



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

## Consultation on a proposed Transmission Infrastructure Delivery Management Mechanism

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## **1.1 Target Audience:**

This consultation paper is for the attention of members of the public, the energy industry, customers and other interested parties.

## **1.2 Related Documents:**

<a href="#">CER/11/128</a>	Decision on Transmission Incentives for TSO and TAO for 2011/12
<a href="#">CER/11/119</a>	Decision on ESB Networks Ltd incentives for delivery of distribution capital assets over 2011 to 2015
<a href="#">CER/11/116</a>	Information Note on PR3 Transmission Capital Expenditure Monitoring
<a href="#">CER/11/102</a>	CER Approved method of calculating FAQ Dates for Gates 1 and 2
<a href="#">CER/10/220</a>	Consultation paper on 2011/2012 electricity transmission revenue incentives.
<a href="#">CER/10/206</a>	Decision on TSO and TAO transmission revenue for 2011 to 2015
<a href="#">CER/10/207</a>	Response to comments received to CER/10/102 (consultation on TSO and TAO transmission revenue for 2011 to 2015)
<a href="#">CER/10/102</a>	Consultation on TSO and TAO transmission revenue for 2011 to 2015 (published alongside response paper CER/10/207)
<a href="#">CER/10/102(a)</a>	SKM PR3 report to CER on TSO Costs
<a href="#">CER/10/102(b)</a>	SKM PR3 report to CER on TAO Costs
<a href="#">CER/09/004</a>	TSO System Performance Incentives (SPIs) for 2009 & 2010
EirGrid FAQ documents:	<a href="#">Gate1</a> , <a href="#">Gate2</a> , <a href="#">Gate3</a> , <a href="#">Non-GPA</a>
EirGrid ATR List:	<a href="#">Q4 2013 ATR Website Update</a>
EirGrid FAQ Analysis:	<a href="#">FAQ Analysis</a>

## Executive Summary

This consultation paper outlines CER's proposal for a delivery mechanism for EirGrid (**TSO**) and ESB Networks (**TAO**) in relation to the delivery of electricity transmission infrastructure. CER has become concerned at delays in delivering transmission infrastructure that is essential for the efficient functioning of the Irish electricity sector, as well as serving the ongoing development of Irish economy and assisting in integrating renewable energy.

Transmission delivery incentives were put in place in 2011 as part of the wider PR3 (Price Review 3) framework ([CER/10/206](#)). The aim of these incentives was to encourage efficient and timely delivery of transmission capex, given the large capital programme included as part of PR3. However CER has in recent years expressed its concerns to the companies about the rate of capex delivery and also about the administrative burden associated with the incentive regime for transmission infrastructure delivery, and the overall effectiveness of this regime in terms of delivering energised infrastructure. In order to address these issues, CER is now proposing to change the structure and quantum of transmission infrastructure delivery incentives and penalties for the TSO and TAO.

This paper outlines a proposed mechanism of incentives and penalties linked to the delivery to generators of firm capacity on the transmission network. This mechanism aims to ensure more efficient delivery of infrastructure for the benefit of both customer and generator whilst encouraging increased cooperation between the TSO and TAO in the delivery of this infrastructure.

This paper relates solely to transmission infrastructure delivery. CER will review all aspects of transmission related incentives applying to the TSO and the TAO in CER's forthcoming PR4 price/revenue review.

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## 1. Introduction

### 1.1 Purpose of this paper

The purpose of this consultation paper is to:

- outline CER's proposed incentives and penalties for the TSO and TAO in relation to delivery of essential transmission infrastructure; and
- provide interested parties with the opportunity to respond to these proposals.

### 1.2 Background Information

EirGrid in its role as TSO has designed a transmission grid development strategy called [GRID25](#)<sup>1</sup>. ESB, in its role as TAO has responsibility for constructing the physical assets that will deliver GRID25. GRID25 is a long term strategy for the development of Ireland's transmission system to meet demand, strengthen the network, support security and reliability of supply and facilitate a changing generation portfolio. This includes Ireland's transition to meeting the national renewables target of 40% of electricity consumption from renewable generation by 2020.

CER envisages that delivery of these targets will come through the connection to the electricity system of a significant amount of renewable generator projects in Gates 1, 2 and 3<sup>2</sup>. In order to facilitate this renewable generation (e.g. wind), the system must have sufficient capacity to transport the electricity to demand users. CER notes that many of the works that are necessary to deliver connections for wind Gates will also deliver necessary upgrades to system security and reliability.

