NETWORKS

Electricity generation and system services connection policy

ESB Networks' Response to CRU Consultation Paper (CRU/2023163)

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Contents

1. Introduction

ESB Networks welcomes the opportunity to respond to the CRU's Consultation Paper "*Electricity Generation and System Services Connection Policy*". This is an important consultation and ESB Networks fully supports the development of a new connection policy. The efficient delivery of renewable electricity generation on to the electricity network is of critical importance for Ireland.

ESB Networks is playing a central role in leading the transition to a net zero future using clean electricity. As set out in our *Networks for Net Zero*[1] strategy document, which was launched in 2023, ESB Networks is committed to delivering its part to achieve the Climate Action Plan 2023 (and subsequent Climate Action Plan 2024) targets for 2025 and 2030, and to develop a net zero-ready distribution network by 2040 to enable the achieving of Ireland's net zero ambition no later than 2050.

The distribution system is evolving to become a low-carbon electricity network where 80% of the electricity generated in Ireland will come from renewable sources by 2030. The electrification of heat, transport and our economy will see citizens and businesses adopting low carbon technologies such as heat pumps, electric vehicles and microgeneration such as roof top solar. It is essential that these technologies are powered by clean renewable generation.

As Distribution System Operator (DSO), Distribution Asset Owner (DAO) and Transmission Asset Owner (TAO), ESB Networks works to meet the needs of all Irish electricity customers, providing universal access to the electricity system, and delivering and managing the performance of a system of almost 157,000 km of overhead networks; 26,000 km of underground cables; 800 high voltage substations; significant amounts of connected generation, including ~6 GW of renewable generation connected to the Distribution and Transmission systems; 2.4 million demand customers; and now several thousand "active customers" – including but not limited to domestic premises with microgeneration (a rapidly increasing number), demand side management, houses with battery storage, etc.

We have provided detailed answers to the consultation paper questions in Section 3 of this submission. In addition, we have set out in Section 2 a summary of the following key areas that we believe are fundamental to the new connection policy and achieving Ireland's Climate Action Plan targets, these include:

- Alignment of planning and grid application processes.
- Pre application customer engagement.
- Enhancement of batch processing.
- Review of generator charging methodology.
- Optimal use of existing infrastructure.
- Enduring process for Mini-Gen, Small-Scale Generation and alignment of MEC=0 projects.

[1] https://www.esbnetworks.ie/who-we-are/our-strategy

A key objective to the development of the electricity generation and system services connection policy is to deliver faster processing of renewable projects through the planning permission, generator grid connection offer and generator licencing process in line with Article 16 RED III. To achieve this objective will require earlier customer engagement, close collaboration with the planning authorities on the status of projects in the planning permitting process and strict timelines within the connection offer process to minimise the impact of overlapping batches. ESB Networks supports the minded to position of two batches per year and to do this there are a number of key changes required which are essential to meeting these timelines.

The table below sets out some of these key changes required to enable the processing of two batches per year.

- Applicants seeking to be processed as part of the batch must submit their project details via a NC5 application a minimum of three months prior to a batch window opening, to enable System Operators carry out commercial checks and high-level technical assessments prior to the batch window opening.
- Applications will only be accepted into the batch when a valid planning application has been accepted by the relevant planning authority, the customer would provide evidence to system operators that the planning application has been accepted.
- The batch application window opens for two weeks, on a bi-annual basis with the dates to be determined by the CRU.
- The applicant must receive final grant of planning permission within the 6-month batch window to be eligible to receive a connection offer as part of that batch and the customer would provide evidence to the system operators. Otherwise, the applicant receives a grid connection assessment which will remain valid for 1 year, this connection assessment will be caveated and may be subject to change should it interact with an applicant in a subsequent batch.
- Advanced network build will need to be a key feature of processing bi-annual batches to minimise the impacts of overlapping batches and re-optimisation of projects. This anticipatory spend will result in increased DUoS risk until the additional capacity created is fully utilised.
- System Operators reserve the right to prioritise the assessment of applicants within batches to minimise the overall impact of overlapping batches and timings of when applicants receive final grant of planning permission.
- Detailed project scoping will not be completed within the 6 months offer process period, this will increase the risk that pass through costs may vary from those included in the connection offer and the generator customer will be required to pay the final connection cost.
- The connection offer will remain valid for two months to minimise interaction with subsequent batches.
- For distribution projects, the accelerated processing of system operator connection agreements between the TSO and DSO is required to process bi-annual batches.
- As the processing timelines are challenging, the clock for processing applications stops if customer information is outstanding and there needs to be strict limits on the time a customer has to address any queries.

ESB Networks understands the importance of developing the electricity generation and system services connection policy and a move to two batches per year to meet Article 16 RED III timelines. We look forward to engaging with CRU, EirGrid and industry representatives in the development of a new generator connection policy and are happy to facilitate a workshop to support CRU in reaching a quicker decision on the development of this new policy which will play a vital role in meeting renewable CAP24 targets.

2. Summary of Key Points

- **Alignment of planning and grid application processes**

  Given the challenging Climate Action Plan 2024 (CAP 24) targets for 2030 and the need to accelerate the connection of renewables, ESB Networks strongly supports the parallel processing of the planning permission and the grid application processes. These changes will support the implementation of Article 16 of the Renewable Energy Directive (RED III), delivering faster processing of renewable projects through the planning permission, generator grid connection offer and generator licencing process.

  The current requirement of projects obtaining planning permission before submitting a grid connection application has helped reduce the number of less advanced applications and enabled the more shovel ready projects receive a connection offer. However, ESB Networks is cognisant of the Article 16 REDIII timelines and believes a change in the policy is required to process applications in parallel with the planning application process. Customers seeking to be processed in the batch must complete a grid pre-application three months prior to the batch window opening. Once the batch application window opens, projects must have a valid planning application accepted by the relevant local authority to be considered for processing in the batch window. ESB Networks will carry out early engagement with projects in the three-month period prior to the batch window opening and these applications windows will open twice a year. This early engagement will enable ESB Networks carry out a high-level technical assessment which will support shortening the batch processing timelines.

  To avoid network capacity from being unutilised, it is critical that connection offers are only made to applicants who have received final grant of planning permission for their projects, enabling more shovel ready projects progress faster to the construction phase. ESB Networks will work closely with the CRU and industry representatives to ensure that the key milestones are built into the connection offer process i.e. a project is only included in the batch when it has made a valid planning application, and a project must receive their final grant of planning permission within the batch six month window, otherwise the project will fold into the next batch window. If a project receives final grant of planning permission shortly after folding into a batch window, it could be prioritised for processing in that same window. It is important that CRU engage with all relevant stakeholders including the planning authorities and there is transparency of when a valid planning application has been accepted by the relevant local authority and when final grant of planning permission has issued. There is a role for a single point of contact to maintain a register of all generation projects who have made valid planning applications and when final grant decisions have issued which could support this process.

