



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**CRITERIA FOR GATE 3 RENEWABLE  
GENERATOR OFFERS & RELATED MATTERS**

**DIRECTION TO THE  
SYSTEM OPERATORS**

**16th December 2008**

**CER/08/260**

## CONTENTS

	<b>PAGE</b>
<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>1. Introduction</b>	<b>14</b>
<b>2. Background</b>	<b>16</b>
<b>3. Renewable Connection Statistics</b>	<b>19</b>
<b>4. Responses to Proposed Direction</b>	<b>21</b>
<b>5. Criterion for Gate 3</b>	<b>34</b>
<b>6. Gate 3 Requirements</b>	<b>45</b>
<b>7. Timelines for Offers</b>	<b>47</b>
<b>8. Applications from Conventional Generators</b>	<b>50</b>
<b>Appendix 1: List of Renewable Projects in Gate 3</b>	<b>53</b>
<b>Appendix 2: Rules for Determining Node</b>	<b>59</b>
<b>Appendix 3: Pricing of Distribution Works in Gate 3</b>	<b>63</b>
<b>Appendix 4: Generation Study Summary Report Template</b>	<b>65</b>
<b>Appendix 5: Connection Method Meetings &amp; Cables</b>	<b>68</b>
<b>Appendix 6: Illustrative Example of ITC Programme</b>	<b>70</b>
<b>Appendix 7: Applicant Data Process</b>	<b>74</b>

## **EXECUTIVE SUMMARY**

---

### **Introduction & Background**

To take account of the increase to the Government's renewable generation target for 2020 from 33% to 40% of electricity consumption, as announced in October 2008, on 13<sup>th</sup> November the Commission published a final proposed direction (CER/08/226)<sup>1</sup> on Gate 3 of Ireland's renewable connection regime. This was published for a short period of final consultation.

This proposed direction provided for the new 40% renewable target by increasing the planned size of Gate 3 to circa 3,900 MW, compared to the 3,000 MW which was anticipated in the Commission's earlier proposed direction of 11<sup>th</sup> July (CER/08/118)<sup>2</sup> in the context of the previous 33% target. The November proposed direction also included the detailed rules to be applied in Gate 3, discussed the treatment of non-renewable ("conventional") connection applicants, and summarised and responded to the key comments received to the July proposed direction. The July proposed direction was itself the subject of extensive public consultation including an earlier consultation paper and two public workshops held by the Commission.

Having considered the 25 comments received to the November proposed direction, as summarised in section 4 of this paper, the Commission now sets out this final direction to the system operators on Gate 3 and related matters. There are no significant policy changes between this paper and the November proposed direction. However, taking on board the public comments received, there are a small number of detailed changes to the Gate 3 rules in this direction, for example on the application cut-off date and an allowance for MEC changes, as explained in section 4 and included in the summary below.

This direction is issued to EirGrid and ESB Networks pursuant to Section 34 of the Electricity Regulation Act, 1999.

### **GDS for Gate 3**

The Grid Development Strategy (GDS) option and approach will be applied in Gate 3. This is EirGrid's forward-looking transmission development strategy<sup>3</sup> which plans the development of the transmission system now to cater for anticipated requirements for the long-term, i.e. for 2025, as requested in the Government's White Paper on energy<sup>4</sup>. It is considered to be the option that best meets the Commission's guiding objectives for Gate 3. By planning and developing the transmission system now to meet its anticipated generation/demand needs over the long-run, a more cost effective, optimal and

---

<sup>1</sup> See <http://www.cer.ie/GetAttachment.aspx?id=9695e6df-0ff3-4441-9dad-e75385a9e30a>

<sup>2</sup> See <http://www.cer.ie/GetAttachment.aspx?id=eda1ec77-4b46-4033-a5c5-7b514ab8b08d>

<sup>3</sup> See: <http://www.eirgrid.com/EirgridPortal/uploads/Announcements/EirGrid%20GRID25.pdf>

<sup>4</sup> See: <http://www.dcmnr.gov.ie/NR/rdonlyres/54C78A1E-4E96-4E28-A77A-3226220DF2FC/27356/EnergyWhitePaper12March2007.pdf>

efficient system can be provided for than would be the case with a more short-term and piecemeal approach. In particular the GDS allows for the efficient/optimal connection of a very significant capacity of renewable generation in Ireland over the coming years, facilitating the achievement of the 40% Government renewable target through a long-term and strategic programme of transmission development, to the benefit of renewable generators and end-customers generally.

### **Key Features of Gate 3**

The key features of the GDS approach as it applies to Gate 3 are as below - full details are provided in section 5 of this paper.

#### 40% Renewable Penetration

1. Among other demand/generation assumptions, the transmission capacity assumptions, derived from EirGrid's GDS and used in its Incremental Transfer Capacity (ITC) Programme (see later), should be on the basis of 40% of electricity consumption coming from renewable generation. This renewable penetration level is consistent with the new Government target of 40% of consumption coming from renewables by 2020 as announced on 15<sup>th</sup> October 2008. Achievement of this target will, of course, among other things also require that planning permission is received for the network infrastructure in a timely fashion. It should be noted that the transmission capacity assumptions will be reviewed bi-annually. In addition they can be adapted if necessary to take account of whatever renewables obligations for Ireland emerge from the Climate Change Package currently being considered by the EU Council of Ministers and Parliament.

#### Gate 3 Size - 3,900 MW

2. The Government's 40% renewable penetration target for 2020 is estimated to be equivalent to about 5,800 MW of installed renewable capacity. Assuming that all contracted renewable projects *and* Gate 2 offers that are live/in process proceed to construction, up to approximately 2,800 MW of renewables could be connected in Ireland over the next few years before any consideration is given to Gate 3. Therefore, to facilitate achievement of the Government's renewable target, an *additional* renewable capacity of circa 3,000 MW needs to be connected by 2020. However, it should be acknowledged that there is a possibility that a portion of the contracted (but not yet connected) renewable projects, unsigned Gate 2 offers and projects in Gate 3 will not be built. In addition likely demand growth from 2020 means that more renewables will need to be connected for the target to hold in 2025, the year that EirGrid's GDS is planning to. Accordingly, in order to achieve the Government's minimum 40% renewable penetration target with a reasonable degree of certainty for 2020 and beyond, **3,900 MW** of renewable generation will be issued offers in Gate 3. Generators in Gate 3 will be connected optimally and efficiently to the network by virtue of the GDS approach and the group processing regime for network connection.

3. This 3,900 MW of renewable capacity in Gate 3 compares with 3,000 MW provided for in the earlier July proposed direction which was expected to more than meet with the earlier 33% Government target for renewables. It should be noted that the 3,900 MW includes the impact of the provision in the July proposed direction for the first 3,000 MW of Gate 3 generators to be allowed to slightly increase their capacity slightly due to the length of time they were in the queue - this increased the earlier Gate 3 size to about 3,130 MW.
4. The Commission believes that, given the sense of urgency associated with issuing offers and connecting renewable generators to the network, Gate 3 should involve the issuance, as soon as possible, of offers to all circa 3,900 MW in one discrete offer programme rather than in separate parts - see the offer timelines in section 7 of the paper and the summary later.
5. To allow for the fact that predicted generation, interconnection and demand will inevitably connect differently to that now forecasted by the GDS, resulting in different transmission needs to that predicted, and also recognising that not all Gate 3 offers may be accepted, the Commission proposes a review of the transmission capacity assumptions every second year from 2011 through to 2025. This will allow for follow-up arrangements (if necessary) for the connection of renewables until the Government's 40% renewable target is achieved. It will also facilitate any changes to the Government's target level of renewable penetration.
6. Moreover, as has been the case since the Commission's paper of April 2005 (CER/05/049), the Commission reserves the right in the future to issue a direction to the system operators to connect renewable - as well as conventional - generator applicants on the grounds of their wider system/public benefit where the impacts on other connection applicants are proportionate to this benefit.

#### Gate 3 Selection by Date Order

7. The Commission believes that including renewable applicants in Gate 3 by application date order is the selection criterion that best meets its objectives for the Gate, specifically providing for fairness, simplicity, transparency, practicality, timeliness and the facilitation of optimal network development. Accordingly renewable applications received and stamped by the relevant system operator, up to and including 16<sup>th</sup> November 2007, are "pre-selected" for inclusion in Gate 3. If the application is not initially deemed complete due to an incomplete application, then the receipt date is recorded as the date that the necessary information has been provided to the system operator. Including these earlier applicants in the Gate will not prevent them from using the most modern and efficient technologies when building their generation plant.

8. This 16<sup>th</sup> November 2007 application cut-off date for inclusion of applicants in Gate 3 is one day later than that suggested in the November Gate 3 proposed direction. This is due to the voluntary withdrawal of one transmission project from the Gate 3 list, and also takes into account comments received to the proposed direction (see section 4). It is the cut-off date that provides for a Gate 3 capacity closest to 3,900 MW in a fair, consistent and robust manner.
9. The full list of renewable projects included in Gate 3 by virtue of the above criteria is provided in Appendix 1.

#### ITC Programme - Date Order Allocation of Capacity

10. The transmission capacity assumptions derived from the GDS will be based on the high-level principles of ensuring network safety, security of supply and economic transmission development, whilst delivering the Government's 40% renewable target in the forthcoming years. The transmission investment levels and associated costs will be subject to regulatory scrutiny/approval by the Commission.
11. Based on the planned transmission capacity assumptions, EirGrid will run the ITC Programme to identify the scheduled firm transmission capacity to be provided to each of the eligible Gate 3 projects for each year from 2010 to 2025<sup>5</sup>. The scheduled firm capacity for each generator will be published by EirGrid with the publication of offer lead-times (see later).
12. The existing and planned nodes to which the Gate 3 generators are assumed to connect are decided upon in accordance with criteria provided in Appendix 2.
13. In any given year from 2010 through to 2025, where the firm capacity of applicants connecting into a node is greater than the node's capacity, the scheduled firm capacity provided (*within* the ITC Programme) to applicants for each year will be rationed on the basis of the date of the application received date - this is exemplified in Appendix 6. It should also be recognised that capacity available at one node will be impacted on by capacity at other nodes. This is the fairest as well as the simplest and most transparent approach and it should be noted that the shallow network works will still be constructed efficiently by virtue of the group processing approach. Consistent with this date-order rationing of firm capacity, applicants in the ITC Programme will be allowed to avail of any firm capacity available at a node in any given year in increments of 0.5 MW, even if less than the amount they applied for.

---

<sup>5</sup> The scheduled firm connection dates provided by the ITC Programme are impacted on by the estimated dates for the completion of shallow and deep transmission works. These dates could change for reasons outside the control of EirGrid, for example due to planning and other consenting delays. Currently any delays in this regard are borne by the connecting party. Firm dates are also linked to the achievement of Operational Certificates for wind farms which requires full compliance with the Distribution and/or Grid Codes.

14. The ITC Programme and the methodology employed to achieve its results will be the subject of an independent technical audit to provide the market with full confidence as to its objectivity and fairness in applying the above rules. The auditor will be appointed by EirGrid with terms of reference approved by the Commission, and that EirGrid issues a report following the audit, to be published on its website.

#### Shallow Works / Access

15. All projects in the Gate will be provided with scheduled firm capacity (estimated by the ITC Programme as above) and, consistent with other Gates, projects without firm access in the first year(s) can connect on a non-firm basis to the transmission system once the transmission/distribution shallow works, transmission short circuit driven deep works (or any other system integrity works), control systems<sup>6</sup> and all deep distribution assets are complete.
16. The Gate 3 transmission sub-groups<sup>7</sup> will be defined primarily by the node assignments as shown in Appendix 2. These node assignments will be published by the system operators within 15 business days of this Gate 3 direction. Within any particular transmission sub-group there could be a number of distribution sub-groups which are defined by sharing a distribution connection method. The node assignment to sub-groups will remain unchanged for the purpose of making offers and the shallow works will be charged to the generators on the basis of the overall Least Cost Technically Acceptable (LCTA) method for the transmission sub-groups so defined. Due to the proposed nature of Gate 3, there are specific shallow pricing rules and these are included in Appendix 3.
17. Once the node assignments have been published, Gate 3 parties will be allowed 30 business days for submitting one connection method suggestion covering the transmission sub-group as whole (as opposed to an individual generator), to the appropriate system operator. The system operator agrees to include an assessment of this suggested connection method in its studies and will accommodate it only if it is the LCTA for the transmission sub-group as a whole. After offer issuance and if requested by Gate 3 developers, LCTA reports will be issued by the system operator, as exemplified in Appendix 4, showing the connection method options considered and the LCTA connection method specified.
18. The DSO will introduce a new process which allows Gate 3 generators to meet both system operators pre-offer issue and to receive an offer based on their dedicated shallow assets being undergrounded. This new process is being introduced on customer service and efficiency grounds and is outlined in Appendix 5.

---

<sup>6</sup> These control systems are installed by the wind farm developer to allow EirGrid to constrain or curtail the wind farm when necessary for system reasons and must be installed prior to first exporting.

<sup>7</sup> A "sub-group" is a set of applicants which share shallow transmission or distribution connection works.

19. Subsequent to offer issuance an individual generator can also apply to modify its connection methodology subject to rules already set out in the Joint TSO/DSO Group Processing Approach Pricing Principles Guidelines<sup>8</sup>. Where the modification involves shared assets, all members of the sub-group need to be party to the modification request. Complex modification requests will generally be processed after all Gate 3 offers have issued, in order to help prevent delays to the Gate 3 offer programme.
20. Similar to previous Gates, in addition to the connection offers, the TSO will issue, generally with the offers, estimates of the likely incidence of constraining off of the recipient's generation output from the date of commissioning until all necessary transmission reinforcement works are expected to be completed.

#### Order of Offers

19. The system operators will process areas for offer issuance in the order of which areas can be processed most easily, i.e. those which are least technically complex. This will allow for the programme of offers to be completed efficiently. However, within this approach and where feasible, the system operators will issue offers to areas with an applicant with the earliest application date.

#### Planning Permission

20. The Commission has decided not to apply receipt of planning permission as a criterion for inclusion of applicants in Gate 3 or in subsequent Gates either. The Commission has decided that it would not be efficient to apply it as a criterion due to timing issues.

#### MEC Flexibility

21. The Commission previously afforded the 3,000 MW of applicants identified for inclusion in Gate 3 (in its July proposed direction) with an opportunity to marginally increase or decrease their MEC to allow for technological changes to turbines. In response to comments received to the November proposed direction, the Commission is providing the additional applicants (not already identified in the July proposed direction) in the Gate with the same facility. These applicants can apply to increase their MEC by up to 20%, capped at 4 MW, or decrease their MEC without any limits. Such application must be submitted to the appropriate system operator within five business days of this direction. The five business day timeline is so as to minimise the potential for this facility to delay Gate 3 offers.

---

<sup>8</sup> See: <http://www.cer.ie/GetAttachment.aspx?id=43ee462b-5a5c-42e4-a796-d2b483e96253>

### Gate 3 Liaison Group

22. As referred to at the Gate 3 Workshop on 26<sup>th</sup> August, a Gate 3 Liaison Group will be established, to be convened by the Commission and consisting of the system operators and representatives of the renewable and non-renewable generation sectors. The Liaison Group will meet on a generally monthly basis throughout the Gate 3 process. It will provide a forum to communicate and discuss ongoing Gate 3 issues of interest to the industry, for example on the form of Gate 3 constraints information, and it will also work to ensure that the Gate 3 offer programme is being adhered to. For clarity, it will not be a policy-making body, and policy issues that do arise at the meetings will be considered separately by the Commission as appropriate.
23. In addition to the Commission and the system operators, the following parties, representing the broad spectrum of stakeholders impacted on by Gate 3, are invited to attend the Liaison Group meetings:
  - Attendee from the Irish Wind Energy Association (IWEA);
  - Attendee from Meitheal na Gaoithe;
  - Attendee from National Offshore Wind Association (NOW); and,
  - Attendee representing non-renewable generators.
24. By Wednesday 7<sup>th</sup> January 2009 the above groups should inform the Commission if they are interested in attending these meetings, and if so nominate both an attendee and a substitute attendee (to replace the primary attendee if necessary) for the meetings. In mid January the Commission will then e-mail all the relevant stakeholders with the following information:
  - Confirmation of the name of the attendee and substitute attendee representing each party at the meetings; and,
  - The meeting dates for the Liaison Group for 2009. It is envisaged that the Liaison Group meetings will be held on a monthly basis from February, at the Commission's office and for a maximum of three hours commencing at 14:15 to facilitate persons travelling from outside Dublin.
25. For the first Liaison Group meeting in February and each meeting thereafter, the Commission will send a proposed agenda to the nominated attendees at least ten business days beforehand, providing each stakeholder until six business days prior to the meeting to suggest additional/other items for the agenda. The Commission will then circulate the final agenda to all parties at least three business days prior to the meeting in question. Subsequent to the meeting, and within five business days, the Commission will circulate by e-mail draft minutes from the meeting to all nominate attendees. The final minutes will then be approved at the following Liaison Group meeting.

### **Gate 3 Requirements**

The following are the requirements that must be met for an eligible project to be included in Gate 3 - see section 6 for details.

