Contestability
and
Connection Assets

March, 2002

Executive summary

Contestabilty is a complex issue and a policy that defines the obligations and responsibilities of the parties involved obviously needs to be consistent with the legislative framework. The existing legislation does not provide a clear definition on whether some (or all) of the connection assets required to connect an applicant should be part of the transmission system. The 1999 Electricity Act (the "1999 Act") implies that all assets defined as part of the transmission system must be constructed and owned by the Transmission Asset Owner (TAO). This would suggest that the TAO has monopoly rights to construct and own all connection assets that are considered part of the transmission system. However, Regulation 33 of the European Communities (Internal Market in Electricity) Regulations, 2000 (S.I. 445/2000) (the "S.I.") amended section 34 of the Electricity Regulation Act, 1999. Based on ESBNG's interpretation, the effect of the amendment is to give an applicant connecting to the transmission system the right to construct the connection assets required to connect that party. ESBNG is unclear about the definition of the term 'applicant' used in the SI. In this document we interpret the term applicant to include demand users (i.e. transmission connected users and the Distribution System Operator), in addition to generation users.

The statutory responsibilities described above set the context within which ESBNG's proposals on contestability in connections have been developed. In this document we present key level principles to enact what we believe to be a fair and manageable policy on contestability, reflecting the '*spirit*' of the statutory provisions. ESBNG recognises that parties connecting to the transmission system will wish to connect at the lowest cost and in the shortest time possible, and to retain a degree of control over ensuring that these objectives are met. We believe that the proposals outlined in this document achieve this objective while ensuring that the statutory responsibilities of the TSO, as defined in the 1999 Electricity Act and in the SI, are met

The set of interrelated activities forming the process of connection to the network include establishing the connection method, design specification for the connection, route selection for the connection from the proposed applicant's site to the interface with existing transmission assets, obtaining planning permission for the route, purchasing materials,

constructing the connection assets, commissioning the connection assets and operation and on-going maintenance.

ESBNG believes that some of these activities should be made fully contestable, while others are not constestable activities. In summary we believe that, in general, design, routing and construction of connection assets (subject to a given set of standards) are contestable activities. Given the TSO's responsibility for the overall development of the system, the connection method and its quality must be determined by the TSO. Given the difficulty in obtaining planning consents, it is vitally important that new transmission assets contribute effectively to the evolution of the overall transmission network. Consequently, the TSO has a legitimate interest in route selection, especially where the route selected has potential implications for the longer-term development of the network as a whole.

Ownership and operational control, including maintenance, of connection assets that are constructed for the sole benefit of a single party (e.g. simple tails, switched-tee assets, etc.) should remain with that party, unless the applicant wishes to transfer ownership. However, the integrated nature of the transmission grid is such that problems on one part of the network can have an impact on all users. Therefore, connection assets that are used for 'common carriage' purposes[1] must be under the control of the TSO and, therefore, treated as part of the transmission system. ESBNG are of the view that for security, reliability and efficiency considerations that these assets should be transferred to the TAO, if constructed by the applicant. This assumes that the Infrastructure Agreement (IA) will provide a proper level of control of transmission assets to the TSO. If such assets are not transferred to the TAO then the TSO will need to put arrangements in place with each 'owner'. Multiplicity of ownership adds complexity and may introduce inefficiencies. Regardless of ownership the TSO must have the ability to use any asset for efficient development of the system and/or providing connection to other parties.

It is essential that the appropriate standards must apply to all connection assets as all such assets have the potential to become part of the meshed system in the future or to have more users connected to them.

[1] These are assets that the transmission system or other users are dependent on (e.g. loops, etc).

In addition to technical considerations there are also a number of commercial considerations that arise from ESBNG's suggested implementation of the contestability principle. In particular, constraint payments will not be paid to an applicant who is constrained off due to non-availability of an asset owned and maintained by that user. If the ownership of the connection asset is transferred it will be done so at a nominal fee, although for rebate purposes a value needs to be agreed on all shallow connection assets.

ESBNG welcomes measures that facilitate efficient incentives for all participants in the energy industry. These measures should be implemented in a fashion that enables the TSO to discharge its responsibilities relating to security of supply and efficient development of the network. In certain areas, where disputes arise between the applicant and the TSO that cannot be resolved, the CER has an arbitration role.

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1. Introduction and background

Under the 1999 Act, the "Board" (i.e., ESB) is required to offer to enter into connection agreements, subject to terms and conditions specified in directions given to the Board by the CER. Since 19 February 2000, such offers are made by ESBNG in its capacity as TSO. By Direction of 16 October 2000, the CER required ESBNG:

"to make connection offers on the basis of the least cost principle that is technically feasible and compliant with the appropriate planning standards. Where the approach taken in the interests of transmission system planning is more costly than the least cost connection approach, then ESBNG should be responsible for the difference in cost between the approach adopted and the least cost approach"[2].

On the 12th of April, 2000, ESBNG published a paper entitled 'Connection Asset Costs: Guiding Principles', that proposed a set of principles to be applied when deriving connection charges for new users (generation and demand) connecting to the transmission system. Following a consultation period, the CER published its conclusions, together with a number of comments that were received as part of this process[3]. ESBNG deliberately did not address the issue of contestability in its paper as it was anxious that the change from a 'deep' to 'shallow' connection regime was implemented as rapidly as possible, and indeed the statutory basis was not clear at the time.