The Government reinforced the importance of delivery of transmission infrastructure assets in its [Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure](#)<sup>3</sup> in July 2012. In this statement, the Government said that infrastructure developments are "*vital developments for the regions and for the economy and society as a whole.*"

In [CER/11/128](#), CER outlined its decision on transmission incentives for the first two years of the PR3 period. These incentives were split between system operation and system development. The incentives on system development were targeted at project milestones for each of the TSO and TAO, on the premise that each company had its own role to play<sup>4</sup> with clearly delineated responsibilities, and on the basis that

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<sup>1</sup> <http://www.eirgrid.com/media/Grid%2025.pdf>

<sup>2</sup> The "Gate" system is a system for organising, and fairly and systematically processing, the large number of applications by generators for connection to the Irish electricity system after the announcement of Ireland's renewable energy targets. See [CER/05/049](#) and [CER/04/380](#).

<sup>3</sup> <http://www.dcenr.gov.ie/NR/rdonlyres/1CA793D6-2853-4DF9-A5F7-41A5ED36D20B/0/TransmissionandOtherEnergyInfrastructure.pdf>

<sup>4</sup> As outlined in the EirGrid – ESB Networks infrastructure agreement which sets out the division of responsibilities between the TSO and the TAO.

milestone based incentives were appropriate for complex projects with long construction times. CER continued the CER/11/128 incentive regime for the TSO and TAO in 2013.

However, when monitoring the delivery of these project milestone based incentives and the overall delivery of transmission infrastructure recorded in the [EirGrid Grid25 Capex Monitoring Report](#)<sup>56</sup>, CER came to the view during 2012 that the incentives were not achieving their objectives and critical infrastructure was not being delivered as originally planned. Critical infrastructure has been delayed by several years and while some projects or milestones on particular projects have been delivered effectively, there remain significant challenges to increase the level of transmission infrastructure development in the coming years. Delivery of this infrastructure will facilitate the achievement of the Gates 1 and 2, and Gate 3 [Firm Access Quantities \(FAQs\)](#) set out in EirGrid's publication of 21 December 2012. Failure to deliver these FAQs will affect the achievement of the 2020 targets, and may also significantly affect the viability of some generator developments.

In its [2012 Information Note](#) (CER/12/150<sup>7</sup>), CER announced its intention to review the design and structure of transmission revenue incentives. On 3 May 2013 the TSO and TAO made a joint submission in response on overall transmission network delivery incentives. CER welcomes this proposal and notes the significant level of cooperation between the TSO and TAO, both in delivering this submission, and also proposed in the submission. The approach proposed in this submission has been considered carefully by the CER; however the CER has decided to propose an alternative delivery mechanism. The TSO and TAO's submission is published alongside this consultation paper.

Notwithstanding the proposals set out by the TSO and TAO, CER considers that a more focussed approach to delivery of transmission capex is required, given the importance of delivery of this infrastructure. This importance relates not only to renewable integration but also to market integration, market efficiency and security and reliability of supply. For this reason, CER has set out a different approach to transmission infrastructure delivery in this paper than that proposed by the TSO and TAO. This approach is outlined in Section [3](#) below.

In CER's view the targets which have been proposed in this consultation paper are achievable, realistic and set an appropriate balance between the interests of consumers, the interests of connecting generators and the interests of the SOs. Improved efficiency of project delivery from these incentives should also lead to an overall improvement in project delivery across the suite of GRID25 projects (including those which are not directly captured by this delivery mechanism).

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<sup>5</sup> <http://www.cer.ie/docs/000457/cer13215-grid-25-capex-monitoring-report-q.2-2013.pdf>

<sup>6</sup> CER notes that the Capex Monitoring Report includes only projects with a capital cost of more than €10 million. Many of the ATRs required to deliver FAQs have capital costs of less than €10 million, so, while a useful guide, the Capex Monitoring Report is not a perfect measure of FAQ delivery or progress.

<sup>7</sup> 2013 TAO and TSO Revenue Information Note  
<http://www.cer.ie/GetAttachment.aspx?id=7fe87814-7646-4174-a817-cfa3063555df>

### **1.3 Structure of this paper**

- **Section 1** provides an introduction to this paper. It also provides information on where background information can be sourced;
- **Section 2**
  - discusses CER's objectives for an incentive scheme;
  - raises issues concerning existing system incentives;
  - discusses the current regime and CER's experience with it; and
  - discusses submissions received from the TSO and TAO.
- **Section 3**
  - outlines CER's proposed FAQ based incentive scheme for the TSO and TAO; and
  - assesses the merits of the proposed incentive scheme.
- **Section 4** sets out issues on which CER invites submissions; and
- **Section 5** outlines CER's next steps.

### **1.4 Responding to this paper**

Responses to the proposals set out in this consultation paper should be sent to the CER by close of business on 30 May 2014.

Responses should be sent to:

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Unless marked confidential, all responses will be published by placing them on CER's website at the following address: <http://www.cer.ie>

Respondents may request that their response is kept confidential. CER shall respect this request, subject to any obligations to disclose information. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality.



