

Capacity Market Information Session
2026/2027 T-4 Capacity Auction
Thursday 22nd September 2022

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Agenda

- Introduction – Aodhagan Downey
- Upcoming Key Dates – Varun Singh
- Initial Auction Information Pack – Varun Singh
- Where to find the Forms? – Varun Singh
 - Qualification
 - Exceptions
- Breakdown of Qualification Forms – Shelley Van den Berg
 - New & Existing Parties
 - Implementation Plans for New Capacity
 - CRU Direction – Aodhagan Downey
 - Annual Run Hours – Aodhagan Downey
- Capacity Market Platform (CMP) – Shelley Van den Berg
- Qualification Guidelines – Shelley Van den Berg
- Form Checks – reoccurring corrections – Shelley Van den Berg
- Generation Opportunities – Tom Gallery
- Q&A – Aodhagan Downey

Introduction

Please see Capacity Market page on the [SEMO website](#) for Capacity Market information and additional resources

Capacity Market

The Capacity Market is a mechanism to ensure that the electricity supply in Ireland and Northern Ireland continues to meet demand.

The Capacity Market is designed to help ensure that the generation capacity in Ireland and Northern Ireland (including Storage, Demand Side Units and Interconnector capacity) is sufficient to meet demand and that the regulatory approved generation adequacy standard is satisfied. It is a competitive auction-based design where the most efficient and lowest cost capacity is most likely to be successful. This design helps to promote the short-term and long term interests of consumers of electricity across Ireland and Northern Ireland with respect to price, quality, reliability and security of supply of electricity.

Only those units who are successful in the capacity auctions will receive capacity payments. Capacity providers that are successful in the capacity auction will be paid regular payments during the year for each MW of capacity they successfully sold to the market in the Auction. In return, capacity providers that have been successful in the Auction are required to deliver on their Capacity Market obligations. These include making available the awarded capacity and providing sufficient energy to satisfy their awarded capacity through participation in the day-ahead, intraday and balancing market and paying difference charges where the energy price exceeds the strike price. It should be noted that generators and other units operating in the Single Electricity Market (SEM) can also earn revenue from the energy market and system services.

How It Works

Information – Timetables and Auction Packs	+
Qualification – Who can participate in the Capacity Market?	+
Qualification – What is required to qualify?	+
Qualification – De-rating, Capacity Requirement and Locational Capacity Constraints	+
Capacity Auction	+
Delivery and Settlement	+

[Join the market >](#)

Upcoming Key Dates

Table 1 from Capacity Auction Timetable – [2026-2027 T-4 Capacity Auction Timetable](#)

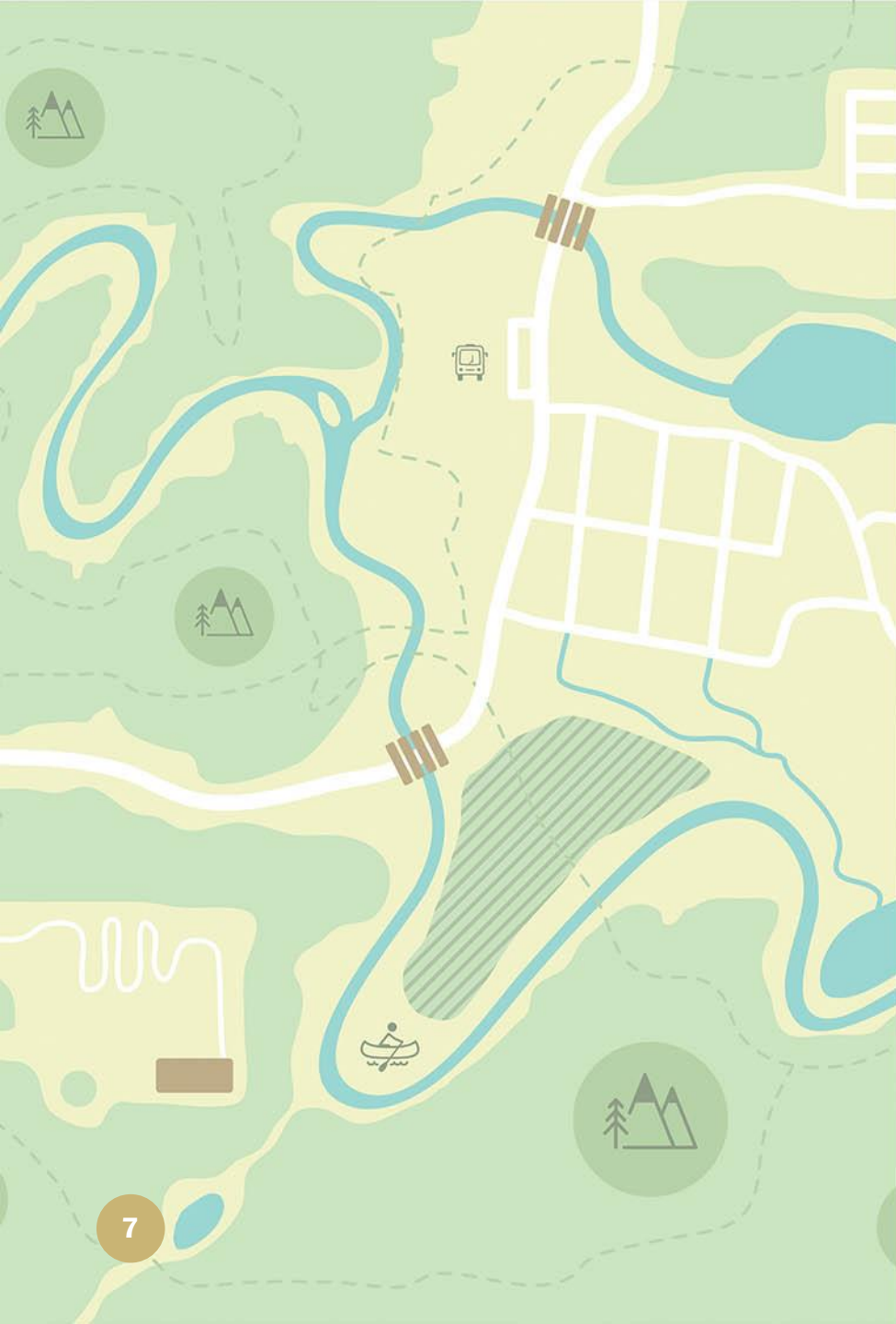
Table 1 - Capacity Auction Timetable – 2026/2027 T-4 Capacity Auction

