



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

## **TSO System Performance Incentives (SPIs) for 2009 & 2010**

**CER 09/004**

**2 December 2008**

## **1 Introduction**

The Commission's 2006-2010 price control<sup>1</sup> for the Transmission System Operator (TSO) and the Transmission Asset Owner (TAO) provides for incentivisation of the TSO for the continued improvement of transmission system performance and of the management of external costs.

On 4 November 2008, EirGrid (TSO) submitted possible parameters to the Commission for system performance revenue incentives for 2009 and 2010. The Commission responded to EirGrid's proposal with draft revenue System Performance Incentives (SPIs) on 14 November. The Commission welcomed EirGrid's subsequent comments of 24 November on the draft incentives paper. After discussion with EirGrid, the Commission now issues this decision under the 2006-2010 price control on the TSO revenue incentives to apply for 2009 and 2010.

The Commission deems it appropriate to set revenue/performance targets that apply for the two years of 2009 and 2010 rather than separately negotiating new targets for 2010 at the end of 2009. The Commission believes that a longer incentivisation period provides a stronger incentive to the TSO to improve performance because: (i) it incentivises the implementation of more long-term performance improvement measures in addition to "quick-fixes"; and (ii) the TSO is aware that the targets cannot be relaxed in the following year if performance in any of the agreed categories deteriorates.

As a background to this issue the incentives for 2008 are discussed in section two below. Section three contains a review of each of the revenue SPIs for 2009/2010, while section four discusses the once-off SPI, namely for the roll-out of transmission-related Gate 3 offers.

## **2 Incentives for 2008**

This section examines the agreed incentives for 2008 for the TSO. It should be noted that the areas of incentives for EirGrid remained largely the same from 2006, i.e. ancillary services (excluding constraint costs), system minutes lost, system frequency and fault clearance rates. However, the targets, for the most part, became more stringent. The outturn figures for each of these incentive categories for 2008 will be known in 2009 and incentives monies where applicable, based on verified performance figures, will be provided to EirGrid in 2010.

### **Constraints/Ancillary Services**

It was decided by the Commission that constraint costs would not be incentivised for 2008 due to the new all-island SEM and the lack of historical benchmark data.

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<sup>1</sup> Refer to 2006-2010 Transmission Price Control Review Decision paper CER 05/143

It was not expected at the time of drafting the 2008 SPIs paper that ancillary services would be provided on an all-island basis in 2008. Accordingly, for 2008, the Commission decided that a target for ancillary services would only apply with a central target based on the Commission's determination<sup>2</sup> of the ex-ante allowed revenue for ancillary services for 2008 of €40.5 million, as shown in table 1 below.

Table 1: 2008 parameters for ancillary services.

	<b>Weighting</b>	<b>Lower Bound</b>	<b>Central Target</b>	<b>Upper Bound</b>	<b>Below Target Incentive</b>	<b>Above Target Incentive</b>
2008 CER Target	0.25	€38.5m	€40.5m	€42.5m		
2008 Incentive		€218,000		-€218,000	€109,000 per € million	-€109,000 per € million

### System Minutes Lost (SML)

EirGrid submitted for a central target of 4.0 SML to apply in 2008 with a cap and collar of +/- 2.0 system minutes. The Commission considered that EirGrid's proposed target of 4.0 SML, which also applied in 2006, did not present to EirGrid a sufficiently challenging target considering that the average SML outturn for the previous five years was 0.75 minutes. However, at the time the Commission also noted the additional challenges associated with increasing amounts of wind on the system. Accordingly, the Commission decided on a central target of 3.5 SML to apply in 2008 with a cap and collar of +/- 2.0 system minutes as shown in table 2 below.

Table 2: 2008 parameters for system minutes lost.

	<b>Weighting</b>	<b>Lower Bound</b>	<b>Central Target</b>	<b>2006 Outturn</b>	<b>Upper Bound</b>	<b>Below Target Incentive</b>	<b>Above Target Incentive</b>
2006 Outturn				2.37 mins			
2008 Incentive	0.25	1.5 mins	3.5 mins		5.5 mins	€109,000 per min	-€109,000 per min
		€218,000			-€218,000		

### System Frequency

For 2008, the Commission decided to slightly relax the central target from 93% in 2006 to 92.5% in 2008 in view of the increasing challenge caused by rising wind penetration on the system. The Commission also widened the upper and lower bounds of the target to +/-2% of the central target of 92.5% so as to provide a strong incentive for EirGrid to improve on previous years' performance, as shown in table 3 below.

<sup>2</sup> Determination of Transmission Allowed Revenue and Use of System Tariffs, 19 October 2007, CER 07/184.

Table 3: 2008 parameters for system frequency.