## 2. Proposed transmission infrastructure incentives

### 2.1 Objectives

CER's objective in proposing this incentive mechanism/ delivery mechanism is to put in place a cost effective framework to promote the timely delivery of essential transmission infrastructure.

Performance incentives are a key component of revenue regulation. Performance incentives complement and enhance the requirement for a regulated business to efficiently manage costs by ensuring that the business also has an incentive to improve its performance in the delivery of its responsibilities, particularly with regard to quality, efficiency and timeliness of service delivery. However, incentives cannot guarantee the achievement of those goals. The responsibility to deliver for its customers (in this case the TUoS customer and connecting customers) remains with the regulated company and the regulated company must address its range of responsibilities and statutory obligations, and manage its response to incentives, in its daily management and its planning for infrastructure delivery.

Therefore, CER is proposing an incentive regime that will:

- focus the two organisations on targeted delivery of the outcomes which provide specific benefit in terms of enhanced and efficient infrastructure delivery;
- through this delivery, add benefit to the Irish consumer, electricity system and economy;
- facilitate enhanced TSO and TAO cooperation throughout the course of delivering transmission infrastructure; and
- reduce the administrative cost and burden of the incentive regime on all parties.

While CER currently publishes the Capex Monitoring Report, addressing some aspects of transmission infrastructure delivery, these reports focus only on the larger capital projects<sup>8</sup>. The delivery mechanism proposed in this paper is outcome based, and in order to demonstrate this, CER also intends to publish the TSO and TAO's achievement of targets, or failure to deliver. CER considers that this approach will assist in focusing the minds of the two organisations on improved delivery of transmission infrastructure.

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<sup>8</sup> Larger than €10 million.

## **2.2 Existing incentive programme**

The details of the existing transmission infrastructure incentive regime are set out in [CER/11/128](#) “Decision on 2011/12 Transmission Incentives”. The decisions in that paper were made in consideration of the responses CER received to its 2010 consultation paper [CER/10/220](#) on transmission incentive parameters and weightings.

The maximum incentive which could have been earned by the TSO and TAO for 2011 and 2012 (€3.35m and €4.68m totalling €8.03m) represents 1.5% of the total allowed revenue for the companies for those two years and 1.6% of the €481M infrastructure capex for those two years.

However, the continued delaying of completion dates on a number of projects suggests that the current incentive/penalty levels are too low (either to induce the SOs in actual production/construction, or to induce realistic planning schedules). Alternatively, the structure of the incentive is not appropriate, or the challenges outweigh the ability of an incentive to have a desired effect. While an incentive in itself cannot guarantee project delivery, it should promote an improvement in project management and planning as well as facilitating the company to act, to the degree possible for licensed and regulated entities, as a fully commercial company would act. On that basis, it appears that given the importance of the delivery of critical transmission infrastructure, the value or structure of incentives/penalties for transmission infrastructure needs to increase or change.

CER has recently rolled over the 2011-12 incentives to the 2014 year.

## **2.3 Experience from the previous regime**

From its experience of monitoring the current regime CER has identified a number of factors and concerns with the continued operation of these incentives. These include:

- a) optimistic planning assumptions i.e. “best case” assumptions rather than “best estimate” or “most likely” assumptions;
- b) apparent shortcomings of internal planning and project management particularly when attempting to deliver a number of projects in parallel;
- c) the quantum of incentive, and penalty, being too low compared to the size of the projects;
- d) the absence of a criterion expressly linked to delivery of connections for RES generators may have allowed the organisations' focus to drift from one of the key objectives for delivering increased renewable generation for the Irish economy;
- e) separate incentives for the two organisations did not actively promote cooperation on complex, long time-line projects;

- f) allowing incentives to be gained on completion of mid-project milestones may have shifted focus from the prime deliverable for the Irish economy, which is energisation of transmission infrastructure;
- g) the absence of significant publicity of performance against incentives may have allowed focus of senior management to drift from delivery of essential transmission infrastructure;
- h) information asymmetry between the companies proposing the milestones and managing their delivery and CER in monitoring delivery; and
- i) the level of complexity involved in setting a range of milestones, modifying to take account of levels of control and influence exerted by the companies and determining a fair and real assessment of levels of performance.

The complexity of the existing, milestone based, incentive scheme, and especially negotiations about variations and allowances, has required a burgeoning amount of resources to administer it. Therefore, CER's intention is to deliver an incentive scheme that is administratively much simpler and more efficient to operate for CER and for the TSO and TAO. The new incentive framework must, where possible, address the concerns outlined above and is aimed at delivering a "shift in mindset" within the companies in order to address CER's concerns around deficiencies in planning, prioritisation and delivery of transmission infrastructure. CER accepts that it will not be possible to eliminate ex-post adjustments and allowances entirely. However, CER considers the proposed regime will assist, in part by reducing the number of milestones and the opportunities for ex-post review and adjustment and in part by making more incentives joint incentives. Both of these will reduce the need to assess whether actions by either the TSO or the TAO caused the other to miss a milestone thereby warranting an exercise of CER's discretion.

