

ISEA response to the Consultation on Firm Access Methodology in Ireland “EirGrid – Proposed Methodology” (SEM-22-068)

November 2022

PUBLIC CONSULTATION ON FIRM ACCESS METHODOLOGY IN IRELAND “EIRGRID – PROPOSED METHODOLOGY” (SEM-22-068)

SEM Committee

Irish Solar Energy Association response:

For Submission via Email 08/11/2022

INTRODUCTION

The Irish Solar Energy Association (ISEA) appreciates the opportunity to respond to the SEM Committee (SEMC) consultation on “*Firm Access Methodology in Ireland “EirGrid – Proposed Methodology”*” (SEM-22-068, “the Consultation”).

ISEA is the leading voice for the Irish solar industry. The association works to advance a policy and regulatory landscape promoting solar PV as a leading technology that can assist in the decarbonisation of Ireland’s electricity system and contribute to a successful and resilient clean economy. ISEA is committed to delivering 20% of Ireland’s power from solar PV by 2030. ISEA has a membership of 208 parties currently active in the Irish solar market.

ISEA HIGH LEVEL POSITION ON THE NEW EIRGRID PROPOSED METHODOLOGY

ISEA’s high-level position can be summarised as follows:

- ISEA is in favour of mechanisms which provide clear signals to investors. Fixing a firm access quantity (FAQ) date both:
 - differentiates between “good” and “bad” locations, incentivising development in the correct areas; and
 - makes locational signals more actionable and credible.

ISEA strongly welcomes the change in approach set out in EirGrid’s proposed methodology.

- It is very important, however, that the calculation process does not inadvertently create road-blocks for technologies which cause little incremental constraint, making them await network reinforcements for other projects in the same region with earlier committed dates, but which do cause constraint.
 - For example, if a generator with an earlier committed date causes material night-time constraints, it might not receive a fixed FAQ date. A solar farm with a later committed date in the same network area but with negligible impact on day-time network constraints, however, should still be eligible to receive a fixed FAQ date without having to wait for the first generator’s issues to be resolved.
- ISEA welcomes bringing the timing trigger for the calculation of a potential fixed FAQ date earlier in the development process. For consumers to fully gain the benefit of developers having this certainty, the date ideally should be available before the RESS auction. It is recognised that this is challenging, however, not least on developing the rule set for the allocation of limited firm access in an area among several auction participants. If bringing the allocation process of fixed FAQ dates earlier is not possible, consideration should be given to:

- Ensuring the look-forward process is as consistent as possible with the look-back process; and
- Potentially considering a post commitment date calculation every quarter, to at least allow the possibility of including definitive information of a fixed FAQ date before financial close.
- ISEA also believes that market transparency is important, both in terms of wider industry understanding of the methodology (ideally by having the analysis repeatable by the industry) and publishing the future fixed FAQ dates where allocated to as yet non-operational generators.
- The consultation queries whether battery energy storage (BES) will be offered FAQ through this, or another process. ISEA is in support of granting firm access to BES (insofar as it does not prejudice the levels of modelled constraints seen by renewable generation under the proposed process). If BES is not to be given firm access under this process, it is important that hybrid renewable-BES projects are not in any way disadvantaged.
- There are several points of refinement to the process within our detailed response to the questions below. A highlighted subset of the refinements are:
 - Consideration of using the 2nd Stage Payment for the evidence of project commitment, rather than the Consents Issue Date;
 - Utilisation of the Network Delivery Portfolio for the latest source of new ATR information, rather than the Network Development Plan, which can be based on relatively out-of-date information;
 - ATR dates should also not be allowed to slip with each annual calculation;
 - Consideration of allocation of firm access by 10MW tranches, given the number of solar developments in the 30MW to 100MW range relative to other technologies; and
 - Clarifying that where a generator's inclusion has marginal impact on existing constraints, it should be a granted fixed FAQ date, i.e. it should not be responsible for underlying local or Bulk Transmission System issues not related to its generation.
- There are also a series of queries as to the operation of the proposed process. These are not reiterated in our detailed response below, but serve to demonstrate why our support remains somewhat qualified until the full detail is described:
 - How will the Regional Networks be defined (ECP study areas, constraint groups) and will these change year-to-year?
 - Under what network conditions will the constraints, e.g. N-1, be modelled?
 - How will the model identify constraints, curtailment and oversupply? Will it be based on the existing Renewable Dispatch Tool process, or under a more to-be idealised constraint allocation?
 - How will price-sensitivity of generators (including existing and future conventional generators be modelled)?
 - How will the Firm Threshold be set? Under what process can it change? Without the above missing detail, it is difficult for ISEA to set down a marker of its expectations for the Firm Threshold, particularly given the level of constraints that are present in certain ECP constraint reports and the potential changes under the delivery of the Clean Energy Package for non-priority dispatch renewable generation.