In this paper we set out ESBNG's thoughts on the important issue of contestability. As this is a complex area, before discussing the various inter-related activities associated with the process of connection we first outline a set of key principles that we suggest should be met if the transmission system is to continue to be developed and operated in a secure, reliable and efficient manner.

This paper outlines the various activities involved in the process of connection to the transmission system, including connection method, route selection, planning permission,

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2 Letter from Tom Reeves to Kieran O'Brien 16 October 2000.

3 www.cer.ie/ceresb200014.doc

design, construction, commissioning, maintenance, operation and ownership. The paper highlights the areas that ESBNG considers to be contestable and discusses the level of control required by the TSO in respect of standards and policies due to its responsibility for network security and safety. The commercial issues relating to constraint payments, transfer of ownership, rebates, least cost principles and payment options are also discussed. The paper highlights a number of areas where disputes may arise between connecting parties and the TSO. We propose that such disputes should be referred to the CER only after the disputing parties have made reasonable and good faith attempts for a resolution.

2. Statutory Positions of the Transmission System Operator and the Applicant

Contestabilty is a complex issue and a policy that defines the obligations and responsibilities of the parties involved obviously needs to be consistent with the legislative framework. This section discusses the provisions in the S.I.[4] and in the 1999 Act that allow a party to construct the connection assets that connect them to the transmission system.

Under Regulation 8(1)(a) of the S.I., the stated functions for the TSO include:

"to operate and ensure the maintenance and, if necessary develop a safe, secure and reliable, economical and efficient electricity transmission system, …. with a view to ensuring that all reasonable demands for electricity are met and having due regard for the environment;"

Therefore, in designing a set of key principles to deal with the issue of contestability it is important to recognise that:

- the integrated nature of the transmission grid is such that problems on one part of the network can impact on all users;
- the operation of the network is inextricably linked to the safety of plant, property and persons; and

[4] S.I. No. 445 of 2000:European Communities (Internal Market in Electricity) Regulations, 2000.

- the TSO should develop the transmission system to the benefit of all users and not to the sole benefit of an individual user.

Regulation 33 of the S.I. states that

"An offer under subsection (1) may, on request of the applicant, be on the basis that the applicant constructs, or that either or both the applicant and the transmission system operator arranges to have constructed, the connection to the transmission system, and any such connection constructed or arranged to be constructed by the applicant shall be the property of the person with whom the agreement is made, and shall, for the purposes of section 37, be deemed to be a direct line."

ESBNG understands that this is intended to have the following effects:

- to grant the applicant the right to construct or to have the connection constructed;

- to deem the connection to be a direct line for the purposes of Section 37 of the 1999 Act.

ESBNG is unclear about the definition of the term 'applicant' used in the SI. In the statement of February 17th 2000, the Minister for Public Enterprise specifically referred to the right of an Independent Power Producer (IPP) to construct its connection assets. In this document we interpret the term applicant to include demand users (i.e. transmission connected users and the Distribution System Operator), in addition to generation users.

In the 1999 Act the transmission system is implicitly defined as "*a system which consists, wholly or mainly, of high voltage lines and electric plant and which is used for conveying electricity from a generation station to a substation, from one generation station to another, from one substation to another or to or from any interconnector or to final customers…".*

This definition raises complex legal issues in relation to the ownership and control of assets that are built by an applicant. In particular, the 1999 Act does not expressly state whether shallow connections are to be considered part of the transmission system. This raises the important question of whether some (or all) of the shallow connection assets are part of the

transmission system. If so, then based on the above definition, must the ownership of these assets lie with the Transmission Asset Owner (TAO)?

Section 34(1A) of the 1999 Act, as added by Regulation 33, deems connections to be direct lines for the purposes of Section 37. One power conferred on direct line owners by Section 37 is the right to use the direct line "*for the transport of electricity to other eligible customers*". It should be recalled that, under Section 37, a direct line is defined as "*a line not connected to the transmission or distribution system"*. It is clear that the status of a shallow connection is significantly different and it is debatable whether, by referring to Section 37 in this context, the Regulations intended to confer on an applicant the right to connect third parties to their shallow connections.

In this document we present ESBNG's interpretation of the Statutory provisions and its proposal to enact what we believe to be the '*spirit*' of a fair and manageable policy on contestability. To simplify our analysis we begin by presenting three typical connection examples.

3. Possible Shallow Connection Configurations

The principles governing the definition of shallow connection, for pricing purposes, is set out in the document "*Connection Asset Costs: Guiding Principles*", published by ESBNG in April 2000[5]. This document provides several typical shallow connection configurations. It is useful to consider these examples when discussing the various interrelated activities involved in the process of connecting an applicant to the transmission system. In particular, we have repeated three of these examples in the appendix to this document. Although these examples do not cover all possible configurations, we believe that, by using these examples, it is possible to discuss the main issues and principles associated with assisting applicants in constructing connection assets.

As shown, the first of these examples depicts a simple tail-fed connection. In the second example, the applicant is connected to the transmission system via a looped connection. Finally, example three shows the situation where a tee-station is required to connect the

[5] Following a period of public consultation the CER approved this document, based on certain amendments.

applicant. Based on our interpretation of the 1999 Act and the SI it is our understanding that, in all three situations, the applicant has the right to construct the necessary connection assets.