Category	Appendix C	Event	Date & Time
Info	A.1	Initial Auction Information Pack Date	08/09/2022
Qualification	A.2	Opt-out Notification Date	22/09/2022
Qualification	A.3	Exception Application Date	06/10/2022
Qualification	A.4	Qualification Application Date	06/10/2022
Qualification	A.5	Provisional Qualification Results Date	01/12/2022
Review	B.19	Application for Review Date	05/12/2022

Initial Auction Information Pack

[Initial Auction Information Pack](#) for 2026-2027 T-4 Capacity Auction:

- The IAIPs contain information on:
- De-Rating Curves and Increase/Decrease Tolerances
 - Used to convert Initial Capacity to Gross De-Rated Capacity
 - Nominated Gross De-Rated Capacity can be less where DECTOL > 0% (e.g. DSUs, IED units)
 - Net De-Rated Capacity is Gross De-Rated Capacity less Awarded Capacity
- Capacity Requirement
 - The final Demand Curve will be included in the Final Auction Info Pack on 1st March 2023
 - Final Demand Curve based on the Capacity Requirement modified by the RAs to include other adjustments.
- Locational Capacity Constraints
 - The Required Quantities will be included in the FAIP on 1st March 2023
- Price Caps and New Capacity Investment Rate Threshold
- Termination Charge, Performance Security Rates Stop-Loss Factors
- Capacity Auction Timetable



Where to find the Forms?

Qualification Forms can be downloaded on the SEMO website:

- [C31,C32 Capacity Market Qualification Data Guide Read Me tab \(v1.23\)](#)
- [C01,C02, C11 Capacity Market Party and Unit Registration \(v1.23\)](#)
- [C31,C32a Capacity Market Qualification Data CU\(v1.23\)](#)
- [C31,C32b Capacity Market Qualification Data CCU\(v1.23\)](#)
- [C31,C32c Capacity Market Qualification Data AGU\(v1.23\)](#)
- [C31,C32d Capacity Market Qualification Data APS\(v1.23\)](#)
- [C33 Capacity Market Opt Out Notification-\(v1.23\)](#)



Exceptions process

- All applications for exceptions should be sent directly to the RAs including by 6th October 2022;
 - Unit Specific Price Caps (USPCs)
 - Maximum Capacity Duration > 1 year
- Application forms for exceptions can be located on the SEM Committee website
- Information on submitting Exception Applications to the RAs can be found in section E.5 of the Capacity Market Code and any subsequent Exception applications must be sent to CRMsubmissions@uregni.gov.uk.

Breakdown of Qualification Forms

Please note, if your Party is Registered in the Balancing Market and you have received a PY ID, PT ID and Unit ID for this Party, then these details should be used across all Markets, including the Capacity Market.