- **Early engagement with projects**

  An enhanced pre-engagement process would provide customers with an initial grid assessment whilst also reducing the timelines for the combined planning and grid processes. It needs to be a requirement that generator customers engage with ESB Networks a minimum of three months in advance of a batch window opening by completing a NC5 application form. Providing this

information will enable ESB Networks carry out a high-level technical assessment and customer meetings where the connection options assessed are outlined to the customer. ESB Networks can then build a pipeline of projects through this early engagement which will support the development of anticipatory network investment required to accelerate the connection of renewables. The customer could update this information by amending the NC5 when making a formal planning permission application and formal grid connection application. To reduce the number of speculative applications, it would be appropriate that there is an application fee set for this early engagement and ESB Networks are happy to work with the CRU as they develop this generator connection policy to ensure that this fee is set at an appropriate level.

- **Enhancement of batch process**

The Enduring Connection Policy (ECP) batch process has been successful in tackling the backlog of renewable projects, clearing the waiting list of projects with planning permission seeking a grid connection offer. ESB Networks believes the batching of projects is the most sensible way to ensure the maximum number of projects are progressed to support the delivery of the national decarbonisation targets and for optimal development of the network. Given the challenging CAP24 targets and the need to accelerate the connection of renewables, ESB Networks supports the move to more frequent batches, with bi-annual batches being the most appropriate frequency. For ESB Networks to expediate the grid application process, the connection charges will be based off Generator Standards Charges (GSCs) and estimated pass-through costs from carrying out site visits. The detailed scoping of projects will continue to be carried out in parallel and communicated to the customer when they are available ensuring the time to connect is not compromised by the acceleration of the connection offer process to meet Article 16 RED III timelines. Opening two batch windows per year will support the acceleration of the connection offer processing but it will be important that projects with planning permission or who have made a valid planning application are only accepted into the batch. It is also critical that only projects who have received final grant of planning permission will receive a connection offer. This will ensure that more shovel ready projects are not negatively impacted by grid applications studied in an earlier batch but are delayed in the planning process. ESB Networks welcomes the opportunity to work through scenarios with the CRU and stakeholders by facilitating a workshop if it will support CRU in reaching a quicker decision.

More frequent offer processing timelines, without caps for renewable generators, should align with the annual Renewable Energy Support Scheme (RESS) and Capacity Market auctions resulting in a steady drumbeat of projects progressing through grid delivery, utilising fully every year between now and 2030 and contributing to national decarbonisation targets. The removal of caps will need to be reviewed by CRU following each batch window.

- **More efficient generator charging methodology**

The current generator charging policy, where customers pay 100% for any network uprate works, or percentage share in the case of sharing works, and receive a refund if a future customer connects at the node, has served industry well to date. A simplified process to give customers more cost certainty while reducing the connection offer processing timelines would support the

requirements in REDIII. Given the level of advanced build required to achieve the CAP targets, there will be an anticipated level of DUoS risk until such time as the additional network capacity is fully utilised by the connection of generation over time. ESB Networks believes it is appropriate that a full review of connection charging methodology led by CRU is undertaken and ESB Networks welcomes the opportunity to support CRU in this review.

ESB Networks believes removing the requirement for re-optimisation of projects while being mindful of material DUoS risk, will provide both greater certainty of upfront costs to the customer and will also reduce the time it takes for the System Operators (SOs) to process grid applications.

ESB Networks introduced a per-MVA charging policy, based on utilised network capacity, as part of the Renewable Hubs pilot and consideration should be given to transitioning this per-MVA charging into the new connection policy where there is a pipeline of renewable projects in an area of the network. As part of the per-MVA charging in the Renewable Hubs pilot, the customer only pays for their portion of the shared works as per their MEC. This has significant benefits for customers as they are no longer subject to 100% of the works and avoid the first mover disadvantage of waiting to be refunded as additional customers connect. The identification of renewable hubs and per-MVA charging would only apply to areas of the network where there is a known pipeline of projects and likelihood of the network capacity being utilised in the near future thus accelerating the connection of renewables.

- **Optimal use of existing infrastructure**

The delivery of a Net-Zero Network by 2040 will require a whole-of-system approach, including the optimal use of existing grid infrastructure and flexible connections to the distribution network.

Through our National Networks, Local Connections (NN,LC) programme, ESB Networks has introduced a pilot which is aimed at delivering flexible access for renewable generator connections to the distribution system. The pilot allows for projects to be connected to the system in advance of certain identified works being completed. Subject to the success of the pilot, as this product evolves to business as usual, it will enable faster and cheaper connection methods for customers who can operate flexibly, for example agree to limit their export at the request of the DSO, and under certain conditions (e.g., planned outage of a 110kV/38kV transformer). ESB Networks are currently in the process of reviewing our policy regarding how such connections are facilitated with a view to ensuring that flexible connections are a key feature in customer offerings under future electricity connection policy.

A key measure of the CAP is to accelerate grid flexibility and calls on “System Operators to transform the flexibility of the electricity system through changes to policies, standards, services, and tools, funded and incentivised through regulatory price controls”. The utilisation of longer duration storage, for example, to provide flexibility services by providing congestion relief caused by excess demand or excess supply is being considered.

ESB Networks supports the integration of hybrid technology to optimise existing infrastructure as it has the potential to facilitate increased volumes of renewables faster. Development of hybrid policy, in particular facilitation of Multiple Legal Entities (MLEs) behind one connection point, and policy on the sharing of Maximum Export Capacity (MEC), will support the acceleration of connecting renewables and contributing towards the CAP targets.

Another way of making efficient use of existing grid infrastructure is the prioritisation of projects which are repowering. Once the existing dedicated connection meets the Distribution Code standards, repowering will enable a faster way of connecting additional MWs provided that the application has been technically assessed and the capacity is available to accommodate the additional MEC. Where there is no increase of MEC, ESB Networks supports the processing of repowering projects through the modification process rather than the batch process and, as included in Article 16 REDIII, the acceleration of processing renewable projects seeking to repower.

- **Enduring process for Mini-Gen, Small-Scale Generation, and alignment of MEC=0 projects**

ESB Networks has carried out extensive work to ensure simple robust processes are in place to facilitate customers seeking to connect Mini-Generation and Small-Scale Generation (SSG) to the network. For example:

  - The initial Mini-Generation pilot successfully launched at the end of 2021 and there was a significant level of interest and overall positive reaction to the new streamlined process. This pilot was subsequently extended and there have been over 2,000 applications, enabling customers to safely and easily connect renewable generators of up to 50kW to the electricity network. To date over 550 renewable generators connections (~17.5MW) have been connected to the distribution system through this process.
  - The SSG pilot launched in September 2022 for customers installing generation of up to 200kW. This includes a simplified application form and a significantly streamlined application process. To date over 300 applications have been received with 80 renewable generators (~9MW) already connected to the distribution system.