In being critical of the deficiencies in the existing milestone based incentive mechanism and in highlighting the concerns around the end to end delivery of transmission infrastructure, CER does however acknowledge the cooperation of the TSO and TAO in implementing the milestone based incentive mechanism and the significant efforts being made by both companies to deliver the required transmission infrastructure.

## **2.4 TSO and TAO Submissions**

CER has published the TSO and TAO incentive framework proposals alongside this consultation paper. In their submissions of 3 May, the TSO and TAO proposed the following:

- a) a two tier system with separate incentive arrangements for "standard" or "volume" transmission infrastructure delivery (such as line upgrades, construction of single substations etc.) , and additional arrangements for

“strategic infrastructure developments” (which the TSO and TAO described as being projects individually worth more than €40M) ;

- b) shared incentives for some infrastructure milestones where there is a degree of interdependency; and
- c) an incentive programme to manage outages.

The incentives would be structured to reflect the level of the companies' influence over outcomes, as well as their level of actual control.

The TSO and TAO have suggested a series of principles with which they believe an effective and fair incentive regime should conform.

CER has considered these proposals and can see significant merit in aspects of them, particularly with regard to the suggestion to create “strategic infrastructure developments” and treat these separately from an incentive point of view.

However, on a wider scale, and in order to achieve CER's objectives of addressing the end to end planning and delivery of a wide range of transmission projects, both large and small, CER considers that it would not be appropriate simply to select out a number of key projects, without some mechanism to ensure that other projects are not disadvantaged. For this reason, CER is proposing a different approach to transmission infrastructure, focusing not on specific projects or milestones but on the benefits delivered by these projects. This is outlined in more detail in Section 3 of this paper. Notwithstanding this, the CER invites comments from respondents with regard to the TSO and TAO proposals, particularly if respondents believe that the approach proposed by the TSO and TAO would be a more effective approach than the approach which will be proposed by the CER in Section 3 of this paper.

Rather than responding in detail to individual aspects of the TSO and TAO proposals, CER has decided in this paper to set out its proposals for a transmission infrastructure incentive scheme. In doing so, CER is mindful of the proposals from the TSO and TAO. In particular, CER wishes to acknowledge the fact that the joint proposals from the TSO and TAO reflect a significant enhancement of the working relationship between the TSO and TAO; CER believes this will facilitate the delivery of the targets which are set out in CER's proposed incentive mechanism.

## 3. Incentive Proposal - Delivery of Scheduled Firm Access Quantities (FAQs)

### 3.1 *Network Development and Incentivisation*

Network developments are carried out for a range of reasons including:

- to enhance or safeguard security or reliability of supply;
- to reduce network constraints;
- to connect and provide firm access to renewable and conventional generation;
- to support the efficiency of the market; and,
- to ensure that the network does not restrict customers' access to the capacity and quality of electricity supply necessary for a modern economy.

Each individual transmission project will have its own individual drivers, with some projects being developed primarily to connect renewable generation, and others focused on security or reliability of supply. EirGrid's [Transmission Development Plan \(TDP\)](#) outlines the key drivers associated with each proposed transmission infrastructure project.

CER notes that the licences of both EirGrid and ESBN require them to plan and develop a safe, secure reliable, economical and efficient Irish electricity network. In doing so, EirGrid and ESBN must balance each of the issues set out above and remain mindful of their licence obligations when planning work schedules against the proposed delivery mechanism.

Bearing all of these objectives of network development in mind, and mindful that these objectives may be competing for scarce resources, CER considers that it is now appropriate that the TSO and TAO are incentivised clearly against delivery in one specific measurable area. This approach has worked well with regard to system operation metrics, where significant improvements have been recorded in metrics such as System Frequency and System Minutes Lost. Therefore, CER is now proposing to put in place a delivery framework that focuses on delivery of network capacity to assist in meeting Ireland's renewable obligations by 2020. CER's delivery framework set out below proposes that the TSO and TAO receive an incentive/penalty related to actual delivery of transmission Firm Access Quantities.

