



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

Methodology for calculation of the Bellanaboy Entry Tariff

Decision Paper

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1.0 Introduction

1.1 The Commission for Energy Regulation

The Commission for Energy Regulation (CER) is Ireland's independent energy and water regulator. The CER was established in 1999 and now has a wide range of economic, customer protection and safety responsibilities in energy. The CER is also the regulator of Ireland's public water and wastewater system.

The CER was established and granted regulatory powers over the electricity market under the *Electricity Regulation Act 1999*. The *Gas (Interim) (Regulation) Act 2002* expanded the CER's jurisdiction to include regulation of the natural gas market. The CER is working to ensure that consumers benefit from regulation and the introduction of competition in the energy sectors.

As part of its role, the CER jointly regulates the all-island wholesale Single Electricity Market (SEM) with the Utility Regulator in Belfast. The SEM is governed by a decision-making body known as the SEM Committee, consisting of the CER, the Utility Regulator and an independent member. The overall aim of the CER's economic role is to protect the interests of energy customers. The CER has an important related function in customer protection by resolving complaints that customers have with energy companies.

The CER's core focus in safety is to protect lives and property across a range of areas in the energy sector. This includes safety regulation of electrical contractors, gas installers and gas pipelines. In addition the CER is the safety regulator of upstream petroleum safety extraction and exploration activities, including on-shore and off-shore gas and oil.

In 2014 the CER was appointed as Ireland's economic regulator of the Irish public water and wastewater sector. Further information on the CER's role and relevant legislation can be found on the CER's website at www.cer.ie.

1.2 Purpose of this paper

Prior to the development of the Corrib Linkline, the development of the Irish gas transportation system was approved on the basis that the reasonably incurred costs associated with such development would be underwritten by the gas consumer, irrespective of usage. The Corrib Linkline was developed on a different basis; namely that usage risk would be borne by the Corrib Partners. This has required the CER to

reconsider the methodology for setting Entry Tariffs where usage risk in infrastructure downstream of such Entry Points is ultimately borne by different people. The purpose of this decision paper is therefore to set out the methodology for the calculation of the Bellanaboy Entry Tariff and, in particular, the Corrib Linkline element of the Bellanaboy Entry Tariff, herein the “Corrib Linkline element”.

In this paper, the CER details the background of the project to date; the issues taken into consideration when deliberating on the appropriate approach to setting such Entry Tariffs, and identifies a methodology for calculating an annuitised Corrib Linkline element based on a fixed price regime which will remain in place for 19 years from October 1st, 2016 until September 30th, 2034.

1.3 Customer impact

Natural gas in Ireland is typically priced based on the cost of gas in Great Britain, plus the cost of transporting it to Ireland. Because of this, Ireland is often referred to as a ‘price taker’ with regard to natural gas. On this basis, the application of a different methodology for calculation of the Bellanaboy Entry Tariff is unlikely to have any direct impact on customer bills.

It should also be noted that the Bellanaboy Entry Tariff, calculated based on the methodology in this paper, will have no impact on any gas customers already connected to towns off the Corrib Linkline. Such customers will continue to pay, through their suppliers’ bills, the same postalised exit tariffs they currently pay.

While the Bellanaboy Entry Tariff does not directly impact on customers, setting an appropriate methodology for determining the Bellanaboy Entry Tariff, and in particular the Corrib Linkline element thereof, ensures that future gas production companies are facilitated in underwriting gas transmission assets in circumstances where it is not appropriate for the general customer to underwrite such assets.

1.4 Decision paper structure

The paper is comprised of the following Sections -

- Section 2 summarises the background to this Decision Paper and the consultation undertaken by the CER to identify the appropriate methodology for determining the Bellanaboy Entry Tariff and the Corrib Linkline element thereof. This section also summarises the CER’s proposal that was consulted upon and the main issues raised in the consultation responses;

- Section 3 details the CER's decision on the enduring methodology for determination of the Corrib Linkline element of the Bellanaboy Entry Tariff to apply from Gas Year 2015/16;
- Section 4 sets out the CER's direction to GNI on the methodology to calculate the Corrib Linkline element of the Bellanaboy Entry Tariff;
- Annex A summarises the CER's approach to calculating the appropriate WACC and depreciation profile for the Corrib Linkline, as set out in the consultation paper;
- Annex B presents the key issues raised in the consultation responses, and sets out the CER's responses to the main issues.

2.0 Background

2.1 Regulatory treatment of assets

Before the establishment of the CER, applications for extensions to the gas transportation system were made by Bord Gáis Éireann (as it then was) to the Minister for Communications, Energy and Natural Resources¹ (the “Minister”) for approval. When approved by the Minister, the reasonably incurred costs of these network extensions were added to those assets that were being remunerated through gas customers’ bills.

When responsibility for regulation of the natural gas network transferred to the CER in 2002, the same process of seeking regulatory approval for extensions to the gas transportation system transferred to the CER also. As part of the transfer of regulation of the gas transportation system from the Minister to the CER, the CER was mandated to ensure that GNI (and its predecessors) recovered any efficiently incurred operating and capital expenditure associated with such assets. This type of regulatory treatment of network assets is commonly described as a **required revenue regime**.

The CER may decide that other gas transportation investments are not appropriate to be underwritten by the gas consumer. This does not necessarily mean that such investments will not go ahead, but if the investment is made the usage risk associated with such investments should be taken by the developer of those assets. In each case the CER is responsible for setting network access tariffs, but where an asset is not underwritten by the general customer base, it is appropriate for the CER to consider different regulatory treatment, in line with its duties and requirements under Irish and EU legislation.

As was described in the Consultation, an alternative form of regulatory treatment exists which is commonly referred to as a **target revenue regime**. Under such a regime, the underwriter of a network asset has a level of revenue set by a regulator each year. This level of target revenue is then used in the calculation of network access tariffs. Such a regime is designed to allow parties who invest in transportation infrastructure to remunerate their asset but without the final customer underwriting usage risk. It is on this, target revenue, basis that the CER has chosen to calculate the Corrib Linkline element of the Bellanaboy Entry Tariff.

¹ The Minister with responsibility for the regulation of the gas network has changed a number of times since commencement of the Gas Act 1976. The current Minister is used here for simplicity.

2.2 The Corrib Linkline

The Corrib Gas field was discovered in 1996 by Enterprise Oil and is located approximately 83km off the North West coast of Ireland, at a depth of 3000m under the sea bed. Shell acquired their stake in the field in 2002 and instigated the development of the field. The Corrib co-venture partners are Shell E&P Ireland Ltd (45%), Statoil Exploration Ireland (36.5%) and Vermilion Energy Ireland Limited (18.5%) (the 'Corrib Partners'). Shell E&P is the operator for the field. First commercial flows from the facility are expected in late 2015.

In 2004, the Corrib Partners commissioned the construction, under contract by Bord Gais Networks, now Gas Networks Ireland (GNI), of a c.150km transmission pipeline from Bellanaboy to the existing ring main at Cappagh South to deliver flows of gas from the Corrib field to the Irish market (the Corrib Linkline). The construction of the Corrib Linkline was funded by the Corrib Partners and is not underwritten by Irish gas consumers. This distinguishes it from other assets which form part of GNI's transmission system. The Corrib Partners bear the commercial risk of the Corrib Linkline being used².

The Corrib Linkline is part of the Irish transportation system. The Gaslink Code of Operations has effect from the Bellanaboy Connected System Point (CSP) and the Corrib Linkline is owned by GNI and operated by Gaslink. Operationally, the Corrib Linkline is no different from other transmission pipelines on the Irish transportation system. While clearly a part of GNI's system, the Corrib Linkline is a commercially distinct asset and subject to different treatment based on the fact that it is not underwritten by consumers.

To summarise the Corrib Linkline -

- is a component part of the Irish transportation system;
- is underwritten by the Corrib Partners; and
- is not underwritten by the general customer.

