Can a presentation on DLR be provided to industry?

A: A presentation will be arranged in the coming months.

Questions (2 of 2)

Q: Can the up-to-date geographic system map be shared again?

A: It can be found here:

[EirGrid-Transmission-System-Map-February-2025.pdf](#)

Q: When will the TYTFS (Ten-Year Transmission Forecast Statement) 2024 be published?

A: It is expected that TYTFS 2024 will be published in the coming weeks

Q: How long before line uprates are included in the TYTFS and associated models?

A: Planned uprates due to be completed in the coming 5-10 years are reflected in the TYTFS and models

Q: For line uprates can the old and new ratings be included in the presentation?

A: Please see slide 10 where they are now included