On the issue of ownership, ESBNG believes that assets that have the potential to affect another party connected to the transmission system should, for control purposes, be treated as part of the transmission system. Otherwise, the applicant has the potential to impact on the security and reliability of the transmission system. This would impinge on the TSO's responsibilities as defined in the SI.

In terms of the examples presented in appendix 1, based on this policy, ownership of a simple tail connecting a single applicant to the transmission system would lie with the applicant (unless the applicant decides to transfer ownership[6]). Similarly, an applicant connected via a switched-tee station would own that asset, providing that the asset is not transferred. The 1999 Act and condition 3 of the Transmission Asset Owner licence, however, does provide that the CER may direct that ownership of direct lines is transferred to the TAO.[7] ESBNG believes that ownership of connection assets used for common carriage purposes (e.g. looped and tee connections)[8] or connection assets used by more that one applicant should, for system security and reliability considerations, be transferred to the TAO. This assumes that the Infrastructure Agreement (IA) will provide a proper level of control of transmission assets to the TSO.

A key principle approved by the CER in ESBNG's paper *"Connection Asset Costs: Guiding Principles"* is that in situations where for optimal planning reasons ESBNG proposes a connection method that deviates from the least cost connection to connect an applicant, then the applicant would only pay the cost for the least cost connection. This principle raises additional commercial and legal complexities. In particular, in this situation should the applicant be eligible to construct all or a part of the connection asset, some (or all) of which is needed for system development rather than exclusively for the shallow connection? If the

[6] This issue is discussed below.

[7] The 1999 Act provides for the CER to direct that the ownership of direct lines to be transferred to the TAO following a request by the ESB, whereas the licence provides for the CER to direct that ownership is transferred to the TAO following the request by the connecting party.

[8] In the remainder of this paper, the reader should keep in mind that switched tees shall be treated like tail connections and non-switched tees shall be treated like loop connections.

applicant is eligible to construct all assets associated with its connection, then how will that party be compensated for differences in costs between the least cost connection and the deviation from least cost connection as proposed by ESBNG. These issues are discussed in sections 5.17 and 6.3.1, respectively.

4. Key Principles

In this section, we set out the main principles which we believe are essential to the successful implementation of a policy dealing with contestability. However, it is inevitable that situations will arise in future that have not been foreseen. These will be dealt with at the time, within the framework set by the following principles, and with affected parties having the option of appeal to CER in the event that they feel they are being disadvantaged. These key principles are:

- All assets have the potential to become part of the meshed system in the future or to have more parties connected to them. Therefore, it is essential that the appropriate standards must apply to all connection assets. Regardless of ownership, the TSO must have the ability to use any asset for efficient development of the system and/or providing connection to other parties.

- The TSO must have the necessary degree of control over all parts of the transmission system to meet all its obligations.

- Multiplicity of ownership, control, operational and maintenance arrangements adds complexity and overheads and can introduce inefficiencies. ESBNG is of the opinion that, if this is allowed, disadvantages would arise. These include:

    - Multiple operational/maintenance responsibilities could be problematic or unacceptable from a system security, safety and reliability perspective

    - Security and safety may be compromised where there is multiple ownership

    - Complex contractual arrangements if there is multiple ownership of assets

In general, the number of construction interfaces should be restricted. An applicant would construct up to a given point(s) and the TAO would complete the connection from that point to the transmission system unless otherwise agreed between the parties.

- To ensure system security and reliability, for control purposes, the ownership of assets that are used by more than a single party (e.g. loops, tails with more than a single applicant, etc.) should lie with the TAO. This does not, however, imply that the applicant cannot construct the connection asset.

- To avoid possible future disputes, for rebate purposes shallow connection assets built by the applicant should be valued immediately prior to commissioning. If a second applicant wants to connect to the same point prior to commissioning, then valuation may need to be carried out earlier.

ESBNG recognises that all connecting parties will generally wish to connect at the lowest cost and in the shortest time possible, and to retain a suitable degree of control over ensuring that these objectives are met. As a wider principle, where feasible, customers will generally want the right to exercise choice over the various elements in a connection.

The focus of this paper is to seek to balance this desire of individual connecting parties with the wider responsibilities of the TSO, on behalf of network users as a whole.

5. Connections – a set of related activities

The process of connection to the network can be considered as a number of closely inter-related activities. A new connection inquiry would normally be initiated by a prospective applicant approaching the TSO, setting out the location of the intended connection and other relevant details. The set of activities that would follow would typically include:

- determining the connection method;

- establishing a design specification for the connection, consistent with the TSO's connection standards (for security, safety etc.);

- selecting the route for the connection from the applicant's proposed site to the interface with existing transmission assets;
- obtaining planning permission for the route;
- purchasing materials;
- constructing the connection assets;
- commissioning the connection assets; and
- operation and on-going maintenance (scheduled and emergency)

Although there is a broadly sequential pattern to the above set of steps, in practice some will overlap. For example, route selection and application for planning permission are related activities and may require a review of the connection method. Issues raised in the planning process could necessitate a review of the connection design.