For clarity, this CER decision finalises the methodology for setting the Corrib Linkline element of the Bellanaboy Entry Tariff. The Bellanaboy Entry Tariff will be determined

² In other words, if the volume of gas that flows through the transportation system is lower in a year than forecast, tariffs for all users increase in later years to cover the shortfall in revenues from that year in respect of those parts of the transportation system that are underwritten by the gas consumer (ie. to ensure that the owner of such assets recover their "required revenue"). In contrast to those parts of the transportation system that are underwritten by all users, all risks associated with flows on the Corrib Linkline lie with the Corrib Partners. If a molecule of gas never flows on the Corrib Linkline, the full cost of the line will have been fully borne by the Corrib Partners.

having regard to the methodology set out in this paper in conjunction with the methodology for determination of the required revenue element of the Bellanaboy Entry Tariff set out in the *Gas Entry\Exit Tariff Methodology Decision Paper*, published in tandem with this paper (CER\15\140). More details regarding this are given in Section 4.2.

2.3 Legal basis

The CER's requirement to set access tariffs stems from Directive 2009/73/EC (the 'Directive'). Article 32.1 of the Directive requires National Regulatory Authorities to publish a tariff, or the methodology for calculating a tariff, for all transmission and distribution pipelines prior to their entry into force.. This paper, together with the *Gas Entry\Exit Tariff Methodology Decision Paper* published in tandem with this paper (CER\15\140), sets out the methodology for calculating tariffs at the Bellanaboy Entry Point.

Access tariffs should be compliant with Article 41.6 of the Directive - *Duties and Powers of the Regulatory Authority*, and also Article 13 of Regulation 2009/715 (the 'Regulation') - *Tariffs for access to networks*.

Article 13.1 of the Regulation provides –

'Tariffs or their methodologies..... approved by the regulatory authorities..... shall be transparent, take into account the need for system integrity and its improvement and reflect the actual costs incurred insofar as costs correspond with those of an efficient and structurally comparable network operator and are transparent, whilst including an appropriate rate of return on investments.....'.

Article 13.1 of the Regulation further provides -

'Tariffs or the methodologies used to calculate them, shall facilitate efficient gas trade and competition, while at the same time avoiding cross-subsidies between network users and providing for incentives for investment.....'.

As these requirements are included in an EU Regulation, they have direct effect in Irish law.

Requirements of the Directive relating to third party access arrangements are transposed into Irish law in the Gas Act 1976 (as amended), principally section 10A thereof.

Section 17(b)(i) of the Gas Act 1976 (as amended) provides that the CER may give directions to an operator from time to time in respect of the basis for charges for third party access, or connection to, a facility under the control of the operator.

2.4 Scope of this Decision Paper

2.4.1 What is within the scope of this Decision Paper

The focus of this decision paper is the methodology (basis) for setting the Corrib Linkline element of the Bellanaboy Entry Tariff. The Decision sets out the inputs to the calculation of the Corrib Linkline element, and finalises the CER's approach to the depreciation profile for the Corrib Linkline and the CER's decision on what WACC to apply.

2.4.2 What is not within the scope of this Decision Paper

The enduring level of the Corrib Linkline element of the Bellanaboy Entry Tariff is not within the scope of this Decision Paper. This is because two of the main inputs to the calculation - the capital asset value and operating cost - are yet to be finalised. These figures will be finalised sometime soon after first commercial flows through the pipeline and will be assessed for their economic efficiency as part of the Price Control 4 process which will begin in the Autumn of 2016. The Corrib Linkline element of the Bellanaboy Entry Tariff that is calculated using the currently available information will therefore not be the final, enduring Corrib Linkline element.

As noted in the CER's consultation (CER\15\099), the Corrib Linkline has allowed the connection of a number of new towns to the gas transportation system. The cost of providing gas to these towns is not within the scope of this Decision Paper, and is unlikely to be affected by the decisions made in this paper. This is because these customers are connected to the gas transportation system and are subject to the same terms and conditions and postalised exit tariffs as those connected elsewhere on the system.

2.5 Consultation process for this Decision

In Summer 2014, the CER had the first of a series of meetings with the Corrib Partners and GNI to discuss issues relating to the Bellanaboy Entry Tariff.

These meetings focused on high-level principles on the appropriate approach to creating a Bellanaboy Entry Tariff, and the interaction with the wider reform of the gas Entry Tariff regime.

In late November 2014, the CER issued a notification to Industry clarifying the tariff to apply at Bellanaboy for Gas Year 2014/15 (the 'Notification')³. This tariff was the Nominal Entry Tariff that had been set in December 2009 and was €100.00 MWh peak day capacity; and €0.10 MWh commodity charge. The Notification informed industry that the CER would be consulting on the enduring arrangements in the coming months, and that a decision on these arrangements would be made roughly in line with a CER decision on the reform of the gas entry tariff regime.

In early 2015, the CER commissioned independent consultancy support from FTI Consulting for the provision of advice on the enduring access pricing regime for the Corrib Linkline. In April 2015, the CER received a draft of its consultant's report on the appropriate approach to the Corrib Linkline element of the Bellanaboy Entry Tariff. As part of the pre-consultation process, a draft of the FTI Report was circulated to the Corrib Partners and GNI in late April and a meeting was held with the parties to discuss the contents of the report.

The CER published a Consultation paper (CER/15/099) ('the Consultation Paper') and spreadsheet model in May 2015 detailing a proposed approach to the determination the Corrib Linkline element of the Bellanaboy Entry Tariff, and setting out a proposal as to how that element would interact with the broader changes to the gas Entry Tariff regime⁴. The consultation included the CER's consultants' report (CER/15/099a), and a spreadsheet showing a possible approach to the calculation of an annuitised Corrib Linkline element (CER/15/099b).

The Consultation Paper set out a proposed methodology for the calculation of the Corrib Linkline element of the Bellanaboy Entry Tariff based on a notional commercial arrangement between a gas field company and a pipeline company. The approach proposed in the CER consultation involves the following –

- The CER setting the Corrib Linkline element of the Bellanaboy Entry Tariff as if standing in 2006; using the information on expected flow profile that was available in 2006 and using financial data from that period to calculate the WACC
- The rate of return will be set to reflect the risk exposure and cost of capital of a Pipeline company which enters into a commercial arrangement with a Gasfield Company to build a pipeline, backed by a

³The Notification to Industry is available here -

<http://www.cer.ie/docs/000051/CER14780%20Notification%20to%20Industry%20on%20Bellanaboy%20Entry%20Tariff.pdf>

⁴ All documents relating to this consultation and the wider reform of the Gas Entry Tariff reform are available here - <http://www.cer.ie/document-detail/Future-of-Gas-Entry-Regime/1020/7573,7520,7521,7511,7512,7513,7514,7515,7517,7518,7519,7508,7509,7510,7507,7548>

guaranteed revenue stream over a period of years from the Gasfield Company to the Pipeline Company

- The notional commercial arrangement will be predicated on a levelled element of an Entry Tariff to be paid by users of the Entry Point. The levelled element of the Entry Tariff ensures that variations in that element that would arise using a standard building blocks approach do not lead to tariff instability
- The pipeline will be depreciated over a lifespan equal to the expected life of the gas field, in this case 19 years

A more detailed summary of the notional commercial arrangement and the approach to the depreciation profile to be used for the calculation of the Corrib Linkline element of the Bellanaboy Entry Tariff is contained in Annex A.

The CER received five responses to the consultation – from Bord Gais Energy, the Irish Offshore Operators Association, Gas Networks Ireland, Shell E&P Ireland Ltd, and Vermilion Energy Ireland Limited. These are summarised in Annex B, along with the CER's detailed responses. The consultation responses are also published in full with this decision paper.

The main points stemming from the consultation responses can be summarised as follows –

- All respondents supported the annuitised tariff approach;
- All respondents recommended the use of the expected flow profile for the calculation of the Corrib Linkline element of the Bellanaboy Entry Tariff, rather than the maximum technical capacity;
- All respondents supported the use of a 19 year depreciation profile;
- No substantive arguments were raised to merit the CER reconsidering the notional commercial agreement proposed in the CER consultation, detailed above;
- No issues were raised which would lead the CER or its consultants to reconsider the inputs to the WACC determination, set out in the FTI Report (CER\15\099a);
- A number of respondents recommend using the same cost-allocation methodology, as developed as part of the Gas Entry Tariff Reform process, for the whole system up to the Bellanaboy Entry Point. This would necessitate setting an annual target revenue for the Corrib Linkline, which would feed into the total recoverable costs for the system.
- There was broad agreement that what is being done for the Corrib Linkline will be an important precedent in terms of any similar

developments in future, and the CER should try to ensure that the regime put in place for the Corrib Linkline sends the right signal for potential investors, while being flexible to the fact that other types of commercially underwritten investments may be different to the case of the Corrib Linkline.