Transitioning the Mini-Generation and Small-Scale generation pilots to an enduring solution, under this policy, will facilitate large quantities of customers to connect in line with the requirements of RED III.

ESB Networks has seen a very significant rise in the number and type of non-exporting (MEC=0) applications. The current process is no longer fit for purpose, an updated policy and process is needed with the introduction of an application fee and a limit applied on the amount of installed generation capacity to 100% of the customer's Maximum Import Capacity (MIC). The fee is to cover the technical assessment and offer processing time which includes site visits. The limit on installed generation will ensure a greater number of customers will benefit from generating electricity for self-consumption and avoid first mover advantage. Rather than having a separate process for these generator applications it would be more efficient to align this application process with the other existing pathways to connecting generation to the distribution system. This in turn will enable appropriate resources to be allocated to this area on an ongoing basis, ensuring turnaround times are managed effectively and continually reduced as we develop and manage the anticipated increase in future applications.

3. ESB Networks Reponses to Consultation Paper Questions

3.1 Policy Aims & Scope

Q1. Do respondents agree with the proposed scope of the new connection policy?

ESB Networks is in agreement with the proposed scope of the new connection policy. ESB Networks notes that demand connections are excluded from the scope of the new policy and covered in other CRU consultations. This new policy will support the CAP24 Demand Side Flexibility targets to "Ensure that 15-20% of the electricity system demand is flexible by 2025, increasing to 20-30% by 2030, to reduce the peak demand and shift the demand to times of high renewable output". Demand side flexibility will allow, in some locations, the connection of increased volumes of renewable generation.

ESB Networks will continue to support the CRU in the workstreams that are outside the scope of this policy such as Private Wires, interconnectors, demand connections, micro-generation and offshore connections.

Q2. Do respondents agree with the proposed aims of the new connection policy?

ESB Networks supports the proposed aims set out in this Consultation Paper and provides the following comments:

- **Ensuring Security of Supply and the quality of supplies of electricity.**

  ESB Networks is fully committed to supporting the delivery of the national decarbonisation targets as set out in the Government's CAP24. For 2030, this means connecting 9 GW of onshore wind, reinforcing the electricity network to connect at least 5 GW of offshore wind, and connecting up to 8 GW of onshore solar while providing security of supply and a continued reliable and resilient network.

- **Providing certainty for future onshore electricity project development by setting out the rules for connection.**

  ESB Networks agrees that setting out the rules for connection will provide renewable projects with more certainty in relation to locations with available capacity on the network and of their grid connection charges prior to making a grid connection application.

- **Supporting the delivery of Ireland's renewable electricity targets, including Carbon Budget and Sectoral Emissions targets, by ensuring that connection policy facilitates regular processing of connection offers for renewable electricity and other technologies that support renewable electricity. These technologies could include, but not be limited to, energy storage, synchronous condensers, and associated flexible technologies.**

  The CAP24 targets are ambitious and so facilitating those projects which can contribute towards Ireland's renewable energy targets should be an important factor in the future connection policy model. Processing offers that are more likely to progress to energisation

enables the SOs to spend more time on customer engagement at the pre-offer stage, ensuring a faster connection and achieves the optimum grid connection for the customer.

- **Ensuring that Article 16 of RED III is implemented to align relevant grid-permitting timelines with the requirements specified in the Directive.**

  To comply with Article 16 of RED III the new electricity generation connection policy should support faster connection of customers to the network by processing offers that are more likely to progress to energisation in areas where there is network capacity available. Aligning the planning and grid processes, enhancing the pre-engagement process and providing locational signals will give projects more certainty in relation to good locations for available capacity on the network and in turn reduce the timeframe for issuing connection offers.

- **Promoting efficient and optimal use of existing grid infrastructure and development of future infrastructure to deliver value to the consumer, including facilitating repowering.**

  ESB Networks believes that the "Development of future infrastructure to deliver value to the customer" is critical if Ireland is to achieve the CAP24 targets. As part of ESB Networks' 'Build Once for 2040' concept in our 'Networks for Net Zero Strategy', we are developing Renewable Hubs which involves the advance-build of 110kV/38 kV and 110kV/MV substation developments, located in areas where there is a known pipeline of renewable projects. Following a joint ESB Networks and EirGrid proposal paper and public consultation, the CRU gave regulatory approval for a pilot as part of the ECP 2.4 window for grid connection applications allowing for the development of Renewable Hubs at five locations throughout the country. Further distribution and transmission locations will be considered for inclusion in subsequent ECP processes. Renewable Hubs will support increased levels of wind, solar, battery storage, including community projects and smaller scale generation customers, to connect safely to the electricity network as quickly as possible.

  We will also need to maximise the use of existing infrastructure by providing locational signals in areas where there is available capacity and making better use of existing connections. This optimal use of existing and new infrastructure will require the adoption of new technologies such as storage solutions to relieve constraints, hybrid connections and repowering projects for renewable generation, and flexible connections designed to provide maximum capacity during specific times of the day and constrained capacity at times of peak generation.

- **Facilitating Mini-Generation, Small-Scale Generation, and renewable energy communities.**

  ESB Networks has successfully run pilot schemes for Mini-Generation and Small-Scale Generation. The process was well received by participants and demand continues to be extremely high. The pilots have enabled higher levels of connections within a shorter timeline than was possible via previous application routes. Transitioning these pilots to enduring processes as soon as possible is vital to ensure projects of this size are safely connected to the electricity network.

  ESB Networks is fully committed to supporting renewable energy communities and proactively provides information, advice, and guidance in relation to connecting community-led renewable energy projects to the electricity distribution network.

- **Ensuring swift, effective decision-making and reducing undue administration.**

  By aligning the planning and grid connection processes, increasing early engagement with projects and introducing more efficient charging methodology, it will streamline the connection offer process and reduce undue administration.

Q3. Do respondents agree with the CRU's proposal not to specify prioritisation criteria for the aims?

While there are some aims that may be of higher priority, this may change over time and so ESB Networks does not believe it is beneficial to specify prioritisation criteria for them.

3.2 Application Process & Batch Sizes

Q.4. Feedback is requested on the CRU's minded to approach to introduce a bi-annual batch application process without caps for renewable generators.

ESB Networks is fully committed to supporting the delivery of the national decarbonisation targets as set out in the Government's CAP24 and supports the proposal to introduce more frequent batches. ESB Networks agrees that bi-annual batches, without caps for renewable projects, is the most appropriate level of frequency when considering the SOs ability to process applications, the potential for overlapping batches, and the targets and timelines for processing. ESB Networks currently carries out a detailed scoping exercise before issuing a connection offer, however, to accelerate the processing of applications with two batches per year, a less detailed scope will be included in future offers. The ECP batch process has been successful in connecting renewables to the electricity system and has cleared the back log of renewable projects with planning permission. A well designed, well-functioning and frequent batch process has the potential to accelerate the connection of renewable projects and provide a steady drumbeat of projects who can participate in RESS auctions, CPPAs or other routes to market. There are a number of key areas that require careful consideration in the design of the process that can improve processing timelines.