	Weighting	Lower Bound	Central Target	Upper Bound	2006 Outturn	Below Target Incentive	Above Target Incentive
2006 Outturn					90.3%		
2008 Incentive	0.25	90.5%	92.5%	94.5%		-€10,900 per 0.1%	€10,900 per 0.1%
		-€218,000		€218,000			

## Fault Clearance

For 2008, the Commission decided on a more stringent central target for fault clearance of 0.15 to apply compared with 0.3 in 2006, with a cap and collar of +/- 0.1, as shown in table 4 below.

Table 4: 2008 parameters for fault clearance

	Weighting	Lower Bound	Central Target	Upper Bound	2006 Outturn	Below Target Incentive	Above Target Incentive
2006 Outturn					0.08		
2008 Incentive	0.25	0.05	0.15	0.25		€21,800 per 0.01	-€21,800 per 0.01
		-€218,000		-€218,000			

The Commission decided to apply an equal weighting of 25% to each of the above four criteria and also chose to increase the revenue incentive to circa 2% of internal costs for 2008. Based on an ex-ante allowed revenue of €43.66 million for 2008's internal costs (CER 07/184), the maximum incentive amounts to €872,000 in 2006 prices, as shown in table 5 below.

Table 5: Weighting criteria and maximum incentive.

	2006 Weighting	Maximum Possible Incentive 2006	2008 Weighting	Maximum Possible Incentive 2008
Constraints/Ancillary Services	0.33	€173,000	0.25	€218,000
System Minutes Lost	0.25	€130,000	0.25	€218,000
System Frequency	0.25	€131,000	0.25	€218,000
Fault Clearance	0.17	€89,000	0.25	€218,000
<b>Total</b>	<b>1.0</b>	<b>€520,000</b>	<b>1.0</b>	<b>€872,000</b>

As stated above the outturn figures for each of these incentive categories for 2008 will be known in 2009 and incentives monies, based on verified performance figures, will be provided to EirGrid in 2010. EirGrid has indicated in its correspondence to the Commission that it has performed well to date in 2008 against these incentives.

### **3 Incentives for 2009 and 2010**

This section details the revenue SPIs for 2009 and 2010 for the TSO. It should be noted that the areas of incentives and targets decided upon for EirGrid remain largely the same from 2008 i.e. for system minutes lost, system frequency and fault clearance rates. The Commission has also decided to allow one other form of incentivisation into the SPI programme, namely timeframes for the lodgement of planning permission. In addition a separate incentive applies for the roll-out of transmission-related Gate 3 offers, which is outlined in section four of this paper.

In respect of ancillary services and constraint costs, the Commission believes that it is not appropriate to apply incentives at this juncture for 2009, in light of the new all-island harmonisation of these costs. However, the issue may be revisited by the Commission at some future point with a view to possible implementation in 2010.

With the addition of the planning permission category into the SPIs for EirGrid and to ensure that the total amount available to EirGrid stays approximately within the 2% threshold of Internal Operating expenditure, the Commission has decided to apply a similar weighting to those set in 2008. System Minutes Lost, System Frequency and Fault Clearance have all been kept at 0.25 over the two year SPI period so as to allow for the introduction of the fourth SPI relating to lodgement of planning permission on the part of EirGrid.

#### **System Minutes Lost**

The Commission is aware that, system minutes lost is partially (though by no means exclusively) outside of EirGrid's control and that the number of system minutes lost can be significantly affected by a small number of major incidents. The Commission has decided for 2009 and 2010 that the parameters and associated weighting for SML will remain as the same as those set in 2008, i.e. 3.5 SML for 2009 and 3.5 SML for 2010. This represents a challenging but realistic target for EirGrid.

It is important to clarify that this will not be an average target of 3.5 SML over the two years because the Commission would like to avoid setting an incentive target which could lead to large fluctuations in SML performance over 2009 and 2010. With this target for SML the Commission is looking to ensure that EirGrid maintains the highest possible levels of system performance, not just an average over the two years, but consistently over each year. A summary of the parameters for SML per year is shown in table 6 below.

Table 6: 2009 and 2010 parameters for system minutes lost.

	Weighting per year	Lower Bound	Central Target	Upper Bound	Below Target Incentive	Above Target Incentive
	0.25					
2009-2010 Incentive per year		1.5 mins	3.5 mins	5.5 mins	€112,500 per min	-€112,500 per min
		€225,000		-€225,000		

### System Frequency

The roll-out of Gates 1, 2 and 3 renewable generators over the coming years will result in more wind being connected to the system, which is a challenge from a system frequency perspective. However, the Commission believes that EirGrid has, and will have, the necessary systems and models in place to accommodate increased levels of wind penetration.

In its correspondence with the Commission, EirGrid proposed that it be incentivised to manage system frequency in the range of 49.9Hz to 50.1Hz for 94% of the time. The Commission welcomes this initiative by EirGrid and deems that the 2008 central target of 92.5% be revised up to 94%. The weighting of 0.25 will remain the same over the two year SPI period. A summary of the parameters for system frequency per year is shown in table 7 below.