- ISEA lastly requests a clear project plan setting out when and by whom all remaining issues will be resolved, the decision implemented, with a view to **at least having a forward-looking analysis available in time for RESS-3 auction submission** (even if it is only non-binding look-forward analysis).

WIDER STATUS OF INDUSTRY DESIGN AROUND CONSTRAINTS

ISEA notes the difficulty in assessing the impact of these firm access methodology changes within the context of Decision SEMC-22-009 (which deals with the sharing of constraint, curtailment and oversupply between renewables with and without priority dispatch) and the ongoing legal challenges of that decision. The industry also awaits further details of EirGrid's improvement to its scheduling and dispatch tools, along with related workshops on the aforementioned SEMC-22-009 delivery. There are also long-standing legacy issues around the operation of the Renewable Dispatch Tool, where constraints triggered during periods of low solar irradiance (e.g. night-time) are unduly borne by solar generation where that constraint endures into the morning (i.e. solar is dispatched to a percentage of its night-time production, i.e. a percentage of zero output, until the constraint is no longer binding). Finally, it is also noted in the proposed methodology paper that is the subject of this consultation, that EirGrid have stated that while they currently don't consider firm access status when dispatching for constraints, this will be kept "*under review*". A change in this last area could have profound impacts on the revenues of generators.

In terms of compensation (again noting SEMC-22-009 and associated legal challenges) de minimis generation are required to become market participants to receive compensation, and there remains no portfolio trading of any renewables which allows those generators to receive dispatch down compensation (see Decision 1 in SEM-14-085a). The dispatch down compensation price levels from the market for corporate Power Purchase Agreements (cPPA) have been decided to be different to RESS-supported generation by the SEM Committee. cPPAs also cannot avail of the proposed RESS-3 compensation for "Undelivered Availability Energy Compensation" which is currently under consultation, and are critically dependent on receipt of firm access for downward redispatch compensation but nevertheless still may be restricted under the market short-run marginal cost bidding principles from reflecting their lost cPPA revenues.

Overall, the concept of a fixed FAQ date is therefore very much welcomed by ISEA as it is a necessary condition for low constraint technologies in low constraint areas to reflect their efficiency with lower prices for consumers (either through lower RESS offers or lower cPPA prices). Firm access by itself, however, is therefore not a panacea to lost revenue arising from constraints. Consideration, understanding and ideally improvement of all of the above issues is needed. The SEMC is encouraged to recognise these further issues, so that all the required elements (system operations, connection policy, market design, bidding restrictions) will work appropriately together to yield the efficient decarbonisation of the electricity system for the all-island consumer.

These points, along with further detail and suggestions are provided in the answer to the questions below. If further clarification for any item is required, please email info@irishsolarenergy.org.

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CONSULTATION QUESTION RESPONSES

Set out below are ISEA's responses to the specific questions within the consultation document.

Q.1 Comments are invited from interested parties on EirGrid's proposed approach of having a time bound Firm Access date. Comment are also invites on alternative options (i.e ATRs etc). Should scheduled FAQ date be linked with ATRs, with more targeted delivery incentives? Please provide reasons and rationale for any views provided.

