



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**Group Processing Approach for Renewable
Generator Connection Applications**

Connection and Pricing Rules

DIRECTION TO SYSTEM OPERATORS

**6th April 2005
CER/05/049**

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1 Introduction

The Commission is issuing the direction described in Section 4 of this paper to the System Operators – the Transmission System Operator (TSO) and the Distribution System Operator (DSO) – pursuant to Sections 34(1) and 35(2) of the Electricity Regulation Act, 1999. The direction covers certain outstanding connection and pricing provisions to be included in all future connection offers to renewable¹ generators under the Group Processing Approach.

The need for the direction arises essentially from two recent developments:

- the unprecedented increase in wind connection applications since December 2003 when the moratorium on connection offers was introduced; and
- the Commission direction of 23rd December 2004 to resume wind connection offers and to move from an individual to a group processing regime.

These developments mean, among other things, that securing early system access has become particularly valuable and important to applicants. They also mean that putting in place an orderly regime for the resumption of connection offers is essential to realising Ireland’s renewable energy obligations while taking account of other policy objectives in the energy field going forward. Rules of access should be subject to more strict conditions in order to ensure fairness to all parties and to avoid wasteful hoarding of access rights. The detailed rules for operating a group-processing regime will also necessitate changes to the traditional connection contractual agreements. These are the subject of the present direction.

The direction follows on from the proposed version which was published for consultation by the Commission on 14th February 2005. The direction should also be read in conjunction with earlier Commission documentation on connecting renewable generators, and with the following two documents in particular:

- the Commission Direction of 23rd December 2004 (CER 04/381) (“the Gate 1 Direction”); and
- the joint TSO/DSO proposal ‘*Group Processing Approach for Renewable Generator Connection Applications*’ (CER/04/317), published for consultation on the Commission’s website on 5th October 2004.

The guiding criteria followed by the Commission in drawing up this direction are the same as those set out in the proposal published on 14th February.

Terms used within this paper and in past papers relating to the Group Processing Approach are defined in **Appendix A**.

¹ For the purposes of this Direction ‘renewable’ refers to ‘renewable, sustainable or alternative forms of energy’, as set out in Section 2 (1) of the Electricity Regulation Act 1999.

Before setting out the detailed terms of the direction (**Section 4**), the Commission will very briefly outline the background developments and documentation (**Section 2**) and then summarise and respond to the main responses received on the proposal published on 14th February (**Section 3**).

2 Background

- On **5th October 2004** a joint TSO/DSO proposal for processing and issuing offers to renewable generators based on a group approach - rather than the individual processing approach which has prevailed up to now - was published by the Commission for consultation. We refer to this proposal as the “**Group Processing Approach**”. An overview of the Group Processing Approach is shown in **Appendix B**.
- On **23rd December 2004** the Commission issued the Gate 1 direction to the System Operators concerning the rules for processing applications and issuing offers to Gate 1 applicants. Applications deemed complete prior to the introduction of the moratorium on 3rd December 2003 were included in Gate 1. Gate 1 applications are being processed under the Group Processing Approach philosophy. The aim of the direction was to make quick inroads into the backlog of connection applications and, in parallel, develop the ground rules for a future Group Processing Approach.
- On **21st January 2005** the Commission published the DSO’s proposed Standard Pricing Approach for Generators (CER/05/004). This paper outlines the DSO’s proposed connection pricing policy and its schedule of connection charges for all future generators applying for connection to the distribution system. The proposed standard pricing policy allows for quicker processing times under the Group Processing Approach and aligns distribution with the current transmission approach. The Commission is currently reviewing the proposal and the comments received from interested parties and expects to make a separate decision on the levels of approved standard prices within the next two weeks.
- The Commission recognised in the Gate 1 direction that Gate 2 processing rules and the remaining issues applicable to all Gates, identified in the joint TSO/DSO proposal, would have to be addressed as a matter of urgency.
- On **14th February** the Commission issued a proposed direction for public consultation (CER/05/010). The focus of the proposed direction was on the ground rules of the Group Processing Approach. The provisions within the proposed direction would be applicable to all Gates.
- The Commission received eleven submissions on the proposed direction. The submissions have been taken into consideration by the Commission in coming to this final direction. The major issues raised in the submissions are summarised in **Section 3** of this paper along with the Commission’s response. All submissions are also posted in full on the Commission’s website, www.cer.ie.

3 Overview of Responses to Proposed Direction

The responses to the consultation were broadly structured in line with the Commission's proposed direction and are categorised under the headings as identified in sections 3.1 to 3.9 below.

3.1 Guiding Criteria

- A number of respondents queried that certain provisions in the proposed direction meet the guiding criteria as set out by the Commission.

Specifically, one respondent believed that the non-adoption of a two-tier approach by the TSO and the Commission, as requested by some developers during previous submissions, is not “practical” or “conducive to promoting the development of renewable forms of generation”. One party felt that the process has become unwieldy, and yet many issues are outstanding. In addition, a number of respondents argued that the latter criterion was not met due to the threat of conventional generation plant overtaking renewables who may have an earlier applications completion date. It was also argued that this was not “fair and reasonable in dealing with connections to the system”.