In the sections that follow, we discuss the extent to which ESBNG believes that each of these activities should be contestable and explain the reasoning behind our proposals. Table 1 provides a summary of ESBNG's position on these activities.

5.1.1. *Connection Method*

Given the TSO's responsibility for the overall development of the system, it should mandate the connection method. This includes specification of the voltage level the connection is made at, the type of connection (tail, loop-in, tee, etc.) and the location of the connection. The connection method should be consistent with the least cost of overall system development in the longer term, which may not be the same as the least cost connection. It should also take account of the Forecast Statement[9] and the TSO's stated policies, including the Transmission Planning Criteria.

5.1.2. *Route Selection*

[9] A statement as defined in Section 38 of the 1999 Act.

This activity is closely related to planning permission, which is discussed below. ESBNG has a legitimate interest in route selection where the route selected has potential implications for the longer-term development of the network as a whole or is in conflict with existing transmission structures, availability of corridors for system development or other transmission development plans. Given the difficulty in obtaining planning permission, it is vitally important that any new transmission assets contribute effectively to the evolution of the overall network. At the same time, ESBNG recognises the needs of the connecting party, for whom an expeditious and low cost connection is of great importance. For this reason, the TSO should, at a minimum, be able to select or veto a route in certain circumstances. In instances where there are wider network implications associated with a new connection, the TSO would expect to pursue a collaborative approach with the connecting party, with the TSO retaining a right of veto over route selection. The connecting party would have a right of appeal to the CER in the event that it did not accept the TSO's position.[10] Again, the least cost principle will apply. In situations where the applicant requests a deviation from the least cost route then this will be at the applicant's own expense. If the deviation from the least cost route is the request of the TSO, then this additional cost will be borne by all system users.

To ensure all applicants are treated fairly, the TSO would publish a set of standards that apply to route selection. Any disagreement between an applicant and the TSO in relation to a proposed route would be determined prior to the commencement of the project.

In order to serve the best interest of transmission users as whole, no applicant should enter into an ongoing financial agreement with a landowner without the prior approval of the TSO.

5.1.3. *Boundary*

For each of the examples described in section 3, appendix 1 also shows the proposed boundary. In the first example, which is a simple tail connection, ESBNG proposes that the applicant may construct the connection assets from the applicant's site up to the mast outside the transmission station or to another suitable interface point agreed between the parties. The mast points shown in the second example are the logical boundary for contestable construction for a loop connection. The TSO would arrange for all work of retiring the line

[10] Section 34(6) of the 1999 Act

section illustrated in the diagram. The third example illustrates the connection assets for which construction is contestable for a tee connection. In the case of a switched tee, the construction of circuit breakers should not be contestable. ESBNG recognises that in certain cases variability in the boundary may be required, which could be agreed with the applicant. However, due to the complexity of the interface, inefficiency and possible compromise of safety within the compound it would not be desirable for the applicant to construct the bay.

ESBNG recognises the statutory right of applicants to construct their own connection assets. This right should not extend to the construction of certain assets whose construction could impact directly on the security of the existing 'live' transmission system.

Issues regarding on what basis the connecting party should be reimbursed in a situation where the connecting party constructs the non-least cost technically feasible connection is discussed in section 6.3.

5.1.4. *Planning Permission*

In general, an applicant will be responsible for submitting a request for planning permission, but only after prior agreement on route selection with the TSO. The TSO will support the applicant in its application where it is reasonably required. The connection may also be required by the TSO in conjunction with other development plans or may be in an area where the TSO is independently developing and so in certain, probably infrequent, circumstances the TSO may retain the right to take the lead on a planning permission application.

5.1.5. *Engineering Standards*

The TSO is responsible for the security, safety, reliability and efficiency of the system. Therefore, the TSO must have adequate controls in relation to the engineering design standards, the quality of materials used, standard lifetime of assets, the methods for construction and the procedures for commissioning of plant connecting to the transmission system.

The applicant should be responsible for ensuring that the connection meets its functional requirements. The TSO would publish a set of standards that apply to engineering design

(including safety standards). With regard to overall engineering designs, these should be submitted to the TSO for review and approval.

The TSO may, at a future date, have responsibility for the operation, maintenance and availability of a feeder and would, therefore, have an essential interest in quality and lifetime of materials used. The TSO must, therefore, have rights to specify test requirements and standards on materials. The TSO would also specify requirements to provide spares and minimum guarantee periods, to the extent that plant maintenance and availability could be affected. The TSO may also reserve the right to insist on operational and maintenance training for staff by the equipment supplier.

5.1.6. *Construction of least cost connections*

Construction of a least cost connection[11], apart from those assets that have a direct impact on the existing energised network, could be carried out by the applicant.

The quality of construction and installation of an asset may have an impact on the availability and reliability of the transmission system. If the applicant constructs the assets or arranges to have the assets constructed, then the TSO should have a close involvement in the construction process – approving an applicant's method statement in advance of the construction of a connection by a third party as evidence that installation is consistent with good industry practice. The TSO should retain audit rights on the construction to ensure compliance with the method statement. The interface would need to be agreed in advance, and the TSO would have the right to make the final terminations.

Where an applicant has the option to construct a connection, but chooses not to do so, the TSO would make arrangements for the construction of the necessary assets.