Q.2 Comments are invited from respondents regarding EirGrid's historical performance on delivering ATRs. How can EirGrid's performance be improved? Please provide reasons and rationale for any views provided.

ISEA agrees with the principle of having a fixed FAQ date over being reliant on ATRs delivery, given the uncertainty of achieving ATRs reliably in the past, and therefore the difficulty in relying on assumed delivery of ATRs when commercially modelling generator projects.

Linking the fixed FAQ date with forecast ATRs appears to be on the face of it a logical balance between protecting consumers, but providing actionable investment signals for developers.

As noted in the consultation, there is no explicit EirGrid incentive for the delivery of firm access. ISEA, notwithstanding the particular incentives already determined for PR5 believe:

- The incentive for EirGrid should be to decarbonise the electricity system, and therefore to reduce the constraints (and curtailment) faced by renewable sources of energy. Under the proposed methodology in the consultation paper, this would in turn result in accelerated delivery of fixed FAQ dates for renewable generators;
- It is important not to just incentivise EirGrid to reduce dispatch balancing costs. Focus on costs can incentivise EirGrid to no longer forecast the delivery of efficient ATRs that would alleviate constraint. For example, it is in EirGrid's interests to project slower delivery of ATRs, as that would push out granting fixed FAQ dates under the proposed methodology.

Finally, this response does not intend to formally analyse the timeliness of ATR delivery. That information is in the public domain. One only has to point to the "worst case scenarios" when considering the risks of ATR delivery, particularly the larger projects such as the North-South interconnector (now approaching 10 years delayed), the cancellation of large renewable projects such as Grid Link and Grid West, and the Renewable Integration Development Project.

Q.3 Comments are invited on whether stakeholders agree with the proposed approach of allocating partial Firm Access Quantities. Please provide reasons and rationale for any views provided.

ISEA agrees with the allocating firm access in tranches smaller than the generator capacity. Not allocating firm access in tranches makes the process otherwise ill-defined, with firm access remaining unallocated if a particularly large generator with an early confirmation date needs to become fully firm before proceeding onto the of firm access to smaller generators.

ISEA notes, however, the level of development of solar generators between 30MW to 100MW in particular, and suggests that a more granular level of 10MW is considered for the allocation of firm access. A 45MW solar farm might only receive 20MW of firm capacity, when 35MW of firm access is available. This is a larger percentage inefficiency of allocation of available firm access than for, for example, larger off-shore windfarms, where the difference between 20MW and 30MW of available FAQ makes relatively little difference.

Q.4 Comments are invited from respondents on the proposed approach of allocating Firm Access to generators once they reach committed project phase (progress beyond Consents Issue Date). Please provide reasons and rationale for any views provided.

Q.5 Comments are invited from respondents on the inclusion of a longstop date with awarded FAQs. Please provide reasons and rationale for any views provided.

ISEA notes that CID has no direct analogue for distribution connected customers and notes that basing any committed project phase on planning consent introduces a degree of uncertainty as to the process (noting the potential for late challenges, and late-breaking requirements for connection planning consents as designed are refined and clarified). Correspondingly, ISEA recommends using payment of the 2nd Stage Payment as the date at which the project is considered committed as a substantial financial commitment is made.

It is therefore appropriate that a longstop date is included, and ISEA believes it should be linked to termination of the connection agreement (or declared/known cessation of development of the project).

Q.6 Comments are invited from respondents on the proposed approach of treating batteries and other service providers as outside the scope of the Firm Access methodology. Please provide reasons and rationale for any views provided.

Batteries (and to a much lesser extent other service providers) are very likely to transition to greater participation in the energy market once the system services future arrangements (SSFA) come into play. Batteries will need to determine whether they are better off providing firm daily system services, or availing of energy arbitrage in the day-ahead market.