One respondent suggested that a review of connection charging policy should be undertaken. It was argued that it would ultimately prove cheaper overall for the consumer for connection costs to be recovered through slightly higher TUoS and DUoS tariffs. The respondent claimed that the criterion of minimising risk to TUoS and DUoS tariffs does not equate to minimising cost or financial risk to the final electricity consumer.

- **Commission Response:** It is important to emphasise that the guiding criteria used in determining the connection and pricing provisions of the Group Processing Approach can sometimes pull against each other. It is important to strike the right balance between these objectives. For instance, the Commission has clear duties under Regulation 28 of the new Statutory Instrument, SI 60 of 2005, for security of electricity supply. To carry out this duty in particular, it is considered necessary to retain some level of discretion in relation to the treatment of conventional generating plant, when such discretion is exercised for the wider public interest, such as security of supply. In addition, the Commission is eager to see the speedy and uninhibited processing of renewable connections which will help facilitate Ireland meeting its obligations for the consumption of renewable forms of energy.

The philosophy of the Group Processing Approach is the most workable solution put to the Commission. At a time of unprecedented connection applications, the group approach has many advantages over the conventional individual processing approach which has all the pitfalls, uncertainties and potential administrative uncertainty associated with “interacting” offers”. This has been widely accepted. The Commission accepts that there are inherent complexities involved, both with the philosophy itself and with adopting the rules to accompany it, but it is

the most practical and efficient way of dealing with the huge demand for network capacity from renewable generators.

Finally, the Commission has stated previously (See CER/04/380) that it is open to further review of connection charging policy. However, it has received no evidence to date to suggest that the current connection charging policy is a barrier to entry, as opposed to a cost of entry, for new generators. The Commission has reviewed connection-charging policy recently, both in the Irish and other markets, and has not discovered any major disparities with international practice.

3.2 Connection Agreement Validity Period

- In its response to the consultation the TSO stated that its standard connection agreement includes three “longstop” dates. The effect of a “longstop” date is that if certain milestones have not been met prior to its occurrence, the agreement may be terminated. The TSO added that it does not anticipate having to amend the transmission connection agreement.

One respondent wrote that the wind industry broadly accepts that a backstop date would be helpful for avoiding the under utilisation of valuable grid capacity. The respondent pointed out, however, that there will be situations, quite likely to be outside the control of developers, where the dates may need to be open to review. The Commission envisages that these situations would be addressed in the contract.

- **Commission Response:** The DSO is currently reviewing its standard connection agreement with a view to aligning it with the transmission connection agreement from a “longstop” dates perspective. The Commission anticipates receiving the DSO’s proposal for approval shortly. The Commission does acknowledge the point that there may be situations where a developer fails to meet a longstop date because of factors clearly outside its control (e.g. delays by the System Operator).

3.3 Distribution Standard Pricing Approach

- Most respondents expressed their concerns about the standardised connection costs which were proposed by the DSO and issued for consultation by the Commission on 21st January 2005.
- **Commission Response:** The Commission has engaged consultants, Power Planning Associates (PPA), to undertake an independent and thorough review of these costs and has considered all submissions received. A separate decision will be issued addressing the DSO’s Proposed Standard Pricing Approach within the next two/three weeks.

3.4 Generators Affected

- A number of respondents expressed their concern with a proposal that may allow conventional generating plant connect to the system in advance of wind generation, where a wind application was deemed complete prior to that of the conventional plant in question. One

respondent called for a clear framework to be provided and a solution to be proposed now. The respondent argued that potential market entrants (both renewable and conventional) need to see that a set of clear rules governing the allocation of network capacity exists.

One party asserted that it is unreasonable that the Group Processing Approach applies to renewables which are small enough not to interact with any other project. The respondent argued that where an existing renewable generator requests a small increase in MEC, it should not have to be placed in the offer queue when all lines, transformers and switchgear etc. are already built.

One respondent asserted that all previous documentation issued by the Commission on such matters as group processing, and the moratorium itself, related to wind generator connections. The respondent believed that there was a strong argument that other forms of renewable projects should not be included in the Group Processing Approach as they have not contributed to the problems associated with wind, and they offer a much more reliable, and in many cases, dispatchable product.

Specifically, the respondent referred to landfill gas projects, which unlike wind, have a limited life span on any given site. The respondent said that extended delays in receiving a grid connection do not just push projects back they prevent them from happening at all. The respondent wrote that landfill gas utilisation benefits the environment and the local community by preventing the gas from having to be flared or from escaping into the atmosphere. It was argued that there are distinct and substantial disadvantages, not only to the proposed generator but also to the community at large if landfill gas connection applications are treated in the same manner as the wind applications.

One respondent agreed, in principle, with a *de minimis* threshold. However, it proposed that the direction accommodate where possible, and without grouping, small non-contiguous projects below 5MW. This is in line with the thresholds as specified in the Distribution Code.

- **Commission Response:** As stated previously in section 3.1 above, the Commission considers it necessary to reserve some degree of discretion with regard to the treatment of conventional generating plant in the connection application process. This discretion would be exercised on the grounds of the wider public interest, such as security of supply. However, given the multiplicity of scenarios involved in the possible treatment of conventional plant the Commission does not consider it beneficial or appropriate to formulate detailed and speculative rules at this time. The Commission believes it is of greater benefit to focus on getting renewable connection offers issued.