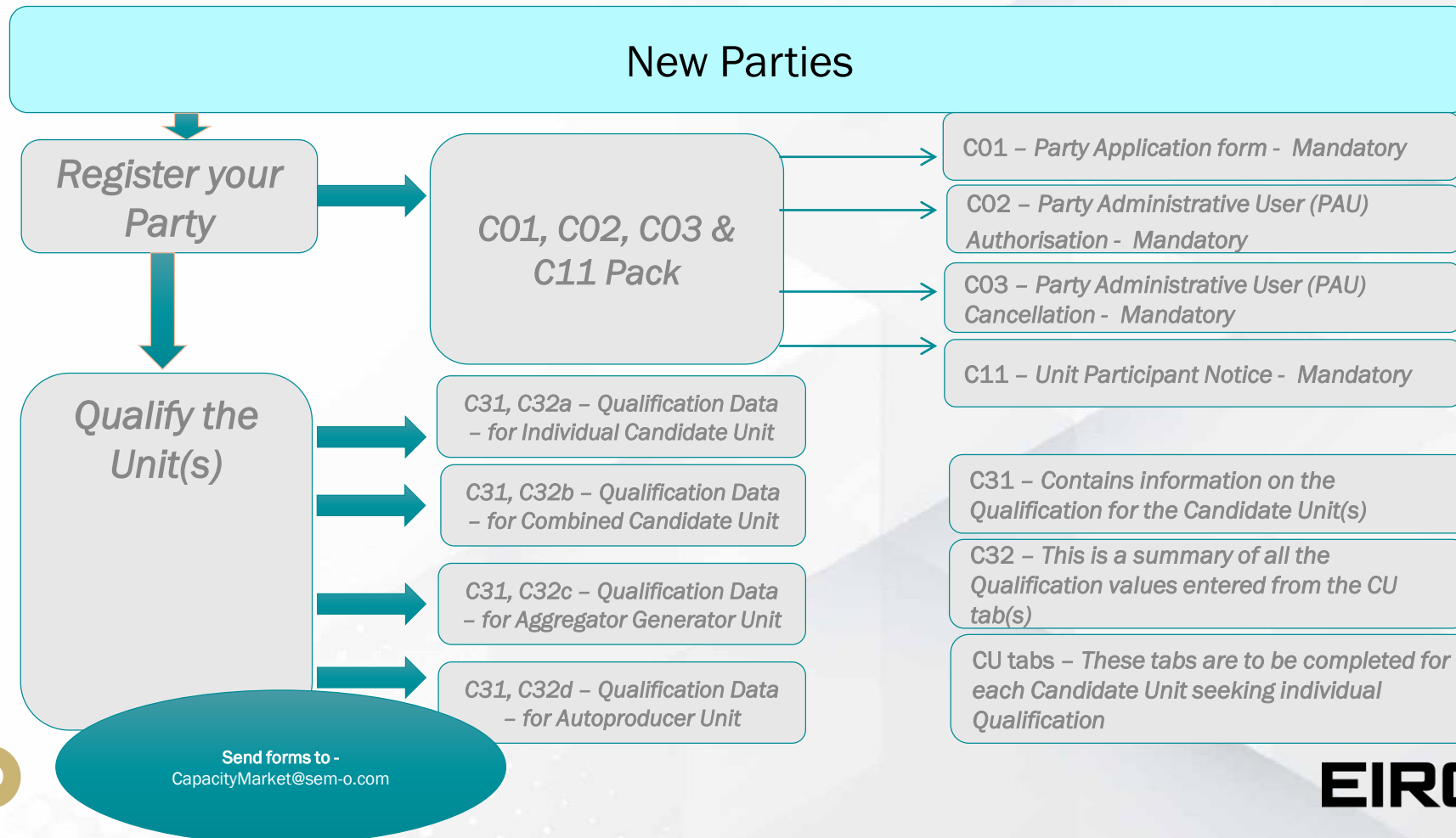
For the 2026/2027 T-4 Capacity Auction, Participants intending to submit Applications for Qualification for new units that do not have a CMU or GU ID, please submit the above forms as early as possible.

These forms can be submitted with the Application for Qualification; however, it will assist with the qualification process if new units are registered prior to submission of the Application for Qualification. The forms included in this pack are to be completed by a new Party or new Unit registering in the Capacity Market.

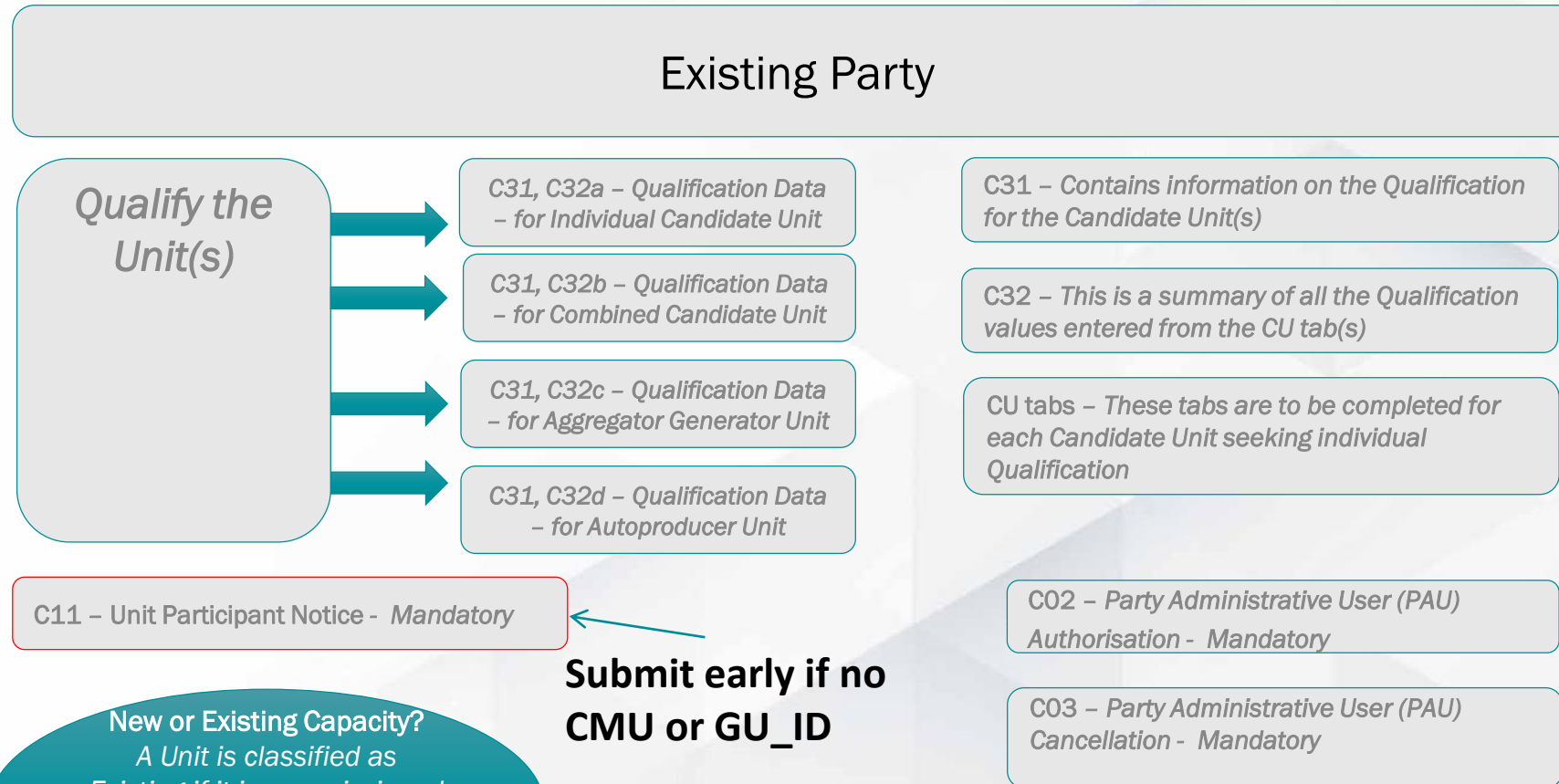
Parties that participated in a previous Capacity Auction do not need to complete a C01 form but will be required to complete a C11 form for any new Units registering. If a Unit participated in a previous Capacity Auction then this pack is not required.