Energy arbitrage participation absolutely requires firm access, even for the relatively short duration batteries that exist today. Arguably for batteries greater than 1-hour storage today, where there is no 2-hour reserve product, those batteries without firm access are already taking on the lost opportunity of no energy arbitrage and the direct risk of CRM penalties/imbalance¹.

Correspondingly, firm access is not to be dismissed as a potential future nice-to-have for batteries. In particular, as batteries become longer-and-longer duration in response to the systems renewable-

¹ For example, a battery that meets its CRM obligation by trading a discharge in the Day-Ahead Market can be exposed to high imbalance prices if not dispatched to discharge by the TSO. As it is non-firm, if it does not deliver its discharge including for reasons of no dispatch by the TSO, it must buy back at the Imbalance Settlement Price. The same issue arises for energy arbitrage, where captured charge/discharge cycles in the DAM are not financially guaranteed if the TSO does not dispatch the battery in line with the achieved Day-Ahead Market trades.

balancing and security of supply needs, firm access is a critical requirement for investment into a centrally dispatched market. The more energy a market participant trades, the more important firm access becomes.

As a result either a) batteries are included within this process (as long as the modelling regime does not prejudice the forecast constraints for renewables), or b) consideration for a different energy firm access for batteries must be resourced and begin as soon as possible.

Where batteries are not to be considered as part of this process, it is important that hybrid battery-solar sites are not in any way disadvantaged vis-à-vis firm access calculations for the solar element of the connection agreement's MEC.

Q.7 Comments are invited from respondents on the proposed approach of having a MEC “floor” of 1 MW. Please provide reasons and rationale for any views provided.

ISEA agrees with this proposal, with the one caveat that should the threshold for controllability be reduced below 1MW, that this MEC “floor” is reduced accordingly.

Q.8 Comments are invited from respondents on the Annual Review process. Please provide reasons and rationale for any views provided.

ISEA has noted in the introduction that while it welcomes the bringing of the fixed FAQ date issue earlier (proposed to be issued in an annual process post CID), it would still prefer the allocation of fixed FAQ dates to be brought forward in advance of the RESS auction. This would provide the most actionable certainty for developers and ensure consumers saw the value of this information. This should indeed be possible where there are RESS auction participants in areas where FAQ is not a constrained resource, but notes that this is not a trivial matter where several auction participants are chasing a set amount of FAQ. If an annual look-back process is to be agreed post 2nd Stage Payment (or CID), ISEA suggest:

- Ensuring the look-forward process is as consistent as possible with the look-back process, i.e. the parameters and ruleset on which the look-forward calculation is performed (and on which auction participants will rely to estimate how they can reduce their auction offers) should change to the minimum necessary extent once the project becomes committed for the look-back process calculation; and
- Potentially considering a post committed date quarterly calculation of firm access, to at least allow the possibility of including definitive information of a fixed FAQ date into financial close.

Without the above two suggestions, solar projects are likely to have reached commercial operations prior to the fixed FAQ date becoming known. Solar farms will seek financial close around the time of the second stage payment / CID, and can deliver their projects within 12 months of financial close.

Q.9 Comments are invited from respondents on the Firm Threshold. Please provide reasons and rationale for any views provided.

The concept of the Firm Threshold is welcomed.

ISEA has a concern around the Firm Threshold potentially changing from year-to-year, or it potentially becoming a locational or technology policy tool should it differ between locations and technologies.

ISEA would like clarity as to the modelling exercise (intact network, N-1, etc.) under which the constraints will be calculated.

It is also important to clarify when evaluating the constraint on a Regional Network basis and the Bulk Transmission System inter-regional flow basis, that the Firm Threshold is evaluated against the *incremental* increase in constraints.

Clarity is also welcomed on the influence of cross-border infrastructure on the Bulk Transmission System constraints.

Q.10 Comments are invited from interested parties on the approach of First to be committed – first to be Firm. Please provide reasons and rationale for any views provided.