5.1.7. *Deviation from least cost*

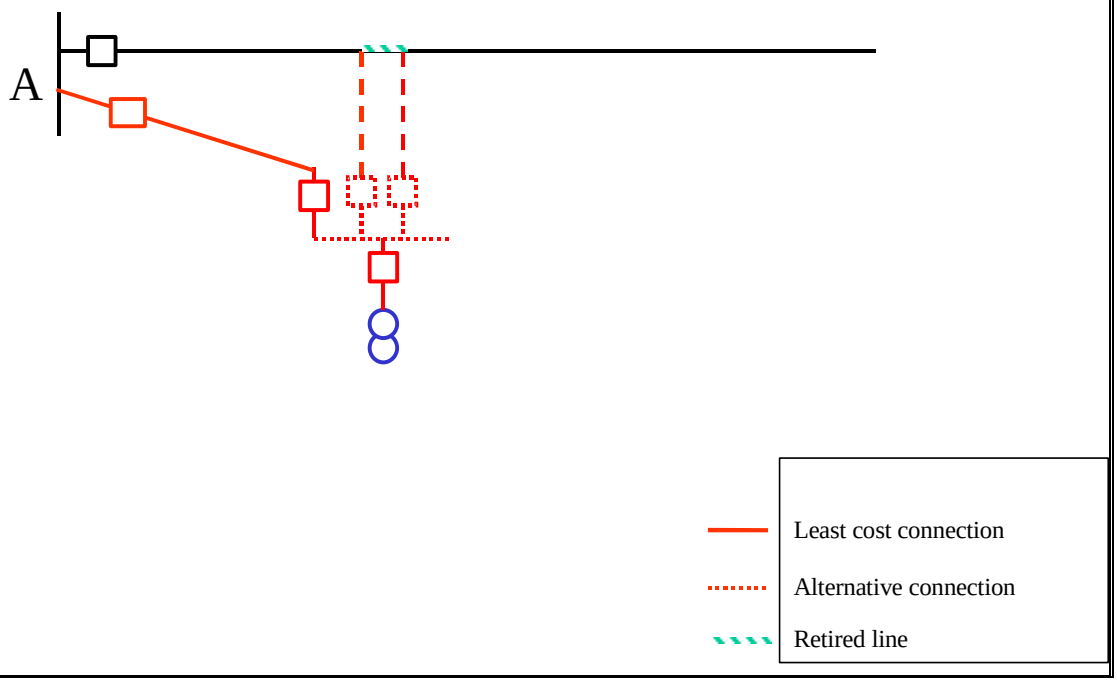
Ordinarily, the TSO would design the minimum cost connection consistent with complying with safety and security standards. However, in certain circumstances, the TSO may conclude that a connection that is more expensive is required, because of the associated benefits to the wider network. The CER has indicated support for this principle in its response to ESBNG's paper "Connection Asset Rules: Guiding Principles". In this situation,

the connecting party would only be charged for the minimum cost connection. However, as previously noted, in such cases an issue arises as to whether the applicant should be allowed to construct the full connection asset or be restricted to construct only that part that the applicant is paying for. The SI 445 does not provide clear direction on this issue.

ESBNG believes that an applicant should be allowed to construct the necessary connection assets provided that another connecting party is not adversely affected. However, provisions that will facilitate the rights of subsequent parties will need to be agreed.

For example, consider a situation where the least cost technically feasible connection is a tail connecting the new user to an exiting station, but for optimal planning considerations an alternative (e.g. loop) connection is proposed by the TSO. This example is depicted in Figure 1 below.

Figure 1: Deviation from least cost connection



[11] Construction of non-least cost connections is discussed below.

ESBNG proposes that in this situation that the applicant should be allowed to construct the alternative connection (subject to the rights of subsequent parties being protected). Alternatively, the applicant can request that ESBNG arrange for its construction. Of course, if the applicant undertakes to construct the connection then that party would be entitled to receive a payment from ESBNG for the difference in costs between the least cost connection and the connection proposed by ESBNG (this issue is addressed further in section 5.1.2 of this paper).

5.1.8. *Commissioning*

Commissioning of connection assets to the main network clearly has the potential to have an adverse impact on the safety and security of the network. The commissioning of connection assets should always be a collaborative exercise, with the TSO controlling the first energisation and the commissioning process post energisation of plant. To ensure grid security, the TSO should have the right to specify commissioning tests to be carried out pre-energisation and have the right to witness all commissioning tests. Any party connecting a new asset to the network should give written "proof of readiness" to the TSO. The TSO would control the timing of any network outages necessary to enable a safe and secure completion of the connection.

5.1.9. *Wayleaves*

The TSO requires wayleaves and/or easements on land to entitle access to feeders at all times for the purposes of maintenance, inspection and surveying. These rights must be obtained by the applicant and assigned to the TAO and the TSO, in cases where ownership is transferred to TAO following construction of the asset.

5.1.10. *Operations*

Except perhaps in the case of a simple tail, operational control must be with the TSO to ensure system security and safety.

5.1.11. *Maintenance*

In considering the contestability of maintenance, the TSO has the same priorities as for design and construction – the security and safety of the network. Responsibility for maintenance will depend on whether the connection assets are owned by TAO or the applicant.

In order to meet its responsibilities for network security and safety, where ownership of connection assets has been transferred to the TAO, maintenance would be subject to the terms of the Infrastructure Agreement, as with any other transmission asset.