The following section sets out the CER's decision having considered the issues raised in the consultation process, summarised here. A detailed summary of the CER's proposal, as set out CER\15\099, and the responses to that consultation are included in Annex A and Annex B respectively.

3.0 CER Decisions

The following sets out the methodology, and its parameters, with which the Corrib Linkline element of the Bellanaboy Entry Tariff will be calculated.

3.1 Methodology parameters

3.1.1 Target Revenue Regime

As already stated, while the Corrib Linkline is part of the Irish transportation system, the Corrib Linkline is not underwritten by general gas customers. As such, the required revenue approach used for setting tariffs for the remainder of the Irish transportation system is not appropriate for the Corrib Linkline. The CER is therefore of the view that the appropriate approach for determining the Corrib Linkline element of the Bellanaboy Entry Tariff is a fixed price, target revenue approach.⁵

This means that the level of the Corrib Linkline element of the Bellanaboy Entry Tariff will not vary over time and if throughput on the pipeline is lower than expected, there is normally no reconciliation for under-recovery of revenues in a previous year or years.

3.1.2 Capital cost information

While the final capital cost of the Corrib Linkline has not yet been finalised, GNI and the Corrib Partners have indicated that the preliminary capital cost figure for the Corrib Linkline is €200 million. This figure will only be finalised sometime after commercial flows have begun from the Corrib field.

As part of an earlier examination of the parameters for the access arrangements at the Bellanaboy Entry Point, the CER received consultancy advice on the appropriateness or otherwise on the capital and operating costs of the Corrib Linkline. At that time (in 2009), it was considered that a capital cost in the order of €200m was reasonable. The CER's advisors at that time were of the view that while the cost of the line was marginally higher than other similar pipelines, due to the generally difficult, often boggy terrain in which the pipeline was constructed, a slightly higher than usual capital cost would be expected. While this advice was obtained some years ago, the CER is satisfied that an assessment of the reasonableness of capital costs should be assessed having regard to

⁵ See EntsoG's Draft Network Code for definitions on 'allowed revenue' and 'target revenue' – available here -

http://www.entsog.eu/public/uploads/files/publications/Tariffs/2014/TAR0450_141226_TAR%20N C_Final.pdf

information available at the time and therefore it is appropriate to rely on that advice for this purpose.

For the purpose of the forthcoming Gas Years, up to the beginning of the Price Control 4 (PC4) period, €200 million will be the Corrib Linkline's asset value for the purpose of calculating the Corrib Linkline element.

The CER will revisit this as part of the PC4 which will begin in the Autumn of 2016, at which point, it is expected that the final capital cost of the pipeline will have been finalised.

3.2 Operating cost information

Based on information provided by GNI, the forecast operating cost for the Corrib Linkline is €1.7 million per annum. The CER is satisfied that this is a reasonable forecast of efficiently incurred operating costs at this time. As with the asset value of the Corrib Linkline, more accurate information will be available once commercial flows have begun.

As set out in the CER's Consultation Paper, the CER's view on the efficient operating cost of the Corrib Linkline will be finalised as part of the PC4. At that point, the efficient operation of the Irish transportation system will be evaluated in its entirety, facilitating determination of the appropriate final Opex input to the Corrib Linkline element of the Bellanaboy Entry Tariff. Any reconciliation that may be required will be addressed at that point.

For the forthcoming Gas Years, up to the beginning of the PC4 period, the allowed Opex used in the calculation of the Corrib Linkline element of the Bellanaboy Entry Tariff will be €1.7m per annum.

3.3 Economic life and Depreciation profile

When determining the appropriate depreciation profile to use there are two basic variants of the straight-line approach that can be used. These are to depreciate over the technical life of the asset, or the economic life of the asset. The technical life of an asset is the actual amount of time that the asset can be used before it needs to be replaced. The economic life of an asset is the period of time that the asset will continue to be commercially used.

While the technical life of a transmission pipeline may go beyond 50 years depending on usage, the CER has to date considered 50 years a reasonable balance between the expected technical and economic life of a transmission pipeline. On this basis, the CER currently applies a 50-year economic life to the other transmission pipelines in the Irish transportation system.

The Corrib Linkline presents a change with respect to the economic life of the asset. The economic life of the Corrib field is expected to be in the region of 19 years.

As is set out in Section 6 – Annex A of this document, the CER’s consultants recommend using a depreciation profile slightly shorter than the life of the gas field. All respondents supported this depreciation approach. For the purposes of the calculation of the annuitised Corrib Linkline element, the CER will apply straight-line depreciation, although the CER notes that this issue is made somewhat moot by the fact that the Corrib Linkline element of the Bellanaboy Entry Tariff will be levellised over time⁶.

The CER’s decision in relation to the treatment of third party flows after the 19 years is set out in Section 5.

3.4 Allowed cost of capital

The FTI Report (CER/15/099a) sets out a detailed consideration of the inputs to the appropriate WACC for the Corrib Linkline. The estimated input ranges are set out in Section 3.93 of the FTI Report published with the Consultation Paper, and are reproduced below.

Table 5.5.1 – Parameters for WACC calculations

Parameter	Minimum	Maximum
Gearing	40%	45%
Real risk-free rate	2.0%	2.5%
Equity risk premium	5.0%	5.25%
Asset beta	0.5	0.6
Equity beta	0.8	1.1
Cost of equity (real, post-tax)	6.2%	8.2%
Debt risk premium	1.5%	2.0%
Cost of debt (real, pre-tax)	3.5%	4.5%
Tax rate	12.5%	
Cost of capital (real, vanilla)	5.1%	6.6%
Cost of capital (real, pre-tax)	5.6%	7.2%

Based on these ranges, FTI recommend a cost of capital of 7%. FTI recommend using a point estimate on the higher side of the range on the basis that the consequences of underestimating the WACC could lead to tariffs which are lower than efficient, thus potentially discouraging future efficient investment. The consequences of over-estimating the WACC is a charge that is higher than efficient costs, which could lead to

⁶ For more information on this, see Section 4 of the FTI Report (CER\15\099a)

inefficient investment. Consistent with the CER's obligation to set tariffs that provide incentives for investment, it is important that this Decision encourages other parties from underwriting infrastructure in future and therefore a point higher in the upper range of efficient investment is considered appropriate.

It is worth restating that a key aspect of this Decision is to ensure that the Corrib Linkline element is set at an appropriate level which, amongst other things, will ensure that future parties considering investment in Ireland would not be discouraged from doing so. By choosing a WACC at the upper end of the range calculated in the FTI Report, the CER is of the view that this is more likely to be the case than were a figure from the lower end of the range chosen.

Having considered the aspects of the Consultation responses relating to the level of the WACC – specifically the argument that the WACC should be higher due to the delay in production and issues raised regarding the 'take or pay' obligation - the CER sees no material arguments to amend the position set out in the Consultation Paper. The WACC to be used in calculating the Corrib Linkline element of the Bellanaboy Entry Tariff will be 7%.

3.5 Methodology – Corrib Linkline element design

In the first instance, the design of the Corrib Linkline element of the Bellanaboy Entry Tariff is based on a standard 'building blocks' calculation whereby every year a set of revenues is calculated.

In this instance, the target revenue of the Corrib Linkline will be identified by taking the opening capital value of the pipeline (€200 million – see Section 3.1.2) and depreciating it over its economic lifespan (19 years). To this figure will be applied a return on capital, which is set at 7% (see Section 3.1.5). In addition to this, the CER will allow annual operating costs (Section 3.1.3).

The sum of these will then be divided by a capacity booking figure in Megawatt hours per day (MWh/day). This will provide a charge per MWh/day for each Year of the asset's economic life. The formula for these steps could be put into words as follows:

$$\text{Yearly revenue} = \text{Depreciation} + (\text{Asset value} * \text{WACC}) + \text{Operating Expenditure}$$

$$\text{Corrib Linkline element calculation} = \text{Yearly revenue} / \text{Throughput}$$

As proposed in the Consultation Paper, and supported by all respondents, the Corrib Linkline element of the Bellanaboy Entry Tariff will be annuitised, meaning the calculated

annual tariff will be flattened across time in such a way that it accounts for the time value of money across the depreciation profile.