- **Prioritisation of projects in areas with available grid capacity:** This has the potential to reduce the timelines associated with connection offer processing as it will result in a reduction in the complexity of the network studies and network reinforcement solutions required to connect a customer. ESB Networks now publishes and regularly updates available capacity maps on the ESB Networks' website which provides customers with information on the capacity at the connecting station and the associated 110kV node. Additionally, ESB Networks will be publishing Network Development Plans in 2024 which will provide customers with further information around planned network reinforcements. This information should be used as, and act as, a locational signal in the development of renewable energy projects.

- **Alignment of grid & planning processes:** ESB Networks supports the objective to align the planning process and the grid connection offer to accelerate the connection of renewables. This parallel processing of the grid application needs to be considered carefully as it is important grid capacity is only awarded to projects who have received formal planning permission. Refer to ESB Networks response to question 11 for further information.

- **Generator Charging Policy:** The current generator charging policy, where customers pay 100% for uprate works or percentage share in the case of sharing works, has served industry well. However, given the urgent need to advance build electricity infrastructure as set out above, a review of generator charging policy into the future is required. ESB Networks is proposing a per-MVA charging policy based on utilised network capacity as part of the Renewable Hubs pilot proposal, and consideration could be given to transitioning this per-MVA charging into the new connection policy where there is a known pipeline of projects to provide greater certainty around connection costs and reduce the offer processing timelines.

- **Advanced Infrastructure Approach:** An 'Advanced Infrastructure' approach will ensure that high voltage network solutions deployed today are scalable to meet the needs of customers and stakeholders in a zero-carbon society. Several solutions are currently under investigation to address the challenge of developing a distribution network to meet these demand and generation capacity requirements out to 2040. As part of ESB Networks' 'Build Once for 2040' concept in our 'Networks for Net Zero Strategy', we are developing Renewable Hubs which involves the advanced-build of 110/38kV and 110/MV substation developments, located in areas where there is a known pipeline of renewable projects. Renewable Hubs will support increased levels of wind, solar, battery storage including community projects and smaller scale generation customers connect safely to the electricity network as quickly as possible.

- **Overlapping of batches:** ESB Networks supports a process without caps for renewable projects. It should be noted that if any batch is heavily subscribed it can have knock on implications for the processing and timelines associated with the following batch. The measures outlined above and later in this document will assist in minimising this risk. ESB Networks believes that it is necessary for CRU to carry out a review of the new connection policy following each batch and take action where required to ensure the efficient operation of the process.

Q.5. Are there certain categories that should be considered outside the batch process? If so, what should these be?

ESB Networks view is that the batching of projects, regardless of category or technology type, is the most prudent way to ensure the optimum development of the network for our customers.

Q.6. Do respondents consider a cap on renewable generation projects appropriate in the context of the RED III Directive? Do respondents consider caps on other technologies or categories appropriate?

ESB Networks does not consider a cap on renewable generation projects appropriate and supports the removal of any such cap. Additionally, ESB Networks supports the introduction of prioritisation for renewable energy projects and technologies that enable the connection of further renewable energy projects to the system. It is important CRU carries out a review following each batch to ensure the removal of the cap on the number of renewable generation and storage projects is not negatively impacting the efficient operation of the process.

Q.7. If a cap were to be applied, should there be prioritisation within a category? How might prioritisation be applied? Should prioritisation be different depending on the category under consideration?

While ESB Networks does not support the introduction of a cap, ESB Networks supports the inclusion of prioritisation of the processing of renewable energy projects and technologies that enable greater levels of renewable energy projects connecting to the network and contributing to the CAP24 targets. Should a cap be introduced now or in the future, or should in-batch prioritisation occur the following criteria should be considered:

- Renewable Energy Projects
- Planning Permission Grant Date
- Areas With Available Network Capacity

Q.8. Do respondents consider that the closing of nodes to further applications for a certain period of time could result in optimal solutions for customers connecting at that node?

As part of the batch process all projects that apply at a node will be studied together and future applicants will have to wait until all projects at that node confirm acceptance or rejection of their offers before the technical study for the next project(s) can commence. This is to avoid the restarting of studies and negatively impacting the timelines for any application already under study at that node. To reduce the impact on future projects that apply at a node, and avoid overlapping batches, ESB Networks proposes the time taken for an applicant to accept/reject an offer should be reduced from 3 months to a maximum of 2 months. If a batch is heavily subscribed, and there is an overlap of batches, there may be a requirement to temporarily suspend applications at that node until the study of the previous batch is complete. Strict rules on when an applicant meets the criteria to be processed under a batch and when an applicant is due a connection offer, must be adhered to in order to mitigate the risk of overlapping batches having a negative impact. Rather than close nodes due to overlapping of studies between consecutive batches, there could be an opportunity to carry out advance build based on the pipeline of projects interacting between batches and it will be important that DUoS risk is managed carefully in these instances.

Q.9. Under what circumstances might re-optimisation be required/retained?

ESB Networks favours the removal of re-optimisation as standard, however it can be considered by the DSO on a case-by-case basis where the optimal solution at the node is reached through re-optimisation. In general re-optimisations will not take place but if there is a possible benefit to the customer or the DSO then a re-optimisation may be considered. Advance build will be an important consideration in reducing the need to re-optimisation where there is a known pipeline of projects, it is important this potential DUoS risk is managed carefully.

Q.10. How might the above process be aligned with other processes outlined above?

Currently one of the eligibility requirements for entry to a batch is planning approval from the local planning authority. While this helps to reduce speculative applications and signals the customers' intent to proceed with an offer, ESB Networks understands that the timelines specified in RED III make this challenging if the bi-annual batch approach is followed. In order to help align with a bi-annual batch approach it will be necessary to amend the requirements of entry to a batch. This could take the form of accepting proof from the planning authority that a customer has made a valid planning application. The customer would provide evidence to ESB Networks as part of their grid application documentation.

As part of the RESS auction eligibility process projects need to have received a grid connection offer to participate. To align the grid connection process with the RESS auction process consideration should be given to the timing of the opening of the batch application window to ensure participants are in receipt of their grid connection offer prior to the RESS auction. However, if the RESS auction dates were to change in future, the opening of the batch application window should not be adjusted as to do so would slow down the processing of all projects.

Also, it is intended that the Capacity Market Code (CMC) will state that valid grid connection agreement / offer is to be required for a capacity to be qualified for a capacity auction. Therefore, the timing of the application window opening should be aligned, at least initially, with the capacity auction qualification process so as security of supply projects are in receipt of their grid connection agreement and are thus not impeded when applying in the capacity auction.

3.3 Interactions with the Planning Process

Q.11. Do respondents support the objective to improve alignment with the planning process? Are there risks associated with any pre-engagement process?