The Commission outlined its concerns in the Gate 1 Background Paper (CER/04/380) concerning the special or preferential treatment of applicants seeking extensions to their contracted MECs. The Commission notes the argument that shallow connection assets may, in some cases, already be in place. However, this does not eliminate the strong possibility that the MEC increase will require deeper system works and

impact on the processing times and connections of applicants within a Gate. The Commission has been advised by the TSO that, given the level of applications in the process, some degree of electrical interaction exists among all applications. Therefore, the Commission believes that requests for MEC increases must be processed under the group approach in order for the approach itself to maintain credibility, objectivity and fairness.

With regard to the landfill gas argument, where an applicant can demonstrate a clear public interest case, for example the avoidance of emissions which would otherwise occur if subjected to the full rigours of the Group Processing Approach, the Commission is of the opinion that there is an argument for considering such cases on their special merits on a case-by-case basis.

In relation to the applicable threshold, the Commission believes that 0.5 MW is appropriate. The underlying rationale is to allow projects that have a negligible impact on the system and on other projects in the application process to proceed under a 70 day process for transmission and a 90 day process for distribution. Proposed projects greater than 0.5 MW have a greater individual, and more importantly, a significant cumulative impact on other individual projects and the system as a whole. For this reason it is important that such projects are included in the Group analysis.

3.5 Transmission versus Distribution Connections

- Several respondents believed that this provision would provide excessive discretion to the System Operators in relation to deciding which projects belong on which system. One respondent stated that a simple and quick appeals mechanism would be essential for many aspects of the process.

It was suggested that there might be a perverse incentive for the Operators to nominate projects as distribution connected, so that they are non-contestable. It was also suggested there may be an incentive to enlarge groups to try to incorporate large-scale deep reinforcements (and pass those costs to distribution-connected projects), or even to challenge the contestability of high voltage transmission-connected Shared Assets that only connect low voltage Subgroups.

One respondent argued that applicants with agreed PPAs (including AER VI) who have applied for a distribution connection would have had prices set with the connection method in mind. The respondent believed that nominating such projects as transmission connected could make them uneconomic given the higher costs of transmission-level connections.

- **Commission Response:** The criteria for determining applicants' connections as transmission or distribution must be fair, logical and practical and should be in line with previous Commission documentation on the specification of the transmission and distribution system. Should distribution applicants be offered a connection to the transmission system, or vice versa, this is subject to technical justification from a network development perspective.

The System Operators will look at the connection requirements of an applicant and determine the appropriate system to which they should be connected in accordance with the optimum overall connection method for the sub-group. The determination of the appropriate connection designation will be in accordance with Commission directions and established system operator asset boundaries. It should also be remembered here that the Group Processing Approach does not take from the statutory right of the applicant to bring a dispute to the Commission under Section 34(6) of the 1999 Act in relation to the terms and conditions for connection to the network. This would encompass legitimate concerns in relation to the connection method including the system to which the applicant is offered a connection. In other words, the dispute would be required to have a clear basis and a connection offer would have to be issued or an offer refused. Moreover, the parties would have had to have endeavoured to resolve the matter before bringing a dispute to the Commission in the first place. The Commission, in turn, would have to deal with the dispute speedily (as required now in any event pursuant to S.I. No. 60 of 2005).

3.6 Connection Method

- A number of respondents felt that the degree of discretion afforded to the System Operators concerning the connection method is too great. The respondents suggested that some immediate steps be taken by the Commission to minimise the impact of such discretion on the applicant. For example, it was recommended that tightly defined criteria be set for the System Operators, in particular the provision of full functional specifications sufficiently early in the process (and not just with the offer), a full works programme and associated fully justified cash flow, and that severe constraints on variations of these after offer acceptance be applied. One respondent pointed out that the DSO does not currently provide functional specifications.

It was also felt by some parties that the connection designs presented to them lack details and that the designs are disclosed too late in the process, while now only having 30 business days to accept. It was suggested that an additional step, of no more than 30 business days, be added to the whole process where the functional design, and costs and cash flow can be fully reviewed, optimised and finalised before proceeding. It was requested by one party that the flowchart (Appendix B) be revised to allow time for challenging a proposed connection method or specification. The respondent stated that even at this early stage of implementing the Group Processing Approach instances have arisen where the proposed connection arrangement results in serious, and potentially fatal consequences for a project. In addition, the respondent felt that provision should also be made for discussions between parties in a Subgroup regarding the Shared Asset.

One respondent argued that the process should be agreed that takes account of exceptional cases where a particular connection method is of no use to a developer, e.g. a proposed connection that will take three years to build and the developer only has one year of planning permission remaining. The respondent insisted that exceptional cases do

exist and that the approach of offering only one connection method to the Group/Subgroup is inherently inflexible in dealing with such projects. The respondent stated that this leaves a situation where a developer is given an offer but can't accept, as planning permission will have expired.

- **Commission Response:** Given the unprecedented volume of connection applications the Commission believes that it is necessary to offer one method of connection which will optimally or best accommodate all applicants. As previously outlined in the Commission's Gate 1 Background Paper (CER/04/380), the System Operators will take account of the applicant's preferred connection method where possible and warranted.