With regard to connection assets not owned by the TAO, then there would have to be an agreement between the asset owner and the TSO. This could become complex in that the TSO will have multiple agreements with different asset owners. In summary, the TSO should:

- specify to the owner the maintenance policies and standards appropriate to the specific assets
- receive reports on completed maintenance; and
- receive a written Proof of Readiness prior to the reconnection of the asset to the transmission system.

Beyond these activities, ESBNG regards the maintenance activity carried out on assets not owned by the TAO as contestable. Whether taking responsibility for maintenance of a single connection asset would be economic for the applicant is questionable, particularly for emergency maintenance, but this is a matter for the connecting party.

5.1.12. *Ownership*

ESBNG's view of ownership of connection asset is that if the TSO needs to operate the asset, then it should be part of the transmission system and therefore be owned by the TAO. Consequently, as a matter of policy, ESBNG believes that all shallow connections that are not simple tails or tee-stations to a single demand user or generator should be transferred to the TAO after commissioning. For efficiency of transmission system development, once a second applicant connects to a simple tail and/ or if a tail becomes looped into the transmission system, ownership should be transferred to the TAO. For simplicity, serious consideration should be given to making simple tails with single users part of the

transmission system. The 1999 Act and the Transmission Asset Owner licence provides that the Commission may direct that ownership of direct lines be transferred to the TAO.

ESBNG believes that some applicants will only be interested in constructing the necessary connection assets and not in ownership, maintenance or operation.

Table 1 Summary of contestable areas

Connection Activity	Degree of contestability
Connection method	The TSO to specify connection method.
Design and connection	Applicant responsible for ensuring that the connection meets its functional requirements. TSO to publish a set of standards that apply to engineering design. TSO to specify test requirements and requirements to provide spares and minimum guarantee periods. TSO to approve.
Select route and obtain planning permission	In most cases the applicant to lead both the route selection and planning permission application. The TSO would produce a set of standards/ guidelines for route selection. The TSO to have control of and right to veto route selection if there are wider network implications.
Construction	Contestable, apart from connecting assets that impact directly on the existing energised network, and raise wider safety and security risks. The TSO to monitor and sign-off on third party construction projects.
Commission connection	The applicant commissions but the TSO manages the first energisation and the post energisation commissioning tests for assets constructed by or arranged by the applicant. TSO to specify and witness commissioning tests.
Maintenance of connection	For simple tail (and switched tee) connections, the TSO should specify maintenance standards and receive maintenance reports on assets from the connected party. Otherwise connection assets should be owned by the TAO and hence subject to the terms of the Infrastructure Agreement.
Ownership of connection	Simple tails and tee-stations could be owned by the applicant. ESBNG believes that common carriage assets and assets used by more than a single party should be part of transmission system.

6. Commercial issues

In addition to the technical considerations discussed in the sections above there are also commercial issues that need to be considered.

6.1. Constraint payments

Under the current tariff arrangements, generators that are constrained downwards (or upwards) receive transmission constraint payments for the capacity for which they have firm financial access to the transmission system. Transmission constraints can occur due to congestion in the system, operating reserve requirements or due to technical faults. At present if a generator is constrained for any of the above reasons, it receives compensation payments. In the future, however, in situations where a generator connecting to the grid system owns and maintains its connection assets and is constrained down/off due to technical problems associated with the shallow assets, then this user will not be financially compensated[12].

6.2. Transfer of Ownership

In the event of an applicant transferring ownership of its connection assets it will do so for a nominal fee[13] (e.g. 1.27 Euro). In such circumstances the applicant will not be eligible to maintain these assets. A generator who transfers ownership will be eligible to receive compensation in situations where a constraint arises due to technical problems associated with its connection assets for the capacity for which they have firm access to the transmission system. In situations where assets are transferred, the commercial risks of the TSO will need to be considered.

6.3. Rebates

Consistent with the principles approved by the CER on October 16, 2000, an applicant will be eligible to receive a rebate if within a specified period of time another party uses the same

[12] Obviously, if the constraint occurs due to technical problems associated with the deep assets or due to congestion or operating reserve requirements then providing that the generator has firm financial access, it will be compensated.

[13] Under Irish property law a nominal fee is necessary to transfer ownership.

connection assets to connect to the transmission system, or alternatively if at some future date (after the original connection date) the TSO connects a circuit to the applicant's connection assets. Therefore, in situations where the applicant constructs its connection assets it will be necessary for the TSO and the connecting party to agree a value for these assets. This should be done prior to commissioning. Any disagreement between the applicant and the TSO should be determined prior to another party (including the TSO) connecting to a applicant's connection assets.

Applicants who install more expensive connection assets to that proposed by the TSO will receive a rebate based on the least cost connection, except in exceptional circumstances. For example, consider a situation where instead of installing a proposed overhead line, an applicant elects to install an underground cable. In the situation where another applicant connects to this asset, then the first applicant will receive a rebate based on an agreed cost for the overhead line (and not the underground cable). Where an applicant has received compensation because of departures from the least-cost approach (discussed below), rebates should be reduced accordingly.