Based on the notional commercial arrangements, the CER's consultants have recommended using the Corrib Linkline's maximum technical capacity for the purpose of calculating the Corrib Linkline element of the Bellanaboy Entry Tariff. Among other things FTI see it as likely that in the notional scenario, Gasfield Co would purchase all the available capacity for the Corrib Linkline as part of the commercial agreement. Third Party users would then seek access to the line directly from Gasfield Company via secondary capacity trading. This approach was provided along with an alternative, using the expected flow profile of the gas field, in the CER Consultation.

As can be seen in the summary of responses in Annex A, all respondents recommended the use of the expected flow profile. On foot of this, the CER revisited this issue with its consultants.

By using the higher capacity figure (the maximum technical capacity), this produces a lower Corrib Linkline element than using the lower capacity (expected flow profile) which produces a higher Corrib Linkline element. In discussions, the CER's consultants noted that the use of the higher Corrib Linkline element calculated based on the expected flow profile may lead to the unintended incentives arising for the incumbent and potential future gas fields in certain circumstances

By way of example, a situation was considered where a Gasfield Company was seeking a similar arrangement based on the expected flow profile from its field. In using the expected flow profile instead of the technical capacity of the line, and thus having a higher tariff, a Gasfield Company might be incentivised to encourage other parties to use the pipeline in their place – when the element is high, or, understate the expected flow from the field in order to garner a higher access tariff, and potentially discourage others from using its pipeline⁷. A delay in production from the first field would be considered a sub-optimal outcome.

From these discussions the CER formed the view that as long as there is only one field expected to use the Corrib Linkline, the expected flow profile is the appropriate capacity booking to use to calculate the Corrib Linkline element of the Bellanaboy Entry Tariff. A key consideration in this is that customers would be expected to book capacity in line with the expected flow profile. Therefore, it would seem appropriate where possible to align the calculation of the Corrib Linkline element of the Bellanaboy Entry Tariff with this expectation.

⁷ The CER recognises that the understatement of expected flows would be very unlikely due to the requirements on production companies to act as reasonable and prudent operators, and to provide 'good faith, best estimates' on technical issues such as this.

On the basis of the above, the Corrib Linkline element of the Bellanaboy Entry Tariff will be calculated based on the expected flow profile that was in place in 2006.

As is standard regulatory practice, the CER will keep the Corrib Linkline element regime under review. The CER may also review aspects of the methodology set out in this Decision Paper where merited, including upon a substantiated request from a party with a *bona fide* interest in the Corrib Linkline element.

4.0 The Corrib Linkline element

4.1 The Corrib Linkline element

Based on the methodology set out above in Section 3.0, and using information provided by GNI and Corrib Partners, the CER has now calculated a Corrib Linkline element of the Bellanaboy Entry Tariff based on the forecast of expected bookings (flow profile) that was available in 2006.⁸ For ease of reference the main inputs to the calculation are set out here. The asset value and operating costs are in 2014 monies.

Parameter	
Asset Value	€200m
Annual operating expenditure	€1.7m per annum
Depreciation period	19 years
Throughput	Expected flow profile
WACC	7%

The Corrib Linkline element will be index-linked to HICP. Calculation of this element of the Bellanaboy Entry Tariff is available in the spreadsheet accompanying this Decision Paper.

Gas Year 15/16	€MWh
Annuitised Corrib Linkline element	441.07

4.2 Bellanaboy Entry Tariff

As noted in the CER Consultation, the Corrib Linkline element is part of the Bellanaboy Entry Tariff. The other part is calculated in CER\15\140. The Bellanaboy Entry Tariff (which is the sum of the two parts) is compared to the Moffat and Inch Entry tariffs below taken from CER\15\140.

⁸ While Corrib flows are expected late in 2015, for simplicity the model assumes a full year's depreciation and operating expenditure in the first year of production.

Table 4.2.1 - Comparison

	Bellanaboy	Moffat	Inch
Required Revenue element	€294	€448	€311
Linkline element	€441	N/A	N/A
Entry Tariff	€735	€448	€311

5.0 Post-Corrib exhaustion arrangements

On the basis that the Corrib field will be in production for 19 years and the pipeline will be fully depreciated at that point there remains an outstanding issue concerning what element of the Bellanaboy Entry Tariff relating to the Corrib Linkline might apply in the years after Corrib production (when the line will be fully depreciated).

In the case of the revenue controls for the electricity and gas system operators, when an asset has been fully depreciated it no longer accrues any capital-related revenues. Until the asset is replaced, the only revenues associated with it are the costs of operating and maintaining the asset. For example, there are electricity assets dating back to the 1960s which no longer attract any return or depreciation but are still functioning parts of the electricity system. Any alternative to this approach would need to be carefully considered in terms of the precedent it might set for other parts of the CER's regulatory responsibilities.

This said, there is a possibility that another field may enter production during the normal 50 year useful life of the asset and come onshore into the Irish transportation system via the Bellanaboy Entry Point. In that case, in the view of some respondents, the impact of having a low tariff from Years 20 to 50 say, might greatly favour users of the second gas field and would not adequately reflect the opportunity cost of the Corrib Linkline's availability to the second field, or the risk associated with the investment of the Corrib Partners.

Further, if the Corrib Linkline element was to completely drop-off after 19 years, this might lead to exploitable gas fields delaying their coming onshore until such time that the Corrib Linkline element of the Bellanaboy Entry Tariff had fallen to zero. Such a strategic delay might not be in the interests of Irish gas consumers, and might not be considered fair treatment for the parties that own and/or underwrite the asset.

The CER's goal is to strike an appropriate balance between fair treatment of all parties. To make a final decision on this at a distance of almost 20 years is difficult, and may lead to unforeseen consequences. On this basis, and cognisant that the CER is not aware of any firm developments in the geographic area for the coming number of years, the CER will revisit this issue at a later date when there will be greater certainty with regard to the regulatory, industry and wider economic developments likely to face any future gas fields.

At that point, the CER will be better placed to ensure fair treatment for the various parties while balancing these with the interests of Irish gas consumers. As noted above, the CER will keep the Corrib Linkline element of the Bellanaboy Entry Tariff under review. The CER may also review aspects of the methodology set out in this decision

upon where merited, including upon substantiated request from a party with a *bona fide* interest in the Corrib Linkline element.

6.0 Direction to GNI

Based on the decisions set out in Section 5, the CER directs GNI to apply the methodology set out in this paper for the calculation of a Corrib Linkline element of the Bellanaboy Entry Tariff. The Corrib Linkline element is one element of the Bellanaboy Entry Tariff, the other element being the 'Required Revenue Element' of the Bellanaboy Entry Tariff calculated by the cost allocation methodology identified in CER\15\140, published in tandem with this paper. The methodology will remain in place from October 1st 2015 until September 30th 2034, unless amended by the CER.

7.0 Annex A – Summary of the Notional commercial arrangement (CER/15/099)

The CER proposed an approach to determining the Corrib Linkline element of the Bellanaboy Entry Tariff in CER\15\099. This is summarised below. Broadly it involves the CER determining the appropriate rate of return and calculating an element of the Entry Tariff on a flattened (annuitised) basis, as if standing in October 2006 when the pipeline was completed.

As with the tariff determination of any regulated gas undertaking, the rate of return and depreciation is calculated based on an efficient set of notional arrangements that would underpin the operation and construction of their pipeline or facility. These arrangements are set out in detail in the FTI Consulting Report (CER\15\099a) and the CER's Consultation Paper. The arrangements are briefly summarised below.

7.1 The notional commercial arrangement

The notional arrangement considered is between a standalone Gasfield company and a standalone Pipeline Company.

A notional Pipeline Company makes an agreement with a Gasfield Company to construct and operate a gas pipeline in order to bring gas commodity to market. The Gasfield Company guarantees a set of revenues so that the asset would be remunerated over a set number of years. For the purpose of the determination, the CER proceeds on the basis that the Pipeline Company would not enter into an agreement in the absence of either a long-term capacity booking, or a 'take or pay' clause in the contract⁹. In this way, we assume that the Pipeline Company has no exposure to the risk that the pipeline is not used, referred to as throughput risk.