There is a critical issue of timing here, particularly with regards to completing Gate 1 and commencing Gate 2. Any extended period for review of the connection method will lead to a corresponding delay in commencing the processing of Gate 2 applications. Having said that, the Commission is very much aware of the tight time scales involved.

The Commission recognises that under a necessarily strict and, arguably, inflexible group process regime there will be exceptional cases which require closer consideration. The Commission would request that applicants who feel they have a genuinely exceptional case engage constructively with the relevant System Operator in the first instance to explore any possible practical, but fair, solutions. After this has taken place the applicant and/or the System Operators may wish to contact the Commission to discuss the genuine 'hardship' case. The Commission considers it important at this point, however, to emphasise that it is very much conscious of the need to maintain the overall fairness, integrity and credibility of the Group Processing Approach and will not set precedents that will unfairly impact on other applicants.

3.7 TSO's Dynamic Simulation of Windfarms

- Most respondents were opposed to this provision as allowed for in the proposed direction. One respondent argued that it introduces the risk of delayed 'deep dates' and also unquantifiable 'constraining off' of production, with no apparent recourse. It was said that such open-ended risk is potentially fatal for projects and will leave them unfinanceable.

A number of respondents claimed that the TSO has been slow to deal with this issue and that projects should not be put at risk as a result. One respondent pointed out that it was stated, as far back as 12 months ago, that the studies would be of a six-month duration. The respondent insisted that the TSO complete these studies as a matter of urgency.

Several parties argued that it is necessary for the Commission to either refuse this condition, or to treat such connection conditions in the same manner as is done for conventional generation - through a time limitation and compensation arrangement. One party noted that it was essentially an application of non-firm access, and yet, where such conditions are applied to conventional generation, there are time limits and compensation thereafter. The respondent argued that non-discrimination

would suggest a similar approach here. The respondent stated that it would welcome non-firm access as an option where otherwise projects would have to wait for deep reinforcements. This would have the advantage of assuring a greater proportion of grouped projects would proceed, thus assisting the Grouping Approach.

Commission Response: The Commission has been advised by the TSO that the global dynamic studies are advancing well as suitable models are becoming available. It should be noted that the six-month period for completion of these studies as outlined previously was contingent upon the submission of suitable dynamic models by applicants. The Commission also understands that there will necessarily be a certain degree of iteration in these studies.

The global studies may show that no issues arise. Alternatively, issues may arise which can be tackled through system control measures, or they could require additional unanticipated deep reinforcement works. The Commission understands that, while the results of such studies are unlikely to affect an applicant's shallow connection date, they could potentially lead to unanticipated network deep reinforcement works being required to meet the applicant's connection. This, in turn, could even delay the applicants Deep Operational Date or, in a limited number of cases, lead to a need to constrain down a generator pending completion of these deep reinforcements.

The Commission will not be dealing with the issue of firm financial transmission access in this direction. The whole future of this facility, which applies in principle to generators under the rules of the Trading and Settlement Code, will be addressed in a separate consultation paper to be issued shortly. For the moment the Commission would confine itself to making a few general comments on the **Firm Non-Firm Direction (CER/01/72)**:

- The Direction was introduced as a temporary measure designed to deal in particular with the problem of severe grid congestion particularly in the east coast which was, at the time, the focus of interest of prospective new (dispatchable gas-fired) entrants to the generation market.
- The Direction is based on a concept of "firm financial access" which is grounded, in turn, on concepts which derive from the current transitional trading arrangements. As it stands, the Direction can only potentially benefit generators who will be in a position to comply fully with Appendix 7 of the Trading and Settlement Code. The Code, and indeed the whole transitional trading arrangements, inevitably fall to be reviewed in the light of the move to an all island wholesale electricity market. Therefore, there is absolutely no guarantee of the Direction continuing for conventional dispatchable generators, much less its extension to non-dispatchable generation.

3.8 Connection Charging Issues

Dedicated and Shared Connection Asset

- One respondent advised that any connection cost derived under the Group Processing Approach should be less than the Least Cost Technically Acceptable (LCTA) cost under the existing scheme. Otherwise the existing scheme price and connection method should be used. The respondent also suggested that any feasible connection method, whether it be based on the LCTA or not, be available to the developer.

One party argued that, in the absence of contestability on the distribution system, there is a need to be able to challenge the DSO's view on the LCTA method of connection and to have the connection costs reviewed, to be sure it is in fact the LCTA method. The respondent stated that recent experience shows that the delays anticipated in such challenges leave developers with no option but to accept costs they believe are not LCTA.

The TSO stated that the provision, "*The Shared Connection Asset must also be based on the LCTA principle of connection, taking into account all applicants within a Subgroup*", does not align with its understanding of the Grid Upgrade Development Programme (GUDP) for Renewables. The TSO wrote that the concept of LCTA was not inherent for the Shared Asset in the GUDP as the Shared Connection was based on the 'right' or 'optimal' connection.

The TSO clarified that the System Operators original proposed charging methodology under the Group Processing Approach consisted of charging generators the LCTA connection cost for the Dedicated Connection Asset, as well as the appropriate percentage of 'Actual Build'² costs for the required Shared Connection Assets. The TSO insisted that the Shared connection design was expected to be based on the System Operators technical judgement on what was the 'right' or 'optimal' connection in accordance with their respective licences. This may not, in every case, correspond with the LCTA 'Shared Connection' as the Commission has defined.