ESB Networks supports the objective to align the planning process and the grid connection offer to accelerate the connection of renewables. This parallel processing of the grid application needs to be considered carefully as it is important grid capacity is only awarded to projects who have received formal planning permission. There are risks with paralleling both processes, for example if a project's planning permission is appealed and delayed for a long period of time, then the network study may need to be restarted because the network configuration changed since the original technical study was completed. However, by paralleling the processes, it will enable the network operators complete the technical study and assuming the project received planning in a timely manner, and there were no other applicants that impact that part of the network in the interim, then the connection offer can be issued in a shorter time.

A pre-engagement process would benefit projects when deciding whether to make a formal grid application, however the information shared needs to be caveated as it would only be based on the network information available at a point in time. This pre-engagement could take the form of a customer meeting where a high-level assessment of the connection options assessed are outlined to the customer, hence the importance of customer submitting NC5 application form details a minimum of three months pre batch window opening. The customer could then use the information from the customer meeting when making a formal planning permission application and formal grid application. ESB Networks is happy to engage with CRU about a fee for this pre-engagement and the fee deducted from the total application fee.

Q.12. Do respondents consider Option 1 appropriate (i.e., changing the requirement of planning permission being granted prior to application)? What steps could be taken to prevent speculative applications? Is it more appropriate for planning permission to be received before either a) receiving a connection offer, or b) executing an offer?

It is critical projects receive planning permission prior to receiving a formal grid connection offer. The grid application process could be carried out in parallel with the planning permission process, but the connection method and connection charges cannot be finalised without the planning permission being granted. Planning permission timelines can vary significantly by project depending on

technology, location and especially if there are appeals to a project, it would be inappropriate to award network capacity to a project which might not be used due to planning delaying the project progressing. Delaying the issuing of the connection offer until final planning is granted brings a risk that the technical study may need to be re-optimised because other projects at that node progressed quicker through the planning process and were awarded the available network capacity. It is important shovel ready projects are not negatively impacted by projects that are slower progressing through the planning process.

In order to prevent speculative applications, the system operators should not accept a grid application until the customer has provided proof from the relevant local authority that a valid planning permission has been made for the project, this could take the form of a letter from the relevant local authority. Similarly, a connection offer will only issue when the customer provides proof of having received final grant of planning permission, this could be a letter from the relevant local authority. If an applicant has not received planning permission within the six-month window, the applicant receives a grid connection assessment which will remain valid for 1 year, however this connection assessment maybe subject to change due to network changes or interactions applicants in the following batch.

ESB Networks welcomes further engagement with CRU and stakeholders on clearly identifying when a grid application is accepted and when a connection offer issues which are important requirements when moving to two batches per year.

Q.13. Do respondents consider Option 2 appropriate (i.e., an enhanced / expanded pre-engagement process)? What steps could be taken to prevent speculative applications? How might such steps be applied relative to a project's scale? What might be appropriate in the context of application fees?

There are benefits in the system operators carrying out customer meetings prior to accepting the formal grid application. This is an opportunity to highlight any network reinforcements that may be required and may influence the customers' decision in proceeding with their planning application at that point in time. ESB Networks' development plans will outline where network reinforcement projects are planned into the future which will give renewable projects an indication of where the network capacity will be made available thus enabling projects connect safely to the electricity system. To prevent speculative applications, it is important that there is an appropriate fee as part of the pre-application process and this fee would be deducted from the grid application fee should the customer make a formal grid application. Pre application customer meetings would not be obligatory but would be carried out in advance of each batch window opening.

We welcome the opportunity to engage with CRU on an appropriate pre-application fee, this would include the administrative processing, high level technical assessment and customer engagement meeting. Community-led projects would not be charged a pre-application fee but would be charged a fee to make a formal grid application.

Q.14. Do respondents consider Option 3 appropriate (i.e., a combination of measures of both Options 1 and 2)?

While each of the measures outlined in Options 1 and 2 will assist in the acceleration of processing renewable applications, to meet the processing timelines specified in Article 16 of RED III a combination of the measures outlined in Options 1 and 2 is required.

Q.15. Do respondents have any other views on how the processes might be aligned?

To comply with the Article 16 RED III timelines, it is essential that the planning and grid processes are operated in parallel. The timelines are challenging, and it must be noted that the clock for processing applications stops if customer information is outstanding. There needs to be strict limits on the time a customer must come back and address any queries. ESB Networks are happy to engage with CRU in relation to what is an appropriate limit and if the customer does not revert in that timeline, then the System Operator may remove the applicant from the current batch as they could negatively hold up the processing of the remaining applications.

3.4 Capacity Market & Security of Supply

Q.16. Do respondents agree that the above processes (capacity auctions and LCIS or similar procurement initiatives) should be included in the new connection policy?

Security of supply is critical to Ireland, and to support it, ESB Networks believes it would be beneficial to include the capacity auction process in the new connection policy. ESB Networks currently facilitates security of supply projects seeking to connect to the distribution system by prioritising those projects successful in the T-4 and T-1 Capacity Auctions. As stated in the consultation, as per SEM-23-03627, it is intended that the Capacity Market Code (CMC) will state that valid Grid Connection Agreement / Offer is to be required for capacity to be qualified for any capacity auction. It is also CRU's intention to gradually phase out issuing grid directions. Therefore, the timing of the batch processing should be aligned with the capacity auction qualification process so that security of supply projects are in receipt of their Grid Connection Agreement and are thus not impeded when applying in the capacity auction. However, if the capacity auction dates were to change in future, the opening of the batch application window should not be adjusted as to do so would slow down the processing of all projects.

3.5 Locational Signals

Q.17. Do respondents consider that a form of locational prioritisation could be appropriate?

Where a requirement for prioritisation may exist, it would appear to be appropriate to prioritise projects where network capacity is deemed to be currently available or those projects whose associated works have shorter timelines. Such an approach would be expected to reduce the timelines associated with the processing of grid connection offers and facilitate the connection of greater volumes of generation projects.

Q.18. Do respondents consider that locational signals should be provided for non-generation technologies?

In cases where non-generation technologies interact with network capacity in the same manner as generation, the same locational signals should be available. If there is a unique and influential network interaction a different set of locational signals may be appropriate where possible.

Q.19. How might locational signals reduce connection costs?

The outcome of effective locational signals should be to make optimal use of existing network infrastructure and encourage projects to locate where network capacity exists. By locating a project in an area where there is available capacity it will facilitate quicker connections at a lower cost without the need for major network infrastructure costs.

Q.20. How might locational signals promote efficient and optimal use of existing infrastructure?

The promotion of efficient and optimal use of existing infrastructure relies upon the provision of meaningful information as early as feasible in the process, insofar that it can exist.

The “Available Capacity Heatmap” and “Minimum Cost Calculator” are examples of two early indicators for a generator customer aimed at providing an initial high-level outlook. In addition to this, pre-engagement meetings held prior to ECP batches provide a more powerful early indication of the outlook for generation looking to connect to the distribution network. This enables projects to make determinations far earlier in the process and allows focus to be placed on the most feasible connections.