The only major risk the Pipeline Company is exposed to is that the Gasfield Company either chooses, or is forced (by going out business) to stop its repayments to Pipeline Company – referred to as counterparty risk. This is an important aspect of the estimation of the appropriate rate of return for the pipeline, discussed later in the text.

⁹ This could be implemented in a number of different ways but for the purpose of the notional arrangements developed by the CER, how this operates (long-term capacity booking, 'take or pay' clause or some other mechanism) is not of importance; regardless of the mechanism, the Pipeline Company has no throughput risk as its revenues for the pipeline are contractually guaranteed.

As was quoted in the CER Consultation, the FTI Report notes in Section 2.7, 'it is important to note that the actual commercial arrangements in place between the parties will remain entirely unaffected by the CER's decisions. The approach to access tariffs does, however, determine how much a party other than the Pipeline Company or the Gasfield Company (such as another Gasfield Company which wanted to use the pipeline in the future) would pay for using the pipeline'.

It should be noted, as per Figure 3.1 below, revenues associated with the pipeline would be collected from customers of the Pipeline Company and these would be transferred to Gasfield Company. Gasfield Company separately pays Pipeline Company for its services. Regardless of whether revenues from customers arise or not, Gasfield Company pays Pipeline Company the agreed revenues. In this way, effectively, Gasfield Company is Pipeline Company's only counterparty and Pipeline Company can be confident that it will recover its revenues in the long run (assuming it can be confident in Gasfield Company's ability to pay).

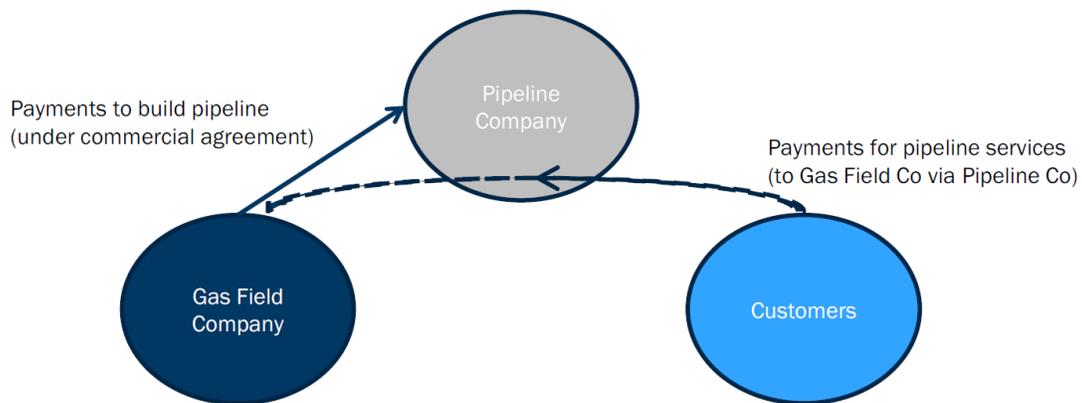


Figure 7.1 – Illustration of notional transaction structure (Source –p 5 of FTI Report)

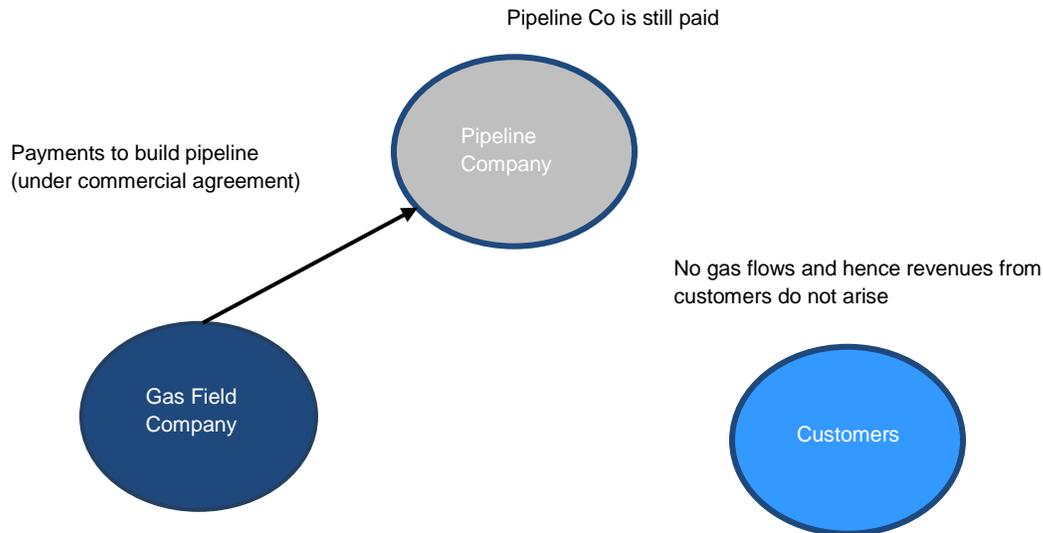


Figure 7.2 - Illustration of notional transaction structure in the absence of gas flows

7.2 When to calculate the WACC

The FTI Report (Section 2.8 – 2.14), explained that the time at which the Corrib Linkline element of the Bellanaboy Entry Tariff arrangements are determined could have a major impact on the parameters used in calculating such element.

Having considered a number of alternatives in relation to when one could calculate the WACC, the CER's consultants recommend setting the Corrib Linkline element of the Bellanaboy Entry Tariff reflective of when the pipeline was completed. The CER's consultants consider while other options (e.g. determining the WACC at the time the project was commenced) are feasible, the proposed approach is easier to apply in practice. Setting the rate of return for investments at their completion date also makes it easier for future potential investors to make decisions on such investments.

Based on the CER's consultants' advice, in the case of the Corrib Linkline, the CER proposed in the Consultation that it would consider the Corrib Linkline element of the Bellanaboy Entry Tariff as if it was standing in October 2006 using the financial information applicable at that time, when the pipeline was completed. In other words, setting a 2006 WACC as opposed to a 2015 WACC.

7.3 Stable prices for shippers

Under the notional commercial arrangement used as the framework for this determination, the Gasfield Company has guaranteed a set of revenues to Pipeline

Company in the form of either a long-term capacity booking or a 'take or pay' clause in their contract.

Under the traditional 'building blocks' approach to setting tariffs, tariffs are set by dividing an agreed series of revenues by throughput. With assets that have a relatively stable throughput for the full lifespan of the asset, tariffs would generally be expected to decline over time as the asset is depreciated.

In the case of the Corrib Linkline, applying the standard tariff-setting approach to an asset which in many ways is tied to the off-shore gas field would be likely to lead to tariff instability as throughput is not guaranteed; and in any case, is expected to decline at a rate far quicker than a regulated asset would normally be depreciated. This would lead to steeply rising tariffs in later years as throughput declines sharply. This is not considered appropriate.

More importantly, in the case of shippers, a low price for capacity early in the field's life and a steeply increasing price over time does not appear in their interests either. Annuitising the Corrib Linkline element improves visibility and predictability in capacity prices over a relatively long period.

To address these issues, the CER's consultants advised annuitising the Corrib Linkline element. Annuitising the Corrib Linkline element involves flattening the element across time in an NPV-neutral way. An approach to calculating an annuitised tariff was proposed in the spreadsheet which accompanied the CER Consultation. This approach is not dissimilar from Ofgem's recent decision to annuitise the tariff for off-shore electricity transmission assets and for electricity interconnectors¹⁰.

7.4 Depreciation profile

As noted in the CER's consultation, when using a standard building blocks approach, the lifespan of the asset to be remunerated is a key input to the calculation. The rate of depreciation of an asset has a major impact on the level of tariffs over a period; in other words, if an asset is depreciated very quickly the tariff will be higher than if the asset is remunerated over a longer period.

The appropriate economic lifespan of the pipeline in the notional arrangements developed by the CER in conjunction with its consultants, assumes that the economic lifespan of the pipeline will be, in the first instance, the expected lifespan of the gas field. This is justified on the basis that the pipeline would be constructed for the purpose of bringing gas from the gas field to the market. Thus the economic lives of the notional gasfield and pipeline are synchronous.