Breakdown of Qualification Forms

Please note, if your Party is Registered in the Balancing Market and you have received a PY ID, PT ID and Unit ID for this Party, then these details should be used across all Markets, including the Capacity Market.



Breakdown of Qualification Forms



New or Existing Capacity?
A Unit is classified as Existing if it is commissioned under the relevant Grid Code, i.e. has an Op Cert to the value applied for.



Implementation Plans for New Capacity

- An Implementation Plan must be completed for each Candidate Unit seeking to qualify New Capacity in the current Capacity Action - Capacity Market Code Section [E.7.5](#).
- Implementation Plan forms are located within the Qualification Packs which can be downloaded from the SEMO website.
- Please refer to [Section J.2](#) of the Capacity Market Code for details of required Implementation Plan content.



CRU Direction (**CRU202258**)

- The CRU have directed EirGrid, the TSO in Ireland to issue a grid connection offer to successful participants the Ireland Locational Capacity Constraint Area in the 2026/27 T-4 Capacity Auction.
- If this applies to you, as set out in the CRU letter, we will require the following evidence;
 - Land owner consent
 - Evidence of submission of a completed planning application
- Please submit by the 31st January 2023 or earlier as available and ideally with your Application for Qualification.



CRU Direction (**CRU202258**)

- On foot of modifications to the LCCAs in the 2026/27 T-4 IAIP, the CRU wishes to clarify that the Grid Direction (CRU/22/14575) applies to both L1-2: Ireland and L1-3: Greater Dublin
- CRU Direction states EirGrid should take into account the de-rating factor of any successful unit and whether the issuing of an offer to the successful unit would be consistent with the objective of the Direction.
- CRU are of the view that the appropriate threshold de-rating (post application of the ARHLdf) is 0.5, meaning that successful units with a final derating of 0.5 or higher should be issued a grid connection offer under the Direction

Annual Run-Hour Limits

- [SEM Committee Parameters Decision Paper](#) made a decision to apply additional de-rating factor to annual run hour limited units. These de-rating factors are set out in the IAIP

Initial Annual Run Hour Limit (hours)	New Gas Turbine	New Steam Turbine	Other
≤ 500 hours	0.14	0.14	1
> 500 ≤ 1500 hours	0.43	0.43	1
>1500 hours	1	1	1

- The above limits apply to New Generation Units which generates using combustion.
- Example: a 100 MW new Gas unit that is limited to running above 500 hours per year but less than 1500 hours per year, then it would have the following De-Rated Capacity:
 - Initial Capacity * IAIP Marginal De-rating factor * ARHL de-rating factor
 - = 100 MW * 0.899 * 0.43 = 38.657 MW De-Rated Capacity

Annual Run-Hour Limits

Example 1

- Gas turbine is located on a site, where the site (not the gas turbine) is subject to noise limits between the hours of 23:00 and 07:00 and where running the gas turbine between the hours of 23:00 and 07:00 would exceed these noise limits.
- the gas turbine is effectively limited by the environmental licence of the site to not run between the hours of 23:00 and 07:00. This gas turbine can therefore only run at its Initial Capacity for 5840 hours per year due to environmental limits.

Example 2

- A Demand Side Unit is associated with a Demand Site that provides demand reduction using on-site back-up generation and that on-site back up generation is limited to <500 hours per year.
- the Demand Side Unit is effectively limited by the environmental licence of the associated Demand Site. This DSU can therefore only run at its Initial Capacity for <500 hours per year.

Annual Run-Hour Limits

- Although ARHL de-rating factors do not apply to existing generator units, existing generator units should still state their annual run hours in the application forms

Supporting Documents	Relevance	Submission Format	Complete
Emissions calculations for the purposes of assessing compliance with CO2 Limits.	Required	PDF document emailed to SEMO	<input type="checkbox"/>
Other environmental limits	Required where Duration in hours (Annual) is less than 8760 hours	PDF document emailed to SEMO	<input type="checkbox"/>

- Two additional tick boxes in the ‘Confirmation and Signature’ tab in CU forms

Capacity Market Platform (CMP)

- All Capacity Auctions will take place via an online program known as the Capacity Market Platform (CMP). CMP is provided by the vendor Unicorn Systems.
- Access to CMP is granted through the registration process. All users will require a user name, password and digital certificate in order to log into the CMP successfully.
- There are 3 types of user access:
 - [Capacity Market Participant – Trading User](#) (CMP Guide)
 - [Capacity Market Participant – Reporting User](#) (CMP Guide)
 - [Capacity Market Participant – Administrator User](#) (CMP Guide)

Capacity Market Platform (CMP)

Tips for accessing CMP successfully:

- Clear your cache
- Use Google Chrome
- Access CMP website - <https://cmp.eirgrid.com>
- Select the correct Certificate
 - When you have selected the correct cert your username will pre-populate, if it does not pre-populate the incorrect cert could have been selected.
 - Once the correct Cert is selected, the CMP page will open with the Username pre-populated. If the Username did not pre-populate, don't go any further, as typing in your Username does not work and you can be temporarily locked out of your account.
 - If your Username has pre-populated then type in your password



Capacity Market Platform (CMP)

- Each CMPA User is responsible for managing user access as required on behalf of the Party. In order to have CMPA access, the Participant must be a Party Authorised User (PAU) or have been granted CMPA access. A PAU form is completed with the Registration Pack.
- **Please note the CO2 form is for the Capacity Market only. The B02 form is related to the PAU for the Balancing Market.**
- CM Team will set up only PAUs for a Party granting them full access to CMP, including CMPA rights:
 - PAU sends an email to the [Capacity Market Mailbox](#) requesting access to CMP.
 - PAU will be issued a digital Certificate to install onto their PC along with a guide to installing.
 - PAU then sends the Serial number and valid to/from dates of the Certificate.
 - CM Team complete the PAU set up.
- Subsequently, a PAU maintains user access on behalf of the Party and only Certificates are requested from the CM Team, as per the CMPA guide.

Capacity Market Platform (CMP)

- Please ensure that requests relating to CMP access come directly from the affected user or from the PAU.
- Please note the same digital Certificate is used for both BM and CM Platforms. Therefore, please do not request the Certificates twice from different teams, in order to avoid access issues.
- If you have recently requested and installed a new Certificate, please ensure to forward details (the Serial number and valid to/from dates), so that your access to CMP can be updated.
- Note - You are able to use the same cert on several computers. Details on the steps to follow can be provided on request.
- Users will not be required to access the CMP until the Provisional Qualification Results Date. We recommend users log into the CMP a week or two before the Provisional Qualification Results Date to ensure access.



Guidelines for Qualification

- Going forward we request that participants do not change their PY, PT or unit details mid-process between the qualification date and FCAR date
- Pre-registration of new parties/ units is to be completed prior to submitting Qualification Applications, this is to prevent delays during the qualification process.

Form Checks – reoccurring corrections

- Please check the following before submitting:
 - the PY, PT, CMU and CU IDs are formatted correctly i.e. PY_XXXXXX.
 - evidence is provided for the CO2 emissions – this includes evidence if you are within or above the threshold
 - an excel and PDF form is submitted in your application
 - the confirmation signature is attached with your Qualification application pack
 - the Initial Capacity and Nominated Capacity values are correct
 - If 0 MW is nominated and the candidate unit has a DECTOL of 100%, the unit will be qualified at 0 MW
 - you have submitted the correct unit ID/s for your party
 - the PY ID is submitted when asked for the PY, and similarly the PT is submitted where PT ID is requested
- Please refrain from using previous templates from previous qualifications as the forms may have been updated and also information may be incorrect
- Finally, please complete 2nd checks on all completed forms before submitting to the TSOs as any corrections will result in having to re-sign and re-submit qualification forms

Tips

Any form completed with a Confirmation and Signature tab must be signed by the Company Director. The signature tab scanned and emailed along with the application to:

CapacityMarket@sem-o.com (for Existing Parties Qualification Forms)

CapacityMarketRegistration@sem-o.com (for new Parties Registration Forms)

Guidance notes are included along with some data entry cells to ensure full understanding of what is being requested.

Please read the “Read Me” guide. It provides an explanation of what is required in each form, and contains helpful information in completing the form correctly.

If you have any questions specific to your qualification forms, please ensure you submit them to the Capacity Market email address before the Qualification deadline.

Please check all formatting of the information you are providing .

An aerial photograph of a wind farm in a rural landscape during sunset. The scene features a large number of white wind turbines scattered across a vast, flat, brownish-green field. In the foreground, there are vibrant green fields with dark hedges. A winding road or path is visible in the middle ground. The sky is a mix of orange, yellow, and blue, with some light clouds. The overall atmosphere is serene and highlights the integration of renewable energy into a traditional agricultural setting.

Generation Opportunities

Indicative Capacity Requirements

- The GCS (Generation Capacity Statement) outlines the expected capacity requirements
- The GCS is currently signaling a deficit in capacity, meaning new generation is required
- The GCS is based on specific assumptions such as generation closures, expected growth in renewables, support available from interconnection and demand growth
- Potential developers should consider carefully the information contained in the GCS
- **By 2030 it is expected that will need to secure over 1,400 MW of new capacity in Ireland from a balanced portfolio of technologies including renewable gas ready generation, interconnection, long duration storage and DSUs.**

Good grid locations for large generation

- The following slides focus on EirGrid and SONI's view on the optimum locations for large new generation connections.
- Good generation locations from a grid perspective have the following characteristics:
 - Physical Access: Can a generator access a physical grid connection?
 - Electrical Access: Is there capacity on the wires for the generator's power?
 - Diversity: Does the generator location complement the existing power system?
 - Complexity: Are there any specific technical limitations for the connection?
- Similar considerations are likely for large gas connections and developers should engage directly with the relevant gas network operator.