ISEA stresses the importance of not allocating firm access only on a strict first-to-be-committed date order. It very well may be that certain generators (due to their time-of-day production profile) trigger constraints above the Firm Threshold, whereas other generators with later commitment dates, such as solar with day-time production, do not. It is important that the process allows the solar generation to achieve its firm access if it has marginal impact on constraints, despite the presence of generators with potentially earlier commitment dates which further contribute to pre-existing constraints.

If this marginal best fit approach is not taken (noting that the committed date remains a key consideration), it allows generators which contribute to and increase constraints “block” efficient delivery (at lower auction prices) of competitor generation which can better utilise the spare capacity in the network.

There are further subtleties around this that need to be determined. Where a generator which contributes to constraints has its constraints resolved on the fifth year of its connection with the forecast delivery of an ATR, but another generator with a later committed date has yielded no further constraints from the first modelled year, for the avoidance of doubt it is ISEA’s view that the generator with a later committed date should receive its firm access from the first year.

These concerns of ISEA may come down to a misunderstanding of the process set out in Figure 1 of EirGrid’s proposed methodology. It seems unreasonable, however, that night-time constraints would prevent a solar farm from achieving firm access, and this commentary is intended to highlight that this outcome should not occur.

Q.11 Comments are invited from respondents on the use of the Transmission Development Plan as part of the Firm Access methodology. Please provide reasons and rationale for any views provided.

The CRU published the approved EirGrid Transmission Development Plan for 2021 to 2030 in August 2022. This plan was based on a data freeze date of 1st January 2021.

ISEA believes that more up-to-date information should be used where possible on ATRs when calculating any fixed FAQ dates, and suggests that the quarterly Transmission Development Portfolio updates be utilised instead when new ATRs are being included.

Finally, the process is unclear for how many years the firm access methodology will look forward when considering ATRs. Figure 1 suggests a five-year window of some form. It is important that ATRs are not allowed to slip year-to-year, always outside the window under which a fixed FAQ date might be issued. ISEA proposes that the ATR dates are frozen from the date they first appeared within the Transmission Development Portfolio.

Q.12 Comments are invited from respondents on the proposed look-back and lookforward approach, and the interaction between these steps. Please provide reasons and rationale for any views provided.

The look-forward process could in principle give a fixed FAQ date in areas of low constraint, prior to a RESS auction, where firm access is not a limited resource. To ensure cPPAs are not disadvantaged, these generators which have been given guaranteed firm access (when successful in the RESS auction) may be required to meet project delivery timeframes more stringent than just the long-stop date. It is important that where firm access is granted to a generator prior to a “commitment date” that progress towards delivery is closely monitored, so where the project develops issues and is unlikely to commission, the firm access can be reallocated swiftly. That reallocation can happen to generators in the next RESS auction, or committed cPPA projects.

Otherwise, the utility of the look-forward process is dependent on its consistency with the look-back process. Not allowing the Firm Threshold or ATR dates to move would materially contribute to that consistency between the two processes.

Without consistency between the look-forward and look-back process, there is risk that the value of the look-forward process will be greatly diminished for developers, and therefore consumers.

Q.13 Comments are invited from interested parties on the interaction of delivery incentives with the proposed Firm Access methodology. Please provide rationale for to support these views

Q.14 Views are invited from interested parties on how the TSO should be incentivised to alleviate constraints. Please provide supporting rationale for these views.

TSO incentivisation has been dealt with at length under the PR5 consultation and decision, the results of which are detailed in the consultation showing the implicit incentives related to the delivery of firm access.

Watching growing constraint costs (arising from high energy prices), the resulting increase in Imperfections Costs, and the overall targets set on the TSO, it is important that the incentive remains meaningful, both in terms of its quantum and its achievability as market conditions evolve over the year.