This proposed incentive mechanism focusses, it is true, on one particular network deliverable – i.e. FAQs. This is not to deny that EirGrid has other key statutory and licence functions. The fact that CER is developing a delivery mechanism for this one aspect of network delivery should not be taken to indicate that other aspects such as security or reliability of supply, market integration etc. are any less important. Indeed, the TSO continues to have statutory responsibilities in these areas which it must weigh up in its planning and prioritisation for transmission infrastructure. However, CER is providing a clear signal that the pace of delivery of FAQ must be improved or else the achievement of the 2020 targets will be jeopardised. Failure to achieve these targets (for whatever reason) is likely to result in significant penalties for Ireland, and it is appropriate that such penalties should flow, at least in part, to the SOs responsible for delivery of the network capacity needed to deliver Ireland's

renewable commitments if they fail to deliver. Conversely, where the TAO and TSO deliver FAQ on time, then to the extent that this delivery facilitates delivery of the renewable energy targets, the contribution by the TSO and TAO should be recognised.

### **Project Specific Incentives**

While this delivery mechanism focuses on delivery of FAQs, CER is open to proposals from the TSO and TAO for a project specific incentive to be applied to any particular project(s) where the TSO and TAO believe that an incentive mechanism would assist in delivery and where the specific project does not contribute significantly to FAQ delivery i.e. an alternative key driver (and therefore is not strongly incentivised by the mechanism outlined below). CER is also likely to propose incentives for specific projects where it appears appropriate to CER.

### **ATRs**

Delivery of FAQ to any individual generator is very largely dependent on the delivery of the individual Associated Transmission Reinforcements (ATRs) that are needed to support the transmission of that generator's electricity production. EirGrid maintains a list of [ATRs](#) and their build status on its website. In many cases delivery of a generator's FAQ will depend on more than one ATR, and the SOs may deliver the generator's FAQ in stages as each of the dependent ATRs is completed. Each generator will be given a list of the ATRs needed to deliver their FAQ and the timing of each of those ATRs.

CER recognises that the ability of generators to connect to the grid and supply renewable energy to Ireland is not strictly dependent on delivery of FAQs. In fact, many generators will connect to the grid a good deal earlier, albeit without having firm access. However, many generators will be forced by economics to wait for the delivery of FAQs because connection earlier than delivery of the relevant FAQ to those generators runs a material risk that the generators' production will be constrained down due to network capacity issues. In those circumstances, generators will have to make their own assessment of the connection plans of other generators in their area and the likely sequence of delivery of ATRs, which together will inform them of the likelihood that they will be able to deliver all or reduced amounts of their electricity generation.

CER recognises that connection and generation are not directly linked to FAQ delivery for all generators. However, CER considers that FAQ delivery remains the best proxy for transmission infrastructure delivery, and the criterion most linked to delivery of benefits to the Irish electricity consumer. Therefore, despite the limitations discussed above, CER proposes to use delivery of FAQs as the criterion for transmission infrastructure incentives.

### **3.2 Proposed Incentive Structure**

In formulating this proposal CER is conscious that much of the data utilised is based on **current best estimates** and is subject to change for various reasons. For example, the volume of FAQs to be delivered, and in part their timing, will depend on decisions by developers over which the TSO and TAO may have limited influence or control. In addition, some of the capital projects, and the monies related have yet to receive formal approval. Indeed it will not be until the PR4 process has been completed that the final estimates of capital expenditure for the period 2016 – 20 will be known<sup>9</sup>. In addition, CER intends to review the working of the incentive as part of its wider incentive review process in the forthcoming PR4 price review and ensure that a coherent incentive framework is in place which is aligned with PR4.

However, CER, the TSO, TAO and the Irish electricity consumer cannot wait for perfect certainty given the importance of ongoing progress in infrastructure development. Therefore any incentive scheme will necessarily need to proceed on the basis that it will have to be adjusted and refined appropriately to changing circumstances and advancing knowledge.

Therefore, with that proviso, CER proposes the following structure for the incentive based on Delivery of Firm Access Quantity.

- A total amount of €30 million is made available for the delivery of the total 4722MW<sup>10</sup> of FAQ projected in EirGrid's most recent FAQ analysis of FAQs to be delivered between 2014 and 2020. This is 1.4% of the €2,182million forecast Capex for EirGrid over the period 2014 to 2020. See [Annexure 1](#) for relevant calculations;
- The TSO and TAO will be paid (or lose) per MW of FAQ delivered (or not delivered) on time. In order to calculate the incentive value of an FAQ MW, the total allowed amount of €30 million is divided by the total **4,722** MW of FAQ to be delivered over the next 6 years. This results in a currently estimated value per FAQ MW of €6377, which will be rounded to **€6,500 per FAQ MW**. The values will change with time and CER will adjust the incentive scheme to accommodate changes in FAQ and Capex levels to maintain the integrity of the incentive scheme;

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<sup>9</sup> Accordingly the figures estimated in this paper should not be read as final approved figures. The CER will carry out a full review of capital expenditure proposals by TSO and TAO as part of its PR4 review. The decision on this review will outline the allowed capital expenditure for the period 2016 – 2020.

<sup>10</sup> This figure will be adjusted in line with acceptances and drop outs from the Gate 1, 2 and 3 and Non-GPA processes.