1. The first €7,000 installment of the application processing fee (or, if it is lower than this for the generator, the total fee) will be invoiced to distribution-connected generators as soon as practical after the Gate 3 direction, with no such fee invoiced to transmission projects as they have already paid it. The balance of the fee will be invoiced to the Gate 3 project by the system operator at the start of the year in which it is to receive an offer or the publication of the offer schedule (expected September 2009), whichever is later. All fees must be paid within 20 business days of the invoice being sent or disqualification from the Gate will occur.
2. The system operators previously stated that they needed to perform an assessment of the data provided by applicants in order that they have sufficient information to carry out the connection studies for Gate 3. This process was detailed in, and commenced after, the July Gate 3 proposed direction. Following industry comment that applicant data requested is too onerous for some developers at this stage, the system operators have reviewed the timing and level of applicant information requirements, and have come up with a new process such that less will be required at this stage if developers wish. This new processes is detailed in Appendix 7.
3. In order to mitigate the potential for land access disputes which could delay Gate 3, and to move to harmonise the approach between the system operators, the Commission has decided that the appropriate system operator requires that an applicant confirms in writing, and witnessed by a solicitor, that it has acquired any necessary landowner consent(s) to access the land where it proposes to locate the project specified in the application form. This includes the land on which turbines and substation are to be located. The confirmation statement will be requested by the system operators within a few weeks of this direction. Failure to provide this statement will result in exclusion from the Gate.
4. Consistent with previous Gates, EirGrid has advised the Commission that it will not be carrying out dynamic simulation studies as part of the processing of the Gate 3 applications. Connection offers will therefore contain a caveat stating that parties are required to provide a Grid/Distribution Code compliant dynamic model at least 240 business days (1 year) prior to the expected date of connection and that the connection offer is subject to the results of the completed dynamic analysis.

### **Timelines for Gate 3 Offers**

1. The Commission is aware of a strong desire by stakeholders for a clear, predictable and speedy programme for the issuance of connection offers. Accordingly the Commission publishes in section 7 the Gate 3 offer

programme which the system operators have committed to. Making certain assumptions, the ITC Programme will be run from this January, following which Gate 3 offer lead-times and scheduled firm access quantities will be published on the system operators' websites in September 2009. Connection offers to all circa 3,900 MW of renewable projects in Gate 3, and a certain capacity of conventional projects (as decided by the Commission - see next), are then anticipated to roll-out from December 2009 through to June 2011. This therefore involves the system operators issuing offers, over 18 months, to many thousands of MW of renewable and conventional applicants. The Gate 3 Liaison Group meetings will, among other things, discuss the offer programme to help ensure that it is being adhered to.

### **Applications from Conventional Generators**

1. While renewable generators have been subject to the group processing approach to connection, conventional generators have continued to be generally processed for connection individually. This single processing regime has been considered appropriate for conventional generation given the relatively low volume of big projects. Where renewable and conventional applications interact, the Commission has reserved the right to issue a direction to the system operators to process connection applications from conventional plant in tandem with - or advance of - the interacting renewable applicants that are ahead of them in the connection queue. This is considered in accordance with the Commission's direction of April 2005 (CER/05/049), taking account of the public interest benefits arising from the conventional applicant, particularly security of supply, and its potential network access costs, for example in terms of delayed connection, on the relevant renewable generators.
2. It is now timely to examine the effectiveness of the above approach as there is a significant number of renewable and conventional applicants (including interconnectors) seeking to connect to the network with a high level of interaction. The Commission of course welcomes this from both a security of supply and competition perspective. However the volume of applications and their interacting nature mean that it is increasingly difficult for EirGrid to carry out studies on the impact of connecting conventional applications with a high degree of accuracy. Furthermore, the GDS processing approach will allow for the long-term development of the transmission system to connect *both* anticipated renewable and conventional generators (including interconnectors), using the methodology described earlier.
3. For efficiency and practical reasons, *both* the circa 3,900 MW of renewable applicants *and* conventional applications submitted by the date of this direction, which can also provide evidence of land access (as required from renewable generators), will be included by EirGrid in the ITC Programme together, with rules as described. For clarity, this will also include any interconnector connection applications not already processed for connection. As detailed in section 7, the ITC Programme is due to run from

this January. The Programme, which on the grounds of economic efficiency operates to an “n-1” transmission planning standard for generators as opposed to the full “n-1-1” (see section 5), will indicate the scheduled firm connection dates for the conventional applicants to 2025 (and the renewables<sup>9</sup>). However not all of these conventional projects will receive an offer as part of this process, as outlined later.

4. The Commission can then decide whether to advance the conventionals’ scheduled firm connection dates, say for reasons of system security. The dates could be advanced by re-running the ITC Programme and re-arranging their place in the queue and/or by speeding up grid infrastructure planned in the areas in which they are connecting. The Commission also reserves the right to substitute dispatchable environmentally benign stations needed in the public interest into this schedule. These decisions would be taken in accordance with the Commission’s direction of April 2005 (CER/05/049), taking account of the public interest benefits such as security of supply, competition and plant flexibility, the impacts on renewables, and climate change.
5. There is over 6,000 MW of conventional projects in the connection application queue, most of which have applied for connection over the last few months. Processing all of these projects for offer issuance following the results of the ITC Programme would be a cause for concern because:
  - It means that more conventional applicants than are, for example, necessary to provide public interest benefits such as the country’s security of supply, would be issued with an offer ahead of renewable applicants who applied for connection beforehand which are not in Gate 3; and,
  - EirGrid’s GDS may in any event not be able to provide many of these applicants with a firm connection within the period to 2025. This could mean that some of the conventional projects would be operating on a non-firm basis for a considerable period - up to and beyond 2025.
6. Accordingly not all of these conventional projects will receive an offer after the results of the ITC Programme. The Commission will shortly be issuing a consultation paper regarding the size and criteria for the issuance of connection offers to conventional applicants (including interconnectors). In developing the criteria, the Commission will take into consideration its legislative duties, especially in relation to competition, security of supply and the environment. In doing so, the Commission will take into account the overall objective of the “Asset Strategy Agreement” as entered into between the Commission and ESB as signed in April 2007<sup>9</sup>.
7. Once a satisfactory outcome has been achieved from the ITC Programme’s results, the conventional plants that will receive an offer (under criteria that will be separately consulted on, as above) may be further assessed by

---

<sup>9</sup> See: <http://www.cer.ie/GetAttachment.aspx?id=84559ccb-ad26-4da1-aea4-179d920a61bf>

the system operator using additional connection studies. Offers to these conventional projects are anticipated to be issued along with Gate 3 projects, i.e. from December 2009 to June 2011. Offers would be issued to these projects in accordance with the schedule of offers to be published in September 2009, unless a project(s) is advanced in accordance with CER/05/049.

---

## 1. Introduction

- 1.1 This paper sets out a final direction by the Commission for Energy Regulation on the criteria for the inclusion of renewable generator projects in Gate 3 of the group processing approach to renewable generation connection in Ireland. This includes related matters such as the treatment of non-renewable (“conventional”) generator connection applications.
- 1.2 This Gate 3 direction follows extensive public consultation. Firstly, on 17<sup>th</sup> December 2007 the Commission published “Criteria for Gate 3 Renewable Generator Connection Offers - A Consultation Paper” (CER/07/223)<sup>10</sup>, which included three broad potential options on the inclusion of renewable generator applicants for connection in Gate 3. The options and proposals provided in this consultation paper were explained at a public workshop with stakeholders held by the Commission on 22<sup>nd</sup> January 2008.
- 1.3 Taking account of the comments received to this consultation, and given the complex and important nature of Gate 3, the Commission then published a proposed direction on the matter on 11<sup>th</sup> July (CER/08/118)<sup>11</sup> for a second round of public consultation. This paper proposed, in considerable detail, one particular criterion for the inclusion of 3,000 MW of renewable generation in Gate 3 in order to meet what was the Government’s 33% target for renewable generation for 2020. It also included a proposal for the treatment of conventional generator connection applications. A detailed summary of comments received to the previous consultation, along with the Commission’s responses, was also published on this date (see CER/08/119)<sup>12</sup>.
- 1.4 This July proposed direction was the subject of a second public workshop, held by the Commission with stakeholders on 26<sup>th</sup> August to explain and discuss its proposals. The Commission again received numerous - 21 - responses to this paper, of a diverse nature with conflicting opinions expressed. Taking account of - and responding to - these comments, the Commission then published a second proposed direction (CER/08/226)<sup>13</sup> on this issue on 13<sup>th</sup> November 2008 for a short period of final consultation. A key difference between this and the earlier proposed direction was that it provided for the increase to the Government’s renewable target for 2020 from 33% to 40% of consumption, which was announced on 15<sup>th</sup> October 2008. This increased the proposed size of the Gate from circa 3,000 MW to 3,900 MW.

---

<sup>10</sup> See <http://www.cer.ie/GetAttachment.aspx?id=95140e35-c61d-416e-8d33-9e29baa93c61>

<sup>11</sup> See <http://www.cer.ie/GetAttachment.aspx?id=eda1ec77-4b46-4033-a5c5-7b514ab8b08d>

<sup>12</sup> See <http://www.cer.ie/GetAttachment.aspx?id=4d69fe27-2cb8-41f7-8d6d-4f8d842b5e58>

<sup>13</sup> See <http://www.cer.ie/GetAttachment.aspx?id=9695e6df-0ff3-4441-9dad-e75385a9e30a>

- 1.5 The Commission has received 25 comments to this latest proposed direction. The detailed comments are published separately with this paper, where parties do not consider their comments as confidential. The key comments received are summarised and responded to in section 4 of this paper. The Gate 3 criterion is detailed in section 5. Other requirements which must also be met by applicants to be included in the Gate are discussed in section 6, followed by information on the timelines in section 7 and the treatment of conventional applications in section 8.
- 1.6 The Commission publishes this final direction on Gate 3 and related matters to the electricity system operators, EirGrid as the Transmission System Operator (TSO) and ESB Networks as the Distribution System Operator (DSO), pursuant to section 34 of the Electricity Regulation Act, 1999.

## **2. Background**

### **Group Processing**

- 2.1 For a full background on the group processing approach to the connection of renewable generators, see the Gate 3 consultation paper CER/07/223 published on 17<sup>th</sup> December 2007. The Commission continues to believe that the group processing regime represents the most efficient and practical method of processing for connection the large volume of renewable applications - indeed no respondent to the consultation paper or the proposed directions suggested abandoning it. Generally speaking, the high-level group processing rules as they have developed over recent years<sup>14</sup> will continue to apply to renewable generators in Gate 3. Group processing rules will also apply, where applicable, to conventional generators that are processed for connection together as part of this process (see section 8) and share the same shallow connection assets.

### **Gate 3 Objectives**

- 2.2 As stated in the Gate 3 consultation paper and reiterated in the two following proposed directions, Gate 3 options are measured against the following objectives, which sometimes may conflict:
- Be fair and reasonable to individual generator applicants;
  - Be as simple and transparent as possible;
  - Be practical and timely for the system operators to implement;
  - Be in keeping with the philosophy of group processing, in particular by allowing for the network to be developed as efficiently and optimally as possible;
  - Assist the growth of renewable generation in Ireland and facilitate the achievement of the Government's renewable targets; and,
  - Ensure that security of Ireland's electricity supply is maintained, having regard for plant that promote competition and/or bring wider system benefits.

### **Gate 3 Consultation Options**

- 2.3 The consultation paper presented for comment three possible options for Gate 3 (again see CER/07/223 for details), which in brief were:
1. Date Order - the system operators would issue connection offers to a specified volume of applicants in the connection queue by order of the deemed completed date of connection application, as was applied in Gate 1 and partially for Gate 2;

---

<sup>14</sup> The key high-level principles behind group processing are laid out in the following documents - note, some details have changed with subsequent Commission decisions:

<http://www.cer.ie/GetAttachment.aspx?id=2c308364-7459-4bdd-943a-6e5de23a749f>  
<http://www.cer.ie/GetAttachment.aspx?id=43ee462b-5a5c-42e4-a796-d2b483e96253>

2. Date Order and System Optimisation - this would supplement the date order approach by also including in the Gate applicants that allow for the existing network to be used, and/or future network developed, in a more optimal manner, along the lines of Gate 2;
3. “Grid Development Strategy (GDS) Approach” - developed by the system operators, this involves the issuance of offers to a large number of applicants in the connection queue in an optimal manner through more long-term transmission planning/development.

The paper also considered inter-related issues such as planning permission, the application processing fee/data, the offer acceptance and dispute timeline, and interaction with conventional generation.

### **Gate 3 Proposal Direction I**

- 2.4 In keeping with the vast bulk of respondents to this consultation, the Commission’s proposed Gate 3 direction of 11<sup>th</sup> July (CER/08/118) advocated adoption of the GDS approach. Essentially, this means that generators included in Gate 3 would be connected through an optimal and long-term approach to the development of the transmission system, covering the period to 2025. Each generator in the Gate would be provided with an estimated available firm capacity for each year from 2010 to 2025 (and its offer would indicate the changes to its scheduled firm connection levels for this period), applying EirGrid’s Incremental Transfer Capacity (ITC) Programme and using the order of the transmission capacity assumptions derived from the GDS. It was proposed that, in order to meet a Government target of 33% of electricity consumption coming from renewable sources by 2020 with a reasonable degree of certainty, 3,000 MW of renewable generators would be included in the Gate by application date-order. For efficiency and practical reasons, it was also proposed that conventional generator applicants would be included by EirGrid in the ITC Programme.

### **Gate 3 Proposed Direction II**

- 2.5 On 15<sup>th</sup> October 2008 the Government increased its target for renewable generation from 33% to 40% of consumption coming from renewable sources by 2020. Accordingly, and to take account of the impacts of this in terms of the size of the Gate and related matters, on 13<sup>th</sup> November the Commission published a second proposed direction (CER/08/226) for a short period of final comment. This proposed direction provided for the new 40% renewable target by increasing the planned size of Gate 3 to circa 3,900 MW, within broadly the same proposed regime and rule set as in the July proposed direction. The paper also included a summary of comments and responses received to the 11<sup>th</sup> July proposed direction.

### **Gate 3 Final Direction**

- 2.6 Now, having considered the 25 responses received to the November proposed direction, which are summarised and responded to in section 4,

the Commission sets out its final direction on Gate 3 and related matters in this paper. Generally speaking, there are no significant policy changes between the last proposed direction and this final direction. However, taking on board the public comments received, there are a small number of detailed changes to the Gate 3 rules in this direction, for example on the application cut-off date and an allowance for MEC changes, as explained in section 4 and incorporated into this direction.

### 3. Renewable Connection Statistics

#### Already Connected/Contracted - On Course for 2010

- 3.1 This section provides an overview of Ireland's renewable connection/application. In terms of the total renewable generation capacity in Ireland, there is now 1,273 MW connected to the network and 1,443 MW contracted to connect (i.e. which are in the process of being physically connected to the network), the clear majority of which is wind as shown in the below table. Most of those projects contracted to connect consist of signed Gate 1 and Gate 2 connection offers.

Renewable Generation	Total Capacity MW	Breakdown MW, %
Already Connected	1,273	Wind: 1,007, 79% Hydro: 237, 19% Landfill: 30, 2% Biomass: 0.18, < 1%
Contracted to Connect including Gate 2 to date	1,443	Wind: 1,418, 98% Hydro: 0.6, <1% Landfill: 25, 2%
<b>Total</b>	<b>2,716</b>	

These statistics mean that Ireland is on course to meet the Government target of 15% of electricity consumption coming from renewables by 2010 as per the Government White paper on energy<sup>15</sup>, as 15% is estimated to equate to an installed renewable capacity of 1,400 MW in 2010 (see CER/07/223 for details).

#### Potential Connected Pre-Gate 3 - More Needed for 2020

- 3.2 On foot of the Commission's June 2006 direction on Gate 2 (CER/06/172), over 1,300 MW of renewable applicants have been eligible for a Gate 2 connection offer from the TSO/DSO. Gate 2 offers issued from the system operators to renewable applicants in geographic groups across the country from April 2007, with all now issued at this stage. So far, the take-up rate on Gate 2 offers has been very encouraging, with less than 5% of the offered capacity not being accepted by the offer deadline. *If* all outstanding live (and unsigned) Gate 2 offers are accepted and all contracted projects are built, there is the potential for up to 2,839 MW of renewable generation to be connected in Ireland over the next few years, as shown below. This is before any account is taken for Gate 3.

<sup>15</sup> See the link: <http://www.dcmnr.gov.ie/NR/rdonlyres/54C78A1E-4E96-4E28-A77A-3226220DF2FC/27356/EnergyWhitePaper12March2007.pdf>

<b>Renewable Generation</b>	<b>Total Capacity MW</b>
Already Connected/Contracted to Connect including Gate 2 to date	2,716
Outstanding live Gate 2 offers	123
<b>Total Potentially Connected (Pre-Gate 3)</b>	<b>2,839</b>

The Government has recently (15<sup>th</sup> October 2008) targeted 40% of electricity coming from renewables by 2020, increasing it from the 33% target that was contained in the White paper on energy. Using the existing renewable portfolio with an increase in biomass to 150 MW, and assuming that the remaining renewable generation comes from wind, this is estimated to equate to an installed renewable capacity in the order of 5,800 MW for 2020. This is on the basis of an average 31% load factor for wind, having taken account of experience over the last two years and in recognition of the possibility that less windy sites may be available in the future. Therefore, on the assumption that about 2,800 MW will be installed once Gate 2 projects are connected, to meet the Government 2020 target an additional circa 3,000 MW of renewable generation needs to be connected to the network over the next 12 years through the group processing regime. However, it should be acknowledged that there is a possibility that a significant portion of the contracted (but not yet connected) renewable projects, unsigned Gate 2 offers and projects in Gate 3 will not be built for planning and other reasons. Therefore greater levels of renewable generation than this will need to be processed for connection in order to meet the Government target in 2020 with a reasonable degree of certainty. This puts Gate 3 in context.