Good Locations

- Efficient operation of the power system relies on generation in diverse locations
- Aside from the Tawnaghmore Peaking Plant there is no conventional generation in the western/northern part of the network from Galway to Donegal to Louth
- Existing connections in brownfield sites provide potential opportunities for new generation
- 110 kV connections generally < 150 MW
Larger units need to consider 220 kV
- Opportunities for sharing with established facilitates, e.g. large wind or demand connections. (high constraints during high wind)

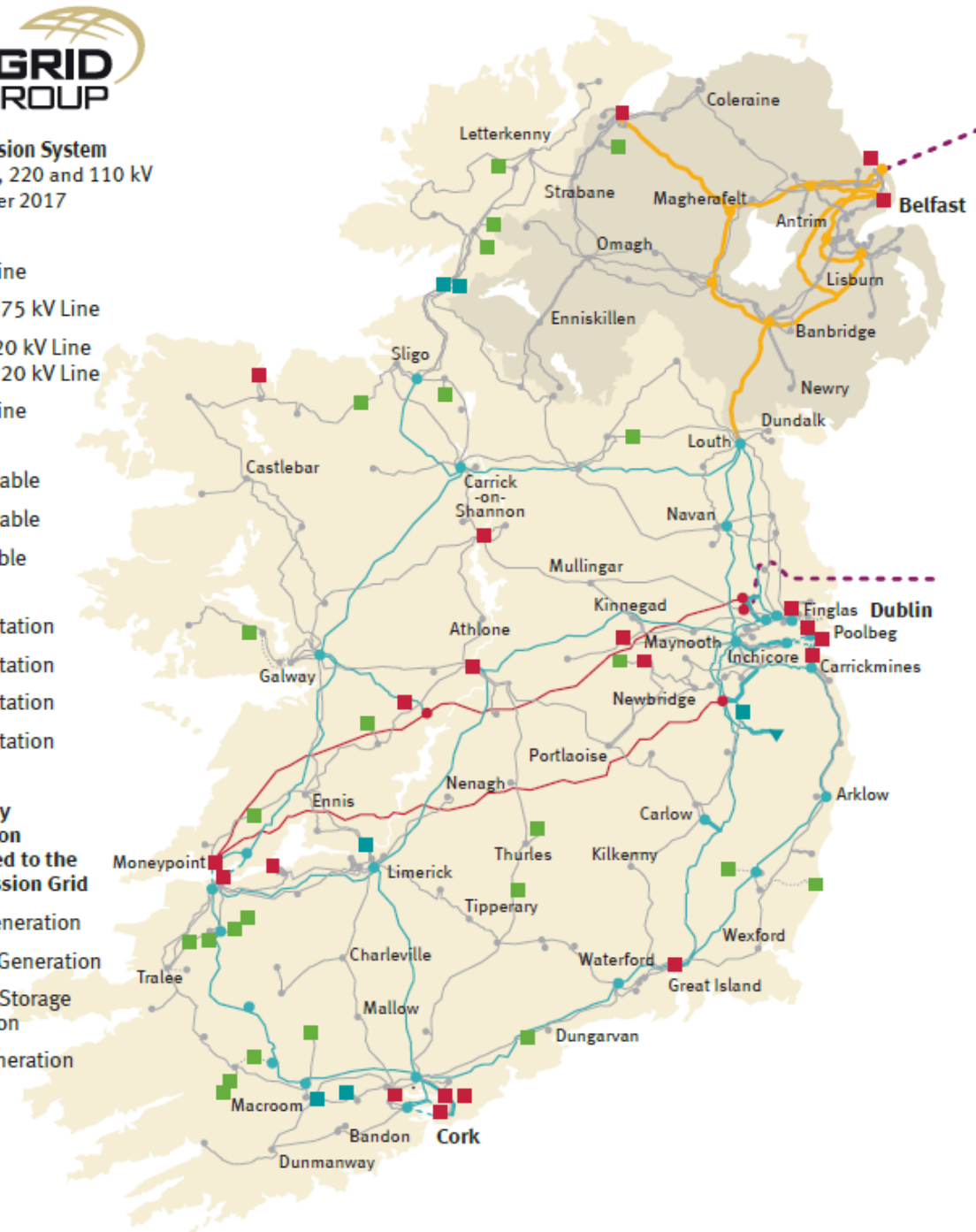


Transmission System
400, 275, 220 and 110 kV
September 2017

- 400 kV Line
- Double 275 kV Line
- Single 220 kV Line
- Double 220 kV Line
- 110 kV Line
- - - 220 kV Cable
- - - 110 kV Cable
- - - HVDC Cable
- 400 kV Station
- 275 kV Station
- 220 kV Station
- 110 kV Station

Electricity Generation
Connected to the
Transmission Grid

- Hydro Generation
- Thermal Generation
- ▼ Pumped Storage Generation
- Wind Generation



Overview of potential generation opportunities

Region	Indicative Capacity	Limiting Factors
Midlands 110 kV	100 – 150 MW	Opportunity limited to 100-150 MW due to 110 kV circuit limits.
West	100 – 150 MW	Limited existing dispatchable generation. Opportunity for co-location with wind farms. 110 kV circuit limitations. High constraints during high wind scenarios.
Louth/North East 110 kV	100 – 150 MW	Opportunity depends on voltage level. Limitations could arise due to circuit limits and short circuit levels.
NI	150 MW	Limitations could arise due to circuit limits, short circuit levels and other developments.
Dublin North	0	+700 MW of new capacity secured through capacity auctions. No retirement of conventional units. High short-circuit levels.
Dublin South	< 200 MW	
Cork	< 0 MW	Generation restriction in the Cork area. Operational constraints limit total generation

