

## SEM -11-054b

### Appendix 2 Components for Imperfections Charge for the Tariff Year 2011/12

#### Dispatch Balancing Costs

Updated version of the DBC Forecast submission attached (DBC Forecast 2011 – 2012 V2.0). This version has had some minor changes made for publication.

#### Make Whole Payments

The proposed provision for Make Whole Payments for the 2011/12 Tariff Year is €100,000.

#### Energy Imbalances

The proposed provision for Energy Imbalances for the 2011/12 Tariff Year is zero. Note that Energy Imbalances are generally countered by constraint payments in the opposite direction.

#### Other System Charges

The proposed provision for Other System Charges to be included for the 2011/12 Tariff Year is €12m. Further detail available in Section 9 of the DBC forecast submission.

#### K factor

##### Background

As per the SEM market rules as set out in the T&SC, the calculation of the Imperfections K factor to date has been a combination of (a) the variance between Imperfections receipts and net payments in terms of Constraint Payments, Uninstructed Imbalance Payments, Testing Charges and Make Whole Payments and (b) the Energy Imbalance (arising from a difference in Energy receipts and payments). This left a number of imbalances in the market for which there was no recovery mechanism. A modification to the T&SC to include these additional imbalances was raised at the modifications meeting on April 5th 2011 as part of a modification to include Other System Charges in the Imperfections Charge (Ref MOD\_13\_11) and this has been recommended for approval. As a result of this modification, in the calculation of the Imperfections K Factor, all imbalances as detailed below have been taken into account.

In August 2009, discussion of the treatment of over/under recoveries in Imperfections Revenues resulted in a best estimate of any over or under recovery to be taken into account and provided for in the year following incurrence (i.e. t+1) with a final true up in the subsequent year.

EirGrid and SONI proposed that this mechanism was adopted going forward and this was agreed and adopted. A forecast of the position at the end of the 2008/09 Tariff Year was included in the K factor for the 2009/10 Tariff Year, and this method was applied again for the 2010/11 Tariff Year. The mechanism requires EirGrid and SONI to provide a best estimate of any potential shortfall or over-recovery and for this, in addition to any final t+2 'k' factor to be taken into account in final tariff determination.

#### K Factor for 2011/12 Imperfections:

- i. **Component for Imperfections imbalance in respect of the 2009/10 Tariff Year**

In 2009/10 the K factor for 2007/08 (-€3,678,938) and the advance K Factor for 2008/09 (-€8,900,000) were applied. The market imbalance for 2009/10 after adjusting for the effect of previous K Factors is €746,665 of an over-recovery.
- ii. **Component to cover off Market Imbalances from previous years**

Receipts and Payments on market activity include not only energy and imperfections but capacity and foreign exchange gains/losses in relation to energy, imperfections and capacity. Imbalances can also arise on capacity receipts/payments, foreign exchange elements and market interest received/paid. These related imbalances are not recovered via the SEMO tariff and to date have not been recovered via the Imperfections tariff either. As a result the Imperfections k factor mechanism should include these additional market imbalances. This was referred to above in the Background section as to the reasoning behind some of the changes included in MOD\_13\_11 this year.

- o **Remaining Balances from 2008/09 not previously included in K Factor**

The respective market imbalances for 2008/2009 that were not included in the k factor calculations are as follows:

- The imbalance for Capacity for 2008/2009 was an over-recovery of €1.37m.
- The imbalance on the foreign exchange market elements was an under-recovery amount of €1.14m.
- The imbalance for market interest received/paid was €0.04m under-recovery for 2008/2009.

○ **Remaining Balance from 2007/08 not previously included in K Factor**

The respective market imbalances for 2007/2008 that were not included in the k factor calculations are as follows:

- €0.02m Capacity under-recovery
- €0.11m Market Interest over-recovery
- €1.17m foreign exchange elements under-recovery

*Please note that components (i) and (ii) of the K Factor are covered off in further detail in SEMO's submission "Ex-Post Review 2009- 2010", as submitted by SEMO to the RAs on 26<sup>th</sup> May 2011.*

**iii. Component in respect of the forecast Imperfections imbalance for 2010/11 Tariff Year**

There is a significant imbalance in the market for the 2010/11 year to date, due to high constraint costs. There are a number of factors driving high constraint costs, in particular the increase of actual fuel prices above forecast fuel prices used in the setting of the Imperfections Charge for the 2010/11 tariff year. In addition to the unforecast rise in fuel prices, the long term outages of a number of generators have increased the costs of reserve constraints. This was exacerbated until mid-November by the outage of 1 pole of the Moyle Interconnector, which further increased reserve costs, as the static reserve on Moyle was unavailable at times. Higher than forecast system demand over the winter resulted in expensive generation being constrained on to meet transmission and reserve constraints. Although constraint costs moderated somewhat over February and March 2011, the onset of the outage season at the end of March has increased constraint costs and is expected to have an ongoing impact on constraint costs for the remainder of the tariff year.

Based on ongoing Dispatch Balancing Costs analysis, the estimated shortfall for Imperfections in 2010/11 to be included in the K Factor is €60m. This figure may be revised following a re-forecast by EirGrid and SONI closer to the conclusion of the tariff year.

Taking all three components of the K Factor into account, the K Factor for the Imperfections Calculation for the 2011/12 Tariff Year is €60,135,847 of an under-recovery, which will increase the 2011/2012 Imperfections Charge.

	<b>Over-Recovery (€)</b>
<b>Market imbalance in respect of the 2009/10 TY</b>	
Total Imperfections Imbalance for 2009/10	€13,325,603
K factor for 2007/08	-€3,678,938
K Factor for 2008/09	-€8,900,000
	€746,665
<b>Market Imbalances from previous years</b>	
Market Imbalances from 2008/09 not previously included in K Factor	€196,545
Market Imbalances from 2007/08 not previously included in K Factor	-€1,079,057
	-€882,512
<b>Estimated Market Imbalance in respect of the 2010/11 TY</b>	
Estimated Market Imbalance in respect of the 2010/11 TY	-€60,000,000
<b>Total Imperfections K Factor to be applied in 2011/12</b>	-€60,135,847

Total all-island demand forecast for the 2011/12 Tariff Year for the purposes of calculating the Imperfections Charge, is 34,030 GWh. This is premised upon the total forecast units to be transmitted in both jurisdictions adjusted to the Transmission/distribution boundary and excluding an estimate of units not traded in the market. As with all of the input parameters this remains a best estimate at this time and EirGrid and SONi reserve the right to revise this estimate prior to the formal submission of the tariffs should it be deemed necessary or appropriate to do so.

### Indicative Imperfections Charge

The estimated Imperfections Charge for the tariff year 2011/12 is therefore made up as follows:

- €142.6m of an estimate for DBC for the tariff period 2011/12.
- €0.1m of an estimate for Make Whole Payments for the tariff period 2011/12.
- Zero *ex ante* provision for Energy Imbalances for the tariff period 2011/12.
- A k factor of €60 million for the tariff period 2011/12 based upon a current best estimate of the under-recovery for the tariff year 2010/11.
- An offset from Other System Charges (OSC) of €12 million.

The total revenue recovery is therefore €190.8 million. On the basis of an estimated throughput of 34,030 GWh this gives an Imperfections Charge of €5.61/MWh.