- Delivery of each generator's FAQ will be assessed separately rather than assessing the cumulative FAQ delivered per year. In other words, if there are two sets of 50 MW FAQs to be delivered in Year 1, the assessment will be carried out separately on each FAQ (50 MW delivered on time, or not) rather than on the basis of whether 100 MW was delivered for the year;
- Where an FAQ is delivered in line with the date set out in EirGrid's 2012 analysis, the TSO and TAO will receive the appropriate incentive payment in their next year's revenue allowance. Any incentive will be payable from the Use of System levies paid by electricity suppliers and ultimately by Irish electricity consumers;
- The incentive will be shared according to the proposed 30:70 division between the TSO and TAO, reflective of the ability of each company to carry risk and relative to their respective roles in infrastructure delivery;
- Where an FAQ is not delivered in line with the date set out in EirGrid's 2012 FAQ analysis, the TSO and TAO will be penalised the revenue allowance for the year after that date<sup>11</sup>;
- The penalty shall operate as follows:
  - For up to 2 years post the target date for the FAQ, the TSO and TAO will be liable for a penalty calculated on a month by month basis. Currently the TSO publishes FAQ delivery dates on a per year basis, so the penalty will start from the January of the year after the FAQ is due to be delivered;
  - The penalty will cease one month post-delivery of the FAQ i.e. if the FAQ was delivered 6 months late, then the penalty would be applied for 7 months.
  - The total penalty owed if the FAQ is not achieved in this two year period shall be 1.5 times the incentive value for that FAQ;
  - This means that the monthly penalty will be  $(1.5 \times \text{FAQ value}) / 24$ ;
  - There will be no dead-band involved in the incentive mechanism. The penalties will start to accrue in the first month after the missed target;

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<sup>11</sup> CER recognises that while it proposes to use the FAQ dates as the basis for incentives, the FAQ dates are estimates and are not contractually binding on SOs, generators or CER.



- Where a portion of the FAQ has been delivered, the TSO and TAO will receive payment for this portion, but only where that portion exceeds 80% of the total FAQ. A penalty will be charged on the portion of FAQ not delivered in time;
  - At the end of the two year penalty period, where delivery of the FAQ has still not been achieved, CER will assess the appropriate course of action;
  - While penalties will accrue on a month by month basis, the actual targets for FAQ delivery will be on a year by year basis. Therefore in effect, if the TSO and TAO deliver an FAQ at any stage in the target year, they will receive the incentive in the following year. If they do not deliver the FAQ in the target year, then the penalty will start to accrue from January of the following year.
- Given that FAQs are currently set for delivery within a particular year, the proposed incentive scheme does not provide for an additional incentive for delivery of FAQs earlier than the year in which it is currently proposed in EirGrid's 2012 FAQ analysis.
- Where FAQ dates change for projects, as a result of re-runs of the ITC model (which calculates FAQ per project), or through internal EirGrid assessments flowing from estimated or actual changes of delivery dates of ATRs<sup>12</sup>, the TSO and TAO will be measured against the earlier of the two FAQ dates. In other words, if the FAQ date is brought forward, then this will be the appropriate date for the incentive, whereas if the date is delayed then the original date will remain as the target date;
- In circumstances where an FAQ date changes on account of a request from a generator or a failure of a generator to deliver relevant actions to the TSO or TAO, then CER will consider submissions from the TSO and TAO to modify the FAQ target date;
- Where delays to project delivery are experienced by the TSO and TAO, these shall not be considered as reasons to modify the FAQ target date, except in circumstances where the TSO and TAO can demonstrate to CER that the delay is outside the control or influence of both the TSO and TAO, taking account of the powers that the legislature has given to the TSO and TAO to deliver infrastructure, and the possibility of the circumstances causing the delay ought not to have been reasonably foreseen or accounted for by the SOs. A topical example of such considerations is the Independent Expert

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<sup>12</sup> EirGrid may provide periodic updates to generators on expected FAQ dates as EirGrid's projections for the related ATRs firms or changes.

Commission review of certain infrastructure projects and the outcome of that review if it drives changes to relevant project timelines.

### **3.3 *Assessment of proposed Incentive regime***

CER has considered its proposed incentive regime for efficiency and effectiveness. For the reasons set out below, CER considers that the incentive regime proposed meets the criteria for an efficient and effective incentive regime.

#### **3.3.1 Project Life cycle**

##### **End to End Incentive**

Linking FAQ delivery to achievement of the incentive creates a strong end to end incentive. The TSO and TAO will be incentivised to prioritise, where appropriate, the delivery of FAQ and follow this through to energisation of the relevant Associated Transmission Reinforcements in order to ensure FAQ delivery.