6.3.1. *Non-least cost connection*

Consistent with the principles approved by the CER on October 16, 2000, in situations where for optimal planning reasons the TSO proposes a connection method that deviates from the least cost connection method to accommodate a new user, then the connecting party will only be eligible to pay for costs associated with the least cost connection.

In a situation where the connecting party requests the TSO to arrange for the construction of connection assets then the TSO will allocate the connecting party costs associated with the least cost connection. In a situation where the connecting party elects to construct the connection assets (discussed in section 5.1.7) the TSO will need for rebate purposes to determine a value for both the least cost and non-least cost connections, as proposed by the TSO. This valuation will be carried out prior to the commencement of the project[14].

[14] ESBNG intend to move towards a more standardised schedule of connection charges, assuming that that variations in actual out-turn aggregated across projects will be adequately allowed for through the transmission regulatory mechanism (e.g. recovered through use-of-system revenue)

Any disagreement between the applicant and the TSO should be arbitrated by the CER prior to the commencement of the project.

6.4. Payment Options

A connecting party electing to construct its connection assets will obviously pay the cost associated with this connection at the time of construction. Following the outcome of this consultation process ESBNG intend to publish a paper dealing with the payment conditions for applicants who do not construct their connection assts.

7. Determinations, Directions and Developing the contestability policy

Over time, the contestability policy will develop, and may have to be amended to take into account new applications for connections to the system, the TSO 's other policies relating to the transmission system and any directions issued by the CER. It is likely, therefore, that there will be occasions on which an applicant may consider either that the TSO has not applied the contestability policy equitably (when making a connection offer and/or drafting the terms of the Connection Agreement relating to the shallow connection) or that there is doubt about the way in which the contestability policy should be applied in certain circumstances.

In the event that, after reasonable attempts to resolve any dispute between the TSO and the applicant, if the applicant is not satisfied with the application of the contestability policy, the applicant is entitled to request the CER to determine whether the policy has been properly applied and, if necessary, to issue directions in accordance with the scope of section 34 (2) (a)-(f) of the 1999 Act. If the CER concludes that the contestability policy had not been properly applied to the applicant then the CER would issue directions specifying what changes the TSO would have to make to its connection offer and/or the terms of the connection agreement. Furthermore, to the extent that the findings made in the determination either clarified or developed the contestability policy, the CER could specify the amendments to be made to the contestability policy in the directions. Third parties may, more fundamentally, exercise their right to bring the case before the CER according to of appeal under Section 34 (6) of the 1999 Act.

8. Issues and questions

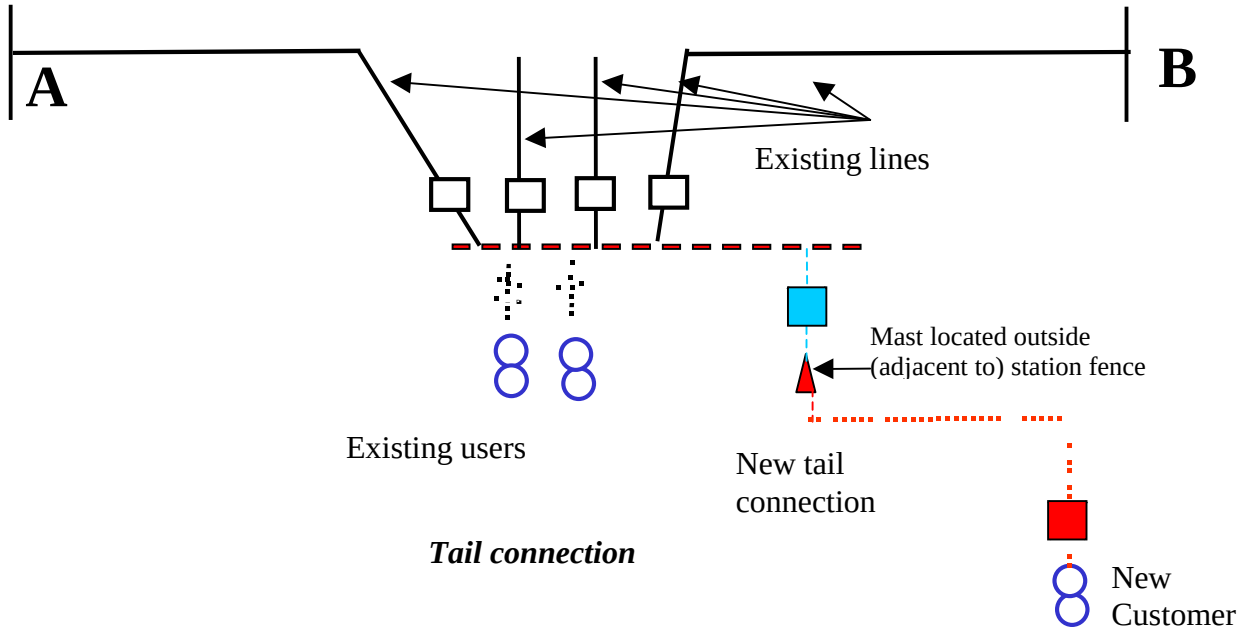
ESBNG invite comments and opinions on the following issues:

- The 1999 Act does not state explicitly whether shallow connections are part of the transmission system. If all of the shallow connection assets are part of the transmission system then must ownership of these assets reside with the TAO?