Q.21. How might locational signals promote development of future infrastructure?

Should the pipeline of anticipated future projects be considered as a locational signal, it can be used to support the determination of where the development of network infrastructure is required. This signal supported the selection of five 110 kV nodes in the Renewable Hubs Pilot (CRU2023131). Equally where the network capacity may appear constrained, it may not necessarily be a barrier to a sufficient pipeline of projects collectively. A broader perspective can be developed at each node using key locational signals.

3.6 Costs & Charges

Q.22. How might additional transparency be provided in relation to network charges?

ESB Networks has been cognisant of industry feedback with respect to the formulation and transparency of pass-through charges. This was noted during the 2020 review of Generator Standard Charges (GSCs). ESB Networks is acutely aware of the necessity that connection offers

contain costs that are a reasonable forecast of the customers' final connection charge. These costs play a key role in project financial feasibility and due diligence studies in advance of capital investment. In this regard ESB Networks has undertaken the following process changes:

- **Connection Offer Studies**

Prior to a connection offer being issued, detailed technical studies are undertaken to assess the most optimal connection for the application under consideration. The optimal option is furthermore subject to a scoping exercise resulting in a comprehensive study of the proposed connection's impact on the system and the works required. The 2020 GSC review did highlight the reasonable concerns of industry in relation to potential pass-through charges (PTCs) and their impact on grid costs. ESB Networks at the time explained the necessity for PTCs and their bespoke cost depending on the level of works required, especially in regard to civil works.

In response to customer feedback, ESB Networks included a provision in the customer offers for any PTCs that were identified during the scoping phase. This has been further enhanced with a detailed description of the works included. The detailed descriptor was included in lieu of a detailed breakdown owing to the timelines associated with issuing grid offers. However, following a small number of requests, customers have been issued separate cost reports giving a more comprehensive breakdown of the PTCs.

- **Grid Connection Cost Reports**

These reports were developed in conjunction with industry representativeness (WEI & ISEA) and were developed to give greater detail as to how the costs were derived. They are generally produced where there are substantial PTCs in a grid connection and aim to give customers an update on their projected grid connection cost. This permits the customer to query any of the elements and also assist in their own cashflow management.

The adoption of the above has resulted in the provision of indicative PTCs at offer stage and reconciliation of same at each subsequent stage payment waypoint. ESB Networks believes that this has greatly addressed the transparency and cost breakdown concerns identified by our customers. These interventions have been well received by industry and ESB Networks is always willing to take customer opinion on board in an effort to continuously improve.

Q.23. Should the charging methodology be amended? If so, what are respondents' views on the options provided? What are respondents' views on the need for project-specific costs in "lower-priority" areas?

ESB Networks believes it is appropriate that a full review of connection charging methodology led by CRU is undertaken as it will result in a more efficient offer process that will be necessary to facilitate more regular rounds of connection offers and assist in meeting the RED III objectives and offer applicants greater cost certainty. There is however a balance to be struck between the net benefits and allocation of the costs in a fair and equitable manner. ESB Networks welcomes the opportunity to support CRU in this work. Below we have set out ours views in relation to each of the options provided:

Option 1 - Removal of Re-optimisation

ESB Networks would favour the removal of re-optimisations as it will greatly assist in the efficient delivery of infrastructure and associated capacity. More regular rounds of connection offers, coupled

with the associated RESS process, can only be effective if applicants are assured that their connection can proceed unhindered by other applicants at the same node. This will necessitate UoS exposure, but the anticipated increased flow of connections is considered a significant advantage. Furthermore, it shall give greater certainty to developers as to the viability of their connections.

Consideration should be given to expanding this provision to permit customer connection works that are dependent on works in earlier batches if the prior customer has not progressed. This would require UoS to "step-in" to cover the earlier non advancing party, but again it merits consideration as it maintains the flow of connections and gives a positive signal to industry.

The adoption of the above will also assist in locational signalling and the promotion of efficient and optimal development of the system.

Option 2 – 100% Reinforcement Costs

ESB Networks believes that this option will be a hindrance to the efficient issuing of offers and delay progression of projects, especially in the context of multiple offers at the same node. ESB Networks would also concur with the CRU's comments with respect to administrative burdens and timeline delays. In ESB Networks' recent experience, many of the smaller capacity projects are very price sensitive and therefore require an offer that is representative of their final grid connection cost. This proposal only adds upfront costs, and some customers may reject their offers in lieu of awaiting a potentially better one once all node offers are resolved. Furthermore, it will potentially delay applicants entering the subsequent RESS auction as they await re-optimisation of their grid offer.

Option 3 – Networks Reinforcement Connection Charge

ESB Networks believes this option considers further review as it would give more cost certainty to customers from the outset and could mean more equitable charges across all generator customers. Furthermore, demand connections could also benefit from these reinforcement works, thus diluting the generators per MVA charge. ESB Networks would welcome the opportunity to explore this option further as part of a wider CRU led review of generator connection charging.

Option 4 – Per MVA Charging

This option also merits further exploration as part of a wider CRU led review of generator charging policy. The Renewable Hub Pilot sets out how a per MVA charging policy has potentially significant benefits for customers as they are not subject to 100% of the reinforcement works if they are the first mover and having to wait to be refunded when more customers connect. This financial benefit will result in lowering the cost of connection offers but increases the DUoS risk for a period of time. This will be become more prevalent with advance infrastructure build permitting System Operators take a longer outlook on grid development with a lower impact on the generator customer.

Option 5 Streamlined Charging Methodology

EirGrid has proposed the following:

- *A shortened "menu" of non-contested costs for bays, stations, circuits, etc., with a "base" cost.* The formulation of a base cost would need to be such that that it did not result over or under recovery by the SOs involved. Any base cost would need to be carefully formulated and stand up to scrutiny and ultimately protect UoS.

- *Least Cost Chargeable (LCC) analysis would be simplified, with Customer Preferred Connection Method (CPCM) and System Operator Preferred Connection Method (SOPCM) being retained.*
  ESB Networks welcomes the opportunity to consider all opportunities to simply the charging policy and opportunities to advance build where there are pipelines of generation projects and growth in demand due to electrification.

- *A "fair-usage clause" whereby a standard additional charge would be levied on a customer incrementally where they are deemed to materially exceed a reasonable allocation of TSO and Transmission Asset Owner (TAO) oversight time as stated in their connection agreement.*
  ESB Networks welcomes the opportunity to explore the idea of a fair usage clause further with industry.

- *The potential for a locational scalar.*
  This would need to be explored in more detail given there are significantly more nodes on the distribution system relevant to the transmission system.

- *Simplified rebates and allocated charges.*
  ESB Networks support the simplification of rebates and the renewable hubs pilot where customers only pay for capacity utilised. Anything that makes this process easier would be welcome and supports the exploration of this option as part of a wider CRU led review of generator connection charging.

