



Contestable Builds and Financing of SO Preferred Connection Method

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1. Introduction and Background

This paper sets out proposals to overcome issues faced by Independent Power Producers (IPPs)¹ when choosing the “Contestable Build” option. More specifically, when the connection method specified by the System Operator results in costs greater than the Least Cost Chargeable (LCC) or Least Cost Technically Acceptable (LCTA) Connection method, those extra costs may result in an additional financing burden on the IPP.

While to date this has been more of an issue for the Transmission System Operator and the Transmission System Owner it is possible that in the future it may become an issue for the Distribution System Operator and the Distribution System Owner.

EirGrid, and ESB Networks (TSO, DSO and TAO/DAO respectively) believe it is important that a framework is put in place which facilitates an applicant to exercise his/ her right to contest a connection. While the policy of contestability should not to any extent cut across the System Operator’s right to specify the means of connection in the interest of the most prudent overall approach to system development, so too is it incumbent upon the System Operators to ensure that they do not frustrate the rights an applicant otherwise has to contest through their own choice of connection method.

It is with this in mind that these issues have been discussed by ESB Networks and EirGrid in order to put forward solutions that will assist developers with this additional financing burden, while at the same time protecting the end-user customer from any increased cost.

The current approach is that, for a “contestable” connection built by the IPP, where the System Operator specifies a connection method greater than LCC/LCTA then the TAO or DAO, on behalf of the Use of System (UoS) customer, is responsible for the payment of these extra costs to the IPP. This payment is made following satisfactory completion of the connection in line with the SO’s specification, and after the asset is transferred to the Asset Owner and the extra costs added to the Regulated Asset Base (RAB)². No advance payments or stage-payments are made.

There are two concerns that IPPs may have with regard to the extra costs:

- a higher amount of borrowing is required
- there is a financing cost for the extra capital raised

This paper sets out the options with regard to how the IPP may be assisted in relation to these concerns, without any adverse impact on the end-user.

2. Non-Contestable build – IPP and End-User perspectives

It is useful to consider the position of the IPP and the end-user under a non-contested build, i.e. where the asset is built by the DSO or TAO, and not by the IPP. In terms of costs:

¹ While this paper refers to Independent Power Producers it applies to any party who may contest a connection including demand customers where such customers are entitled by legislation to do so (e.g. transmission connections)

² The value to be added to the RAB only includes the amount over and above that which would have been recovered from the IPP for the building of their connection.

- Assets are added to the RAB as they are built. The Use-of-System (UoS) customer incurs tariffs that reflect the return and depreciation of the extra costs of the connection which are added to the RAB on an *as-incurred basis*. In practice, this will typically mean additions to the RAB over a number of years until project completion.
- The IPP is not required to obtain finance, nor incur any financing cost, for the incremental cost of the connection over and above the LCC/LCTA requirements.

The next section outlines the issues and the options considered relative to this non-contested position.

While seeking to develop a framework that may assist an IPP, it must also be taken into account that the IPP always retains the right to opt for a non contested connection where only the regulatory approved rates for the LCC/LCTA is payable.

3. Contestable Build – financing of costs over LCC/LCTA

From experience to date, the IPP is most likely to have two primary concerns when required to build assets over the LCC/LCTA, as specified by the SO:

1. The requirement to obtain additional finance to fund the higher connection specification; i.e. a higher capital amount is required;
2. There are additional financing costs associated with the higher capital borrowing

In examining these issues, discussions between ESB Networks and EirGrid have been underpinned by the following principles when formulating solutions; in each instance relative to the non contested position:

- The UoS customer is not adversely affected in financial terms
- There is no additional risk of stranded assets
- All assets are paid for when signed-off at the completion point of the project, with the assets transferred to the DAO/TAO at that point.

Under any approach to these issues it is important that the UoS customer, whose money is being expended to facilitate the increased specification, receives reasonable protection in terms of such investment and that an asset which meets specifications and is fit for purpose is ultimately delivered.

Should an IPP choose the contestable build option, this should therefore not result in higher tariffs for the end-user, nor mean that the end-user would have any increased risk of paying for stranded assets.

4. Proposed Solutions

a. *The Requirement to raise additional Finance*

Two approaches were identified that may assist the IPP in raising the required additional finance:

1. The provision of a written undertaking to pay the monies, in line with the current connection policy, subject to satisfactory delivery of the contested shallow connection. The relevant SO will provide a letter to the IPP, or alternatively introduce an additional clause into the Connection Agreement, summarising the contractual position regarding the payment obligation for the additional costs (subject to satisfactory delivery). This would state the amount to be paid and the timeframe for the payment. This should provide clarity to the financiers around the obligation of the SO to make such payment, and thereby allow the raising of the additional funds for the IPP.

Position for the IPP: Such an undertaking could be presented by the IPP to his/ her financiers and be recognised as a contribution to the project, subject to satisfactory delivery

Position for the UoS Customer: the UoS customer is no worse off and is simply making an undertaking to make payments in return for a suitably delivered connection asset.

