Transmission Tariffs

for the

Gas Year 2013/14

August 2013

1. Introduction

Bord Gáis Networks (BGN) welcomes the opportunity to present its paper to the CER on the Transmission Tariffs for 2013/14. This paper outlines the indicative tariffs calculated by applying the Revenue Control Formulae as determined by the CER for the PC3 period using BGN's revenue requirement as set out in the CER's PC3 decision (CER/12/196).

The calculation of 2013/14 Transmission tariffs involves a number of steps:

1. Updating the CER published 5 Year Revenue Control model to reflect
   - Application of the WACC trigger mechanism - a reduction in WACC from 6.39% to 5.2%
   - Forecast out-turn revenues for GY'12/13
   - CER approval of incremental Capex for Wexford & Glanbia

   These changes result in the allowed revenue decreasing by €24.66m (10/11 monies) for 13/14.

2. The CER has directed that the allowed Interconnector Revenues for 14/15-'16/17 be equal in each year rather than pro-rata to forecast bookings. This change results in the allowed revenue decreasing by €20.12m (10/11 monies) for 13/14.

3. Deriving the allowed revenue through application of the revenue control formulae.

4. Forecasting system demand incorporating CER decision on CER/13/122 "Access Tariffs and Financing the Gas Transportation System"
   - BGN are forecasting that 3.4% of Exit Revenues will arise from Short Term Capacity Products and the Annual Tariff is calculated on this basis;

5. Calculating unit capacity and commodity tariffs using the tariff structure based on BGN's required revenue set against projected peak day and annual volume figures.

The net effect of these four adjustments result in the 13/14 allowed revenue decreasing by €44.78m (from €233.15m to €188.37m) in 10/11 monies. In 13/14 monies the decrease is €46.59m (€242.59m to €196.0m)

All calculations are shown in the appendices.

2. Executive Summary

Applying the Revenue Control Formulae and incorporating updated demand forecasts, results in a real tariff increase of circa 2.5% (an increase of 3.7% when inflation of 1.2% is included) for Moffat shippers and a real decrease of 7.8% (a decrease of 6.6% when inflation is included) for Inch shippers when compared with the updated 2012/13 tariffs that became effective on April 1st 2013. These calculations are based on a combined tariff (e.g. Onshore + IC = Moffat Shipper Tariff), on a weighted average basis using an average load factor and are based on a 90/10 capacity/commodity split.

The Price Control determines the allowed revenues for a 5-year period. BGN has calculated the 2013/14 revenue in line with the price control decision of November 2012. When compared to the original 2013/14 allowed revenue, the revised 2013/14 allowed revenue has decreased by €44.78 in 10/11 Monies. This decrease is the net effect following the application of the WACC Trigger mechanism, incremental revenue for new capex and the change to the IC revenue profile.

The 2013/14 allowed revenue has also been adjusted to reflect a slight increase in Pass-through costs and an adjustment for revenue under-recovered during 2011/12.

The following sections outline the application of the Price Control Formula and discuss the tariff calculation in more detail.

3. Allowed Revenue Calculation

The Revenue Control Formula sets out the parameters for the calculation of the required revenue in a given gas year, in this case gas year 2013/14. The BGN proposed required revenues are adjusted to take account of forecast pass through costs and inflation for 2013/14. The Revenue Control Formula also has a Correction Factor built into it which takes account of the actual revenue (over/under recoveries), inflation and pass through costs for the previous gas year i.e. 2011/12.

BGN have applied these formulae to the relevant systems and have made the following assumptions therein;

- Inflation/Deflation
  - In setting the 2013/14 tariffs, 1.2% inflation was assumed for the time period from April 13 to March 14[1]
- Euribor[2]
  - 2010/11 Euribor of 1.42% which represents an average 12-month rate from 1st Oct'11 to 30th Sep'12
  - 2012/13 Euribor of 0.49% which represents an average 12-month rate from 1st Oct'11 to 26th April'13

Please see Appendix 5 for an explanation of the interest rate multiplier/euribor rates.

The 2013/14 allowed revenues have been further adjusted for the following items:

[1] The inflation for 2013/14 is estimated to be 1.2% based on the Central Bank Quarterly Bulletin 01/January 13

BGN have re-calculated the WACC for 13/14 based on the movement in the GIGB 5yr index for the 12-month period 1st July'12 to 30th June 2013. The resultant WACC for Gas Year 13/14 is 5.2%.

In addition, BGN have received CER approval to proceed with new gas connections to Wexford and Glanbia. As these connections were not approved in the original PC3 decision, BGN have followed the CER guidance per sec. 8.5 of CER/12/196 and made a subsequent application as part of the 13/14 tariff setting process.