Table 7: 2009 and 2010 parameters for system frequency.

	Weighting per year	Lower Bound	Central Target	Upper Bound	Below Target Incentive	Above Target Incentive
	0.25					
2009-2010 Incentive per year		92%	94%	96%	-€11,250 per 0.1%	€11,250 per 0.1%
		-€225,000		€225,000		

### Fault Clearance

The Commission has decided that a central target for fault clearance of 0.15, with a cap and collar of +/- 0.1 as applied in 2008, will apply over the SPI period of 2009 to 2010. A summary of the parameters for fault clearance per year is shown in table 8 below.

Table 8: 2009 and 2010 parameters for fault clearance

	Weighting per year	Lower Bound	Central Target	Upper Bound	Below Target Incentive	Above Target Incentive
	0.25					
2009-2010 Incentive per year		0.05	0.15	0.25	€22,500 per 0.01	-€22,500 per 0.01
		€225,000		-€225,000		

## Lodgement of Planning Permission

As indicated in the introduction to section three the Commission is introducing another form of incentivisation into the SPI programme, namely the lodgement of planning permission by EirGrid for shallow connections assets for both generators and demand customers. The Commission believes that this issue is of important to generators and demand customers seeking to connect to the system in a timely fashion, and as such the Commission deems it appropriate to incentivise EirGrid in the manner laid out below. The lodgement of planning permission will have a similar weighting as to the previous three of 0.25. It is important to note that for the TSO to receive monies under this SPI, it will need to improve on the standard timelines for lodgement of planning permission, which itself is to be approved and published by the Commission.

In its correspondence with the Commission on 25 November, EirGrid indicated that while it *“has an appetite to be incentivised in relation to the delivery of network development in recognition of its increasing importance to customers”* it believes it may not be appropriate to incentivise the lodgement of planning permission for shallow connection assets as there are *“typically only a small number of applications for planning permission for shallow works lodged by EirGrid per year”*. However, the Commission considers that the number of lodgments in itself is immaterial as the parameters relate to the timeframes involved in lodging planning applications and not the quantity of such applications. Furthermore, the Commission expects that the number of planning undertakings relating to Gates 1, 2 and 3 will increase dramatically from 2009 onwards.

The outturn figure of this SPI category for 2009 will be calculated in 2010 by contrasting the total months taken for all lodgements of planning permission from ESB Networks Capital Approval against the standard transmission timelines related to the lodgement of planning permission from ESB Networks Capital Approval for those particular transmission assets<sup>3</sup>. The outturn figure for 2010 will be calculated in a similar fashion in 2011. As noted above this particular SPI will be directly related to the standard agreed transmission timelines<sup>4</sup> as and when they are published by the Commission. The summary in table 9 opposite is for lodgement of planning permission on a per year basis.

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<sup>3</sup> For example, in 2009 EirGrid lodge planning permission for one new 110kV Line bay in an existing outdoor station and one new 220kV line bay in an existing 220kV outdoor station. Both applications take 5 months to lodge, which sums to 10 months. The maximum time allowed in the standard transmission timelines is 4 months for both assets, which sums to 8 months. EirGrid have taken 2 months longer than maximum agreed timeframes, i.e. 25%. Therefore EirGrid are penalised €187,500 (€37,500 x 5) in accordance with table 9.

<sup>4</sup> The standard timeframes, and correspondingly this incentive, are subject to a number of assumptions relating to requirements for planning permission. These assumptions are outlined in the table of transmission charges and timeframes.

Table 9: 2009 and 2010 parameters for lodgement of planning permission.

	Weighting per year	Lower Bound	Central Target	Upper Bound	Below Target Incentive	Above Target Incentive
	0.25					
2009-2010 Incentive per year		Up to 30% longer than sum standard agreed max time	Within standard agreed timeframe	Up to 30% shorter than sum standard agreed min time	-€37,500 per 5% longer than sum standard agreed max time	€37,500 per 5% shorter than sum standard agreed min time
		-€225,000		€225,000		

### Summary of four proposed 2009-2010 SPIs

The four SPIs listed above - system frequency, system minutes lost, fault clearance rates and lodgement of planning permission - will be reviewed on an annual basis to ensure a consistent standard is targeted for each year rather than an average over two years. The TSO will therefore be rewarded or penalised, as the case may be, the respective monies for SPI outturn year 2009 in 2010, with the monies to be applied to the TSO in 2011. Similarly for SPI outturn year 2010, the monies owed or owing will be calculated in 2011 and applied to the TSO in 2012.