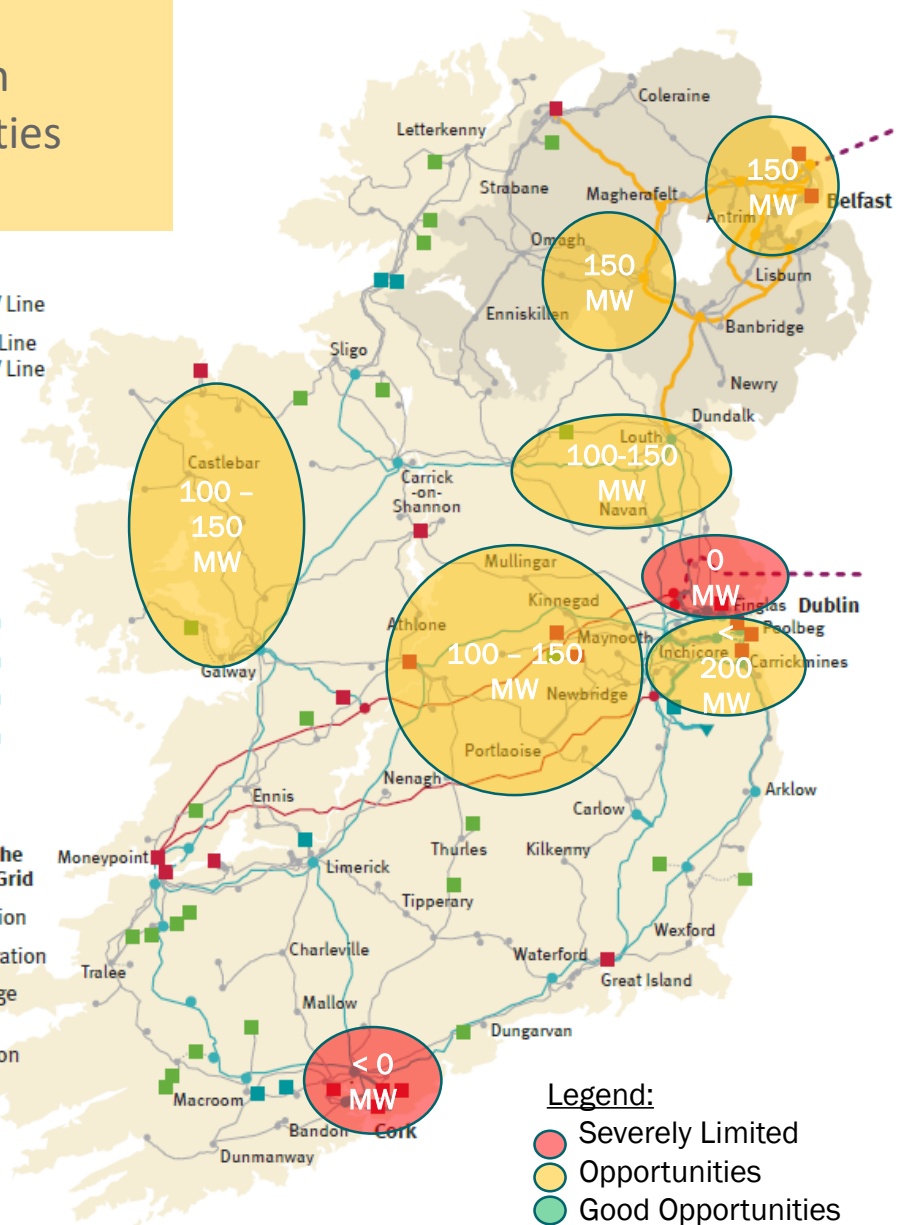
These opportunities are indicative values only. They are based on EirGrid's knowledge of the power system. Please pay specific attention to the assumptions in the subsequent slides:

110 kV Generation Opportunities

- 400 kV Line
- Double 275 kV Line
- Single 220 kV Line
- Double 220 kV Line
- 110 kV Line
- - - 220 kV Cable
- - - 110 kV Cable
- - - HVDC Cable
- 400 kV Station
- 275 kV Station
- 220 kV Station
- 110 kV Station

Electricity Generation Connected to the Transmission Grid

- Hydro Generation
- Thermal Generation
- ▼ Pumped Storage Generation
- Wind Generation