Evolution of 2012/13 Allowed Revenues (10/11 monies) and Impact on PC3 Allowed Revenues

When setting the Tariffs for '12/13 in August 2012 the CER calculated allowed revenues of c. €191m based on a draft PC3 decision from May 2012. Due to the Demand Forecasts used in the Tariff setting process being significantly higher than the actual bookings for '12/13, BGN stood to recover only c. €155m and this figure was incorporated into the CER final PC3 decision of November 2012. Due to the significant shortfall relative to the c.€191m BGN wrote to the CER in October 2012 and again in January 2013 to highlight its' concerns as to how this projected under recovery would impact on the operation of the regulated business.

The CER subsequently published increased Tariffs for the Onshore Exit and Moffat Entry systems, effective from April 1st 2013. The result of this was to lessen the under recovery against the c. €191m allowed revenue per the original Tariff decision but it also increased the over-recovery against the PC3 allowed revenue (c. €155m) which in turn would result in a significant Kt-1 adjustment to the '14/15 Tariff.

It has been agreed with the CER to amend the 2012/13 Revenue in the 5 Year Price Control Model to be equal to the current forecast of revenues. This will have the effect of distributing the projected '12/13 over-recovery over the '13/14-'16/17 period and preventing large year-to-year tariff variations.

Furthermore, in the case of the Moffat Entry Point, the CER has directed that the Inter-connector allowed revenues for 14/15-'16/17 should be equal in each year rather than pro-rata to forecast bookings.

The net effect of these four adjustments result in the 13/14 allowed revenue decreasing by €44.78m (from €233.15m to €188.37m) in 10/11 monies. In 13/14 monies the decrease is €46.59m (€242.59m to €196.0m)

Forecast for 2013/14 Pass Through Costs

The impact of the forecast 13/14 pass through costs can be seen in the table below:

2013/14 Forecasts		**(Saving)/Charge**
Pass Through Costs Variance		**€m**
	Rates *	0.36
	CER Levy	0.00
	Gaslink	0.14
	CO2 **	-0.56
Pass Through Costs Difference - Savings		**-0.06**

- Pass Through Costs
  - Pass through costs include Rates, CER Levy, Gaslink Costs and Carbon (CO_2) Costs
  - The projected carbon costs included for 2012/13 are based on a carbon price of €2.89 per tonne.
  - CER Levy for 13/14 is estimated to be €1.37m.
  - The Gaslink costs are forecast to be €2.54m.

No estimate for Inventory Product revenue has been included in the Interconnector revenue calculation for 13/14 as any money earned will be passed back to customers through the actual IC revenue.

2011/12 Correction Factor

The correction factor adjusts for differences in revised forecast and actual out turn revenues for the previous period (i.e. 2011/12).

As can be seen from the table below, transmission under-recovered revenues in 2011/12 while savings were achieved in relation to Rates, CER levy, Gaslink ISO costs and CO_2. Overall the correction factor results in an under-recovery of €6.42m which is included in the setting of the required revenue requirement for 2013/14.

2011/12 Actual Outturn (Kt-1)	**€m**
Revenue Under Recovery	8.11
Pass Through Costs	
Rates - Saving	-1.16
CER Levy - saving	-0.05
ISO - saving	-0.43
CO2 - saving	-0.41
Pass Through Costs	-2.05
Total 2011/12 Adjustment for Excess Revenue & Cost Excess	6.06
Interest Rate Multiplier	1.061
Total Kt-1 Ajustment (2013/14 monies)	6.42

*For rates, 50% of the variance between allowed and estimated costs is passed through.

**For CO2, 100% of the variance between the original allowance and the estimated cost is passed through. In year of close out, 50% of the variance between the estimated and actual price is passed through when the actual price is known.

Please see Appendix 1 for the correction factor calculations for each system i.e. IC, Inch and Onshore.

Revenue Summary

The revenues derived from applying the Revenue Control Formula are as follows:

Table 3.1

2013/14 REVENUE CONTROL	Original Required Revenue	Effect of WACC Reduction and new Capex	WACC Reduction and new Capex and Levelising of IC Revenue	Revenue Control Formula	Difference
Revenue Summary (2013/14 monies	€m	€m	€m	€m	€m
Interconnector (*)	94.23	81.55	60.61	62.55	**1.93**
Inch	2.21	2.07	2.07	1.85	**-0.22**
Exit	146.15	133.32	133.32	137.96	**4.64**
Total Revenue Allowed	**242.59**	**216.94**	**196.00**	**202.35**	**6.35**

Please see Appendix 2 for the Revenue Control Formula calculations.

In 11/12 a total of €0.38m was earned from the IC Inventory Storage and Short-Term Capacity products. This is included in the revenues earned for 11/12.