The TSO felt that whatever charging policy is decided upon, it must afford adequate protection to the TUoS customer. Accordingly, it argued that if GUDP is not available to underwrite the 'Actual Build' Shared connection costs the connecting generators should finance them and possible rebates be applied if there are future connections from future Gates.

The DSO argued that the Commission's proposed approach would result in sub-optimal development, where optimal development may involve some level of development in anticipation of future connections in an area.³ The DSO stated that it would need a direction on whether, in these cases:

² The term 'Actual Build' is used to refer to the Shared connection assets that are used to connect a user or group of users. In some circumstances the TSO may deem that a connection method other than the least cost method is more appropriate and therefore the cost of the 'Actual Build' in some cases may be higher than the cost of the LCTA connection.

³ With respect to applicants in Gate 1, the DSO has applied for funding from the GUDP in order to proceed with the optimal development.

- It should build the sub-optimal connection, thereby potentially minimising the amount of generation which can be connected in the future, and indeed compromising system development; or
- It should build the optimal connection and charge this to the generators in Gate 1. The generators would then be refunded as additional generators connect.

Commission Response: As stated previously, applicants are free to notify the relevant System Operator of their preferred connection method. This may be accommodated by the System Operators provided it does not unfairly affect the optimal connection of all applicants within the Subgroups and the costs and method of the other applicants. One of the fundamental ideas of the Group Processing Approach is that it will result in more efficient and effective network expenditure and connection costs overall for Renewables, but this does not necessarily equate to cheaper connections for each individual applicant. For the avoidance of doubt, the Commission considers that the connection method chosen for a Subgroup should be the optimal method from a system development perspective. In other words, this may look beyond the applicants of the Gate being processed.

The Commission considers that the applicants within a Gate 1 Subgroup should be charged based on the LCTA method of connection, taking into account applicants being processed in that Subgroup for Gate 1, regardless of whether this is the Actual Build or not. Any remaining costs will be added to the respective asset base, subject to them being efficiently incurred. Should the System Operators be successful in securing funding under the GUDP for the additional cost of the Actual Build – and hopefully they will be – the funding will be netted off the asset base. Developers coming on stream under Gate 2 or subsequent Gates will pay for their proportion of the Shared costs via capital contributions the rules of which will be developed.

Distribution Payment Schedule

- Most respondents welcomed the Commission’s proposed decision to maintain the current distribution payment schedule. One respondent argued that the option of a connection charges bond for distribution is totally unworkable for project-financed developments. It stated that such funds cannot be raised in advance of financial close and that such a requirement may limit the market to balance sheet financed projects, and eliminate most if not all embedded generation. It was argued that the payment schedule as proposed is already onerous enough, and the contracts combined with the capacity bond ensure that the System Operators will be paid. One respondent advocated the principle applied by DNOs in the UK: that the DSO should receive payment as required, and thus remain cash flow positive.

The DSO stated that it remained concerned that adopting a payment schedule, designed to accommodate the smaller generators while benefiting the larger generators, would put the DUoS end-user at risk.

The DSO said both System Operators will endeavour to minimise the time period between Acceptance of Offer and the Construction stage and therefore viable windfarms should, in theory, have adequate financial backing at the Acceptance of Offer stage. It believed that those that do not are more prone to drop out, thereby incurring a financial burden on the DUoS customer in the event that the cost for the Shared Asset has not been collected.

The DSO informed the Commission that its proposed payment schedule will expedite the connection of the Subgroup as receipt of these monies at the Acceptance of Offer stage will enable it to progress the job through to construction. The DSO maintained that the current payment schedule does not support this process, as it will need to wait for the 50% payments from all applicants before including the project on its work schedule and starting the construction stage. The DSO stated that such a process would inevitably lead to delays in the connection of the overall Subgroup.

In the event that Commission's final direction retains the current schedule, the DSO again requested that a distribution connection charges bond be introduced for similar reasons as the TSO's connection charges bond.⁴ The DSO argued that the provision of a bond for smaller windfarms is more of a financial burden than providing the proposed payment, due to the requirements of the financial institutions.

- **Commission Response:** The Commission continues to believe that 25% upfront payment of connection costs on Offer Acceptance is fair and appropriate for distribution system applicants. It is reasonable to assume that a developer is serious about connecting to the System if it is willing to pay 25% of connection costs upfront. The Commission also believes that a connection charges bond may be an onerous requirement for distribution connecting parties. The Commission has been advised by several parties that the introduction of this bond would be to the detriment of many distribution connecting or small generators.

Proposed Charging Formula

- The TSO believed that it would be more prudent to allow Gate 1 to run its course before setting the Gate 2 probability factor. It stated that if a probability factor of 1 is set now for Gate 2, which is clearly the most optimistic assumption, then the TUoS customer is being exposed to an unnecessary risk. The TSO felt that this runs contrary to the Commission's own guiding criterion to minimise the risk to the end-user TUoS and DUoS tariffs.