- *A first-mover disadvantage mitigation payment comprising station common cost and bay cost for each spare bay.*
  ESB Networks welcome the opportunity to carry out a wider review of charging policy where all of the above options can be explored in more detail.

Q.24. Is the current application fee deposit level appropriate?

ESB Networks supports the introduction of a fee for the initial grid assessment at pre-application stage. This fee could be carried forward and subtracted from the application fee deposit if a project was to proceed to a formal grid application. ESB Networks believes the current application fee deposit of €7,000 for Category A and B applicants and €2,000 for Category C (community-led energy projects) is appropriate.

Q.25. Do respondents think it appropriate to change the bands for application fees to align with other processes such as SSG and SRESS?

ESB Networks agrees that the application fee bands should be adjusted to align with the capacities for Mini-Generation, Small-Scale Generation and SRESS. Smaller scale generation projects are more sensitive to upfront project charges so adjusting the application fee bands could reduce the costs associated with these projects, enabling more to connect. ESB Networks can review and adjust the bands as required.

Q.26. Do respondents support the introduction of a fee for the initial grid assessment at pre-application stage (see Section 2.3)?

To reduce the risk of speculative applications and to lessen the burden on the SOs it is essential that a fee is introduced for the initial grid assessment at pre-application stage. There is significant time and effort required by the SOs to prepare the relevant information prior to customer meetings. The fee would cover the administrative processing, high level technical assessment and customer engagement meeting. This fee could be deducted from the formal grid application fee if the project chooses to proceed to that stage.

3.7 Community-led Projects

Q.27. How might community projects be supported through the new connection policy?

ESB Networks is fully committed to supporting communities and proactively provides information, advice, and guidance in relation to connecting community-led renewable energy projects to the electricity distribution network. As per the current ECP process, community-led projects are supported by having a lower application fee deposit, not requiring planning permission to receive a connection assessment, and having up to 2 years to obtain planning permission before a connection offer is issued.

There was an extensive amount of customer engagement carried out by ESB Networks during the ECP-2 process. The customer engagement was well received by industry, and it allowed customers reduce MEC or amend their proposed connection method. As per Section 3.3, ESB Networks is proposing an enhanced pre-engagement process which would provide customers with an initial high level grid assessment and could assist projects, before they commit any more finance to their project. There would be no fee for community projects involved in the pre-application stage.

There is a high attrition rate of community-led renewable projects withdrawing their applications due to limited network capacity and their projects triggering network reinforcements costs. Renewable Hubs have introduced a per MVA charging methodology, where projects will only be charged for their per-MVA share of any of the shared uprate works costs. This could help facilitate the connection of community-led projects by reducing upfront costs and providing developers with more certainty. Given the higher attrition rate of community projects and smaller projects, a CRU led review of connection charging methodology may lead to enabling more community energy projects connect to the electricity system.

Q.28. Would respondents be supportive of managed access for community projects to reduce the associated grid connection costs?

Under the National Network, Local Connections Programme (NN,LCP), Flexible Access (also referred to as managed access) for generator connections is currently under pilot. Projects which are considered eligible for the pilot are those which drive significant reinforcement works - primarily transformer uprates. Any such eligible projects are assessed for the possibility of Flexible Access. Under such an arrangement the pilot project would have firm and flexible export limits based on availability of the station transformers.

Allowing for flexible access connections will:

- provide a timelier connection as significant reinforcement works are not required.

- reduce associated connection costs for the customer.

While this is currently a pilot project, it is hoped that it will be successful and will ultimately allow these connections to endure as flexible.

Community projects have been included to date and continue to be assessed where projects meet the criteria. ESB Networks supports the proposal to offer community projects or other eligible projects flexible access.

Q.29. Are the additional considerations for community-led projects in relation to interactions with the planning process (see Section 2.3)?

The enhanced pre-engagement process should provide community-led projects with additional information on the viability of their project before they decide to proceed to the grid and planning permission application processes. ESB Network suggests that obtaining planning permission to receive a connection assessment remains a non-requirement for community-led projects.

3.8 Hybrids, Storage & Repowering

Q.30. Are storage, hybrids, and repowering categories that should be considered outside the batch process? If prioritisation criteria are applied, what might these be? Should any caps be applied? If so, what might these be?

- **Storage**

A key measure of CAP24 is to accelerate grid flexibility and calls on “System Operators to transform the flexibility of the electricity system through changes to policies, standards, services, and tools, funded and incentivised through regulatory price controls”. System flexibility means a portfolio of practices and technologies, including storage, that increase network efficiency, resilience, and ability to integrate variable renewable energy sources. ESB Networks is enabling flexibility through the NN,LCP and plans to put systems in place to meet the system flexibility targets set out in CAP24.

To support the intermittent nature of high penetrations of non-synchronous renewable generation there is a need to connect high volumes of energy storage to the electricity system. ESB Networks, together with EirGrid, has been connecting energy storage projects to the electricity system. As stated in the consultation, it is considered by industry that batches are unlikely to be heavily subscribed for future applicants. Storage should be included in the batch process, with a CRU led review following the completion of each batch.

- **Hybrids**

ESB Networks supports the integration of hybrid technology to optimise existing infrastructure which has the potential to facilitate increased volume of renewables faster. Development of hybrid policy, in particular facilitation of Multiple Legal Entities (MLEs) at a single connection point, policy on the sharing of MECs, and the recent decision to remove the over-install limit of 120% of MEC (subject to a review by the SOs for hybrid projects), will support the acceleration of connecting renewables and contribute towards the CAP24 targets. ESB Networks has been working with the CRU and EirGrid to

ensure that hybrid technology electricity system connections are facilitated. The SOs have been engaging with the CRU on a suggested contractual framework approach to facilitate MLEs at a single connection point. The sharing of MECs for hybrid connections has the potential to optimise the use of existing grid infrastructure, reduce costs, and increase speed in deploying additional renewable generation to the electricity system.

If the CRU's minded-to position of bi-annual batches with no caps for renewable generators is confirmed, then prioritisation criteria for the batch formation is no longer applicable. However, if a cap is required hybrid projects should be prioritised in the batch formation as they are likely to increase the overall capacity factor of sites and produce additional MWhs thereby contributing more to reaching the CAP24 targets and to potentially improve security of supply.

Although hybrid projects do provide an opportunity to maximise available resources, the nature of the co-located technology also introduces operational complexities that ESB Networks will need to examine to ensure the power system is operated in a safe and secure manner.

- **Repowering**

ESB Networks is aware that the repowering of existing projects can play a key role in achieving the CAP24 targets. Article 16 of RED III includes requirements for faster connection offer processing for repowering projects. To accelerate these connection offers, and where there is no increase of MEC, repowering projects should be required to go through a modification process rather than the full batch process. Where the repowering results in an MEC increase, there will be a requirement for the project to be restudied and to enter the batch process, however, they should be given priority (if required) when processing applications.