#### **3.3.2 Control**

##### **Incentives should recognise the level of influence and control over the incentivised element**

CER has stated its intention to promote flexibility and innovation in the TSO and TAO (within the constraints of their licences) to manage the multiple elements of the transmission infrastructure programme. The end to end nature, and final output focus, of the proposed incentive scheme will encourage the companies to develop mechanisms to mitigate the effects of events that they do not fully control, taking account of the powers that the legislature has given to the TSO and TAO to deliver infrastructure and the significant resources available to them. By incentivising delivery against FAQ, the companies are required to focus on the delivery of the overall objective, as a commercial company would do, rather than focusing only on specific areas fully within their control.

CER acknowledges that there will be factors affecting delivery of FAQs which will be subject to limited or even no control or influence by the SOs. Accordingly, CER will consider submissions by the SOs in relation to delays caused by such factors and assess them against the SOs' ability to control, influence or mitigate such factors.

#### **3.3.3 Risk**

##### **Incentives should match the risk at each stage to each party including reputational risk.**

CER has attempted to match the quantum of the incentive to the level of risk associated for TSO and TAO. The responsibility for project delivery rests with the

TSO and TAO. However, currently the primary risk carried by the companies is a reputational risk for non-delivery. By significantly increasing the incentive quantum from that which was available under the previous incentive regime for transmission infrastructure delivery, and by developing a strong penalty mechanism, the proposed incentive scheme will give the TSO and TAO a significant financial incentive to ensure delivery. Under the current incentive regime the maximum transmission infrastructure incentive for the TSO and TAO was €2.34M and €2.33M in 2011 and 2012 respectively. Under the proposed incentive regime the average incentive/penalty for the TSO and TAO will be €4.4M.

CER's proposed publication regime for the incentive scheme will also increase the reputational incentives that apply to the TSO and TAO.

### **3.3.4 Flexibility**

#### **Incentives must be appropriately adjustable in the event that external 3rd party events affect the delivery**

Whilst CER is not minded to outline specifically where adjustments and revisions to plans will be considered, as noted above, it nonetheless acknowledges that there are likely to be instances where it is neither appropriate to pay out the incentive or enforce the penalty, or where FAQ dates may have to change for reasons outside the TSO and TAO's control or influence. CER will consider appropriate submissions for flexibility from the TSO and TAO over the course of this incentive mechanism, where such flexibility does not excessively dilute the overall incentive.

### **3.3.5 Accountability**

#### **Parties should be accorded effective levers of control for those aspects of grid delivery for which they are responsible**

CER recognises this as an important incentive. However, it has a tension with the incentive of joint responsibility for achieving incentives. The more incentives are separated to each of the TSO and TAO, the less incentive there is for the TSO and TAO to work together cooperatively to achieve the goals which will benefit the Irish consumer and economy. Therefore, given that the overall objective of transmission infrastructure development is energisation and given that energisation is ultimately a product of the work carried out by both the TSO and TAO, CER is proposing that the incentives will be paid out and penalties applied to both companies on a 30:70 TSO to TAO ratio against FAQ delivery.

### **3.3.6 Measurability**

#### **Clear and documented measurement metrics**

CER considers that the metrics proposed are clear and measurable.

### **3.3.7 Benefit**

#### **Mutual benefits to both companies and the customer from optimised delivery of infrastructure**

CER considers that the significant benefits of delivery of FAQs to the Irish consumer and economy are reflected, and shared, in the significant incentives that the proposed regime offers to the TSO and TAO. CER considers that the costs which may be incurred by the UoS customers under this incentive scheme are appropriate and good value to the Irish electricity consumer given the benefits to be delivered to the Irish electricity consumer of timely delivery of transmission infrastructure.

### **3.3.8 Efficiency**

#### **Incentives should reward value and efficiencies created**

CER considers that the significant incentives that the proposed regime offers to the TSO and TAO reward them appropriately for delivering on time the significant benefits of FAQs to the Irish consumer and economy.

## 4. Questions to Respondents

CER invites comments on all aspects of the incentive/ delivery proposal outlined in Section 3. However CER is particularly interested in comments on the proposed design of the proposal and quantum of the incentive and penalty which is being proposed. In addition, CER wishes to obtain the views of stakeholders with regard to whether they believe this structure and proposal will be effective in terms of assisting in the efficient delivery of transmission infrastructure or whether an alternative incentive design would be more effective. Respondents are asked to propose alternative designs or amendments to the CER's proposed design which they believe would facilitate the overall objective of the incentive/ delivery mechanism in terms of delivery of transmission infrastructure by TSO and TAO.

CER is also interested in any comments in relation to perceived adverse or unexpected effects which may flow from the proposed incentive scheme.

CER also invites any comments from respondents on the TSO and TAO proposed incentive design. The TSO and TAO paper has been published alongside this consultation paper.

Please provide your answers, with supporting reasons and any available evidence.