### **Size of Connection Queue**

- 3.3 The capacity of renewable generation deemed complete connection applications seeking a connection offer (post Gate 2) now stands at approximately 9,000 MW<sup>16</sup>. This means that the State's total potential renewable capacity currently stands at about 12,000 MW, consisting of projects already connected or contracted to connect, Gate 2 projects that have a live offer and projects seeking a connection offer. To put this in perspective, the total generation capacity on the Irish system (including wind) is currently about 7,500 MW.

---

<sup>16</sup> With a further circa 1,400 MW of renewable applicants in the connection queue but not yet deemed complete by the system operators.

## **4. Responses to Proposed Direction**

- 4.1 The Commission received 25 responses to the 13<sup>th</sup> November Gate 3 proposed direction (CER/08/226), with varying views expressed. This section provides an overview of the key new comments (see next) received, along with the Commission's responses, showing any significant changes between the proposed direction and this final direction. The detailed comments themselves are published separately with this paper, where parties had no objection to them being published.
- 4.2 It should be noted that many of the key policy-related issues surrounding the Gate 3 regime were already detailed in the Commission's 11<sup>th</sup> July proposed direction (CER/08/118) and were therefore discussed and responded to extensively in our 13<sup>th</sup> November proposed direction. This included issues such as:
- Potential methods for selecting Gate 3 projects, for example by application date-order, contribution to system optimisation, or by using extensions to existing wind farm projects;
  - Transmission planning criteria;
  - Access arrangements including deemed firm access;
  - Application processing fees; and,
  - Treatment of conventional and interconnector applicants.
- 4.3 Accordingly many respondents to the 13<sup>th</sup> November proposed direction did not comment in detail again on these high-level policy issues. To the extent that some respondents have referenced them again, we have not repeated them here in significant detail - instead readers are guided to our 13<sup>th</sup> November proposed direction for a full summary and detailed response from the Commission on these policy matters. The summary and comments response in this paper focuses on the key new Gate 3-related comments received.

### **Gate 3 Size and Government Target**

- 4.4 Many respondents welcomed the Commission's November proposed direction, which provided for an increase to the size of Gate 3 from circa 3,000 MW to 3,900 MW in light of the new Government 40% renewable target for 2020.

However, one respondent did not agree with the increased Gate size, stating that it adds to the cost impact of selecting applicants for the Gate on a date-order rather than a "transmission optimisation" basis. In contrast, other respondents believe that, given the considerable uncertainty associated with Gate 3 projects being built due to planning permission and other reasons, the extra capacity proposed for the Gate is not large enough in the context of the new 2020 target. They believe that there should be a greater "margin" to allow for Gate 3 project attrition, so that the target is reached through this Gate with more certainty. One

respondent quoted 4,500 MW as the consequent required Gate size while another said it should be at least 4,200 MW.

More generally, one party called upon the Commission and other stakeholders to support the delivery of the network infrastructure necessary to achieve the unprecedented level of renewable connection under Gate 3. It also noted that much of the new generation will be connected on a non-firm basis in advance of the infrastructure delivery, which itself will be premised on the ability of EirGrid to operate a safe, secure, reliable and stable transmission system.

#### *Commission's Response*

*The Commission has already extensively discussed the cost impact and relative merits of selecting applicants for Gate 3 through an application date order rather than "transmission optimisation" basis. In this regard readers are guided to our 13<sup>th</sup> November proposed direction (CER/08/226). The Commission continues to believe that the application date order approach for selecting Gate 3 applicants is the one that best meets its objectives for the Gate, providing for fairness, simplicity, transparency, practicality, timelines and the facilitation of optimal network development.*

*In terms of the Government's 40% target for 2020, in the order of 5,800 MW of renewable capacity is needed to be connected by 2020. This compares to 4,700 MW that was assumed to be needed in the July proposed direction in order to meet the old 33% target for 2020. The capacities estimated to be needed for both target levels make reasonable assumptions. They project an electricity demand growth rate of 2.98% per annum to 2020. In terms of the estimated portfolio of renewable generation, they use the existing portfolio with an increase in biomass to 150 MW (from about 30 MW currently) and assume that the remaining renewable generation comes from wind. They also assume a relatively low capacity factor for wind of 31%, recognising that as wind penetration levels increase, less windy sites may become utilised.*

*Based on the above assumption/projections, approximately 3,000 MW of additional renewable generation needs to be connected in Ireland in the coming years in order to meet the Government's 40% renewable target for 2020, assuming that all contracted renewable generation (not yet built) and live Gate 2 offers proceed to construction. It is to allow for the possibility of project attrition, and to ensure that the Government's target is achieved for 2020 and beyond with a reasonable degree of certainty, that the Commission has decided on a Gate size of 3,900 MW. This is considered a reasonable "margin" to provide for project attrition. An even larger Gate would take longer to commence and therefore would be less practical and efficient. Should there be a very low take-up on Gate 3 - and the Commission has no reason to think that there will be, based on evidence from Gates 1 and 2 - follow-up arrangements would be implemented until the 2020 target is achieved, with criteria to be consulted*

*on. This would take place after all 3,900 MW of Gate 3 offers have issued, when more information is to hand.*

*The Commission supports the delivery of the national network infrastructure associated with the connection of Gate 3 renewable generators. The Commission notes that without the timely receipt of the necessary planning permission and other consents associated with the delivery of this infrastructure, Gate 3 and the Government's target of 40% of consumption coming from renewables by 2020 will not become a reality.*

### **Flexibility on MEC**

- 4.5 Some respondents requested that the “additional” applicants proposed for Gate 3 by virtue of the November proposed direction be afforded the opportunity to increase their Maximum Export Capacity (MEC) by a small amount, in a similar manner to what was allowed for the first 3,000 MW of applicants in the July paper. It was argued that to do otherwise would be discriminatory, inequitable and unfair, and that such a facility would only marginally increase the size of the Gate.

#### *Commission's Response*

*In response to these comments, the Commission is providing the additional applicants (not already identified in the July proposed direction) in the Gate with the same facility to marginally change their MEC as was provided to applicants identified in the July proposed direction. These applicants can apply to increase their MEC by up to 20%, capped at 4 MW, or decrease their MEC without any limits. Such application must be submitted to the appropriate system operator within five business days of this direction. The five business day timeline is so as to minimise the potential for this facility to delay Gate 3.*

### **Application Cut-Off Date**

- 4.6 In the November proposed direction the Commission proposed that renewable applications received by the technical reviewing section of the relevant system operator up to and including 15<sup>th</sup> November 2007 would be included in Gate 3, providing for a cut-off date closest to the 3,900 MW size of the Gate. However, some parties have questioned the robustness of this cut-off date. Four respondents referred to their application being posted to the system operator a day or two before this cut-off date and yet not being included in the associated Gate 3 list appended to the proposed direction. A fifth respondent referred to its application being sent in the post on 15<sup>th</sup> November 2007 and requested that it be included in the Gate, referencing Gate 2 whereby applicants just outside the application completion date were added to the Gate.

One of these respondents referred to its five applications being hand-delivered on 16<sup>th</sup> November 2007 and yet receiving different recorded submission dates of 20<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup> November. It also remarked that

no applications were recorded as being received by the system operators on either 16<sup>th</sup> or 23<sup>rd</sup> November, and no applications were received between 7<sup>th</sup> and 14<sup>th</sup> November. It believes that using application received date is not viable given that the system operators did not have what it considers proper/robust time-stamping processes in place, and it requested that applications are included in the Gate by “deemed complete” dates as previously used.

#### *Commission’s Response*

*The Commission has followed up on this issue with the system operators. Firstly, based on information provided by the system operators, the Commission continues to believe that the inclusion of applicants in Gate 3 by “application received” date order is more appropriate than “deemed complete” order. This is because the TSO and DSO took significantly different lengths of time to deem complete applications late last year due to the volume received, such that this cut-off definition could be unfair to some applicants. Regarding one comment suggesting that applications just outside the completion cut-off date were included in Gate 2, this was not the case. In Gate 2 applicants that were not included by date-order were included by virtue of their contribution to shallow system optimisation using defined criteria, irrespective of their place in the deemed complete connection queue.*

*Overall, in relation to the application received cut-off date, the system operators have informed the Commission that it is robust, fair and has been consistently applied to all applicants, and the Commission accepts that this is the case.*

*Specifically, the four applicants that referred to their application being sent a day or two before the application cut-off date were checked by the DSO upon Commission request, to confirm whether the applications arrived at the technical reviewing section of the system operator before/on 15<sup>th</sup> November 2007 (as per the cut-off definition in the proposed direction). The DSO has found that three of the applications were received at the DSO’s Athlone office on 16<sup>th</sup> November 2007 and its technical reviewing section on 19<sup>th</sup> November. One (of the two) of the fourth applicant’s posted applications was received at the DSO’s Athlone office on 15<sup>th</sup> November 2007, but was not received by the technical reviewing section until 19<sup>th</sup> November. Regarding the applicant which referred to its application being posted on 15<sup>th</sup> November 2007, this was stamped in the DSO’s Athlone office on 16<sup>th</sup> November. However the application was incomplete and re-submitted in early December.*

*In relation to the five hand-delivered applications, the DSO informed the Commission that these were received on the afternoon of the 16<sup>th</sup> November 2007 and, as the DSO stamps applications in the morning under its procedures, these were stamped by the Athlone office on 19<sup>th</sup> November 2007 (the next working day) before being sent to the technical reviewing section. And in relation to another comment, the DSO states that the fact*

*that no applications were received on certain dates is unrelated to its date stamping procedure.*

*More generally however, due to the voluntary withdrawal of one Gate 3 transmission project, the application cut-off date for Gate 3 has been moved to one day later than that suggested in the last Gate 3 proposed direction - i.e. to 16<sup>th</sup> November 2007 - and now includes those applications received and stamped by the system operator irrespective of whether this is at a regional office or the technical reviewing section of the system operator. This 16<sup>th</sup> November 2007 is the application cut-off date and the definition that provides for a Gate 3 capacity closest to 3,900 MW. It means that the applicants referred to above, who had their application stamped by the DSO at Athlone on 16<sup>th</sup> November 2007 and which were complete, will now be included in Gate 3. The list of all projects included in the Gate is provided in Appendix 1 to this paper.*

### **Node Assignment**

- 4.7 One respondent requested that a project can chose the connection node if the applicant is roughly equidistant between two nodes and one has capacity and the other not. In other words the Least Cost Technically Acceptable (LCTA) should not be a principal used to exclude an applicant from being associated with the node with more capacity. Particular wording on this issue for inclusion in the node assignment section - Appendix 2 - of the direction was suggested. One respondent also believes there should be provision for node re-assignment to allow for a change in external circumstances such as a change of land ownership. Another party stated that it was unclear how 110 kV nodes are sited, when nodes would change due to prudent system planning and whether it takes precedence over LCTA.

#### *Commission's Response*

*For clarity, the transmission node assignment rules do not purport to represent full LCTA studies. They are designed to be transparent and as objective as possible and represent a reasonably quick and high-level estimate of what a full LCTA study may find. The only alternative to this approach is to undertake full LCTA studies prior to the allocation of transmission capacity. This would lead to a slower delivery of offers in Gate 3, and would be unlikely to lead to a significantly more accurate result. In response to the particular comments raised:*

- 1. Rule 1 in Appendix 2 sets out situations where a new node might be declared when clusters of generation of various sizes exists. While the specific location of this node is down to the system operators' judgment (taking account of varying sizes of generation within the cluster), the location will tend to be at the site of the largest generator.*
- 2. When deciding the node to which a generator (or a new node) will connect, account is taken of the distance (though no LCTA calculations are undertaken at this point) from various nodes. In advance of*

*undertaking ITC studies - for which node assignments are a prerequisite - it is not possible to gauge the availability of capacity at these nodes.*

- 3. In order to ascertain when a generator will receive estimated firm capacity at a node, the ITC Programme has to be run. If the nodes were then to change due to developers' preferences, the ITC Programme would have to be re-run to assess the new firm capacity to be available to generators. This would likely result in a number of re-runs. The likely number of ITC iterations would not support a timely implementation of the Gate and roll-out of offers.*
- 4. The principal reason for the system operator building a non-LCTA connection method is to develop the network in a manner that facilitates likely future network development and connections. The benefits of this are reduced costs for the end electricity user and reduced lead times for new connections overall. The system operators will make the developer aware of the planned connection methods at the connection method meeting, in advance of offer issuance, as referred to in section 5. The system operators will endeavour to minimise the impact of additional time that it may take to deliver a non-LCTA connection and they will work with the developer in this regard.*

### **Applicant Data**

- 4.8 One party is concerned that applicant data requests from the system operators would "catch developers unaware" and if there is only a short period for such requests, some allowance will need to be made.

#### *Commission's Response*

*The system operators have developed a new system for acquiring applicant data which should address these and other concerns that too much data was required early on in the connection application process. This new system is detailed in Appendix 7 to this paper.*

### **Land Access**

- 4.9 The recent proposed direction stated that the system operator will require Gate 3 applicants to confirm in writing, witnessed by a solicitor, that it has acquired the necessary landowner consent(s) to access the land where it proposes it locate its project. This was with a view to mitigating the potential for access disputes, which could delay the Gate. A number of respondents queried the detail surrounding this, asking whether it includes wayleaves/full project site, when it is required, what is defined as land access and in what format will this confirmation be required. One respondent believes that the land access confirmation needs to provide sufficient assurance as to the materiality of the agreement between the landowner and the applicant, by having a solicitor sign off on lease options which indicate land lease drawings that correspond with the site layout.

### *Commission's Response*

*This confirmation statement will include the land on which turbines and substation are to be located. The confirmation statement will be requested by the system operators within a few weeks of this direction and failure to provide this statement will result in exclusion from the Gate. Further details on this are available by contacting the system operators.*

### **Gate 3 Timelines**

- 4.10 Two parties noted that the offer timelines in the latest November proposed direction represent a delay from the earlier July proposed direction. They stated that this is a source of concern/disappointment, and the Commission is urged to put structures in place to prevent further slippage in the timelines. One party believes that it is critical that the Commission and EirGrid are appropriately resourced for the Gate 3 programme, and another similarly believes that more resources are needed to manage the step-change in the level of capacity being offered, with efforts made to reduce the timelines. Another party also believes that to meet the Gate 3 offer timelines, it will be necessary to limit the number/timing of offer modifications and disputes dealt with during the Gate.

One party noted that the determination of access rules by the Regulatory Authorities will impact on the timeliness of associated Gate 3 constraints reports to non-firm generation.

### *Commission's Response*

*Issuing 3,900 MW of Gate 3 offers, which is an unprecedented capacity, in a speedy and predictable manner is of key importance to the Commission and appropriate resources have been - and will be - made available in this regard. There has been a delay, in the order of months, to the planned start and end dates for the Gate 3 offer programme from what was earlier envisaged, but that has been exclusively to allow for the increase from circa 3,000 MW to 3,900 MW in the Gate size - extra time is needed to derive node assignments for the additional renewable projects and then to issue them with an offer. The new offer programme, which involves offers issuing over 18 months from December 2009 through to June 2011, is laid out in section 7 of this paper. The system operators will give priority to this programme being adhered to and the Gate 3 Liaison Group (referred to later) should also help in this regard, by allowing regular communication between the renewable generation industry and the system operators.*

*The Commission agrees that complex modification requests to Gate 3 offers should generally be processed (if possible) after all Gate 3 offers have been issued, in order to prevent the Gate 3 offer programme from being delayed. Modifications to offers (generally more simple ones) will be accommodated where the processing of such modifications will not delay the issuance of*

*subsequent Gate 3 offers. In addition undergrounding options for dedicated shallow assets will be examined before (rather than after, as generally in Gate 2) offer issuance, as referred to in Appendix 5, which should help to reduce the number of modifications. Disputes will continue to be processed as they arrive however, within statutory timelines.*

*The access/dispatch rules for the SEM will be consulted on and determined by the Regulatory Authorities next year so that Gate 3 constraint reports can be issued by EirGrid as close as possible to the time of the issuance of Gate 3 offers.*

### **Order of Offers**

- 4.11 The November proposed directions stated that offers would roll out in the order of those areas which can be processed most easily, i.e. those which are least complex. However it also provided that within this approach and where feasible, the system operators will issue offers to areas with an applicant with the earliest application date. One respondent stated that those longest in the application queue should not have their offer delayed simply because they are more complex, but should have their application expedited regardless of complexity. Another respondent similarly argued that any unsuccessful Gate 2 project should be the first to receive an offer.