The TSO stated that the €10,000/MW Capacity Bond is not designed to mitigate any stranded shallow costs. It explained that the bond is designed to prevent hoarding of system capacity and is intended to go some way (not entirely) towards potential stranded deep reinforcements costs required for connections of parties to the system. The TSO was of

⁴ The DSO noted that the implementation of this bond will add to the administrative burden due to the higher number of DSO applications - this will need to be incorporated into the Application Fees currently being finalised.

the opinion that the actual cost/MW of shared transmission shallow connection costs for Gate 1 will all be in excess of the €10,000/MW figure and in some cases substantially so.

The TSO stated that there is, if anything, an additional stranded cost risk that arises under Group Processing that does not arise for standard connections. Under Group Processing the System Operators may be required to progress a Shared shallow connection in the event of one, or more, of the connecting parties failing to progress, thereby increasing the risk of under-recovery.

One party welcomed the proposed probability factor of 1 in the Shared Asset cost calculations. However, the System Operators pointed out in the original grouping proposal that they believed this factor was required to avoid an endless sequence of re-calculations, caused by dropouts. In setting the probability factor at 1, the Commission needs to be clear in its direction that this does not mean an endless sequence of re-calculations, and in fact means only one calculation. A respondent said that the proposed approach of reserving the right to charge unspecified sums on the basis of subjective “probability factors” at some unspecified later dates is both unworkable and impractical.

One respondent asserted that it is unclear how the proposed method of charging and bonding is to deal with the issue of planning permission for the export line. Applicants are not required to have arranged for planning permission and landowner agreements in place prior to Offer Acceptance. The respondent asked a number of questions and felt that the issues must be defined very carefully:

- If ESB is unable to obtain planning permission for the Shared or Dedicated portions of the connection, will the connection bond and paid charges be refunded?
 - If the connection is contestable and the applicants themselves fail to get planning permission for the dedicated shallow connection, will a refund be made in this case?
 - If landowners on the line route are uncooperative, will this be a justification for refund?
 - Will planning permission or land access problems for other aspects of the project constitute grounds for refund?
- **Commission Response:** While the Commission considers it important to protect the final electricity customer from exposure to possible stranded costs it is also necessary to avoid placing undue risk or financial burden on the generator. Therefore, there will be no iterations of connection cost calculations for Gate 1. The System Operators will be required to advise the Commission if they consider, from experience of connection costs payments of Subgroups, the probability factor of 1 to be appropriate. Rules for Gate 2 regarding the probability factor shall be determined in the Commission’s direction on Gate 2.

Finally, in relation to the questions regarding planning permission and refunds of connection costs, capacity bonds and the transmission connection charges bond the Commission has been advised by the

System Operators that the failure to obtain consents is grounds for terminating the connection agreement by either signatory to the agreement. The approved provisions are dealt with in the “Termination of the Agreement”, section of the connection agreements. The Commission would highlight that this risk has always been inherent in constructing a connection to the network and the charging methodology and bond requirements do not introduce any new contingencies.

3.9 Contestability of Connections

Two general points should be borne in mind in considering the comments received on contestable connections and the group processing regime. Firstly, the statutory right to construct, or arrange to have constructed, one’s own connection currently enjoyed by generators connecting to the transmission system has not been extended to those connecting to the distribution system. [The Commission had advocated such an extension to the Minister]. Secondly, the introduction of contestability in 2000 was framed in the context of an individual connection processing regime. The replacement of this by a group processing regime raises distinct policy questions which are dealt with below.

- One respondent refuted the statement in the proposed direction that the TSO will decide whether the Shared Transmission Connection Asset will be contestable and argued that all appropriate connection costs be contestable. The respondent believed that the TSO should not have the authority to control contestability in this way providing the assets are being built to TSO specification.

A number of respondents stated that contestability must be extended to all network connections and reinforcements. It was insisted that the Commission and the Minister cooperate on bringing contestability to the distribution system as a matter of urgency. Some respondents felt that the standard pricing proposals of the DSO only served to highlight how far off the costs are from reality, and to show that the applicant needs to be able to challenge all costs, timings, designs and cash flows associated with developing connections.

The TSO stated that the following are some issues which need to be considered in relation to contestability of the Shared Transmission Connection Asset:

- (a) Can the unanimous voting process involve distribution applicants? Should it not, then this could lead to disquiet amongst those distribution applicants who are affected by the Shared Transmission Connection Asset but who have not had a say in who builds it.
- (b) In order to ensure offers issue on time the TSO requires that the respective applicants unanimously nominate their decision within 3 weeks of the shallow connection method being formally advised to them at the connection method update meeting.
- (c) The confidentiality of parties within ESBNG’s Offer Process is ordinarily maintained. Under the Commission’s proposal all

transmission applicants (and possibly the distribution applicants) within the Sub-group will know each other's identity. ESBNG has no particular concern with this, however, it is something that they suggest needs to be explicitly addressed.

- (d) What happens if the nominated applicant does not accept its offer? Does the Shared Transmission Connection Asset get built (i) contestably by another transmission party, again nominated by the respective parties, requiring an amendment to that party's executed connection agreement or (ii) uncontestably (by ESB)?
 - (e) In the context of the Shared Transmission Connection Asset the charging regime for recovering the associated cost from the non-contesting applicants and the payment of this to the contesting applicant needs to be considered carefully.
- **Commission: Response:** It was stated in the proposed direction that the TSO must notify the Commission if it considers, for system stability and security reasons, that the Shared Transmission Connection Asset should be non-contestable. This is current policy covering the contestability of transmission connection assets. However, the final decision will rest with the Commission.