## 5. Conclusions and Next Steps

CER will consider the responses to this paper prior to making a decision on the proposed incentives. CER will consult further with the TSO and the TAO on any material responses it receives to this consultation. CER then will proceed to determine the issue and publish a decision paper. It is expected that a final decision on the mechanism proposed in this paper will be issued in Q3 2014.

Responses to the proposals set out in this consultation paper should be sent to the CER by close of business on 30 May 2014.

Responses should be sent to:

Nigel Morris  
Electricity Networks  
Commission for Energy Regulation  
The Exchange  
Belgard Square North  
Tallaght Dublin 24

Email: [nmorris@cer.ie](mailto:nmorris@cer.ie)

Tel: (01) 4000800 Fax: (01) 4000850

Unless marked confidential, all responses will be published by placing them on CER's website at the following address: <http://www.cer.ie>

Respondents may request that their response is kept confidential. CER shall respect this request, subject to any obligations to disclose information. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality.

## 6. Annexure 1 – Quantum calculations

The following calculations are **current estimates** based on CER's TSO and TAO CAPEX Monitoring Report and incentive structures from the PR3 price period. CER will adjust them as the relevant data becomes firmer. Data for 2011-15 are from [CER/11/128](#)- Decision on 2011/2012 Transmission Incentives, and [CER/10/206](#) - Decision on TSO and TAO transmission revenue for 2011 to 2015.

FAQ data from [Gate 3 Scheduled Firm Access Quantities](#)<sup>13</sup> – 21/12/2012

FAQ data from EirGrid FAQ Analyses

Capex 2014-2015 from the published PR3 Determination: €1.45 billion over PR3 period (SKM Stretched Network Needs scenario): 2014 €325 million, 2015 €334 million

Capex 2015-20 from Grid25 assuming:

- Grid25 proposed Capex €4,035 million;
- Grid25 reduced by 20% due to reduced demand;
- Grid25 Capex spent in proportion to FAQs delivered per year over 2015-25;
- half Capex of Grid25 completed in 2015-20 and half completed in 2020-2025;
- equals €1,614 million Capex 2015-2020

Capex: 2011-2015 €1,450M; 2013-15 €986M

Percentage of Capex	1.0%	1.5%	2.0%	2.5%	3.0%
<b>Incentive per MW FAQ € ,000</b>	<b>4.6</b>	<b>6.9</b>	<b>9.3</b>	<b>11.6</b>	<b>13.9</b>
<b>Total Incentive €M</b>	<b>21.8</b>	<b>32.7</b>	<b>43.64</b>	<b>54.5</b>	<b>65.5</b>

PR3-2011/12	TSO		TAO	
	2011	2012	2011	2012
€M				
Capex			206.4	275.0
Opex	41.7	42.2	47.0	46.5
Transmission incentive	1.0	1.01	2.3	2.3
Of which, Transmission Infrastructure Incentive	0.58	0.59	1.76	1.74
System incentive	0.66	0.68		
<b>Max Incentive</b>	<b>1.67</b>	<b>1.69</b>	<b>2.3</b>	<b>2.3</b>
Proposed Incentive scheme on				

<sup>13</sup> <http://www.eirgrid.com/media/Gate%203%20successful%20applicants%20for%20publication.pdf>

PR3 figures				
Transmission incentive <b>2.5%</b>	1.55	2.78	2.06	4.81
<b>Max incentive</b>	<b>2011</b>	<b>5.16</b>	<b>2012</b>	<b>6.87</b>

FAQ MW <sup>14</sup>	2014	2015	2016	2017	2018	2019	2020	Total
<b>Gate 1</b>	8	10						<b>18</b>
<b>Gate2</b>	115	381	24	0	0	0	0	<b>520</b>
<b>Gate3 Wind</b>	17	0	537	434	559	715	893	<b>3155</b>
<b>Gate3 Non Wind</b>	0	0	512	70	104	239	20	<b>945</b>
<b>Gate3 Non-GPA</b>	0	0	0	0	59	25	0	<b>84</b>
<b>Total</b>	<b>140</b>	<b>391</b>	<b>1073</b>	<b>504</b>	<b>722</b>	<b>979</b>	<b>913</b>	<b><u>4722</u></b>

Capex € M (estimated – not approved)	2014	2015	2016	2017	2018	2019	2020	Total
	325	334	323	194	278	377	351	<b><u>2182</u></b>

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<sup>14</sup> [Results from EirGrid FAQ Analysis for Gate 2 published October 2013](#)  
[Results from EirGrid FAQ Analysis for Gate 3 Wind published October 2013](#)  
[Results from EirGrid FAQ Analysis for Gate 3 Non-Wind published October 2013](#)  
[Results from EirGrid FAQ Analysis for Non-GPA published October 2013](#)