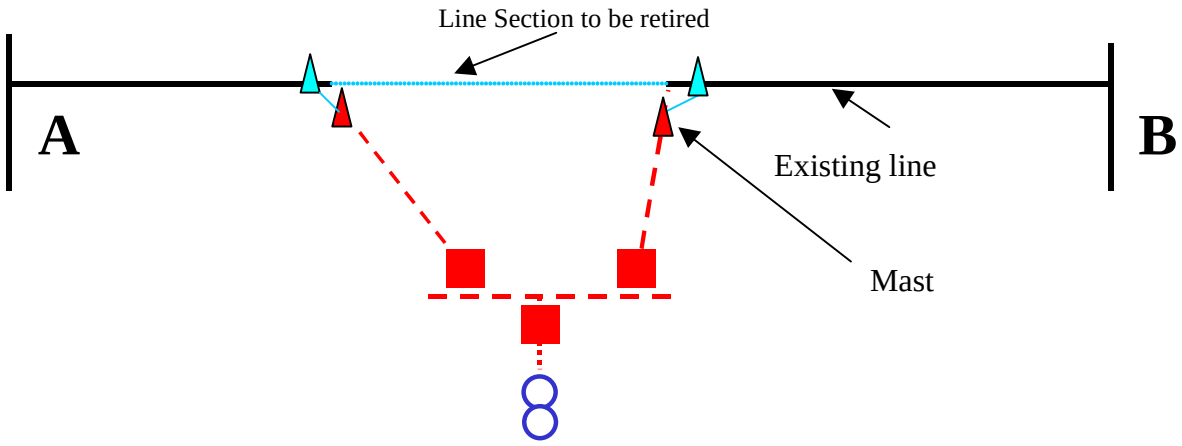
- It is unclear whether Section 34(1A) of the 1999 Act intended to give applicants the right to connect third parties to their connection assets. Should such assets be defined part of the transmission system in all situations?

- Ordinarily, the TSO would design the minimum cost connection consistent with complying with safety and security standards. However, in certain circumstances, the TSO may conclude that a connection that is more expensive is required because of the associated benefits to the wider network. An issue arises as to whether the applicant is eligible to construct all or a part of the connection asset, some of which is needed for system development rather than exclusively for the shallow connection? This is an issue on which the SI 445 does not provide clear direction.

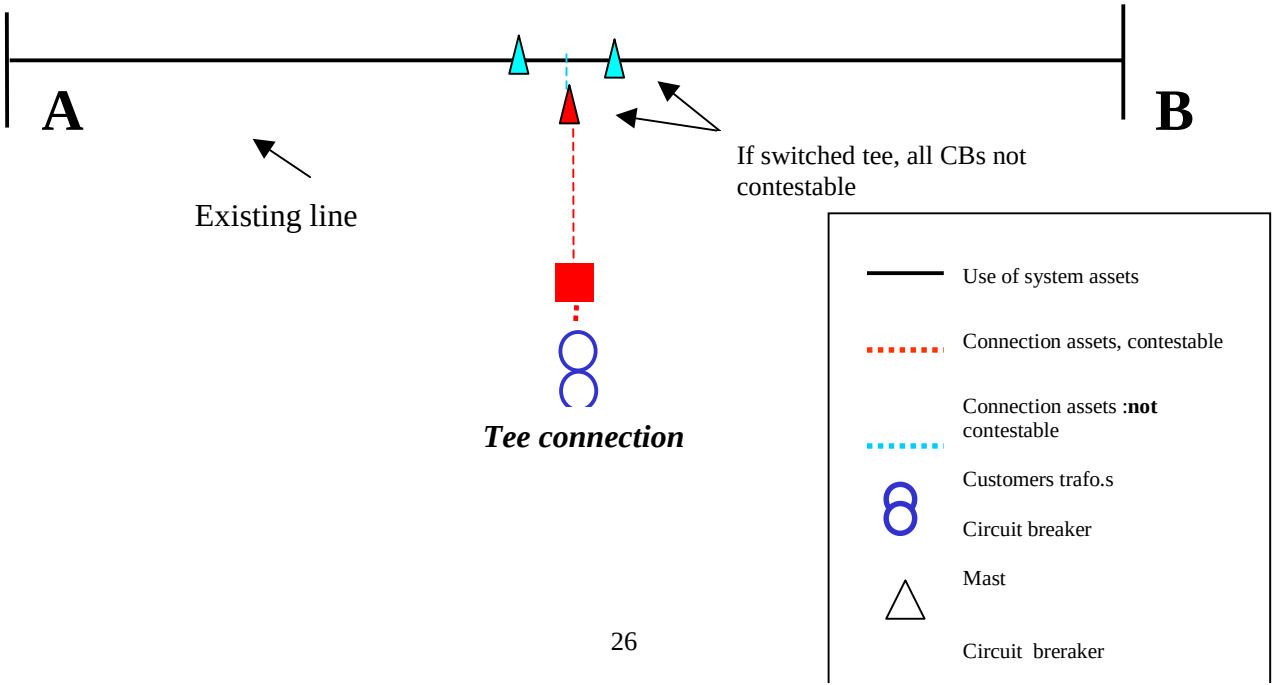
Appendix 1: Possible Connection Configurations



Tail connection



Loop connection



Tee connection