¹⁰ Ofgem's decision on a similarly annuitised valuation is set out here - <https://www.ofgem.gov.uk/publications-and-updates/decision-cap-and-floor-regime-gb-belgium-interconnector-project-nemo>

Having reviewed information that was available at the time of the Corrib Linkline's completion in 2006, the expected life of the field, and therefore the economic life of the pipeline for the Corrib Linkline element methodology was proposed to be 19 years.

8.0 Annex B – Consultation Responses

The CER received 5 consultation responses. The respondents were –

- Bord Gais Energy (BGE) (CER/15/141b)
- The Irish Offshore Operators Association (IOOA) (CER/15/141c)
- Gas Networks Ireland (GNI) (CER/15/141d)
- Shell (CER/15/141e)
- Vermilion Energy Ireland Limited (VEIL) (CER/15/141f)

All responses are published along with this Decision Paper.

The questions posed in the consultation were as follows.

1. *Do stakeholders have a view on this approach [a Bellanaboy Entry Tariff comprised of a Corrib Linkline element and a Required Revenue element]?*
2. *Do stakeholders view this notional commercial arrangement as an appropriate framework for considering the WACC for the Corrib Linkline?*
3. *Do stakeholders view this as the appropriate time period at which to calculate the WACC for the Corrib Linkline access charge?*
4. *Do stakeholders view this annuitisation approach as reasonable? Are there alternatives to this approach that are consistent with the notional arrangements developed here, and what justification is there for using an alternative approach?*
5. *Do stakeholders have a view on the choice between using the maximum technical capacity and the expected flow profile for the purpose of the tariff calculation, and why? Are there alternative approaches that might be used? What are the merits of any alternative approach?*
6. *What do stakeholders think of the approach outlined here – in particular the approach to the depreciation, WACC and annuitisation of the access charge?*
7. *What would be the appropriate approach to the access charge regime in the period after the Corrib field has been exhausted?*

In the Consultation Paper comments were invited on any issue raised there, and also, on seven specific questions. Two of the responses commented generally on the proposed approach and did not deal with the specific questions. The responses from VEIL and Shell were broadly the same and dealt with the questions individually. The fifth response received, from GNI, also dealt with the questions individually. On this basis, there are essentially four sets of comments considered by the CER and are addressed individually in this Annex.

8.1 Bord Gais Energy response

BGEN support the CER's proposal 'to incorporate the Corrib Linkline element into the Bellanaboy Entry tariff and to ensure that the cost of the Corrib Linkline is recovered over the useful life of the asset'. BGEN state in their response that having the two elements in the one tariff at Bellanaboy is 'sensible from an operational and value perspective'.

They support this view by stating that this approach is administratively simpler for shippers, and that from a cost perspective 'ensures that shippers and customers pay a fair cost and do not over-pay for the use of the assets'.

BGEN proposed that the expected flow profile should be used as the appropriate capacity booking expectation for the purpose of calculating the Corrib Linkline element, as this ensures that the full capital cost of the line is recovered more quickly, 'thus reducing any risks of shortfall or of customers paying for an asset beyond its useful life'.

BGEN raised one query in their response in relation to the 19 year depreciation profile proposed in the CER consultation, asking whether the producers have given support to this economic life, and thus ensuring that the Corrib field 'can supply gas for the 19 years suggested'.

CER Response

It is considered that the first number of points raised by BGEN do not require any commentary from the CER as they are broadly supportive of the approach set out in the Consultation Paper.

It should also be noted that the 19 year expectation in 2006 was the 'good faith best estimate' provided by the Producers in their status as Reasonable and Prudent Operators (RPOs).

8.2 The Irish Offshore Operators Association (IOOA)

In their response, IOOA broadly welcome the CER's general intention to not just address the specific case of the Corrib Linkline, but to provide a regime for any such future developments. This is considered by IOOA's members as key to ensuring the right 'investment climate for future development to give clarity on the regulatory framework'. While welcoming the consultation by the CER, IOOA queried why it has taken until now for the CER to consult on the matter, considering the pipeline was completed in 2006.

In addition to this question, they raised a number of issues around how decisions in the case of the Corrib Linkline will inform future developers. Their response included four related questions, listed in the CER response below.

In addition to these questions, the IOOA response also recommended using the expected flow profile of the gas field when calculating the Corrib Linkline element. IOOA believe there is a fundamental need for the tariff approach to 'allow for full cost recovery on the part of the funding parties'. Noting the delay in the field's coming on-stream and the considered low level of the WACC, they query whether such cost recovery is likely. Using the expected flow profile from the field for the purpose of calculating the Corrib Linkline element would reflect the actual capacity that would be bought by shippers.

IOOA recommended a stand-alone consultation on pipeline investment in Ireland broadly in order to ensure clarity and certainty about the enduring arrangements for other future pipeline investments.

IOOA noted that the regime would mean that gas coming from 'Mayo to IBP' would be more expensive than gas from the Moffat Entry Point in Scotland. They noted their concern in this regard, and argued that this is because of the costs of inefficient investment in the Moffat interconnector system being smeared across all gas consumers, 'including those purchasing gas from new gas sources, in this case Corrib'.

CER Response

In relation to the query as to why the CER is now consulting on the enduring arrangements for the Corrib Linkline when the pipeline was completed in 2006, this is simply a reflection of the fact that up to now, Corrib flows have not been imminent. The various onshore works that were required to link the gas field with the onshore production facility, and then the Corrib Linkline were not completed until late last year. The CER currently understands that Corrib flows are expected to begin in 2015, on this basis, it was considered appropriate to finalise these arrangements.

The CER's response to IOOA's questions are dealt with individually below.

- 1. What are the arrangements between GNI as a builder/operator of a pipeline connecting new sources of gas, and the investors of the upstream facilities bringing ashore that gas?*

The arrangements between GNI and the investors in any upstream facility seeking a connection to the Irish transportation system are in the first instance a matter for those parties. This said, the CER notes the benefits that would stem from the development of an Entry Connections Policy. The CER intends to commence work on an Entry Connections Policy consultation later in 2015.

2. *Whether a party building its own pipeline to the existing GNI system would be automatically deemed a Transmission System Operator (TSO) and subject to the same tariffing approach as the Corrib Linkline?*

The operation of a natural gas transmission system is not a monopoly activity in Ireland. Under Directive 2009/72/EC, Article 9(1)(a), Member States shall ensure that each undertaking which owns a transmission system¹¹ acts as a TSO. If the undertaking which constructed the pipeline was to own and operate the pipeline, it would need to hold a TSO licence from the CER prior to the operation of that pipeline.

This decision is aimed at setting the methodology for calculating the Corrib Linkline element of the Bellanaboy Entry Tariff. The arrangements detailed in this Decision Paper are intended to address arrangements both on the Corrib Linkline while keeping in mind, other future, potential developments. This said, the CER is cognisant that there are aspects of the Corrib Linkline's case that may not arise in other future cases. The CER would be guided by the decisions and methodology set out in this decision paper, but it would not be appropriate to say at this point that precisely the same approach would necessarily apply in all cases. Such considerations are best placed in a consultation on an Entry Connections Policy. As stated, the CER intends to commence work on an Entry Connections Policy consultation later in 2015.

3. *IOOA note that in having a distinct access charge for the Corrib Linkline at Bellanaboy, the CER has adopted a 'two asset base' approach. IOOA query whether this has been compared and contrasted with the approaches of other NRAs in other EU Member States, and whether this 'multi RAB' approach has been used elsewhere?*

The Corrib Linkline is part of the Irish transportation system, this said, Corrib Linkline revenues are to be kept separate from other GNI revenues due to the different underwriting of this part of the GNI system. This Decision sets an enduring methodology for calculating the Corrib Linkline element of the Bellanaboy Entry Tariff. The CER is of the view that this should be done in a way that clearly reflects the different commercial

¹¹ Transmission system is not defined in the Directive but 'transmission' and 'system' are defined separately, such that a general meaning can be established. 'Transmission' means the transport of natural gas through a network, which mainly contains high-pressure pipelines, other than an upstream pipeline network and other than the part of high-pressure pipelines primarily used in the context of local distribution of natural gas, with a view to its delivery to customers, but not including supply'. 'System' means any transmission networks, distribution networks, LNG facilities and/or storage facilities owned and/or operated by a natural gas undertaking, including linepack and its facilities supplying ancillary services and those of related undertakings necessary for providing access to transmission, distribution and LNG'. On this basis, it would seem reasonable to assume that an undertaking which owned one transmission pipeline, as per IOOA's question, would fall under this category.

arrangements underlying the Corrib Linkline and the rest of the Irish transportation system.