2. That stage payments be made to the IPP based upon the successful completion of various aspects of the connection. This would remove to a large extent the requirement to raise additional finance, and reduce the financing requirements to the cost of carrying the finance for portions, rather than the entirety, of the project build. The UoS customer would see no increased financial commitment relative to a non contested build³.

Position for the UoS customer: The UoS customer would be no worse off in terms of provision of the monies which would be required in the case of a non contested build; however, there would be an increased complexity of contractual arrangements which may not realistically be viable.

Moreover, a similar approach was considered for dealing with the drop out of projects from a subgroup under the recent consultation on Distribution contestability. The Commission decision on this issue is as set out in Section 2.7 of CER/10/056. One of the specific concerns with the proposed approach was in relation to the possibility of recovering the end-user contribution should the connection be abandoned prior to final completion. Consequently, due to the increased risk to the end-user, this approach has therefore already largely been considered and dismissed.

EirGrid, and ESB Networks position: *Option 1 above* – a clear written undertaking demonstrating the obligation of the SO to pay monies for the satisfactory completion of the relevant assets should provide comfort to financiers providing the additional capital funding. The deficiencies associated with adopting Option 2, and the fact that it would go against regulatory precedent, having been highlighted.

³ This is in part dependent upon the suitability of the project to be delivered in stages and subject to stage payment

b. The Cost of Finance

A number of approaches were examined regarding the additional financing costs that the IPP will face:

1. An additional payment to the IPP being made upon the completion of the asset - equivalent to the NPV benefit to the end-user of the RAB additions being made at a later stage when compared to the non-contestable build scenario.

Assets built by an IPP are added to the RAB at a later stage (whereby a one-off RAB addition is made at project completion), compared to assets built by the Asset Owner (where RAB additions are made over the course of the project on an as-incurred basis). Consequently the UoS customer benefits from the time value of this delay – in Net Present Value (NPV) terms, the UoS customer will pay a lower total return on the asset. An additional payment to the IPP could therefore be made, to offset the value of this benefit. This payment would then be added to the RAB. The extra cost of this payment on this asset would result in the UoS customer paying the same total return on the asset, in NPV terms, when compared to the scenario where the asset was built by Asset Owner. See appendix 1 for a worked example.

The payment will assist the IPP in covering the additional financing costs that will have been incurred.

2. There is a second option which also espouses the principle of neutrality to the Use of System customer but applying an alternative calculation method. Under this option the party contesting the connection would receive a contribution consistent with the CER approved cost of capital (WACC) for the relevant network business (transmission or distribution) against the assumed expenditure profile for the assets in question (see Section 5). However, as the cost of capital provided for by the CER is measured in real (i.e. non indexed) terms, the interest payable would be adjusted for the rate of general price inflation, CPI or HICP, pertaining. Under this methodology the underlying principal (i.e. capital amount) would not, unlike Option 1, be indexed, as inflation is applied instead to the interest. This interest would be compounded with interest applied to the interest accrued to date.

$$\text{Interest payable} = [(1 + \text{WACC}) * (1 + \text{Inflation})] * \text{Principal expended}$$

This option should, as per option 1, leave the Use of System customer in a position no worse off than that for the non contested build.

3. Stage payment approach - see option 2 (under requirement to raise additional capital) above.

EirGrid, and ESB Networks position: The parties believe that the option chosen should be one which does not have an adverse impact on the end-user. Both Option 1 and Option 2 are variants of options which we believe achieve this and we welcome comments from respondents as to their preferred option.

5. Implementation of Proposed Solutions - Issues

The recommended position will require the development of an asset construction profile, in order to estimate a standard expected cost profile that the UoS customer would face under a non-contested build. The benefit of a contested connection, in terms of the later capital addition to the RAB, when compared against this profile, would be the basis of the extra payment to the IPP at the time of asset transfer.

Even under this approach, there will be an administrative and oversight requirement. It is therefore proposed that this payment is only available to IPPs where the additional capital costs exceed :

- €1m or
- 25% of the IPP's capital requirements

It must be recognised that the IPP is being facilitated with the option to contest the connection and, in any event, always has recourse to a non-contested connection under regulated rates. The proposed approach simply allows the timing benefit of the capital payment under a contestable approach to be passed on to the IPP, and leaves the UoS customer in a neutral payment position in NPV terms. It should also be noted that the benefit is in NPV terms. In cash terms, the UoS customer will in fact pay a higher amount.

6. Conclusion

IPPs may face two issues with the financing of the SO Preferred build over LCC/LCTA build. This relates firstly to the requirement to raise the additional finance, and secondly to the cost of that extra finance.

Two solutions are proposed which should help alleviate the concerns of the IPP. Importantly these mechanisms are proposed to be transparent, and relatively simple, avoiding significant additional costs in administration.

Firstly, a clear written statement outlining the obligation for payment by the relevant SO for assets above LCC/LCTA should assist in raising additional finance.