#### *Commission's Response*

*The system operators will issue offers to areas with an applicant with the earliest application date where feasible, but the primary focus will be to issue offers first to those areas which are least complex. This is because these are the areas that can be issued with an offer most quickly. To do otherwise could mean that areas which are least complex would be artificially delayed in receiving an offer, with no likelihood of the process being faster for Gate 3 projects which applied for a connection earlier. In any event all applicants in the Gate will receive an offer over an 18 month timeline as indicated in section 7 of this paper, with specific offer lead time to be published in September next year.*

### **Gate 3 Liaison Group**

- 4.12 The proposal to establish a Gate 3 Liaison Group with industry was welcomed, with one respondent stating that it should be established as soon as possible so as to provide a two-way dialogue between the system operators and generators. Another respondent suggested that it might be useful to have a public forum for those who do not attend regular Liaison Group meetings, and it might be wise to include representatives of Gates 1 and 2.

## *Commission's Response*

*The Gate 3 Liaison Group will be convened by the Commission and will consist of representatives of the system operators and the renewable and non-renewable generation sectors. The Liaison Group will meet on a generally monthly basis throughout the Gate 3 process and it is envisaged that it will commence meeting in February. The Liaison Group will provide a forum to communicate and discuss ongoing Gate 3 issues of interest to the industry, for example on the form of Gate 3 constraints information, and it will also work to ensure that the Gate 3 offer programme is being adhered to. Details of the Liaison Group are provided in section 5 of this paper and parties should confirm to the Commission by Wednesday 7<sup>th</sup> January 2009 if they are interested in attending.*

### **Treatment of Conventional Applications**

- 4.13 Two parties referred to the benefits of interconnection, with both believing it inappropriate to include interconnector connection applications as part of the ITC process. One of these respondents commented extensively that it is inappropriate for an interconnector to be included, that it should be the subject of a separate procedure which allows for an equivalent connection timeframe as for the EirGrid interconnector, and that its interconnector project should be provided with firm network connection by 2010.

Two respondents welcomed the forthcoming consultation on the criteria for conventional generation (which includes interconnectors) connection offers. One respondent agrees that renewable and conventional applications should be treated together, recognising their interdependency. It urged that the conventional offer criteria be consistent with the Forecast Statement, deemed completion date, renewable generation facilitation, contribution to competition, wider mix of technology and delivery of higher energy-conversion efficiency. Another party believes that security of supply considerations need to be taken into account when processing applications from conventional plant. It requested that the consultation paper on the treatment of conventional applicants be issued quickly to prevent any delays to Gate 3. Another respondent similarly pointed out that a delay in the decision on the treatment of conventional applicants could impact on Gate 3 timelines.

One respondent expressed concern about the treatment of conventional plant in this process and requested clarity from the Commission. Another party argued that conventional generator applicants should not be considered with Gate 3 at all but rather as part of a separate consultation process. It disagrees with limiting conventional applicants receiving an offer to those which have submitted their application by the date of the 13<sup>th</sup> November proposed direction. It also argues that the increase in conventional applications recently has been largely “speculative” and that these applicants do not have the competencies,

consents or resources needed to proceed to construction. Accordingly to rely on a date-order approach to issuing these applicants with an offer is not suitable. It has the potential to risk security of supply and to lead to a sub-optimal plant portfolio and sub-optimal transmission development.

Another respondent referred to its application for a new plant being submitted on 17<sup>th</sup> November 2008. It has asked that the deadline for inclusion of conventional applicants in the ITC Programme be extended to 21<sup>st</sup> November 2008 so that it can progress its proposed CCGT generating project at an ESB site that it has purchased and for which it has planning permission.

Another respondent queried the principle of allowing renewable or conventional applicants to be processed outside the group processing approach if deemed to be in the wider system/public benefit, as the Government has already effectively defined the public good via the 40% renewable target. Therefore the public good should be qualified so that it does not “put the 40% renewables target at undue risk”, and such matters should be subject to two month consultation.

#### *Commission’s Response*

*Firstly, the reasoning for the treatment of interconnector applications as part of this process was responded to in detail in our November proposed direction, and there has also been specific correspondence with the respondent on the issue of the timing of firm connection. Given that renewable, interconnector and conventional applications are inter-related for connection under the GDS approach to the development of the transmission system, it is appropriate that all are considered, at a high level, together in the Gate 3 paper.*

*The conventional generation projects (including interconnectors) that will receive an offer after the results of the ITC Programme will be chosen under criteria to be separately consulted and decided upon by the Commission. This consultation paper will be published in the coming weeks, with a view to this matter not delaying the Gate 3 programme. All interested stakeholders will be afforded with the opportunity to comment on the proposed criteria at this stage, and account will be taken of the above remarks. As stated in section 8, the proposed criteria will, broadly speaking, take account of security of supply, competition and environmental duties of the Commission. In doing so, the Commission will also take into account the overall objective of the “Asset Strategy Agreement” as entered into between the Commission and ESB as signed in April 2007. The consultation and decision papers on this matter will provide full clarity on the detailed criteria within this broad framework.*

*All applications received by the date of this Gate 3 direction will be included in the ITC Programme (though not all will receive an offer, as referred to above). This will therefore include the respondent referred to above.*

*The Commission will only “bring forward” projects for connection if this is warranted on the grounds of their wide system/public benefit and where this does not have disproportionate impact on other applicants. The latter element to these criteria would include the impact on projects included in Gate 3, the key connection regime by which the 40% target is to be achieved. It will also take into account the impacts on non-Gate 3 prior connection applicants. The Commission will be publishing a consultation paper in Q1 2009 on this issue and welcomes further input from interested parties at this stage.*

## **Other New Issues Raised**

### **A. ITC Programme**

- 4.14 One respondent believes that the ITC Programme should allocate scarce capacity on an annual basis by application received date rather than deemed complete date, which is consistent with the date for including projects in Gate 3. Another respondent queried whether date order used to allocate scarce capacity is on a node basis or on a national basis – it thinks the latter is fairer.

#### *Commission’s Response*

*The Commission agrees that the application received rather than deemed complete date should be applied for rationing scarce capacity in the ITC Programme, as this is consistent with the date order approach for inclusion of projects in Gate 3. This direction has been updated accordingly to reflect this. As exemplified in Appendix 6, scarce capacity will be allocated to a project on an application date order basis, based on what nodes the project is assumed to connect into. The process for project node assignment is shown in Appendix 2. However nodal capacity allocation is impacted on by capacity at interacting nodes under the ITC Programme.*

### **B. Speculative Applications**

- 4.15 One respondent believes that appropriate requirements of Gate 3 developers are that planning permission is completed within six months of receipt of a connection offer and wind turbine orders are placed within two years of the offer, to ensure commitment to full and timely delivery. Another similarly believes that specific “use it or lose it” rules should be applied to Gate 3 projects, so that they do not “hog” grid connection offers for several years and thereby prevent Gate 4 projects from being constructed. In a similar vein one respondent believes that a “filtering mechanism” should be introduced to ensure that generator developers are motivated to build their projects in a timely manner and do not “sterilise” grid capacity. Criteria for filtering generators would include a land access requirement, use of financial ability evidence and excluding projects where planning permission is unlikely such as in national heritage/scenic areas. This should be done in advance of the ITC

process. Another party also believes that a “merit-order” based approach should be used to determine applicants who are committed to long-term development of their projects, whereby sites provide evidence of planning permission or they pay an advance payment bond in the order of Eur5,000 per MW, refundable when permission is secured.

#### *Commission’s Response*

*All generator applicants are currently required to pay a certain percentage of their connection costs, and post a Eur10,000 per MW capacity bond, as a condition precedent for connection offer acceptance. Therefore it is not the case that Gate 3 applicants can simply “hog capacity” without making a financial commitment at offer acceptance stage. In addition the requirement for the renewable or conventional generator to confirm access to land is already provided for in this direction.*

*Regarding other criteria for selecting conventional applicants for offer issuance, the Commission will, over the next two months, be publishing a consultation on this matter. The issues raised above will be considered in this context and there will also be further opportunity for input from stakeholders at this consultation stage.*

#### C. Other Criteria for Offers

- 4.16 One respondent requested that its application be included in Gate 3 by virtue of its location, which would allow it to fit into a network cluster including other Gate 3 projects. Another respondent believes that off-shore projects not included in the Gate should be considered outside the Gate system.

One party believes that pumped hydroelectric storage schemes can bring system operation, security, renewable generation, environmental and economic benefits and the Commission should therefore enter into guaranteed power purchase agreements with them. Priority should also be given to mass storage development for similar reasons. These schemes should be seen as part of the network and not the as part of the production segment, with consideration given to supplementing grid connection costs. Research and development should also be encouraged in this area.

One respondent referred to the public benefits of on-site load wind autoproduction and believes that they should be allowed to be processed for connection outside the group processing regime, even if greater than 500 kW, where the maximum rated power output of the wind turbine(s) is capped at the MIC of the autoproducer. A renewable energy feed-in tariff should also apply to wind turbines in an autoproduction environment.

### *Commission's Response*

*The rule set for selecting renewable projects for inclusion in Gate 3 has been extensively discussed and consulted on in previous Gate 3 papers and is now finalised in this direction. Renewable projects will be included in Gate 3 in application date order as this is the criterion most in keeping with the Commission's objectives for the Gate. Therefore, in order to provide for a Gate closest to a 3,900 MW size as discussed earlier, any renewable project with an application received by the system operator by 16<sup>th</sup> November 2007 and which was complete by then will be included in Gate 3.*

*As stated, the Commission will be publishing a consultation paper in Q1 2009 on the connection of plant outside the group processing regime. It will also be issuing a consultation on the criteria for deciding which conventional connection applicants will receive a connection offer following the results of the ITC Programme. The Commission welcomes further input from interested parties at this stage.*

## **5. Criterion for Gate 3**

### **GDS Approach**

- 5.1 The GDS option is to be applied in Gate 3. It is considered to be the option that best meets the Commission's guiding objectives for the Gate as shown in section 2.2. In particular it provides for the efficient/optimal connection of a very significant capacity of renewable generation in Ireland over the coming years, facilitating the achievement of Government renewable targets through a long-term and strategic programme of transmission development, to the benefit of renewable generators and end-customers.
- 5.2 The GDS is a forward-looking transmission development strategy undertaken by EirGrid which plans the development of the transmission system, in an optimal long-term manner, to cater for anticipated demand and generation requirements in 2025, as requested in the Government's White paper on energy. It identifies the required transmission system in 2025 to meet, in a safe, secure and optimal manner, current and anticipated generation, interconnection and demand growth. It therefore marks a significant shift from current practice in that the transmission system would no longer be developed largely on a reactive basis in response to connection applications, but instead there would be more emphasis on planning and developing the system in advance to meet anticipated generation (including renewable generation) and demand requirements for the longer-term. By planning and developing the transmission system to meet the anticipated demand and generation needs of the long-run, a more cost efficient, optimal and effective system can be provided for than would be the case if a more short-term and piecemeal approach were taken to grid development. This is especially the case in the context of dramatically increasing amounts of dispersed - frequently renewable - generation that will be connecting to the system over the coming years. Further details on the GDS are available in EirGrid's recent publication entitled Grid25<sup>17</sup>.
- 5.3 Under this approach, each of the renewable projects included in Gate 3 will be offered an estimated firm connection date to the network in order of the transmission capacity assumptions which is derived from the GDS. Further details of how this works follows later in this section.

### **GDS Assumptions**

- 5.4 The Commission has discussed with EirGrid the demand and generation - including renewable generation - assumptions that are assumed to drive the transmission system that the GDS deems necessary for 2025. These are important as they determine the detailed transmission capacity assumptions which, via the ITC Programme, ultimately affects when renewable generators included in Gate 3 will have a scheduled firm

---

<sup>17</sup> See: <http://www.eirgrid.com/EirgridPortal/uploads/Announcements/EirGrid%20GRID25.pdf>

transmission connection (see sections 5.15 to 5.21). The GDS model feeds the demand/generation assumptions for 2025 into about 5,000 randomly generated scenarios to provide a probability analysis of the likely future transmission system needed in 2025 to provide for a safe, secure, reliable and economic system. This probability analysis marks a move away from the strict application of the transmission planning criteria under which generators are connected with firm transmission access on the basis of an “n-1-1” transmission planning standard. This standard includes an unplanned line outage *and* a line out for maintenance. Instead, the transmission capacity assumptions and the ITC Programme operates to an “n-1” only transmission planning standard for renewable generators (though still “n-1-1” for demand), representing a more flexible and probabilistic approach to determining the future transmission build that is necessary to connect renewable generators on a firm basis. This is in keeping with some of the comments received to the consultation paper and the earlier proposed direction. It recognises that building expensive transmission infrastructure for generators - which can take several years - may not always be the most efficient and effective solution where the anticipated level/probability of constraints is low.

5.5 The GDS’s peak demand assumption for 2025 is as follows:

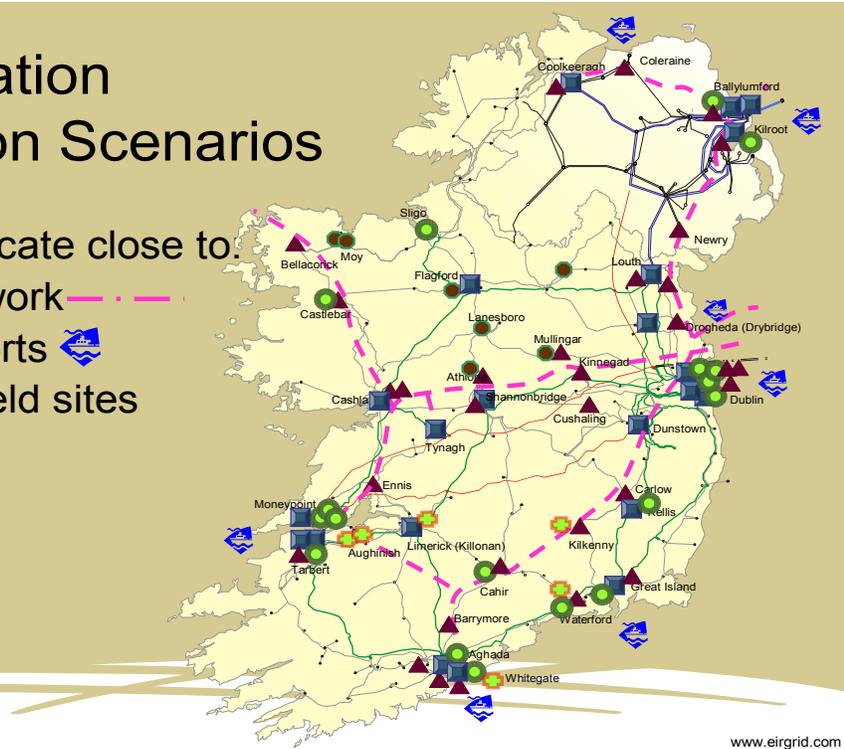
	<b>Peak Demand 2025 Forecast</b>
Republic of Ireland	8,000 MW
Northern Ireland	2,150 MW
All-Island	10,150 MW

In terms of conventional (i.e. non-renewable) generation and interconnection assumed for 2025, it is based on existing power station sites, actual and potential applications, Government policy and high-probability areas for future conventional generation as illustrated below.

# Generation Location Scenarios

Likely to locate close to:

- gas network
- major ports
- brown field sites



www.eirgrid.com

The total capacity of conventional generation, as well as interconnection capacity, assumed for 2025 is as follows. These match up to a 40% renewable penetration level as shown in the next section.

Type	Size MW	Number	Total MW
Base	500	8	4,000
Mid Merit	350	8	2,800
Peaking	100	16	1,600
CHP	100	4	400
Interconnectors	500	3	1,500

5.6 EirGrid’s GDS is modelling the transmission system using renewable generator locations based on the recent All-island Grid Study. The total assumed installed renewable capacity and its breakdown for the 2025 40% renewable penetration level is provided in the following table.

Technology	Republic of Ireland 2025
	40% Renewable Penetration
Wind	5,572
Wave	500
Tidal	0
LS Hydro	222
LFG / Biomass	200
Total	<b>6,494</b>

- 5.7 It is appropriate that the GDS’s 40% renewable penetration level is adopted to derive the transmission capacity assumptions for input to the ITC Programme. This is because it is consistent with the recently announced Government target of 40% for renewables for 2020, which is one of the Commission’s key Gate 3 objectives. In other words, the deep reinforcement schedule will provide for a safe, secure, reliable and efficient transmission system on the basis of 40% of electricity consumption coming from renewable generation. Achievement of this target will, of course, among other things also require that planning permission is received for the network infrastructure in a timely fashion. It should be noted that, as discussed in section 5.11, it is planned that the transmission plan will be reviewed regularly and hence can be updated in the future to reflect different renewable penetration obligations.