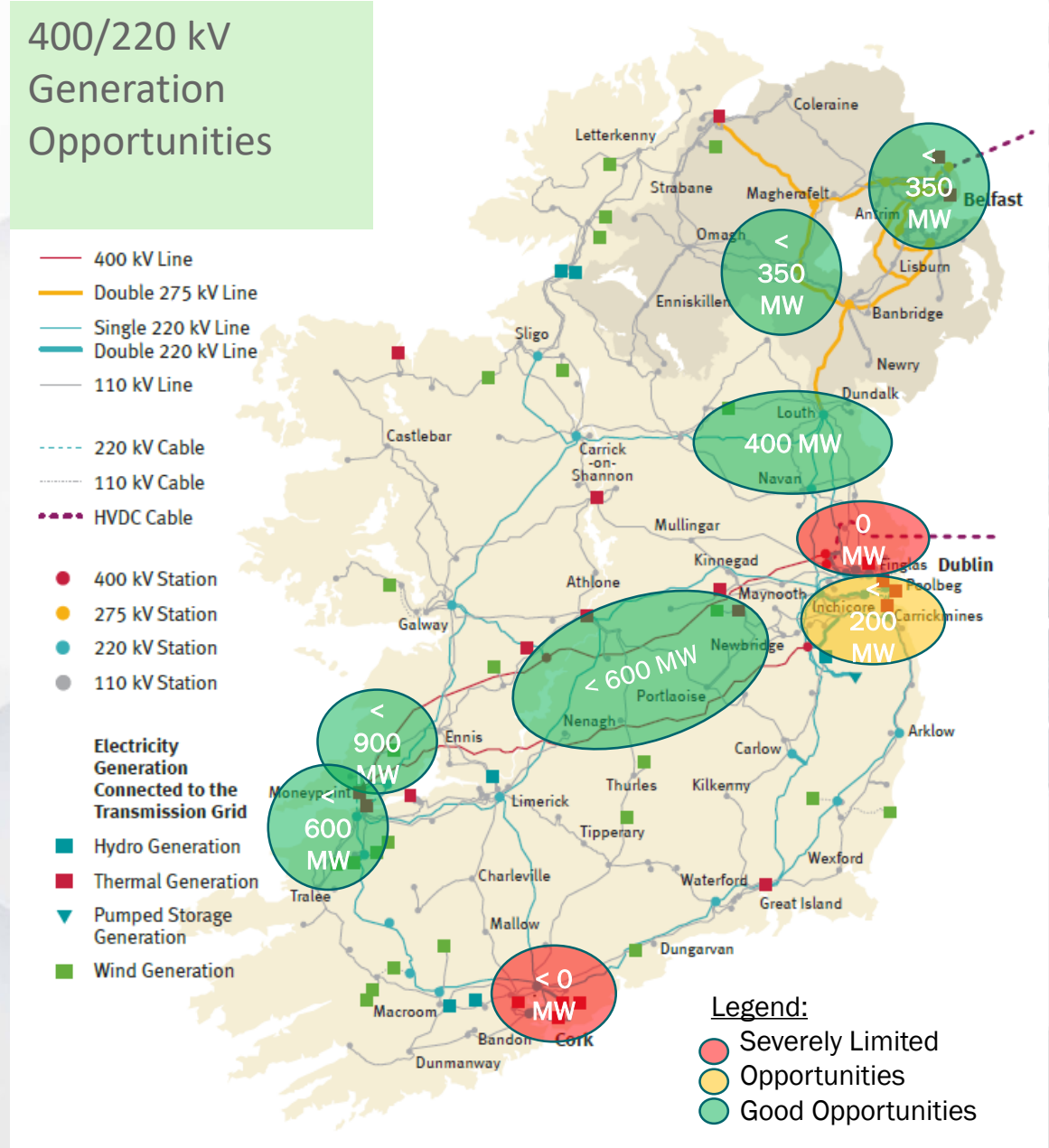


- Legend:**
- Severely Limited
 - Opportunities
 - Good Opportunities

Overview of potential generation opportunities

Region	Indicative Capacity	Limiting Factors
Moneypoint & 400kV Network → WOO/DSN	< 900 MW	Opportunity due to units retiring at Moneypoint. Limited new station options on 400 kV. Limitations could arise depending on interactions with multiple developments.
Tarbert	< 600 MW	Opportunity due to units retiring at Tarbert. Limitations could arise due to circuit limits and other developments.
Louth/North East	400 MW	Limitations could arise due to circuit limits and short circuit levels
NI	350 MW	Opportunity depends on voltage level. Limitations could arise due to circuit limits, short circuit levels and other developments.
Dublin North	0	+700 MW of new capacity secured through capacity auctions. No retirement of conventional units. High short-circuit levels.
Dublin South	< 200 MW	
Cork	< 0 MW	Generation restriction in the Cork area. Operational constraints limit total generation

These opportunities are indicative values only. They are based on EirGrid's knowledge of the power system. Please pay specific attention to the assumptions in the subsequent slides:



Limitations of information provided

- Information provided in Slides 5&6 is based on engineering judgement and knowledge of the power system at this point in time, while taking account of some other factors considered when selecting an optimum generation location.
- All new capacity developments will need a detailed case-by-case assessment.
- Opportunities are influenced by many variables which could impact the numbers presented, such as
 - Potential generator retirements
 - Potential new generation developments
- Generation parameters may specifically impact on areas approaching fault level limitations
 - Specific locations, technical design of units and the number of units have not been accounted for
- Information in Slides 5&6 focuses on capacity for renewable ready gas generation
- Other technologies such as batteries will have other specific locational considerations. For example
 - Expected to have significantly less fault current contributions
 - Locating battery storage devices in high-capacity renewable areas could have significant benefits

Customer due diligence system analysis

- Demand, Generation & Transmission background and Study files:
 - See Chapters 3, 4 and 5. And website.
- Transmission specific Details:
 - Appendix A Maps & SLDs, Appendix B Transmission parameters
- Demand and Generation specific Details:
 - Appendix C and Appendix D
- Fault Levels:
 - Section 5.3 & Appendix E
- Generation Opportunities:
 - Chapter 7 & Appendix D. Note: Traditional view of generation opportunities assumes all existing generation in an area is maximised.
 - Potential new generators should complete due diligence analysis of the electrical performance (esp. Load flow and short circuit) of their connection

<https://www.eirgridgroup.com/site-files/library/EirGrid/All-Island-Ten-Year-Transmission-Forecast-Statement-TYTF5-2021.pdf>

<http://www.eirgridgroup.com/site-files/library/EirGrid/Study-files.zip>



Customer Clinics

- EirGrid provides support to potential new customers at the conceptual/pre-application stage through monthly customer clinics
- The customer clinics provide an opportunity to approach EirGrid and get some feedback on plans
- Where possible, at the clinics EirGrid engineers will try and provide a view on the potential challenges which could exist for a connection into a specific station
- The following guide also provides a full suite of information on the various steps of the connection process:
 - https://www.eirgridgroup.com/site-files/library/EirGrid/2018_19-Customer-Guide.pdf



Questions?