Secondly, an additional capital payment to the IPP, that reflects the benefit to the UoS customer of the later addition of Capex to the RAB when compared with a non-contestable build, can be used by the IPP to offset any additional finance cost which they may have incurred. The scale and timing of this payment can also be stated at the outset of the project.

In all considerations it must be recognised that the applicant is being facilitated with the option to contest the connection and, in any event, always has recourse to a non-contested connection under regulated rates.

Appendix 1

EXAMPLE: Cost of Financing to IPP for connection costs above LCTA under Option 1

This proposal is for a financing payment to be made to an IPP who has built a connection asset above LCC/LCTA, with the proposed approach consistent with the following principles:

- The UoS customer is not adversely affected in financial terms
- There is no additional risk of stranded assets
- Assets are paid for at the time of transfer of assets
- The IPP is paid a financing charge which is equal to the benefit gained by the end user customer due to the later payment of this charge

In Net Present Value (NPV) terms, future payments are worth less than the equivalent payments made in the current year. This is because future payments are discounted to reflect the fact that the money could earn a return before the future payment is made (or received). As a simple example, if a payment is delayed for 5 years, that money could be kept in the bank and interest earned, before the payment is finally made.

Assets built by an IPP are added to the RAB at a later stage (all the assets are added to the RAB upon project completion), compared to assets built by the Asset Owner (whereby individual assets are gradually added to the RAB as they are built).⁴ The UoS customer benefits from the time value of this delay - in NPV terms the UoS customer will pay less for the asset.

Under this proposal, a payment by the relevant SO to the IPP would be equivalent to the value of this benefit, and this payment would then be added to the RAB. The extra cost of this payment for this asset would mean that the UoS customer will pay the same return on the asset, in NPV terms, regardless of who has built the asset.

An example best illustrates how the mechanism works. (For simplicity, the example has an asset life of 10 yrs)

Scenario 1 – Non-Contestable build

Under a non-contestable build, the Capex profile consists of €0.4m per year for each of five years (a total cost of €2m). This is added to the RAB each year. The UoS customer pays a return element on this, at the Weighted Average Cost of Capital (WACC) rate (e.g. currently 5.95%⁵).

	2010	2011	2012	2013	2014	2015
CAPEX:	0.40	0.40	0.40	0.40	0.40	0.00

The return profile is as follows (only the first 10 years shown for simplicity)

Return element only	0.01	0.03	0.05	0.07	0.08	0.08	0.07	0.06	0.05	0.04	0.02
Total cash	0.592										
NPV	0.416										

Under this profile, the UoS customer will pay €0.592m in return on this asset over its lifetime, the equivalent of **€0.416m in NPV terms**.

⁴ A connection typically comprises many individual assets – lines, cables, substations, transformers. Each individual asset may be completed at different times, typically over a number of years of construction.

⁵ The WACC would be adjusted to reflect the allowed regulated WACC for each year of the project.

Scenario 2 – IPP build

Under an IPP contestable build, the Asset Owner will pay €2m for the asset in year 5. This is then added to the RAB. The Capex and return profiles are as follows:

	2010	2011	2012	2013	2014	2015
CAPEX:	0.00	0.00	0.00	0.00	2.00	0.00

Return element only	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	0.00	0.00	0.00	0.00	0.06	0.11	0.10	0.08	0.07	0.06	0.05
NPV	0.592										
	0.370										
	0.047										
	NPV difference compared to non-contestable build										

Under this profile, the UoS customer will again pay €0.592m in return on this asset over its lifetime – but due to the RAB addition being later, the NPV equivalent is now only **€0.370m**.

This is a **reduction, in NPV terms, of €0.047m** when compared to the non-contestable build scenario. The customer is better off, in NPV terms, under the IPP contestable build scenario.

The Asset Owner can therefore pay an additional amount to the IPP, which when added to the RAB, will mean that the total return paid by the UoS customer will be equal, in NPV terms, to the total return paid in the case whereby the asset was built non-contestably .

In the example set out above, the IPP would be paid an additional amount of €0.253m, which is then added to the RAB – meaning an additional return is paid by the UoS customers:

	2010	2011	2012	2013	2014	2015
CAPEX:	0.00	0.00	0.00	0.00	0.253	0.00

On this element, the UoS customer will pay €0.074m in cash terms as return on this addition over its lifetime. In NPV terms, the UoS customer pays **€0.047m** – exactly equal to the NPV gain outlined above.

Return element only	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total	0.000	0.000	0.000	0.000	0.007	0.013	0.012	0.010	0.009	0.007	0.006
NPV	0.074										
	0.047										

Combining this return profile with the return profile of the IPP capex, in NPV terms the UoS customer will pay a total of €0.416m. This is identical to what would be paid under the non-contestable build scenario.

The IPP will receive an additional payment of €0.253m at the time of the payment for the assets which can be used to offset any financing costs that may have been incurred.