### **Gate 3 Size - 3,900 MW**

- 5.8 As shown in section 3.2, assuming that all contracted renewable projects *and* Gate 2 offers that are live/in process proceed to construction, up to circa 2,800 MW of renewables could be connected in Ireland over the next few years (before any consideration is given to Gate 3). Using the existing renewable portfolio with an increase in biomass to 150 MW, and assuming that the remaining renewable generation comes from wind, the Government’s target of 40% of consumption coming from renewables in 2020 is estimated to equate to an installed renewable capacity in the order of 5,800 MW in that year. This is on the basis of an average 31% load factor for wind, having taken account of experience over the last two years. Therefore, on the assumption that about 2,800 MW will be installed once Gate 2 projects are connected, to meet the Government 2020 target an additional capacity of renewable generation in the magnitude of 3,000 MW needs to be connected to the network over the next 12 years through the group processing regime. However, it should be acknowledged that there is a possibility that a significant portion of the contracted (but not yet connected) renewable projects, unsigned Gate 2 offers and projects in Gate 3 will not be built for planning and other reasons. In addition likely demand growth from 2020 means that more

renewables will need to be connected for the target to hold in 2025, the year that EirGrid's GDS is planning to. Accordingly, in order to meet the Government target with a reasonable degree of certainty for 2020 and beyond, the Commission has decided that **3,900 MW** of renewable generation projects are issued offers in Gate 3. This represents the size of the Gate to be selected for inclusion in the ITC Programme which determines estimated firm connection dates as described later. Generators in Gate 3 will be connected optimally and efficiently to the network through the GDS approach and the group processing regime.

- 5.9 This 3,900 MW of renewable capacity in Gate 3 compares with 3,000 MW provided for in the earlier July proposed Gate 3 direction which was expected to more than meet the earlier 33% Government target for renewables. It should be noted that the 3,900 MW includes the impact of the provision from the earlier proposed direction for the first 3,000 MW of Gate 3 generators to be allowed to increase their capacity slightly due to the length of time they were in the queue - this increased the earlier Gate 3 size to about 3,130 MW.
- 5.10 The Commission could allow for offers to this capacity to be issued by the system operators in discrete chunks over several years or it could allow for the full amount in the one cycle. The Commission has decided that, given the sense of urgency associated with issuing offers and connecting renewable generators to the network, Gate 3 should involve the issuance, as soon as possible, of offers to all circa 3,900 MW in one discrete offer programme. This offer programme will be dependable, predictable and speedy as per respondents' requests - see section 7 for timelines.
- 5.11 To allow for the fact that predicted generation, interconnection and demand will inevitably connect differently to that now forecasted by the GDS, resulting in different transmission needs to that predicted, and also recognising that not all Gate 3 offers may be accepted, the Commission proposes a review of the transmission capacity assumptions every second year from 2011 through to 2025. This will allow for follow-up arrangements (if necessary) for the connection of renewables until the Government's 40% renewable target is achieved. It will also facilitate any changes to the Government's target level of renewable penetration. The transmission capacity assumptions can be adapted if necessary for whatever renewables obligations emerge for Ireland from the Climate Change Package currently being considered by the EU Council of Ministers and Parliament.
- 5.12 Moreover, as has been the case since the Commission's paper of April 2005 (CER/05/049), the Commission reserves the right in the future to issue a direction to the system operators to connect renewable - as well as conventional - generator applicants on the grounds of their wider system/public benefit where the impacts on other connection applicants are proportionate to this benefit.

### **Gate 3 Selection by Date Order**

- 5.13 The Commission believes that, in accordance with its objectives for Gate 3 and specifically on the grounds of fairness to those longest in the application connection queue, speed of implementation, transparency, practicality and simplicity, as well as the facilitation of optimal network development, renewable applicants should be included in the Gate by date order. Accordingly renewable applications received and stamped by the relevant system operator, up to and including 16<sup>th</sup> November 2007, are “pre-selected” for inclusion in Gate 3. If the application is not initially deemed complete due to an incomplete application, then the receipt date is recorded as the date that the necessary information has been provided to the system operator. Including these earlier applicants in the Gate will not prevent them from using the most modern and efficient technologies when building their generation plant.
- 5.14 The 16<sup>th</sup> November 2007 application cut-off date for inclusion of applicants in Gate 3 is one day later than that suggested in the November Gate 3 proposed direction. This is due to the voluntary withdrawal of one transmission project from the Gate 3 list, and also takes into account comments received to the proposed direction (see section 4). It is the cut-off date that provides for a Gate 3 capacity closest to 3,900 MW in a fair, consistent and robust manner.
- 5.15 The full list of renewable projects included in Gate 3 by virtue of the above criteria is provided in Appendix 1.

### **Criteria for Infrastructure Roll-Out**

- 5.16 Consistent with a renewable penetration level of 40%, as derived from the GDS EirGrid will plan and map the required development of the system on an annual basis for use in the ITC Programme from 2010 to 2025. The transmission capacity assumptions will be based on the high-level principles of ensuring network safety, security of supply and economic transmission development, whilst delivering Government renewables targets in the forthcoming years. Transmission network investment levels and associated costs will be subject to regulatory scrutiny/approval by the Commission as part of its role in deciding on appropriate transmission revenues and tariffs for the Irish transmission business.

### **Date Order Allocation of Scheduled Firm Capacity**

- 5.16 Based on the roll-out of infrastructure derived from the GDS, EirGrid will then apply the ITC Programme to identify the scheduled firm network capacity in MW provided to each Gate 3 project at each existing and planned node for every year from 2010 to 2025<sup>18</sup>. As discussed in section

---

<sup>18</sup> The scheduled firm connection dates provided by the ITC Programme are impacted on by the estimated dates for the completion of shallow and deep transmission works. These dates could

- 5.4, in determining the annual available firm capacity for each Gate 3 project the Programme operates to an “n-1” transmission planning standard, i.e. including an unplanned line outage. This is instead of the application of the normal transmission planning criteria which includes the “n-1-1” test, i.e. an unplanned line outage *and* a line out for maintenance (however this standard will still apply to load). This recognises that building expensive transmission infrastructure for generators, which can take several years, may not always be the most economic solution where the anticipated level/probability of constraints is low.
- 5.17 The existing and planned nodes to which the Gate 3 generators are assumed to connect are decided upon in accordance with criteria provided in Appendix 2.
- 5.18 In any given year from 2010 through to 2025, where the firm capacity of applicants connecting into a node is greater than the node’s capacity, the firm capacity provided (within the ITC Programme) to applicants for each year will be rationed on the basis of the received date of the application. It should also be recognised that capacity available at one node will be impacted on by capacity at other nodes. The Commission continues to believe that, recognising that some applicants have been in the queue since 2004, the fairest, as well as the simplest and most transparent approach, is to do so by application date order. It should be noted that the shallow network works will still be constructed efficiently by virtue of the group processing approach to renewable network connection.
- 5.19 Consistent with this date-order rationing of scheduled firm capacity, the ITC Programme will avail of any firm capacity available at a node in a given year in increments of 0.5 MW, even if less than the amount they applied for, as this enables better capacity utilisation at a node and prevents large projects being leap-frogged by smaller ones.
- 5.20 How this date-order “secondary prioritisation” of scheduled firm capacity principle works through ITC Programme is exemplified in Appendix 6. The scheduled firm capacity for Gate 3 generators will be published by the system operators with the offer programme next year (see section 7).
- 5.21 It should be noted that all projects in the Gate will be provided with firm access over time and that, consistent with other Gates, projects without firm access in the first year(s) can still connect on a non-firm basis to the system once the transmission/distribution shallow works, transmission

---

change for reasons outside the control of EirGrid, for example due to planning and other consenting delays. Currently any delays in this regard are borne by the connecting party. Firm dates are also linked to the achievement of Operational Certificates for wind farms which requires full compliance with the Distribution and/or Grid Codes.

short circuit work (or any other system integrity related works), control systems<sup>19</sup> and all deep distribution assets are complete.

- 5.22 The ITC Programme and the methodology employed to achieve its results will be the subject of an independent technical audit to provide the market with full confidence as to its objectivity and fairness in applying the above rules. The auditor will be appointed by EirGrid with terms of reference approved by the Commission, and that EirGrid issues a report following the audit to be published on its website.

### **Shallow Works / Access**

- 5.23 The Gate 3 transmission sub-groups<sup>20</sup> will be defined primarily by the node assignments as shown in Appendix 2. Within any particular transmission sub-group there could be a number of distribution sub-groups which are defined by sharing a distribution connection method. It is important to note that the node assignment to transmission sub-groups, once assigned in accordance with the procedure specified in Appendix 2, will remain unchanged for the purpose of issuing connection offers and that the shallow works will be developed so as to minimise the overall LCTA method for the sub-groups so defined. The system operators reserve the right to change the connection node and connection method for prudent system planning reasons; however the connection charge will be on the basis of the LCTA for the transmission sub-group.

- 5.24 The following shallow work rules will operate:

- Due to the proposed nature of Gate 3, there are specific shallow pricing rules included in Appendix 3.
- If it is not possible for the transmission network to accommodate all Gate 3 projects in a sub-group in a given year, then using the date order criterion in the ITC Programme as described above, some projects in the sub-group will be issued with offers for non-firm access prior to the completion of the deep transmission works.
- Once node assignments have been published, expected within 15 business days of this direction, Gate 3 parties will be allowed 30 business days for submitting one connection method suggestion covering the transmission sub-group as whole (as opposed to an individual generator), to the appropriate system operator. The system operators agree to include an assessment of the suggested transmission sub-group connection method in its studies and will accommodate the suggestion only if it is the Least Cost Technically

---

<sup>19</sup> These control systems are installed by the wind farm developer to allow EirGrid to constrain or curtail the wind farm when necessary for system reasons and must be installed prior to first exporting.

<sup>20</sup> A “sub-group” is a set of applicants which share shallow transmission or distribution connection works. A “group” contains applicants which share common transmission deep reinforcements.

Acceptable (LCTA) for the transmission sub-group as a whole. After offer issuance and if requested by Gate 3 developers, LCTA reports will be issued from the system operator, as exemplified in Appendix 4, which shows the connection options considered and the LCTA connection method specified.

- The DSO will introduce a new process which allows Gate 3 generators to meet both system operators pre-offer issue and to receive an offer based on their dedicated shallow assets being undergrounded. This new process is being introduced on customer service and efficiency grounds and is outlined in Appendix 5. It means that generator applicants will not have to wait to explore the undergrounding option until after issuance through the offer modification process.
- Subsequent to offer issuance an individual generator can also apply to modify its connection methodology subject to rules already set out in the Joint TSO/DSO Group Processing Approach Pricing Principles Guidelines<sup>21</sup>. Where the modification involves shared assets, all members of the relevant sub-group (depending on the shared assets affected) need to be party to the modification request. Complex modification requests to Gate 3 offers will generally be processed after all Gate 3 offers have been issued, in order to prevent the Gate 3 offer programme from being delayed. Modifications to offers (generally more simple ones) will be accommodated where the processing of such modifications will not delay the issuance of subsequent Gate 3 offers. In addition undergrounding options for dedicated assets will be examined before offer issuance, as referred to in the above proposal.

5.25 Similar to previous Gates, in addition to the connection offers issued, the TSO will issue estimates, generally with the offers, of the likely incidence of constraining off of the recipient's generation output from the date of commissioning of the generator until all necessary transmission reinforcement works are expected to be completed.

### **Order of Offers**

5.26 When considering which transmission areas to process for offers first, in view of comments received about the importance of speedily issuing offers, this will be done on the basis of which areas can be processed most easily - i.e. those which are least technically complex - by the system operator. However, within this approach and where feasible, the system operators will issue offers to areas with an applicant with the earliest application date.

---

<sup>21</sup> See the link: <http://www.cer.ie/GetAttachment.aspx?id=43ee462b-5a5c-42e4-a796-d2b483e96253>

### **Planning Permission**

- 5.26 Receipt of planning permission was not a criterion for inclusion in previous Gates and it will not be a criterion in Gate 3 or subsequent Gates either. Its possible requirement for future Gates was raised in the earlier proposed direction, but, following a review of comments received, the Commission has decided that it would not be fair to applicants to apply it as a criterion for post Gate 3. This is in particular because there could be timing issues in applying it, for example where a project's current planning permission could expire prior to its inclusion in a Gate.

### **MEC Flexibility**

- 5.27 The Commission previously afforded the 3,000 MW of applicants identified for inclusion in Gate 3 (in its July proposed direction) with an opportunity to marginally increase or decrease their MEC to allow for technological changes to turbines. In response to comments received to the November proposed direction, the Commission is providing the additional applicants (not already identified in the July proposed direction) in the Gate with the same facility. These applicants can apply to increase their MEC by up to 20%, capped at 4 MW, or decrease their MEC without any limits. Such application must be submitted to the appropriate system operator within five business days of this direction. The five business day timeline is so as to minimise the potential for this facility to delay Gate 3 offers.

### **Gate 3 Liaison Group**

- 5.28 As referred to at the Gate 3 Workshop on 26<sup>th</sup> August, a Gate 3 Liaison Group will be established, to be convened by the Commission and consisting of the system operators and representatives of the renewable and non-renewable generation sectors. The Liaison Group will meet on a generally monthly basis throughout the Gate 3 process. It will provide a forum to communicate and discuss ongoing Gate 3 issues of interest to the industry, for example on the form of Gate 3 constraints information, and it will also work to ensure that the Gate 3 offer programme is being adhered to. For clarity, it will not be a policy-making body, and policy issues that do arise at the meetings will be considered separately by the Commission as appropriate.
- 5.29 In addition to the Commission and the system operators, the following parties, representing the broad spectrum of stakeholders impacted on by Gate 3, are invited to attend the Liaison Group meetings:
- Attendee from the Irish Wind Energy Association (IWEA);
  - Attendee from Meitheal na Gaoithe;
  - Attendee from National Offshore Wind Association (NOW); and,
  - Attendee representing non-renewable generators.

5.30 By Wednesday 7<sup>th</sup> January 2008 the above groups should inform the Commission if they are interested in attending these meetings, and if so nominate both an attendee and a substitute attendee (to replace the primary attendee if necessary) for the meetings. In mid January the Commission will then e-mail all the relevant stakeholders with the following information:

- Confirmation of the name of the attendee and substitute attendee representing each party at the meetings; and,
- The meeting dates for the Liaison Group for 2009. It is envisaged that the Liaison Group meetings will be held on a monthly basis from February, at the Commission's office and for a maximum of three hours commencing at 14:15 to facilitate persons travelling from outside Dublin.

5.31 For the first Liaison Group meeting in February and each meeting thereafter, the Commission will send a proposed agenda to the nominated attendees at least ten business days beforehand, providing each stakeholder until six business days prior to the meeting to suggest additional/other items for the agenda. The Commission will then circulate the final agenda to all parties at least three business days prior to the meeting in question. Subsequent to the meeting, and within five business days, the Commission will circulate by e-mail draft minutes from the meeting to all nominate attendees. The final minutes will then be approved at the following Liaison Group meeting.

## 6. Gate 3 Requirements

### Application Processing Fee

- 6.1 All transmission-based applicants in the connection queue have already paid the first €7,000 installment of their application processing fee, and distribution-based applicants have paid none. Only applicants that are to be informed by the system operators as being included in Gate 3, under the criteria described in section 5, will pay the application fee shown in the table below (for transmission based applicants, less their first installment). It is fair and reasonable that applicants in the connection queue that are not in Gate 3 should not be invoiced for a fee. For those in the Gate, these fees are considered cost reflective of the work undertaken by the system operators in processing connection offers.

<b>Connection Application Fees Excluding VAT</b>		
<b>MEC</b>	<b>Shallow Works Required</b>	<b>No Shallow Works Required</b>
0 < 11 kW	€0	€0
11 < 50 kW	€789	€789
50 < 500 kW	€1,611	€1,642
500 kW < 4 MW	€9,145	€8,805
4 < 10 MW	€28,211	€23,642
10 < 30 MW	€54,642	€33,758
30 < 50 MW	€63,676	€37,846
50 < 100 MW	€76,367	€40,807
>100 MW	€89,389	€44,348

In line with the consultation and earlier proposed direction the following situation will apply:

- Distribution-based applicants will be invoiced for the first installment - €7,000 or, if the fee is lower than this for the generator, the total fee - as soon as practical after the Gate 3 direction. No fee will be invoiced to transmission-based applicants as they have already paid this installment;
- The balance will only be invoiced to the Gate 3 project at the start of the year in which it is scheduled to receive an offer or the publication of the offer schedule (earmarked for September 2009 - see section 7), whichever is later.

Gate 3 parties will be given 20 business days of being sent an invoice by the system operators to pay their fees and non-payment will disqualify them from inclusion in the Gate.

### **Applicant Data Requests**

- 6.2 The system operators previously stated that they needed to perform an assessment of the data provided by applicants in order that they have sufficient information to carry out the connection studies for Gate 3. This process was detailed in, and commenced after, the July Gate 3 proposed direction. Following industry comment that applicant data requested is too onerous for some developers at this stage, the system operators have reviewed the timing and level of applicant information requirements, and have come up with a new process such that less will be required at this stage if developers wish. This new processes is detailed in Appendix 7.