4. IOOA query whether this approach (presumably the 'two-RAB approach' is consistent with the Incremental Capacity CAM amendment currently under development at an EU level?

The proposal for a harmonised approach to the construction of incremental capacity projects by system operators at interconnection points is still under development at an EU level. The incremental capacity process broadly aims at ensuring that market demand for additional capacity at interconnection points is communicated to the TSO and that the potential for new infrastructure is considered in a transparent and coordinated way (where the project impacts on multiple TSOs). Prior to an incremental capacity project proceeding, the relevant NRA or NRAs are expected to be able to set a minimum level of long-term bookings to underwrite the expenditure. Where this minimum level of underwriting does not arise the project would not be expected to proceed. This proposal is still under development within the Capacity Allocation Mechanism Task Force (CAM TF) and is unlikely to be in effect for a number of years.

On this basis, the CER does not consider the incremental capacity proposal as relevant to the project at hand as the Corrib Linkline has already been built and is not an interconnection point.

In relation to the stand-alone consultation on a potential Entry Connections Policy, the CER concurs with this and intends to begin work on an Entry Connections Policy consultation later in 2015.

Other issues raised by IOOA

The CER notes IOOAs support for the use of the expected flow profile for the purpose of calculating the Corrib Linkline element of the Bellanaboy Entry Tariff.

In response to IOOA's general concern about the cost of entering Corrib gas onto the system being higher than at Moffat, this is a necessary consequence of the application of the methodology set out in this paper. The CER notes that the Corrib Linkline has a WACC that is higher than the GNI regulated WACC which applies at the Moffat Entry Point. In addition the rate of depreciation of the Corrib Linkline is significantly faster than that used at the Moffat Entry Point. The Bellanaboy Entry Tariff reflects these factors in a cost-reflective way.

8.3 Gas Network Ireland (GNI)

GNI proposed an alternative approach to the implementation of the Corrib Linkline element to that proposed in the CER Consultation.

GNI's proposed alternative uses a 'single charging methodology' for the whole system. More detail on how this would work can be seen Section 2.1 of the GNI response (CER/15/141d). It can be summarised as follows.

The approach proposed by the CER in the Consultation Paper was for a two-part Bellanaboy Entry Tariff, made up of a Corrib Linkline element and a Required Revenue element. One of the key aims of this approach was to ensure that the Corrib Linkline element and the Required Revenue element of the Bellanaboy Entry tariff remained readily identifiable.

GNI proposed an approach that would calculate the Bellanaboy Entry Tariff in a single step, with a reconciliation calculation to determine the Corrib Linkline element.

In either approach the WACC, depreciation profile, and annuitisation approach proposed in this paper would be used, the key difference being GNI proposed a one-step calculation of the Bellanaboy Entry Tariff with reconciliation 'under the bonnet' where as the proposal in the consultation was for a Bellanaboy Entry Tariff that was built up using two different elements.

Aside from this key aspect of the response, GNI are broadly supportive of the CER's proposals in relation to the approach to the WACC, the annuitisation of the Corrib Linkline element, the financial parameters (noting that the capital cost is yet to be finalised), and the use of the expected flow profile for the purpose of calculating the Corrib Linkline element.

In relation to the Post-Corrib gas field arrangements, GNI recommend making no fixed decisions in this regard at this time. They write that, 'at this time it is hard to foresee how regulatory, industry and wider economic developments will impact on any arrangements put in place now...It therefore seems more practical to discuss future arrangements when there is more information as to the likely future landscape'.

CER Response

Having considered the GNI approach to the implementation of the Corrib Linkline element, the CER considers GNI's approach a workable arrangement which would ensure the appropriate final collection of revenues by GNI, while avoiding any underwriting of the Corrib Linkline. Essentially, the GNI proposal is for a single charging methodology for all parts of the system which would still 'avoid any underwriting of the

Corrib Linkline'. This is an option to which the CER could turn at some point in the future should developments to the Tariff Network Code necessitate a change to the arrangements for the Corrib Linkline.

Having considered the merits of the two approaches, the CER remains of the view that calculating the Bellanaboy Entry tariff from two separate elements achieves essentially the same result, but benefits from greater transparency than the GNI proposal. Whereas the GNI proposal involves the settlement of the two revenue 'pots' before and after each year - identifying a forecast expected flow in Year-1, and reconciling the expected flows with actual flows at year's end, the CER's approach ensures that the Corrib Linkline element and the Required Revenue element are clearly distinguishable. In this way, the GNI proposal implements the same arrangements 'under the bonnet' rather than explicitly. The CER is confident that no cross-subsidisation would ultimately occur in either approach. On this basis, the CER maintains its view that calculating the Bellanaboy Entry Tariff based on two separate elements reflecting the different tariffing approach applied to elements of downstream infrastructure is the approach to be implemented.

The CER notes that a number of respondents as well as GNI refer to the CER relying potentially on EU developments to ensure that the arrangements at Bellanaboy are compliant with the EU Network Code on Tariffs. This point is developed further below when considering the responses of Shell and Vermilion. This said, it is important to note the Tariff Network Code is unlikely to be implemented before 2019. The CER's current understanding is that there is nothing in the draft Network Code that would prevent the CER from implementing the arrangements on the Corrib Linkline as set out in this paper.

In relation to post-Corrib developments, the CER addresses this issue in Section 5 of this Decision Paper.

8.4 Vermilion Energy Ireland Ltd (VEIL) & Shell E&P Ireland Ltd (SEPIL)

VEIL and SEPIL are two of three Corrib Partners. The two parties submitted separate responses but with matching responses to all but the first consultation question. On this basis, their responses to the first question are addressed separately, and thereafter are addressed in tandem.

In addition to their answers to the consultation questions, SEPIL have an accompanying letter which sets out their broad view on how the regime developed for the Corrib Linkline should support exploration and production activities and provide certainty to investors. They stress that, 'future arrangements must be based on a principle of full cost recovery for parties who have helped fund the investment in the Corrib Linkline'. SEPIL state that the Corrib Linkline is a key part of the Corrib development and one which will bring benefits to the gas market in Ireland. SEPIL encourage the CER to adopt

an approach that addresses the Corrib arrangements but also, other future similar investments with a view to ‘enhancing the investment climate’.

Question 1 – Do stakeholders have a view on this approach [a Bellanaboy Entry Tariff comprised of a Corrib Linkline element and a Required Revenue element]?

SEPIL are unsure on the extent to which the CER’s two-part approach to the Bellanaboy Entry Tariff is based on an approach adopted by NRAs elsewhere in Europe in relation to network expansion. They query whether the consistency or otherwise of the approach with practice elsewhere impacts on the CER’s intention stated in the Consultation Paper, that the approach ‘is broadly intended not just to address the arrangements for the Corrib Linkline but also to provide a regime for any such future developments’.

CER Response - SEPIL

As noted earlier, the CER recognises that future infrastructure may arise under a range of possible scenarios, and that the general approach used here could inform any future decisions. The CER will begin investigating an Entry Connections Policy later in 2015.

Question 1 – Do stakeholders have a view on this approach [a Bellanaboy Entry Tariff comprised of a Corrib Linkline element and a Required Revenue element]?

VEIL have a number of comments in response to this question.

VEIL query whether the CER’s statement in Section 1.3 – stating that Irish gas consumers should not bear any risk associated with similar infrastructure – is consistent with practice elsewhere. In particular, VEIL draw attention to the example of Great Britain, where new entry points underwrite only 50% of the cost of the connection in the form of long-term contracts and general customers underwrite the remainder.