Three high level observations are therefore noted:

- Where any cross-border infrastructure is relevant to the calculation of constrained operation of generators, incentives on SONI should also be considered;
- In general, ISEA supports a “decarbonisation” incentive, reducing the dispatch down of renewable generators in general. This in turn should lower constraints and promote the issue of earlier fixed FAQ dates to generators; and

- ISEA would like clarity as to how this consultation process will feed back into the jurisdictional incentives on EirGrid, which are a jurisdictional matter. ISEA welcomes the end-to-end thinking evidenced in this SEMC consultation, but would like to understand how recommendations on EirGrid (and potentially SONI) incentivisation will be brought to fruition (if deemed appropriate).

Q.15 Comments are invited from respondents on the need for independent assurance around the Firm Access process. Please provide rationale to support these views.

ISEA agrees with the SEM Committee assessment that some form of audit process is likely, however the depth of that review can focus on procedure rather than the calculation process, where that process is replicable by the wider industry. Transparency can lighten the audit requirements. Consistently during the introduction of new industry processes in the SEM, e.g. bidding controls monitored by the MMU, Imbalance Settlement Price produced by SEMO, the industry provides a free, commercially incentivised set of checks and balances for central bodies as systems bed down. In contrast, other processes such as the CRM auction operation and the scheduling and dispatch process remain subject to material annual audits, along with consultations on scope, comments on results, all of which is a draw on central body resource.

As transparency will require the publishing the fixed FAQ dates for generators once they become known, this also serves to give market participants up to date information as to the status of the network to which they may seek to connect.

Q.16 General comments are invited from interested parties on whether they agree with EirGrid's proposed Firm Access methodology. Should a party disagree with EirGrid's approach, please provide reasons and rationale for this.

Q.17 Suggestions and/or alternative approaches are invited from interested parties on EirGrid's proposal. Please provide rationale to support this.

ISEA agrees with the direction of travel and spirit of EirGrid's Firm Access methodology, subject to it not inadvertently discriminating against generators that contribute only marginally to constraints.

We have suggested a variety of adjustments to the process:

- Bring the calculation of the fixed FAQ date even earlier in the development process, but where not possible for all generators prior to a RESS auction, ensure the look-forward process is consistent with the look-back process insofar as possible, and consider a quarterly calculation of the look-back process for newly committed generation;
 - The consistency between the look-forward and look-back process can be aided by not allowing ATR delivery dates to change, and maintaining the Firm Threshold between the two processes.
- We suggest a 10MW firm access block, rather than 20MW;
- We propose using the quarterly Network Development Portfolio publication rather than the Network Development Plan; and
- We suggest using the 2nd Stage Payment rather than the Consents Issue Date as the trigger for deeming a project to be committed.

Q.18 Comments are invited from interested parties on the benefit of providing firm access to connected legacy generation in Ireland which currently have non-firm access. Should legacy non firm generators be considered in any new firm access methodology? Please provide rationale to support this.

The EirGrid methodology does not differentiate between existing operational generation with non-firm access, and future generators.

On balance, however, it is ISEA's view that generators which have been offered a connection agreement under the non-GPA process or ECP should be included in the allocation of firm access.

Gate 3 generators, and generators which jumped the connection process queue for immediate security of supply concerns in Ireland under the CRM under CRU direction, have made their investment decision based on the rules which were in place at that time. It is ISEA's position that they should not receive firm access under this process.

Q.19 Comments are invited from respondents on the need to consider this proposed methodology in relation to the equivalent approach taken in Northern Ireland. Do respondents have any views on the interactions and differences between these different approaches.

ISEA notes the SEMC's position on firm access being a SEM Matter. Firm access, however, has not proven a competitive distortion to battery or conventional generation development North or South. Both Ireland and Northern Ireland have seen new market entry driven by the locational constraints in the CRM auction design. Evidence shows 200MW and 470MW of battery development in Northern Ireland and Ireland respectively.

Correspondingly, ISEA is content for the approaches to diverge North and South, noting that where there is concern regarding cross-jurisdiction burden of costs, Imperfections Charges may be set on a jurisdictional basis by the SEM Committee (noting that the T&SC algebra facilitates this).