### **Land Access**

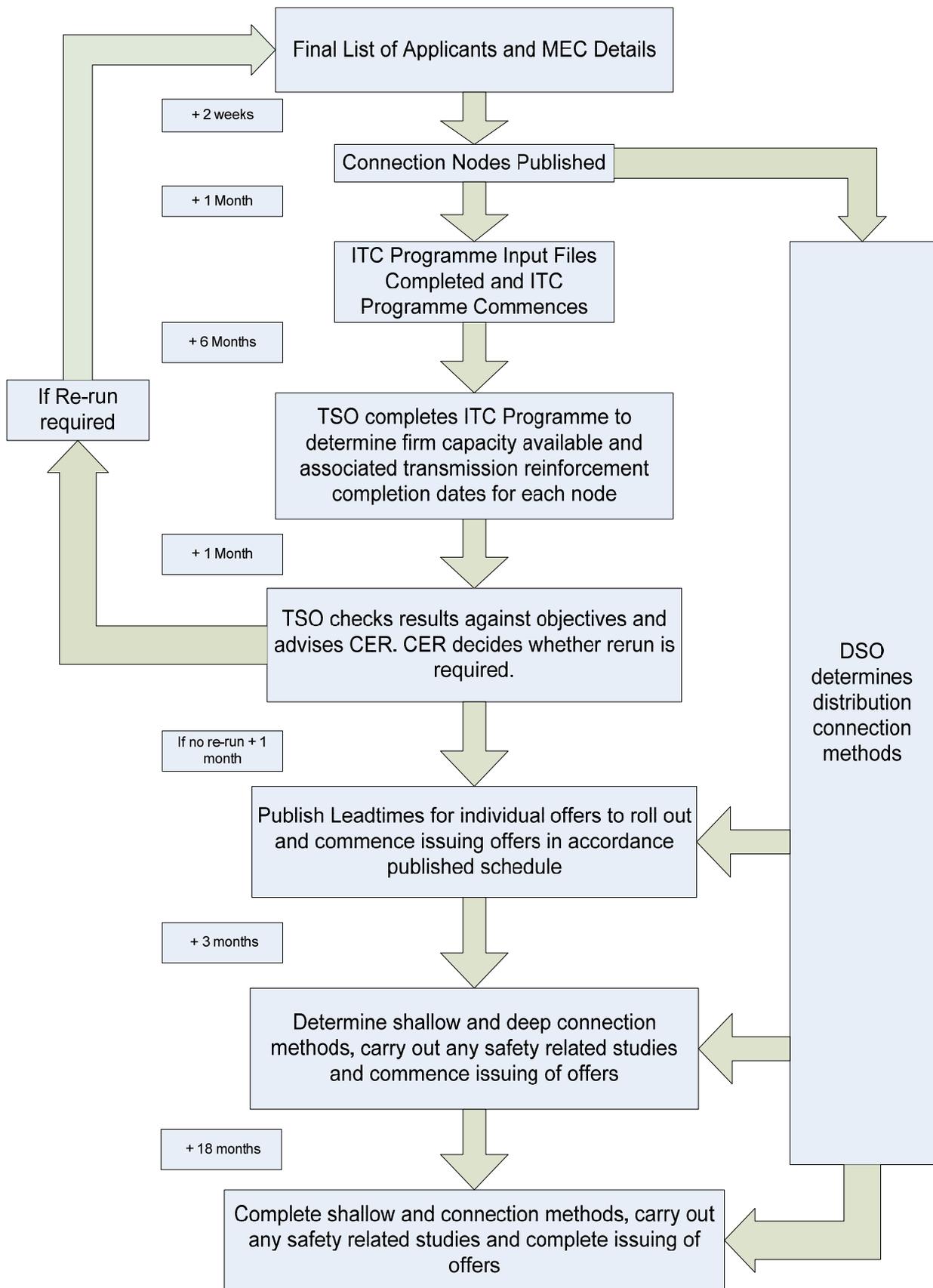
- 6.3 Evidence of access to the land on which a project is to be sited is currently not a criterion for connection application acceptance for EirGrid. It is however required by ESB Networks. In order to mitigate the potential for land access disputes for renewable applications, which could delay the Gate 3 process, and to move to harmonise the approach between the system operators in this matter, the Commission has decided that the appropriate system operator requires that an applicant confirms in writing, and witnessed by a solicitor, that it has acquired any necessary landowner consent(s) to access the land where it proposes to locate the project specified in the application form. This includes the land on which turbines and substation are to be located. The confirmation statement will be requested by the system operators within a few weeks of this direction. Failure to provide this statement will result in exclusion from the Gate.

### **Dynamic Modelling**

- 6.4 Consistent with previous Gates, EirGrid has advised the Commission that it will not be carrying out dynamic simulation studies as part of the processing of the Gate 3 applications. Connection offers will therefore contain a caveat stating that parties are required to provide a Grid/Distribution Code compliant dynamic model at least 240 business days (1 year) prior to the expected date of connection and that the connection offer is subject to the results of the completed dynamic analysis

## **7. Timelines for Offers**

- 7.1 As detailed in section 5, the GDS approach will be adopted in Gate 3 with a Gate size of about 3,900 MW. This section now shows the key milestones in the Gate 3 process. The offer programme is intended to be clear and dependable and the system operators will be actively monitored by the Commission to ensure adherence to it.
- 7.2 The nodes into which generators connect will be agreed between the TSO and DSO and published by the system operators within 15 business days of this final direction. This will include the five business days for some projects to marginally change their MEC as detailed in section 5, and a further ten business days for the nodes to be finalised and published. As referred to in section 5.24, Gate 3 parties will be allowed to then submit one suggestion covering the transmission sub-group as a whole (as opposed to the individual generator's connection assets) to the appropriate system operator for assessment – applicants will be allowed 30 business days from the publication of the nodes for this.
- 7.3 The sequence for running the ITC Programme, publishing lead-times for offer issuance, determining shallow connection methods and issuing of offers is shown below. The ITC Programme will commence this January and will be complete by July 2009. Offer lead-times, and the scheduled firm access quantities for generators, can then be published on the system operators' websites in September 2009. Connection offers to all 3,900 MW of renewable projects in Gate 3, and a certain capacity of conventional projects (as decided by the Commission - see section 8), are then anticipated to roll-out from December 2009 through to June 2011. This therefore involves the system operators issuing offers, over 18 months, to many thousands of MW of renewable and conventional applicants. The Gate 3 Liaison Group meetings will, among other things, discuss the offer programme to help ensure that it is being adhered to.



- 7.4 It should be noted that this timeline assumes no re-run of the ITC Programme, for example for conventional generator applicants (see section 8). An assumption is also made that there will not be a significant fall-out from renewable applicants when, for example, requesting the application processing fee or land access confirmation, which could necessitate a re-running of the Programme.

**Offer Acceptance/Disputes**

- 7.5 Gate 3 parties are allowed 50 business days to accept their connection offer, as was the case for Gate 2. For clarity, where constraints estimates are issued to Gate 3 parties after the offer, this 50 business day offer acceptance timeline applies from receipt of their constraints information. To ensure a speedy processing of Gate 3 offers, while also allowing parties sufficient time to examine their offers, the Commission Gate 3 parties must submit disputes to the Commission by business day 25 of the 50-day offer timeline. Where constraints estimates are issued to Gate 3 parties after the offer, this 25 business day disputes timeline applies from receipt of the constraints information. Furthermore, for a dispute to be accepted by the Commission, a Gate 3 developer must demonstrate that it has already made a reasonable attempt to engage with the relevant system operator and resolve the issue.

## **8. Applications from Conventional Generators**

### **Background**

- 8.1 While renewable generators have been subject to the group processing approach to connection, “conventional” (i.e. non-renewable) generators have continued to be generally processed for connection individually. This single processing regime has been considered appropriate for conventional generation given the relatively low volume of big projects. Where renewable and conventional applications interact, the Commission has reserved the right to issue a direction to EirGrid to process connection applications from conventional plant in tandem with - or advance of - the interacting renewable applicants that are ahead of them in the connection queue. This is considered in accordance with the Commission’s direction of April 2005 (CER/05/049), taking account of the public interest benefits arising from the conventional applicant, particularly security of supply, and its potential network access costs, for example in terms of delayed connection, on the relevant renewable generators. An example of this would be the Commission’s recent direction to EirGrid to issue a connection offer to the Sean Quinn group for a 445 MW CCGT generating plant in Co. Louth. This was made on the grounds of the security of supply and competition benefits from the plant and that it would not have a disproportionate impact on renewable generation.
- 8.2 Up until recently this system has worked well. However, it is now timely to examine the effectiveness of the above approach, for a number of reasons:
- There are now a very significant number of renewable generators seeking to connect to the network, so almost all conventional generator applications (including interconnectors) interact with renewables, which was not envisaged when CER/05/049 was issued. This means that almost all conventional generator applications are now referred from EirGrid to the Commission for decision on whether or not they should be issued an offer. There are also now many more conventional applications seeking connection than a couple of years ago. The Commission of course welcomes these developments from a security of supply and competition perspective. However the volume of applications and their interacting nature mean that it is increasingly difficult for EirGrid to carry out studies on the impact of connecting the conventional applications with a high degree of accuracy, and it is inefficient for the Commission to be examining each application individually. In short, due to the volume of renewable and conventional applications, the current system is beginning to creak; and,

- The GDS approach will allow for the long-term development of the transmission system to connect *both* anticipated renewable and conventional applicants (including interconnectors), using the methodology described earlier.
- 8.3 In view of this *both* the circa 3,900 MW of renewable applicants *and* conventional applications submitted by the date of this direction, which can also provide evidence of land access (as required for Gate 3 renewable generators), will be included together by EirGrid in the ITC Programme, with rules as described, for determination of scheduled firm connection dates. For clarity, this will also include any interconnector connection applications not already processed for connection. As detailed in section 7, the ITC Programme is due to run from January. The Programme, which on the grounds of economic efficiency operates to an “n-1” transmission planning standard for generators as opposed to the full “n-1-1” (see section 5 of this paper for details), will indicate the scheduled firm connection dates for the conventional applicants to 2025 (along with the renewables’). However not all of these conventional projects will receive an offer as part of this process, as outlined later.
- 8.4 The Commission can decide to advance the conventionals’ scheduled firm connection dates provided by the ITC Programme. Their scheduled firm connection dates could be advanced by re-running the ITC Programme and re-arranging their place in the queue and/or by speeding up grid infrastructure planned in the areas in which they are connecting. The Commission also reserves the right to substitute dispatchable environmentally benign stations needed in the public interest into this schedule. These decisions would be taken in accordance with the Commission’s direction of April 2005 (CER/05/049), taking account of the public interest benefits such as security of supply, competition and plant flexibility, the impacts on renewables, and climate change.
- 8.5 There is now over 6,000 MW of conventional projects in the connection application queue, most of which have applied for connection over the last few months. Processing all of these projects for offer issuance following the results of the ITC Programme would be a cause for concern because:
- It means that more conventional applicants than are, for example, necessary to provide public interest benefits such as the country’s security of supply, would be issued with an offer ahead of renewable applicants who applied for connection beforehand which are not in Gate 3; and,
  - EirGrid’s GDS may in any event not be able to provide many of these applicants with a firm connection within the period to 2025. This could mean that some of the conventional projects would be operating on a non-firm basis for a very considerable period (i.e. up to and beyond 2025).

- 8.6 Accordingly not all of these conventional projects will receive an offer after the results of the ITC Programme. The Commission will shortly be issuing a consultation paper regarding the size and criteria for the issuance of connection offers to conventional applicants (including interconnectors). In developing the criteria, the Commission will take into consideration its legislative duties, especially in relation to competition, security of supply and the environment. In doing so, the Commission will take into account the overall objective of the “Asset Strategy Agreement” as entered into between the Commission and ESB as signed in April 2007<sup>22</sup>.
- 8.7 Once a satisfactory outcome has been achieved from the ITC Programme’s results, the conventional plants that will receive an offer (under criteria that will be separately consulted on, as above) may be further assessed by the system operator using additional connection studies. Offers to these conventional projects are anticipated to be issued along with Gate 3 projects, i.e. from December 2009 to June 2011. Offers would be issued to these projects in accordance with the schedule of offers to be published in September 2009, unless a project(s) is advanced in accordance with CER/05/049.

\*\*\*\*\*

---

<sup>22</sup> See: <http://www.cer.ie/GetAttachment.aspx?id=84559ccb-ad26-4da1-aea4-179d920a61bf>

### Appendix 1: List of Renewable Projects in Gate 3

Reference	Date Received Info at Relevant System Operator	Application - Type (Wind = onshore unless otherwise indicated)	Project	MEC - MW	Cumulative Total MEC - MW
TG33	19/02/2004	Wind	Ederglen (1)	16.8	16.8
TG28	15/04/2004	Wind	Owenhinney (4)	34.0	50.8
TG27	15/04/2004	Wind	Owenhinney (3)	56.0	106.8
TG26	15/04/2004	Wind	Owenhinney (2)	48.0	154.8
TG25	15/04/2004	Wind	Owenhinney (1)	34.0	188.8
TG30	19/04/2004	Wind	Boolynagleragh (1)	37.0	225.8
TG31	07/05/2004	Wind	Castlepool (1)	33.1	258.9
DG87	31/05/2004	Wind	Carrickeeney Windfarm	7.7	266.5
DG89	20/06/2004	Wind	Curraghbristy 24MW Windfarm, Co. Tipperary	24.0	290.5
DG91	08/07/2004	Wind	Bunkimalta 42.5MW Windfarm [110kV connection]	46.5	337.0
DG92	16/07/2004	Wind	Ugool Windfarm, Oughterard[110kV Connection]	64.0	401.0
DG94	28/07/2004	Wind	Leitir Guingaid & Doire Chrith 14MW WF	14.0	415.0
DG93	28/07/2004	Wind	Kilmeedy 5MW Windfarm	5.0	420.0
DG95	29/07/2004	Wind	Crohaun 30MW Windfarm, Co. Waterford	34.0	454.0
DG115	30/07/2004	Wind	Freemount 2.5MW Windfarm	2.5	456.5
DG96	30/07/2004	Wind	Curreeny 90MW Windfarm [110kV connection]	94.0	550.5
DG101	03/08/2004	Wind	Faughary WF, 4.999WM, Manorhamilton, Co Leitrim	6.0	556.5
DG104	03/08/2004	Wind	Springfarm WF, 4.999MW, Redcross, Co Wicklow	6.0	562.5
DG107	06/08/2004	Wind	Askeaton 18MW Windfarm White Island	20.0	582.5
DG109	13/08/2004	Offshore Wind	Kish Banks Offshore WF (48MW) Off Bray, Co Wicklow	52.0	634.5
DG108	25/08/2004	Wind	Lealetter Windfarm (22.5MW), Moycullen, Co. Galway	22.5	657.0
TG34	26/08/2004	Wind	Kilgarvan (1)	62.2	719.2
DG120	27/08/2004	Wind	Lissycasey 5MW Windfarm, Glenbrook, Co. Clare	6.0	725.2
TG36	14/09/2004	Wind	Boolynagleragh (2)	11.6	736.9

DG145	15/09/2004	Wind	Boolabrien Upper, Ballymacarbery, Co. Waterford.	25.0	761.9
DG128	16/09/2004	Wind	Carrownaweelaun 4.6MW Wind Farm	4.6	766.5
DG131	20/09/2004	Wind	Tullaroan Ballybeagh Windfarm, 9.75MW, Co. Kilkenny.	11.7	778.2
DG119	22/09/2004	Wind	Charleville 5MW Wind Farm	5.0	783.2
TG37	27/09/2004	Wind	Croaghbrack (1)	33.1	816.3
DG121	28/09/2004	Wind	Barrboy Windfarm, Dunmanway, Co. Cork.	7.8	824.1
DG224	28/09/2004	Wind	Ballyhoura Windfarm, Ballyhay, Co. Cork.	18.3	842.4
DG134	04/10/2004	Wind	Barranafaddock Windfarm, Co. Waterford.	39.9	882.3
DG123	04/10/2004	Wind	Coolrus Windfarm, Woodcock, Bruree, Co. Limerick	3.0	885.3
TG44	19/10/2004	Wind	Barnadivane (1)	60.0	945.3
TG45	08/11/2004	Wind	Raheenleagh (1)	36.5	981.8
DG135	11/11/2004	Wind	Woodhouse Windfarm, Co. Waterford.	23.3	1005.1
DG144	11/11/2004	Wind	Bragan Windfarm, 30MW, Tydavnet, Co Monaghan.	33.1	1038.2
DG136	15/11/2004	Wind	Monaincha Bog Windfarm, Roscrea, Co. Tipperary.	30.0	1068.2
DG213	24/11/2004	Wind	Bawnlea Windfarm, Thurles, Co. Tipperary	2.3	1070.5
DG215	25/11/2004	Wind	Newpark Windfarm	4.6	1075.1
DG216	25/11/2004	Wind	Grangehill Wind Farm, Thurles, Co. Tipperary	4.6	1079.7
DG154	25/11/2004	Wind	Glengoole Windfarm	4.6	1084.3
DG137	29/11/2004	Wind	Farrannahineeny Wind Farm, Dunmanway, Co.Cork	4.3	1088.5
DG140	14/12/2004	Wind	Barnastooka WF, Kilgarvan, Co. Kerry	34.0	1122.5
DG143	16/12/2004	Wind	Bunnahowen Windfarm, Belmullet, Co Mayo	2.6	1125.1
DG147	30/12/2004	Wind	Sillahertane Wind Farm	10.0	1135.1
DG148	30/12/2004	Wind	Cahermurhpy Wind Farm, 5.1MW, Kilmihil, Co. Clare	6.0	1141.1
DG153	08/02/2005	Wind	Coomagearlahy Phase 4 - previously Lettercannon	21.6	1162.7
DG222	27/02/2005	Wind	Dromgarriff Wind Farm	11.5	1174.2
DG157	04/03/2005	Wind	Holmes Hill Wind Farm	11.7	1185.9
DG158	11/03/2005	Wind	Gurteen Lower Wind Farm, 2MW	2.3	1188.2
DG202	13/04/2005	Wind	Bunaveala/Keenagh Wind Farm, Co. Mayo (9.2MW)	9.2	1197.4
DG165	19/04/2005	Wind	Tarbert Wind Farm (15MW)	18.0	1215.4
DG168	05/05/2005	Wind	Dooleeg More Wind Farm	2.0	1217.4