VEIL consider that the approach in the CER’s consultation leads to a ‘Two-RAB approach’, and should other field arise and new connecting pipelines be built, this would then lead to a ‘multi-RAB’ approach. VEIL query whether such an approach is consistent with practice elsewhere in Europe.

VEIL refer to the interaction between the CER’s proposal for the Corrib Linkline and the reform of the Gas Entry Tariff Regime. As was stated in CER/15/057, the calculation of the GNI-RAB element of the Bellanaboy Entry Tariff uses the point at the southern-most end of the Corrib Linkline (at an above-ground installation located in Cappagh South), where the asset underwritten by the Corrib Partners broadly meets the assets underwritten by

general gas consumers. VEIL are of the view that the methodology for the whole system be extended to Bellanaboy, and the charge calculated as part of this process would then be deducted from the tariff calculated at Bellanaboy.

CER Response - VEIL

In their response VEIL question the CER statement that the proposed approach should expose gas customers to risks from other similar infrastructure projects. The CER accepts that new infrastructure may be developed under a range of circumstances, and, such new infrastructure may be spurred by the Incremental Capacity process under development at an EU level. In these circumstances, general gas consumers may be required to bear some risk associated with new infrastructure. The CER will endeavour to ensure that any such underwriting will be transparent, appropriate and efficient. It is important to restate however that the Incremental Capacity process is currently expected only to apply at interconnection points.

While the Corrib Linkline is part of the Irish transportation system, the element of the Bellanaboy Entry Tariff that pertains to the Corrib Linkline must be distinguishable due to the different underwriting of this part of the Irish transportation system. The purpose of this Decision is to set a methodology for determining an enduring Corrib Linkline element aimed at ensuring that an appropriate tariff is paid by parties accessing the Bellanaboy Entry Point. The CER is of the view that this should be done in a way that clearly reflects the different regulatory arrangements underlying the Corrib Linkline and the rest of the Irish transportation system.

VEIL support the approach proposed by GNI to a 'single charging methodology'. In essence, this view is informed by a desire for simplicity and the aim to ensure that any complexity associated with the determination of an Entry Tariff where downstream infrastructure is treated differently for tariffing purposes be 'kept under the bonnet' so to speak. The CER considers this position reasonable and notes that the approach should have no impact on the final revenues of GNI or the pipeline investors. As noted above however, while the GNI proposal is workable, it lacks the transparency of the methodology proposed by the CER.

Question 2 – Do stakeholders view this notional commercial arrangement as an appropriate framework for considering the WACC for the Corrib Linkline?

VEIL and SEPIL are of the view that the arrangement between a notional Gasfield company subject to a minimum take or pay obligation is an appropriate one. This said, they note that shippers will be the ones who will purchase the capacity, and further, that shippers will not be subject to that take or pay obligation.

VEIL and SEPIL believe that taking the absence of a 'take or pay' obligation for shippers into account in the notional arrangements would lead to a higher WACC for the transportation company were this reflected in the notional arrangement.

CER Response

In the CER's notional commercial arrangement, the role of shippers is minimised by the guarantee of revenues to Pipeline Company by Gasfield Company. This can be seen graphically in Figure 7.1 and Figure 7.2. The WACC has been set appropriately on this basis.

In this way, as was stated in the Consultation Paper, the only major risk the Pipeline Company is exposed to is that the Gasfield Company either chooses, or is forced (by going out of business) to stop its payments to Pipeline Company (Section 3.1 of CER\15\099). The 'take or pay' obligation means in effect that the Pipeline Company ultimately has only one counterparty, and that is Gasfield Company.

This means that while VEIL and SEPIL are correct to say that it will be shippers who are the primary parties purchasing entry capacity, the WACC is not affected as if shippers never purchase any capacity, Pipeline Company will still receive its revenues from Gasfield Company.

Question 3 – Do stakeholders view this as the appropriate time period [2006] at which to calculate the WACC for the Corrib Linkline access charge?

Neither VEIL nor SEPIL address this question directly. Instead, their responses state that it is important that the period of the delay in production – between 2006 and 2015 – is factored into the WACC calculation. Not to do so, they argue, would penalise the parties who have funded the Corrib Linkline.

They propose that the delay in production could be addressed by 'switching' the booking profile, or factoring in some uplift in the WACC to reflect the delay.

CER Response

In the relation to the uplift in the WACC proposed in their consultation responses, the CER draws attention to its response to SEPIL and VEIL comments on Question 2. In this answer, the CER details how the focus of this determination is the Pipeline Company as opposed to the Gasfield Company. It was assumed in the notional arrangement that Pipeline Company would not accept any risk of a delay in production. In this way, the delay in production is a Gasfield Company risk. On this basis, no correction in the

WACC for Pipeline Company for the delay in production from Gasfield Company is appropriate.

On the topic of the 'switching' of the booking profile, the CER recognises that the reality faced is that production is likely to occur in the coming months, it did not start in 2006 as the notional commercial arrangement would have foreseen. Recognising the reality that there would need to be 19 years of revenues if the Corrib Linkline is going to have a reasonable chance of recovering its costs, the CER will start the 19 year depreciation period from October 1st 2015.

Question 4 – Do stakeholders view this annuitisation approach as reasonable? Are there alternatives to this approach that are consistent with the notional arrangements developed here, and what justification is there for using an alternative approach?

SEPIL and VEIL state that the annuitisation approach is a reasonable one. They note that this approach appears well-suited to providing a stable tariff for the lifetime of the Corrib Linkline.

CER Response

The CER welcomes that the SEPIL and VEIL responses support the use of an annuitised approach.

Question 5 – Do stakeholders have a view on the choice between using the maximum technical capacity and the expected flow profile for the purpose of the tariff calculation, and why? Are there alternative approaches that might be used? What are the merits of any alternative approach?

SEPIL and VEIL are of the view that the use of the maximum technical capacity for the calculation of the Corrib Linkline element is inappropriate as it will lead to shippers making inefficient capacity bookings.

The two respondents also state that any potential requirement for shippers to make inefficient or excess capacity bookings would be 'unacceptable' to shippers.

CER Response

Including the SEPIL and VEIL responses, all stakeholders view the expected flow profile as the appropriate information to use in the calculation of the tariff.

As noted in the consultation, the CER's consultants recommend that the maximum technical capacity of the Corrib Linkline would be the appropriate figure to use for the purpose of calculating the per unit tariff. This issue is addressed in detail in Section 3.5 *Methodology – Corrib Linkline element design*.

Question 6 – What do stakeholders think of the approach outlined here – in particular the approach to the depreciation, WACC and annuitisation of the access charge?

SEPIL and VEIL support the use of the annuitised approach in order to flatten the tariff across time.

With regard to the level of the WACC, they note that a submission by GNI\Gaslink to the EU Commission referred to a commercial discount rate (proxy for a cost of capital) of 10%. They propose that a WACC in the region of this figure is more appropriate.

The two parties recognise that the WACC calculated for the Corrib Linkline is specific, and there may be instances where a higher or lower WACC than the ranges identified in the Consultation might be appropriate.

CER Response

The CER notes SEPIL's and VEIL's support for the annuitised approach.

In relation to their comments on the use of a 10% discount factor in a submission for EU funding by GNI\Gaslink in relation to the Twinning Project, the CER does not consider this relevant to the issue under consideration. The CER did not use a 10% discount factor in any analysis, and in submissions to the CER, GNI were instructed to use their regulated WACC of 5.2%. The CER understands that the use of the 10% discount factor stems from a European Commission guidance document on the preparation of Cost-Benefit Analyses.

Question 7 – What would be the appropriate approach to the access charge regime in the period after the Corrib field has been exhausted?

VEIL and SEPIL are of the view that if 'third party gas' (i.e. a second gas field) was to arise, that the appropriate charging mechanism would be to consider the opportunity cost for the basis of the entry tariff.

CER Response

The CER notes that opportunity cost may be an option in calculating the appropriate tariff for third party gas after the 19 year depreciation life has ended as proposed by the two respondents. The CER currently depreciates the other transmission pipelines which form part of the Irish Transmission System over 50 years.

The CER is also cognisant that assets that have been fully depreciated normally do not attract any return, and revenues associated with these assets relates solely to operation and maintenance costs (O&M). The CER's position on this question in Section 4 – *Post Corrib arrangements*.