Q.31. Do respondents consider that a modification process be utilised and appropriate for repowering projects where no increase in MEC is required? Are there other approaches that should be considered?

Where there is no increase in MEC, projects should apply through the modification process at any time throughout the year rather than submitting an application through the batch process.

Q.32. How might Firm Access be treated in the context of repowering?

If there is no increase in MEC the level of Firm Access associated with the project should be maintained. Where the repowering projects seeks to increase its MEC then the additional capacity will be studied as per the connection policy guidelines.

3.9 Mini-generation, Small-Scale Generation, & Non-Exporting Generation (MEC=0)

Q.33. The CRU invites feedback on the Mini-Generation Pilot and whether respondents consider the process should be maintained on an enduring basis.

ESB Networks successfully launched the Mini-Generation Connections Pilot at the end of 2021 enabling customers to safely and easily connect renewable generators of up to 50kW to the electricity network. The new streamlined connections process was welcomed throughout the industry and interest has continued to increase rapidly. By January 2024, over 2,000 applications have been received and over 550 renewable generator connections (~17.5MW) have completed their installations and been connected to the distribution system through this process.

ESB Networks have continually developed the process since its initial introduction and believe that it is now ready to transition to an enduring solution. This will ensure longer term enhancements can be made to reduce timelines and facilitate even larger quantities of customers to connect renewable generation to the system.

Q.34. The CRU invites feedback on the Small-Scale Generation Pilot and whether respondents consider the process should be maintained on an enduring basis.

ESB Networks successfully launched the Small-Scale Generation Connections Pilot in September 2022 enabling customers to safely and easily connect renewable generators of up to 200kW to the electricity network. This pilot further built on the success of the Mini-Generation Pilot and enabled larger renewable generators to be connected in a more efficient manner than what was previously possible. By January 2024, over 300 applications have been received and over 80 renewable generator connections (~9MW) have been connected to the distribution system through this process.

ESB Networks has continually developed the process since its initial introduction and believes that it is now ready to transition to an enduring solution. This will ensure longer term enhancements can be made to reduce timelines and facilitate even larger quantities of customers to connect renewable generation to the system.

Q.35. Do respondents consider that a separate application process is required for non-exporting generators?

When a customer installs generation and it is operating in parallel with the electricity system, regardless of whether there is export, there can be contributions to key system characteristics such as, short circuit levels (SCL), protection settings, thermal ratings, voltage rises and potential power quality impacts. Therefore, ESB Networks consider non exporting (MEC=0) generators to be similar to other types of generator installation requiring technical assessment and approval in advance of connection to the electricity system. As different levels of assessment are required depending on the size of generator being installed the most effective and time efficient way of processing these applications is to align them with the existing application processes for the size of generator involved.

As such ESB Networks propose that the most effective way of processing all non-exporting (MEC=0) applications is to align them, based on generator size, with the existing NC5/7/8 application processes and therefore do not believe a separate process is required.

When a customer installs generation that is not operating in parallel with the electricity system i.e. standby generation, there is no impact on the electricity system and no requirement for a technical assessment but it is important customers notify ESB Networks of the details of the standby generation so that the customer protection equipment is witness tested.

Q.36. If so, do respondents support the introduction of an application fee for the MEC=0 process to reflect the cost associated with these applications?

ESB Networks has seen a significant increase in MEC=0 applications since 2020. Historically customers applying under the MEC=0 process installed generation for standby purposes which were typically diesel generator sets or combined heat and power (CHP) generation. More recently, applications are received from commercial customers installing on site solar generation, greater than micro-gen, for self-consumption purposes to reduce energy costs and contribute towards their sustainability targets. To date these applications have been processed by ESB Networks with no application fee. There is a significant amount of time spent processing these applications by the different teams across ESB Networks, including processing the application itself, carrying out detailed technical assessments, as well as site visits for witness testing and design assessment. The current process is no longer fit for purpose. It is practice in other jurisdictions for customers installing generation for their own consumption to pay an application fee for the processing of the application irrespective of whether the customer is exporting or non-exporting.

The introduction of an application fee for non-exporting (MEC=0) generator applications is required to align with the other existing pathways to connecting generation to the distribution system. This in turn will enable appropriate resources to be allocated to this area on an ongoing basis, ensuring turnaround times are managed effectively and continually reduced as we develop and manage the anticipated increase in future applications.

Q.37. Do respondents agree that the generation should be limited to MIC in order to further streamline the process for the majority of applicants?

There has been a significant increase in the number of customers applying to install generation greater than their contracted Maximum Import Capacity (MIC). This is a risk because customers installing more onsite generation than their MIC can compromise the safety of the network and/or damage the customers own installation because the connection equipment is rated for the import capacity only and not for a higher amount of electricity that could potentially (in the event of protection failure) export onto the network. This has the potential to be a serious issue particularly at weekends or summer periods when commercial/industrial facilities are not operating, and the generator could be generating more electricity than the MIC.

When a customer installs generation and it is operating in parallel with the network, regardless of whether there is export, there can be contributions to SCL on plant, protection settings implications, thermal ratings, voltage rise limits and potential power quality issues on the distribution network. These connections also have the potential to limit ESB Networks ability to connect new customers in the area without re-assessing the non-exporting connection each time. By limiting the amount of installed generation capacity to 100% of the customers MIC it will significantly streamline the process and mitigate the risk of exceeding equipment ratings and consequent damage to either the customer connection assets or the wider electricity network in the event of a fault on the customers protection system.

ESB Networks agree that renewable connections focussed on self-consumption, such as non-exporting (MEC=0), should be limited to 100% of their MIC. This will minimise the need for costly reinforcement of the electricity network, ensure that the process aligns with the Mini and Small-Scale Generation connection processes, enable connections to be technically assessed faster and therefore ensure connections can be progressed through to completion in a reduced timeline.

4. Conclusion

ESB Networks fully supports the development of a new connection policy that will enable the delivery of the targets set out in the Climate Action Plan 2024. The efficient delivery of renewable electricity generation on to the electricity network is of critical importance for Ireland.

ESB Networks is playing a central role in leading the transition to a net zero future using clean electricity. As set out in our Networks for Net Zero strategy document, which was launched in 2023, ESB Networks is committed to delivering its part to achieve the Climate Action Plan 2023 (and subsequent Climate Action Plan 2024) targets for 2025 and 2030, and to develop a net zero-ready distribution network by 2040 to enable the achieving of Ireland's net zero ambition no later than 2050.

ESB Networks is committed to supporting the development of the electricity generation and system services connection policy. We have carefully considered the topics as outlined in the consultation and have endeavoured to provide feedback that could assist in the design of the new policy to enable Ireland's climate action targets. ESB Networks is available to provide assistance and further elaboration on any point in our response as required. We look forward to continuing to work closely with the CRU and other stakeholders, in developing this fundamental policy.