			(1.7MW)		
DG171	05/05/2005	Wind	Rathnaveoge Wind Farm (2.55MW)	2.6	1219.9
DG175	13/06/2005	Wind	Kingscourt / Gilmore Windfarm (15MW)	18.0	1237.9
DG191	05/09/2005	Wind	Clochar na Lara WF (24 MW) Co. Galway	24.0	1261.9
DG186	06/09/2005	Wind	Tawnaghmore WF, (5.4MW), Bellacorrick, Co. MAYO	5.4	1267.3
TG57	09/09/2005	Wind	Dooghbeg (1)	45.0	1312.3
DG182	19/09/2005	Wind	Ballyshonog WF, (5 MW), Co. Wicklow GUDP	5.0	1317.3
TG58	19/09/2005	Wind	Seecon (1)	105.0	1422.3
DG181	27/09/2005	Wind	Glencarbry WF, (33MW) Co. Tipperary	37.0	1459.3
TG59	05/10/2005	Wind	Killala (1)	30.0	1489.3
DG190	28/10/2005	Wind	Ballycurreen, Ring WF (5MW), Co. Waterford	5.0	1494.3
DG196	24/11/2005	Wind	Newtownfore WF	14.4	1508.7
DG195	24/11/2005	Wind	Cooly Wind Farm, Moville, (4MW), Co. Donegal	4.0	1512.7
TG62	09/12/2005	Offshore Wind	Doolick (1)	100.8	1613.5
DG204	19/12/2005	Wind	Lettergull WF	20.0	1633.5
TG66	09/01/2006	Wind	Mount Lucas (1)	79.2	1712.7
DG209	19/01/2006	Wind	Ballycumber WF (18MW), Co. Wicklow GUDP	18.0	1730.7
DG223	27/01/2006	Wind	Anarget Ext.2 WF (0.5MW), Co. Donegal	0.5	1731.2
DG217	16/02/2006	Wind	Cloughboola WF (10MW), Co. Kerry	10.0	1741.2
DG219	15/03/2006	Wind	CurraghDerrig, Astee, Co. Kerry	4.5	1745.7
DG250	02/05/2006	Wind	Gneeves Phase 2, Gneeves, Millstreet, Co. Cork.	5.4	1751.1
DG252	05/05/2006	Wind	Nafferty Hill	2.0	1753.1
DG243	07/05/2006	Wind	Meenkeeragh WF Ext	0.4	1753.5
DG238	10/05/2006	Wind	Derryknockeran, Clonnlóo, Boyle, Co. Sligo	4.3	1757.8
TG69	17/05/2006	Wind	Kill Hill	62.5	1820.3
DG261	17/05/2006	Wind	Scartaglen WF Ext	2.4	1822.7
DG248	17/05/2006	Wind	Curraheen, Ahenny, Carrick-on-Suir, Co. Tipperary.	24.0	1846.7
DG249	22/05/2006	Wind	Coomleagh W.F., Coomleagh East, Bantry, Co. Cork	6.0	1852.6
DG232	22/05/2006	Wind	Sleivenaglogh, Jenkinstown, Co. Louth	15.0	1867.6
DG233	22/05/2006	Wind	Ballagh W.F., Ballagh, Co. Limerick.	9.0	1876.6
DG231	22/05/2006	Wind	Lisbealad W.F. Lisbealad, Bantry, Co. Cork.	6.0	1882.6

DG260	22/05/2006	Wind	Cronalaght W.F 2	8.2	1890.8
DG212	30/05/2006	Wind	Sonnagh Old Ext.1 WF (0.85MW), Co. Galway	0.9	1891.7
DG247	30/05/2006	Wind	Gortnahurra, Crossmolina, Co. Mayo	33.9	1925.6
DG251	31/05/2006	Wind	Carrigans W.F ext, Ballydesmond, Co. Cork	1.4	1927.0
TG74	02/06/2006	Wind	Athea (4)	25.0	1952.0
DG245	07/06/2006	Wind	Tawnaghmore W.F., Sheskin, Bellacorrick,	1.5	1953.5
DG240	09/06/2006	Wind	Tullynamalra Wind Energy Scheme	0.6	1954.0
DG253	14/06/2006	Wind	Athea Wind Farm Phase 1 Ext (1MW), Co. Limerick	1.0	1955.0
DG244	14/06/2006	Wind	Meenachullalan Ext (1.9MW) Killibegs, Co. Donegal	1.9	1956.9
DG236	19/06/2006	Wind	Knockraha Windfarm, Knockraha	21.6	1978.5
DG239	19/06/2006	Wind	Tawnaghmore Ext. 2 Wind Farm	9.2	1987.7
DG254	19/06/2006	Wind	Carrowleagh Windfarm Extension	2.7	1990.4
DG237	20/06/2006	Wind	Leitir Guingaid & Doire Chrith 4.4MW WF	4.4	1994.8
DG241	21/06/2006	Wind	Dunmore 3 Wind Farm, Collon, Co. Louth	2.3	1997.1
TG73	06/07/2006	Wind	Glenmore	30.0	2027.1
DG258	11/10/2006	Wind	Ashford WF	13.8	2040.9
DG257	16/10/2006	Wind	Clifden WF (3MW)	3.0	2043.9
TG71	26/10/2006	Wind	Oweninney (5)	198.9	2242.8
DG259	27/10/2006	Wind	Knockawarriga Windfarm Extension	12.0	2254.8
DG262	02/01/2007	Wind	Stack's Mountain WF	13.8	2268.6
DG263	02/01/2007	Wind	Muingatlaunlush WF Beennageha	11.5	2280.1
DG264	02/01/2007	Wind	Knockathea WF Upper Athea Athea Co. Limerick	33.9	2314.0
DG265	17/01/2007	Wind	Teevurcher Wind Farm Teevurcher Co. Meath	9.0	2323.0
DG266	22/01/2007	Wind	Garvoghil Wind Farm Inagh Co. Clare	6.0	2329.0
DG267	25/01/2007	Wind	Kiltumper Wind Farm Kiltumper Kilmihil	5.0	2334.0
DG269	11/02/2007	Wind	Clogheravaddy WF	9.2	2343.2
DG268	20/02/2007	Wind	Loughderryduff WF Ext Glenties, Co Donegal	9.4	2352.6
DG271	01/03/2007	Wind	Muingnaminnane 2 Wind Farm	13.5	2366.1
DG274	01/03/2007	Offshore Wind	Kish2 Wind Farm	52.0	2418.1
DG272	01/03/2007	Wind	Cordal 2 Wind farm Koochanefune Tralee Co. Kerry	34.0	2452.1

DG273	01/03/2007	Wind	Cordal 3 Wind farm Kooakanefune Tralee	31.0	2483.1
DG275	01/03/2007	Offshore Wind	Kish 3 Wind Farm	52.0	2535.1
DG290	04/03/2007	Wind	Cleanrath Wind Farm	16.6	2551.7
DG278	05/03/2007	Offshore Wind	Kish 6 Wind Farm	52.0	2603.7
DG277	05/03/2007	Offshore Wind	Kish 5 Wind Farm	52.0	2655.7
DG276	05/03/2007	Offshore Wind	Kish 4 Wind Farm	52.0	2707.7
DG279	05/03/2007	Offshore Wind	Kish 7 Wind Farm	52.0	2759.7
DG282	23/03/2007	Wind	Kilvinane 2 Wind Farm	5.8	2765.5
DG283	23/03/2007	Wind	Muingnatee 2	1.8	2767.3
DG284	31/03/2007	Wind	Beam Hill Wind Farm Extension	9.0	2776.3
DG285	18/04/2007	Wind	Lisdowney Community Wind Farm	9.2	2785.5
TG83	23/04/2007	Wind	Clahane (2)	13.8	2799.3
DG286	24/04/2007	Wind	Garrymore Wind Farm	10.8	2810.1
DG289	03/05/2007	Wind	Cloontooa Wind Farm	13.8	2823.9
DG293	03/05/2007	CHP	GOE Project	12.5	2836.4
DG291	03/05/2007	Wind	Magheramore Wind Farm	27.0	2863.4
DG292	03/05/2007	Wind	Carrignadoura Wind Farm	22.1	2885.5
DG294	08/05/2007	Wind	Raragh2 (Gilmore2) Windfarm - Kingscourt	16.6	2902.0
DG303	13/06/2007	Wind	Kilbereherth Wind Farm	4.5	2906.5
DG302	19/06/2007	Wind	Athea Ext - Knocknagornagh Wind Farm	43.7	2950.2
DG308	28/06/2007	Wind	Meenadreen South 2 Wind Farm	5.4	2955.6
DG307	28/06/2007	Wind	Knocknalour Wind Farm	4.0	2959.6
DG306	28/06/2007	Wind	Ballycadden Wind Farm	11.5	2971.1
DG311	09/07/2007	Wind	Tullabrack Wind farm	13.8	2984.9
DG324	11/07/2007	Wind	Garracummer 2	1.0	2985.9
DG312	20/07/2007	Wind	Black Lough Wind farm	12.5	2998.4
TG84	02/08/2007	Wind	Bruckana	39.6	3038.0
DG316	07/08/2007	Wind	Toonagh Wind Farm	0.9	3038.9
DG317	09/08/2007	Wind	Toonagh WF 499kW	0.5	3039.4
DG323	30/08/2007	Wind	Ballyduff Wind Farm	0.6	3040.0
DG321	03/09/2007	Wind	Dromadda More 2	12.0	3052.0
TG102	13/09/2007	Wind	Boggeragh (2)	43.7	3095.7
DG400	17/09/2007	Wind	Sonnagh old 3 Ext	11.0	3106.7
DG402	03/10/2007	Wind	Altnaggapple Windfarm	27.0	3133.7
TG86	03/10/2007	Offshore Wind	Oriel (1)	320.0	3453.7
DG404	17/10/2007	Wind	Tullynageer Wind Farm	16.1	3469.8
DG405	17/10/2007	Wind	Cappagh White 2 Wind Farm	7.9	3477.7
DG407	26/10/2007	Wind	Corkemore 2	3.0	3480.7
DG406	30/10/2007	Wind	Geevagh 2	10.0	3490.7
DG408	30/10/2007	Wind	Ballymartin 2	6.9	3497.6
DG410	02/11/2007	Wind	Cappagh White WF 3	18.0	3515.6
DG412	02/11/2007	Wind	Glentanemacelligot Phase 2	30.0	3545.6
DG411	02/11/2007	Wind	Cappagh White 4 WF	15.0	3560.6

DG413	05/11/2007	Wind	Kilmacow Quarry Phase 2	0.4	3561.0
TG93	15/11/2007	Wind	Killinaperson (1)	51.0	3612.0
TG94	15/11/2007	Wind	Sliabh Bawn (1)	54.0	3666.0
TG92	15/11/2007	Wind	Cluddaun (3)	30.0	3696.0
TG91	15/11/2007	Wind	Cluddaun (2)	60.0	3756.0
TG90	15/11/2007	Wind	Cluddaun (1)	48.0	3804.0
DG425	15/11/2007	Wind	Knockawarriga Wind farm Phase 3	22.5	3826.5
DG419	16/11/2007	Wind	Cappaboy Brg 2	5.0	3831.5
DG420	16/11/2007	Wind	Kilronan WF Phase 2	30.0	3861.5
DG418	16/11/2007	Wind	Cappaboy Beg 1 Wind Farm	5.0	3866.5
DG421	16/11/2007	Wind	Foilduff Wind Farm	23.6	3890.1

## Appendix 2: Rules for Determining Node



### Rules for determining node for study purposes to be assumed for Gate 3 methodology process

#### **Introduction**

These rules have been devised to provide as much transparency as possible to the industry, in the initial assignment of nodes to applicants, in order to facilitate the running of the ITC Programme as part of Gate 3. Please note that the rules aim to allow the Gate proceed quickly/efficiently by locking down the node at which the generation exports to the transmission system. The exact method of connection for the generators will be determined following detailed studies.

An applicant will be associated with an existing transmission voltage node (110/220/400 kV) or a declared new, planned or contracted transmission voltage node in accordance with the rules outlined below. For clarity a node is a busbar of the appropriate voltage, for example a 110 kV node may be a 110 kV station or alternatively a 110 kV busbar in a 220 kV or 400 kV station.

Where these rules indicate connection to an existing lower voltage [38 kV, 20 kV, 10 kV, LV] node embedded in the Distribution System, the transmission voltage node that will be used will be on the basis of the normal feeding arrangements of that lower voltage node from transmission voltage level, which are in place at the time of the study.

#### **1. Declared new nodes**

- *New 38 kV node*

Where a concentration of applicants in a given geographical area exists, with a total MEC less than 40 MW, the System Operators reserve the right to declare the existence of a new 38 kV node, located at a point which in the System Operator's judgement, is most appropriate to that concentration. Where one application within the concentration is clearly of a larger size than others in the concentration, the declared new node will be assumed to be at the co-ordinates of that application for the purposes of the GDS study.

- *New 110 kV node*

- Where a concentration of applicants in a given geographical area exists, with a total MEC greater than or equal to 40 MW and less than or equal

to 177 MW, the System Operators reserve the right to declare the existence of a new 110 kV node, located at a point which in the System Operator's judgement, is most appropriate to that concentration. Where one application within the concentration is clearly of a larger size than others in the concentration, the declared new node will be assumed to be at the co-ordinates of that application for the purposes of the GDS study.

- Where a concentration of applicants in a given geographical area exists, with a total MEC of greater than 177 MW but less than 200 MW, the System Operators reserve the right to declare the existence of two new 110 kV nodes, located at a point which in the System Operators' judgement, is most appropriate to that concentration, using the same methodology as above.

- *New 220 kV or 400 kV node*

Where a concentration of applicants in a given geographical area exists, with a total MEC of greater than or equal to 200 MW, the System Operators reserve the right to declare the existence of a new 220 kV or 400kV node, located at a point which in the System Operator's judgement, is most appropriate to that concentration. Where one application within the concentration is clearly of a larger size than others in the concentration, the declared new node will be assumed to be located at the co-ordinates of that application for the purposes of the GDS study.

## **2. Selection of connection voltage**

- a) All applicants less than or equal to 5 MW will be assumed to connect to the nearest<sup>23</sup> 38 kV node on the system (existing, declared new, planned or contracted node as point 1 above).
- b) All applicants greater than 5 MW but less than 10 MW will be assumed to connect to the nearest 38 kV node (existing, declared new, planned or contracted node under point 1 above) or 110 kV node (existing, declared new, planned or contracted node as point 1 above).
- c) All applicants over 10 MW but less than 40 MW will be assumed to connect to the nearest 110 kV node (existing, declared new, planned or contracted node as point 1 above).
- d) Any declared new 38 kV node will be assumed to connect to the nearest<sup>1</sup> 110 kV node (existing, declared new, planned or contracted node as point 1 above).
- e) All applicants 40 MW or over but less than 177 MW will be assumed to require a 110 kV metered supply at the generator' substation.
- f) All applicants 177 MW or over will be assumed to require a 220 kV or 400 kV metered supply at the generator substation<sup>24</sup>. The transmission node

---

<sup>23</sup> As defined in the glossary.

assignment voltage will be used to determine whether a 220kV or 400kV metered supply is applicable.

### **3. Shallow Transmission assets**

The connection method of either transmission connected generator[s] or new transmission shallow connection nodes will be assumed to be a single connection, unless a higher specification of connection has been requested by the generator[s] as part of their application, or is necessitated to be 'technically acceptable'<sup>25</sup>.

### **4. Treatment of Extensions**

Purely for the purposes of node assignment, extensions will be defined as those projects which have the same co-ordinates and are owned by the same legal entity as an existing development.

Where the extension can be accommodated on the line/cable, either dedicated or shared with another, which feeds the existing development, then the Transmission node will be assigned on the basis of the present normal feeding arrangements

Where the extension(s) cannot be accommodated on that line/cable then the System Operators will apply their best judgement in allocating a Transmission Node.

## **Glossary**

For the purpose of these rules the following terms are defined as:

### ***Applicants***

An applicant is an individual application made by a single customer at one geographical site or the total wind farm turbines of a number of applications (i.e. phases, stages, etc) made at one geographical site.

### ***Nearest***

For the purposes of these rules nearest is defined as the shortest distance over land, as computed between the co-ordinates of the connection point on the existing system or new node and the co-ordinates supplied on the application. Overland in this instance is defined as a straight line route with no water-crossings of greater than 150m [i.e. not across obvious obstacles e.g. river estuaries, large lakes etc].

In the event that water bodies greater than 150m are encountered then the straightest route that circumnavigates the water body or - in the case of a

---

<sup>24</sup> The rationale for this rule is that three standard 110 kV circuits will be insufficient.