The Commission has advocated and supports contestability of distribution connection assets however this is not currently allowed for in legislation. For information, in principle applicants can tender for the construction of the connection asset should ESB Networks be subcontracting such work. This is without prejudice to the Distribution Standard Cost approach. However, applicants should note that the costs faced by the distribution connecting parties will most likely be standardised at levels to be approved shortly by the Commission.

The TSO has raised some complex legal and contractual issues in relation to the contestability of the Shared Transmission Connection Asset. These issues are to be expected given the multiple parties involved. The Commission addresses these in its direction at **Section 4.9** of this paper. To the extent that the rules in this particular Section potentially curtail the unfettered right of a transmission connected renewable generator to construct, or have constructed, the Shared Asset – by virtue of having to secure the agreement of the other Group members relying on that Shared Asset - the Commission considers this to be reasonable. It arises solely and unavoidably as a consequence of moving to a group processing regime. The other Group members will also be relying critically on the construction of the Shared Asset and it is reasonable that they should have a say in by whom and how it is constructed. The Commission would not intend to regulate the terms and conditions of the contract in place between the applicants for the Shared Transmission Connection Asset – they will be a matter for the applicants themselves.

4 Commission's Direction

Connection offers issued by the System Operators to all renewable generators – those included in Gate 1 and included in later Gates – will, with effect from the date of this direction, include the following provisions:

4.1 Capacity Bond

All transmission and distribution renewable applicants will be required to post a Capacity Bond of €10,000 per MW of MEC (Maximum Export Capacity) on connection offer acceptance.⁵

4.2 Connection Agreement Validity Period

All connection agreements issued to applicants will be subject to a validity period or backstop date.⁴

This may involve setting responsibilities for achieving project milestones or setting an ultimate backstop date for connection. The transmission connection agreement already provides for the connecting party to meet a number of specific milestones during the process of constructing the connection asset. However, the distribution agreement contains no such provisions.

The DSO is currently reviewing its connection agreements with a view to aligning the necessary provisions. The Commission expects to receive the proposed detailed rules for the implementation of the connection agreement validity period shortly.

4.3 Distribution Standard Pricing Approach

All distribution offers will comply with the Commission's forthcoming direction approving the DSO Standard Pricing Approach.

4.4 Generators Affected

The Group Processing Approach shall apply to all renewable generator applications with a Maximum Export Capacity (MEC) greater than 0.5 MW. Applications below this threshold will be treated on a case-by-case basis as deemed appropriate by the System Operators and approved by the Commission.

Where a renewable generator can demonstrate that processing its application more speedily than would be the case under the group processing rules would result in a benefit which is in the public interest (e.g. avoidance of landfill gas emissions), as distinct from a benefit to that individual generator, then that generator may apply to the System Operator not to be subject to the full rigors of the group processing rules. The System

⁵ The Commission has, in fact, already approved these two particular provisions in a direction issued to the System Operators on 6th October 2004, CER/04/319. They are included in the present proposed direction to facilitate readers having an overall picture of the revised connection contractual arrangements being proposed.

Operator shall refer any such application to the Commission for consideration.

For the avoidance of doubt, there is no suspension of the existing rules regarding conventional generators being entitled to receive a connection offer within 70 business days of their application being deemed complete by the TSO. In the event that a connection application is received for a conventional generating plant which has the potential to affect the offers to be issued, or already issued but not yet accepted, to individual renewable generators under the Group Processing Approach rules, the TSO shall consult with the Commission. The Commission reserves the right to issue a specific direction to the System Operators to deal with this contingency if it concludes that such a direction is warranted on grounds of the wider public interest, such as security of supply.

4.5 Transmission versus Distribution Connections

The System Operators may nominate individual applications within the Gates to be treated as transmission or distribution applications where this is technically justified from an overall system perspective in accordance with Commission directions and established system operator asset boundaries.

4.6 Connection Method

The proposed Group and Subgroup connection method will be the only connection method offered to the relevant applicants in Gate 1, Gate 2 and any subsequent Gates. This is consistent with taking account of all applicants within a Group and Subgroup as appropriate under the Group Processing Approach.

4.7 TSO's Dynamic Simulations of Windfarms

Connection offers which issue before the TSO's global dynamics studies of connected and contracted windfarms are complete will contain a caveat stating that the connection offer is subject to the results of the completed dynamic analysis.

4.8 Connection Charging Issues

The following section of the direction addresses the charging policy for Dedicated and Shared Connection Assets and the payment schedule for distribution connections.

Dedicated and Shared Connection Asset and Charging Formulae

The connection charging policy under the Group Processing Approach shall be implemented as follows:

1. The System Operators shall determine the "overall connection method" for a Group/Sub-group (Shared plus Dedicated Assets). The "overall connection method" shall be in line with the Least Cost Technically Acceptable (LCTA) principle. This may take account of efficient wider system development and connections anticipated at

later dates. In other words, the Actual Build may, in some cases be greater than the LCTA method of connection for the Subgroup in a particular Gate. It is important to emphasise, however, that applicants in the current Gate shall only be required to pay for connection costs based on the latter.