As also indicated above, the Commission has decided to apply an equal weighting of 0.25 over the two-year SPI period to the four proposed SPIs. The Commission has also decided to keep the total incentive to circa 2% of internal costs of the TSO for both 2009 and 2010. Based on an ex-ante allowed revenue of €46.39 million (2007 prices) for 2009's internal costs (CER 08/178), and using the same figure for 2010's internal costs, the maximum incentive amounts to €900,000 (2007 prices) for both 2009 and 2010. Therefore the total amount that could be rewarded to, or subtracted from, the TSO over the two year SPI period 2009-2010 is €1.8 million, as shown in table 10 below.

Table 10: Weighting criteria and maximum incentive for 2009-2010 SPI period.

	Weighting for 2008	Maximum Possible Incentive 2008	Weighting over 2009-2010 SPI period	Maximum Possible Incentive 2009	Maximum Possible Incentive 2010	Maximum Possible Incentive over 2009-2010 SPI period
System Minutes Lost	0.25	€218,000	0.25	€225,000	€225,000	€450,000
System Frequency	0.25	€218,000	0.25	€225,000	€225,000	€450,000
Fault Clearance	0.25	€218,000	0.25	€225,000	€225,000	€450,000
Lodgement of PP	n/a	n/a	0.25	€225,000	€225,000	€450,000
Constraints/Ancillary Services	0.25	€218,000	n/a	n/a	n/a	n/a
<b>Total</b>	<b>1.00</b>	<b>€72,000</b>	<b>1.00</b>	<b>€900,000</b>	<b>€900,000</b>	<b>€1,800,000</b>



## 4 Roll-out of transmission-related Gate 3 offers

The effective and timely implementation of transmission-related Gate 3 is one of the key targets of both the Commission and EirGrid. Therefore, the Commission has included this category of incentivisation for EirGrid in an attempt to achieve this key workplan efficiently and effectively. This will be a once-off SPI paid or penalised to or from the TSO, as the case may be, in 2012. The parameters will be based on the timelines included in the final Gate 3 direction to be published shortly by the Commission<sup>5</sup>. Any modifications to these timelines will be taken into account upon the outturn review of this once-off SPI.

This SPI encapsulates the following: (i) the provision of Gate 3 offers to parties connecting to the transmission system; and (ii) the provision of appropriate Gate 3 information to the DSO related to connections for parties connecting to the distribution system.

There will be no weighting attached to this once-off SPI but a fixed amount of €300,000 broken down into two categories. The '100% roll-out' criterion of €150,000 is an 'all-or-nothing' type incentivisation, with no penalty attached to EirGrid for not achieving this first part of the once-off SPI. For EirGrid to avail of this part of the SPI, it will need to issue 100% of transmission-related Gate 3 offers by the final date as set by the Commission direction on the matter. If it does not, EirGrid will not receive any amount of the €150,000.

The second part to this once-off SPI relates to the percentage roll-out of Gate 3 offers and will not be an 'all-or-nothing' type incentivisation. As shown in table 11 below EirGrid will be rewarded, or penalised as they may be, €30,000 for every one percent (+/- 5%) above or below the central target of roll-out for transmission-related Gate 3 offers. This incentive relates to the percentage roll-out of actual transmission-related Gate 3 offers by EirGrid and not the percentage of MW's rolled-out. To clarify, if EirGrid achieve 100% roll-out of transmission-related Gate 3 offers by the final date specified in the final Gate 3 direction it will be rewarded €300,000. If it achieves 95% roll-out it will not receive any monies and if it achieves 90% roll-out it will be penalised €150,000, in accordance with Table 11 below.

It should also be noted that this SPI will be reviewed ex-post against the transmission-related Gate 3 direction published by the Commission and any delay, which is the result of a dispute between interested parties and the TSO or DSO, will be taken into account by the Commission when looking at the percentage level of roll-out. This SPI will also be reviewed against the provision of appropriate Gate 3 information to the DSO related to connections for parties connecting to the distribution system, in a timely fashion.

The roll-out of transmission-related Gate 3 offers by EirGrid will be over a three year period, 2009 to 2011 and the SPI attributed to this action will be once-off with the

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<sup>5</sup> Subject to the scope of work remaining as per the Gate 3 direction.

relevant monies being paid to, or penalised from, the TSO in 2012. To reflect this, table 11 below is for the three year period of 2009 to 2011, rather than on a yearly basis.

Table 11: 2009-2011 parameters for roll-out of transmission-related Gate 3 offers.

	<b>Lower Bound</b>	<b>Central Target</b>	<b>Upper Bound</b>	<b>Below Target Incentive</b>	<b>Above Target Incentive</b>	<b>100% roll-out</b>
2009-2011 Incentive over 3 year period						All offers issued by final date set by CER direction - €150,000
	<95% -€150,000	95%	>95% €150,000	-€30,000 per 1% <95%	€30,000 per 1% >95%	