<sup>25</sup> Technical Acceptance includes, but is not restricted to, maintaining compliance to the Transmission Planning Criteria and Grid code.

waterway – arrives at a point where a crossing of less than 150m can be made, will be deemed to the shortest distance to that node<sup>26</sup>.

---

<sup>26</sup> A width of 150m has been assumed as this represents the typical span length of a 110kV or 38kV overhead line. Therefore a greater than distance is likely to be unachievable without special design considerations and the costs associated i.e. use of cable. In the case of transmission this generally necessitates a cable connection all the way to the nearest one of the substations the circuit is linking between. Such a connection is highly unlikely to be LCTA.

### **Appendix 3: Pricing of Distribution Works in Gate 3.**

The design of Gate 3 is such that - unlike previous Gates -Transmission Firm Capacity (TFC) will be available on an individual, rather than a group or subgroup, basis. The outcome of this is that applicants within the same group or subgroup, who share connection assets, may have different dates for firm access to the transmission system.

In the interests of optimal network planning and the longer term system development, the distribution works required to accommodate developers in Gate 3 will be for the full TFC identified at each 110 kV node. This will be done irrespective of the time scale for availability of the TFC.

The present pricing for group processing, as provided in CER/05/049 and the Joint TSO/DSO Group Processing Approach Pricing Principles Guidelines<sup>27</sup> will apply, i.e. the cost of shared assets will be attributed on a per MW basis to each generator in a group or sub-group.

If all applicants directly or indirectly connected to a 110 kV node accept their offers, then work will progress on the assets, and the payment schedule for each applicant will be as their original quotation letter. In the event of some offers not being accepted, the existing pricing principles allow for the connection methods to be re-visited if necessary as explained in the Joint Pricing Principles Guidelines.

However the following possible scenario may occur, which is not presently covered in the Joint Pricing Principles Guidelines, and this is outlined below.

#### Scenario

One applicant in a group elects to accept their Gate 3 offer on a firm basis, while the remainder elect for non-firm access once the distribution works are complete. In this event, all would pay the first stage payment as a condition of offer acceptance. However, if the firm applicant's TFC is not available until some time after the shared works are completed and the DSO is required to construct the shared asset for the other applicants in the group, then the shared asset costs would not be recovered from the "firm" applicant until the construction/design of its dedicated shallow assets. At that point, the remaining payments could be invoiced to this applicant, covering its proportion of the shared asset costs and its dedicated asset costs. In the interim, the portion of the shared assets funded by the DSO would be added to the DSO's Regulated Asset Base (RAB), pending receipt of the capital contributions from the "firm" applicant. If, some point after the construction of the shared asset is completed, the applicant decides not to pursue the project, the cost would then be funded by the Distribution Use of System (DUoS) end customer.

The above is considered to be a reasonable balance between the treatment of generators in Gate 3 with a TFC several years hence and the potential cost

---

<sup>27</sup> See the link: <http://www.cer.ie/GetAttachment.aspx?id=43ee462b-5a5c-42e4-a796-d2b483e96253>

exposure to end-customers if they do not proceed – all generators will pay for the first stage payment, hopefully reducing the risk of generators not proceeding to connection, while the end DUoS customer will fund the completion of shared assets in advance of them connecting.

## Appendix 4: Generation Study High level Summary Report Template

### 4.1 Single Connection [Applies to situation where there is only one Gate 3 applicant associated with a given node]



Generation Planning: ESB Networks

Name of project	
DG Number	
Gate	
MEC	
Grid reference Easting	
Grid reference Northing	
Study carried out by	
Date	

Customer suggested method of connection<sup>28</sup>

Method description	
Submitted by:	
Date:	

Options considered and rejected on Technical Grounds

Option	Description	Reason rejected

Technically Acceptable Options

Option	Description	Cost	

LCTA method:

<sup>28</sup> Each customer will be given the opportunity to submit one method of connection proposal for the entire transmission sub-group. This method will be studied, but will only be offered where it allows for the LCTA to the group/subgroup.

**4.2 Group Connection [Applies where more than one Gate 3 applicant is associated with a given node]**



Generation Planning: ESB Networks

Name of Group	
110kV node	
Studies carried out by	
Date	

Group constituents

Project Name	DG Number	MEC	Grid reference	
			Easting	Northing
DGx				
DGy				

Customer's suggested method of connection<sup>29</sup>

DG Number	Submitted by	Date	Assigned Option Number	Description	Sketch Appendix

<sup>29</sup> Each customer will be given the opportunity to submit one method of connection proposal for the entire transmission sub-group. This method will be studied, but will only be offered where it allows for the LCTA to the group/subgroup.

Options considered and rejected on Technical Grounds

Option	Variant	Sketch	Subgroup 1	Subgroup 2	Subgroup 3	Reason for rejection
1	1	Appendix 1	DGx DGy	DGq	DGvv Dgww DGss	
	2	Appendix 2	DGx DGy	DGq	DGvv Dgww DGss	
2			DGx	DGq DGy	DGvv Dgww DGss	

Technically Acceptable Options

Option	Variant	Sketch	Subgroup 1	Subgroup 2	Subgroup 3	Cost
5	1	Appendix 3	DGx DGy	DGq DGvv	Dgww DGss	
	2	Appendix 4	DGx DGy	DGq DGvv	Dgww DGss	
4			DGx Dgww DGss	DGq DGy	DGvv	

LCTA method:

## **Appendix 5: Connection Method Meetings & Cables**

In response to input from the industry, the DSO will change its offer issue process as below. Below outlines the existing process, and the future process which the DSO now has offered to introduce,

### **Practice in Gate 2 and Previous**

- Offers issued based on LCTA. Typically this was an overhead solution and hence gave rise to many modification requests where developers felt overhead was not an option.
- While a developer could request a change - subject to certain criteria as outlined in the Joint TSO/DSO Group Processing Approach Pricing Principles Guidelines Paper - to their offer, this could only be done after acceptance of the offer.
- Due to large number of distribution connections, no meetings with developers pre-offer issue. This meant that in many cases clarification meetings were required after offer issue, often under tight timescales, and often requiring extensions to offer acceptance.

### **Proposed Practice in Gate 3**

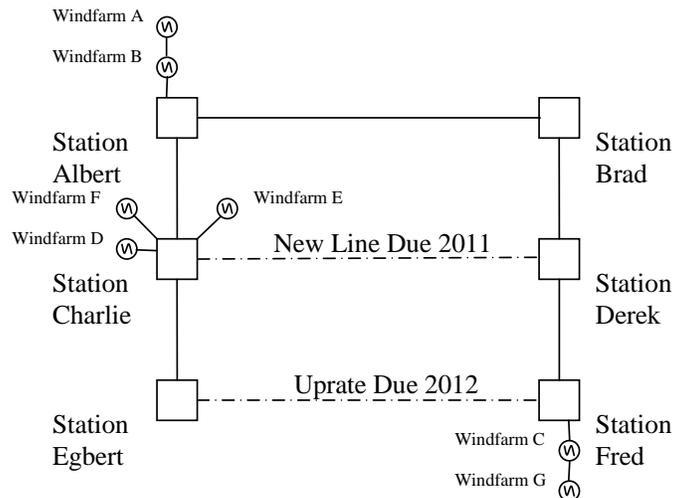
- Connection method meetings to be held pre-offer issuance. These meetings will be held with complete sub-groups and will be attended by both SOs. The purpose of the meetings will be:
  - To outline the proposed LCTA connection method, and provide a cost estimate;
  - To outline why other connection methods were not deemed to be LCTA (in particular any proposed by specific generators);
  - To entertain queries from the developers on the connection methods.
- In addition developers will be advised at this meeting that they have the option of the option of receiving their initial offer based on dedicated assets being undergrounded. This will work as follows:
  - Developers will be advised of this option at the meeting;
  - Developers will be advised to request, in writing, that their initial offer is issued by undergrounding all dedicated assets. This request to be received within 10 working days of connection method meeting;
  - If a request has not been received within 10 working days, DSO will progress the offer on the basis of an overhead connection;
  - If request has been received then the developer has a further 20 working days to submit a cable route. In the event that a cable route has not been submitted within this timeframe, DSO will progress the offer on the basis of an overhead connection.

## **Consequences**

While there will be a minor delay to the issuing of the first offer due to this new process, this will be significantly less than the delays incurred by parties who presently need to apply for a modification after their offer has been issued.

## Appendix 6: Illustrative Example of the ITC Programme

For illustrative purposes, this section provides an example of how the ITC Programme would work in practice. We will study the years 2011-2013 for the small scale example network below:



This six 110 kV station network is connected in a ring prior to 2011, when a new 110 kV line linking Station Charlie to Station Derek is built (shown with a dotted line). The following year (2012) one of the lines between Station Egbert and Station Fred is updated.

The example below uses the generators' application received date to prioritise the order in which they should be offered capacity. The list below represents, in this example, the wind generation in the area. This list has been sorted based on application received date as the prioritisation criteria:

Name	MW size	Date of application	Est Shallow connection point
Windfarm A	10	01/01/2004	Station Albert
Windfarm D	20	01/04/2004	Station Charlie
Windfarm E	15	01/05/2004	Station Charlie
Windfarm B	5	01/01/2005	Station Albert
Windfarm F	5	01/06/2005	Station Charlie
Windfarm G	2	01/07/2005	Station Fred
Windfarm C	7	01/03/2006	Station Fred

### ***Study results for 2011***

It should be noted that the “spare” capacity figures provided in this example are not calculated by the Programme. They have been provided in this example to illustrate the effect generators have on the network as they are added by the Programme, and also to illustrate why the generators are deemed acceptable or not.

The ITC Programme operates by adding in the complete list of generators sequentially, accepting or rejecting each in turn based on whether network problems arise, until the list is completed. Although the Programme does not determine actual “spare” capacity levels, its methodology determines whether the capacity is available in the network for a particular generator(s).

- In 2011 the network has “spare” capacity which in this example equates to:

Station Albert 15 MW  
Station Charlie 25 MW  
Station Fred 25 MW

- As the first generator in date order is Windfarm A (10 MW), it is added in by the programme to Station Albert. The revised<sup>30</sup> ‘spare’ capacity in 2011 now becomes:

Station Albert 5 MW  
Station Charlie 15 MW  
Station Fred 15 MW

- As there is still capacity on the network the next generator in date order, Windfarm D (20 MW), is added to Station Charlie in the programme. This however cannot be fully accommodated and therefore only 15 MW of the 20MW can be offered firm capacity.
- There is no longer any “spare” capacity in the network and studies for 2011 are completed.

### ***Study results for 2012***

- As the new 110 kV line between Stations Charlie and Derek is completed in 2011, the ‘spare’ capacity in the area has increased. The ‘spare’ capacity now equates to:

Station Albert 15 MW  
Station Charlie 27 MW  
Station Fred 27 MW

---

<sup>30</sup> The inclusion of a generator, Windfarm A, has affected all the stations “spare” capacity.

- As both Windfarm A and part of Windfarm D (15 MW) were already given a 2011 connection date they are already in the model for this year. Of the remaining generation, the first generator in date order is the remaining 5 MW of Windfarm D (20 MW). It is successfully added, to Station Charlie, by the programme. The revised “spare” capacity in 2012 now becomes:

Station Albert 10 MW  
Station Charlie 22 MW  
Station Fred 22 MW

- As there is still “spare” capacity on the network the next generator in date order, Windfarm E (15 MW) is added. This can be accommodated and is therefore connected. The revised capacity now becomes:

Station Albert 0 MW  
Station Charlie 7 MW  
Station Fred 7 MW

- As there is still “spare” capacity on the network the next generator in date order, Windfarm B (5 MW), is added (to Station Albert) into the Programme. This however cannot be accommodated and therefore is omitted.

- The next on the list is checked, Windfarm F (5 MW). This can be accommodated at Station Charlie and is therefore connected by the programme. The revised “spare” capacity in 2012 now becomes:

Station Albert 0 MW  
Station Charlie 2 MW  
Station Fred 2 MW

- As there is still “spare” capacity on the network the next generator in date order, Windfarm G (2 MW), is added (to Station Fred) in the programme.

- There is no longer any spare firm capacity in the network and therefore studies for 2012 are completed.

***Study results for 2013***

- As the uprate of the 110 kV line between Stations Egbert and Fred is completed in 2012 the ‘spare’ capacity in the area has increased. The “spare” capacity now equates to:

Station Albert 22 MW  
Station Charlie 35MW  
Station Fred 35 MW

- As Windfarms A, B, D and E were already given a 2011/12 connection date they are already in the model for this year. Of the remaining generation, the first generator in date order for is Windfarm B (5 MW). It is successfully

added to Station Albert by the programme. The revised “spare” capacity in 2012 now becomes:

Station Albert 17 MW  
Station Charlie 30 MW  
Station Fred 30 MW

- As there is still “spare” capacity on the network the next generator in date order, Windfarm C (7 MW), is added to Station Fred in the programme. This can be accommodated and is therefore connected by the programme and the programme terminates as all applicants have been connected.

## **Appendix 7: Applicant Data Process**

Following the processing of Gate 2 there was a view expressed in the industry that the system of checking applications should be reviewed to determine if there was a more efficient way of doing so. It has been argued that applicants generally do not decide on the turbine manufacturer, specific transformer, cable layout, protection equipment, and other technical details until nearer to financial close of a project, which typically happens after a connection offer has issued. The number of modification requests received by the system operators would tend to support this argument. It is generally accepted that the information requested by the system operators is necessary in carrying out the required studies and works for connecting to the system; however the question has been as to the timing of such provision of data. Therefore the system operators, having reviewed the current system, will allow that the requirement for technical details of a project be delayed until a date when the applicant will be expected to be in a better position to confirm what the actual equipment to be installed will be. The specifics of this process are as below.

1. The applicant data required to process all Gate 3 and future applications will include:
  1. Initial application fee of €7,000;
  2. Legal applicant name, address and company registration number;
  3. Contact name and address;
  4. Generator address and grid coordinates;
  5. Two copies of signed confidentiality agreement;
  6. MEC;
  7. MIC;
  8. Internal network layout and major equipment location (e.g. turbines, stations, etc) on a Discovery Series 1:50000 OS Map or a similar appropriate scale;
  9. Preferred connection date;
  10. Preference for single or multiple connecting circuits; and,
  11. Signed statement from applicant that any necessary landowner consents are in place for the project and witnessed by a solicitor.
  
2. Typical data, which may be more conservative than the actual parameters for the equipment to be installed, will be assumed for studies such as the short circuit calculations. For example with a wind farm this means that the impedance values of the commercial turbine which provides the highest infeed to a system fault will be assumed. Also, typical transformer impedances and winding vector groups will be assumed. Furthermore, the internal network will not be represented and a single equivalent generator will be modelled at the transmission connection node representing the applicant's generation facility. This approach may lead to fault levels in excess of the Transmission Planning Criteria which means that the applicant may not be able to connect the "assumed plant" to the Transmission System until the highlighted works are complete or the studies are rerun with specific applicant data when provided after offer acceptance.

3. A full application form including all the technical data currently requested must be submitted at least a year prior to first energisation. Any studies must be completed and a modification agreement accepted 6 months prior to first energisation or first energisation may be delayed.
4. In the event that the technical data is received during the processing of the Gate, this data will be handled in the same manner as all modification requests (i.e. if it can be processed within the Gate without impacting on timelines, the system operators will do so).
5. System operator assumed data will be used for studies and detailed as part of the connection offer. The consequences of any deviation relating to actual equipment parameters that are to be installed are at the applicant's sole risk. Consequences include additional works with resultant cost, leadtime for shallow or deep connection and/or constraint implications.
6. If an application is being processed within the group processing approach, then following publication of the final Commission direction on a given Gate including this Gate 3 direction, the system operators shall write to each applicant to confirm whether they wish the system operators to assume parameters for studies or whether they wish the system operators to use the details already provided on the application forms. Where an applicant wishes the system operators to use the information already provided, they must indicate this in writing within 5 business days of the system operator request.<sup>31</sup> In the absence of any response in this time period, the system operators will assume parameters for study. In the event that an applicant wishes the system operators to use the data already provided or is missing any of the items referred to in item 1 of this note, the timelines associated with such provision shall be as follows:
  1. The system operators shall issue requests for any necessary extra data/information to all relevant applicants. This letter will clearly set out any additional data which is required. Applicants will be required to provide the outstanding information within 30 business days of the issuance of the letter by the relevant system operator in order that their application retains the same application completeness date. If a response is not received within 30 business days the application will not be included in Gate 3 as its application received date will be changed to the date that the data is actually provided. However if – within the 30 day period – the applicant responds that he wishes assumed data to be used, the application will be included in the Gate using assumed parameters.
  2. Applicants who return the relevant outstanding data within 30 business days will be issued a letter setting out whether the information is sufficient or whether further information/clarification

---

<sup>31</sup> Where an application is being processed outside the GPA, this communication will happen once a project is approved for processing outside the GPA.

is required. The applicant will be allowed 15 business days - extended from 10 business days in the consultation - to respond to such a follow-up information request. Again, if this information is not provided within this 15 business days, the application received date will be updated to the date that the required information is provided and the application shall not be included in Gate 3. However if - within the 15 day period - the applicant responds that he wishes assumed data to be used, the application will be included in the Gate using assumed parameters.

\*\*\*\*\*