2. Generators will be charged 100% of the cost of providing the Dedicated Connection Asset (excepting where an asset was oversized to accommodate future connections);
3. Charges for connection to the Shared network shall be based on a per MW basis in accordance with the formulae in Figure 1 below;
4. The probability factor for Gate 1 shall be 1 as stated in the Commission's direction (CER/04/381). The probability factor for Gate 2 shall be set in the Commission's direction on Gate 2.
5. Following connection, the generator will be subject to the Annual Ongoing Service charges in respect of the connection.

Figure 1: TSO/DSO Connection Charging Formulae for Shared Connection Assets

Transmission Connections: $P_T * X * (Z/W)$

Distribution Connections: $[(P_T * X) * (Z/W)] + [(P_D * Y) * (Z/V)]$

Where:

X = Total cost (LCTA for the subgroup) of providing the associated transmission works of the Shared Network including remote end station allocated charges

Y = Total cost of providing the associated distribution works of the Shared Network

Z = MEC (in MW) of the specific generating plant

W = Total MEC (in MW) of the Generator Applications in that Subgroup

V = Total MEC (in MW) of the DSO Generator Applications in that Subgroup*

P_T = Transmission Probability Factor

P_D = Distribution Probability Factor

The distribution payment schedule shall remain as follows for both the Dedicated and Shared Connection Assets:

- 25% on Offer Acceptance
- 50% at Pre-Construction Stage
- 25% at Final Energisation

4.9 Contestability of Transmission Connections

The shallow connection of the transmission connected generator shall be considered contestable in accordance with the current contestable regime up to a boundary point defined by the Commission. This boundary will take account of, among other things, practical and safety considerations. This includes both the Dedicated and Shared Transmission Connection Assets.

The high-level rules for Contestability of the Shared Transmission Connection Assets shall be as follows:

- a) The identity of applicants within Subgroups involving a Shared Transmission Connection Asset shall be disclosed to all applicants within that Subgroup prior to issuing the connection offers.
- b) Only the transmission connecting parties shall be allowed to construct or arrange to have constructed the Shared Transmission Connection Asset.
- c) All applicants – transmission and distribution - sharing the transmission asset within a Subgroup must come to a unanimous agreement amongst themselves that they wish to make the Shared Transmission Connection Asset contestable.
- d) This agreement must be notified in writing to the TSO three weeks following the connection method update meeting, with evidence that unanimous agreement has been reached. The applicants shall nominate one transmission applicant who will liaise with the TSO during the process of constructing the contestable Shared Transmission Connection Asset. This offer is made to the transmission applicant on a contestable basis only.
- e) Should the parties not be able to agree on the Shared Transmission Connection Asset being contestable, or the nominated transmission applicant not accept its connection offer (where there is no other transmission applicant in the Subgroup)⁶, the Shared Transmission Connection Asset will be deemed to be non-contestable. This is important to ensure that the parties within the Subgroup and subsequent Gates are not unduly delayed. However, the remaining accepted offers may have to be reworked as the connection costs discussed in (f) below may have to be reviewed with a view to cost recovery on behalf of the final customer.
- f) The arrangements for payment of connection costs for the Shared Transmission Connection Asset shall be a matter for the parties within the Subgroup if the contestable option is chosen. The Commission has no remit to protect any party, other than the final TUoS and DUoS customer, from potential financial risk of unrecovered connection costs.
- g) If the TSO considers it necessary for system security and stability reasons to make the Shared Transmission Connection Asset of a subgroup non-contestable it shall notify the Commission as soon as practicable. The Commission shall decide on such cases on an individual

⁶ Where there is another transmission connection applicant in the Subgroup then this applicant may apply to the TSO to take over this role (with the agreement of the other Subgroup parties and subject to the other conditions as set out above). Such an application will be considered on its individual merits on a case-by-case basis.

basis. Such a situation will be an exception and the burden of proof will rest with the TSO.

Appendix A: Definitions

TERM	DEFINITION DESCRIPTION
Capacity Bond	The bond to be provided by the Generator to the TSO/DSO in the form set out in the Connection Agreement in relation to the generator's Maximum Export Capacity (MEC) and currently calculated as €10,000 per MW of MEC.
Dedicated Connection Asset	Electrical network (lines, cables, switchgear, etc.) used to connect a single user to the Transmission or Distribution System. The connection asset is specific to the user and does not form part of the connection to any other user.
Gate	Renewable generator applications deemed complete and meeting the criteria on or before a specified date will be included in a particular Gate and will be considered in the Group study.
Group	The applicants that will have exactly the same deep reinforcements.
Shared Network	Electrical network (lines, cables, switchgear, etc.) used to connect a number of users to the Transmission or Distribution System.
Shared Subgroup Connection Asset	Electrical network (e.g. common network station equipment/site, transmission network connecting that station to the network and any associated remote end station works) used to connect more than one of the Subgroup generators to the existing network. This includes the total cost of providing the associated transmission works including remote end station allocated charges and the associated distribution works.
Subgroup	A number of applicants in the same geographic location who will share a connection method or connection assets.

Appendix B: Overview of Group Processing Approach for Renewable Generator Connection Applications