At a total level the impact of the correction factor (Kt-1) adjustments and the revised forecast pass through costs for 2013/14 on the Revenue Requirement comes to €6.35m. The detail can be seen in the table below.

Total Revenue Summary *Values in 2013/14 monies*	€m
Original BGN Required Revenue	242.59
Less: WACC, Capex, 12/13 Revenue & IC Profile Adjustments	-46.59
	196.00
Revenue Control Formula Adjustments	
Pass Through Costs Forecast Savings 2013/14	-0.06
2011/12 Correction Factor (Kt-1)	6.42
Total Revenue Control Formula Adjustments	6.35
Final 2013/14 Required Revenue	**202.35**

4. Revised Demand

The demand assumed for 13/14 is based on firm 12-month capacity bookings at the Entry Points and does not take into account any potential short term product bookings. Any revenue accrued from short term products will be passed back to customers through the system revenue requirements. It is assumed that 3.4% of Allowed Revenue at the Exit will be obtained from Short Term products.

Forecast Demand for 13/14

The forecast demand figures are shown in table 4.1 below.

"CER Consultation CER/13/122- Access Tariffs and Financing the Gas Transmission System" called for a review of the way capacity is reserved and paid for within the Irish gas market. This paper led to the decision to remove exit capacity transfers and also to restrict within day exit capacity bookings.

The numbers outlined in table 4.1 are based on the following assumptions:

It is assumed that power shippers will optimise their capacity booking between a combination of annual, monthly and daily products as they will no longer be able to rely on exit capacity transfers. A forecasted increase in Annual exit capacity bookings is assumed under this regime.

The LDM/DM sector is assumed to book 95% of its peak day as annual capacity given their historic high load factor and that they will no longer be able to rely on exit capacity transfers from the NDM sector.

The NDM sector will continue to book for a 1-in-50 peak day.

The Moffat Entry Capacity booking is based on an annual capacity requirement having accounted for Inch and trades at the Entry.

Inch Entry Bookings are based on a profile provided by Kinsale Energy.

Table 4.1

Capacity Bookings		2012/13 Tariff Forecast	2013/14 Original PC3 Forecast	2013/14 Revised Forecast	2013/14 % Change v's 2012/13	2013/14 % Change v's Original
Exit Bookings	GWh	235.38	222.18	235.52	**0.1%**	**6.0%**
Inch	GWh	33.68	33.05	36.34	**7.9%**	**9.9%**
IC Bookings	GWh	205.21	162.46	158.42	**-22.8%**	**-2.5%**

Please see Appendix 3 for the assumptions used in formulating the projected capacity bookings for gas year 2013/14.

5. Transmission Tariff for 2013/14

The 2013/14 tariff calculation is based on the proposed required revenue for 2013/14, derived from applying the Revenue Control Formulae as outlined in Section 3 and set against the revised forecast system demand for the gas year as outlined in Section 4.

The table below outlines the resultant tariffs by applying this approach and states the increase in tariffs that a typical Moffat / Inch shipper would incur.

BGE Transmission Tariffs for 2013/14

	€ 2013/14 Tariff	(13/14 Monies)	Published Tariffs 2012/13 - Oct-Mar €	2012/13 - Apr-Sep €	% Change Nominal from 12/13
Onshore Network					
capacity	**509.093**	per peak day MWh	463.503	491.313	3.6%
commodity	**0.268**	per MWh	0.230	0.244	9.6%
Interconnectors					
capacity	**355.325**	per peak day MWh	291.301	340.822	4.3%
commodity	**0.132**	per MWh	0.127	0.148	-10.5%
Inch					
capacity	**45.717**	per peak day MWh	103.697	103.697	-55.9%
commodity	**0.047**	per MWh	0.091	0.091	-47.9%

Illustrative Transmission Transportation Costs	€		€	€	
Transmission Transportation Cost of UK Gas					
capacity	**864.418**	per peak day MWh	754.804	832.135	3.9%
commodity	**0.400**	per MWh	0.357	0.392	2.0%
Transmission Transportation Cost of Inch Gas					
capacity	**554.810**	per peak day MWh	567.200	595.010	-6.8%
commodity	**0.315**	per MWh	0.321	0.335	-6.0%

Cost/Therm Comparisons

Annual Consumption	365
Load Factors	1.3

Gas Year 13/14 (13/14 Monies)

Moffat	€	**Inch**	€
Capacity	1,123.74	Capacity	721.25
Commodity	145.99	Commodity	114.91
Total	1,269.73	Total	836.16
Cost/MWh	3.48	Cost/MWh	2.29
Cent/Therm	**10.20**	**Cent/Therm**	**6.71**
Gas Year 12/13(12/13 Monies)			
Cent/Therm	**9.83**		**7.19**
% Increase - Nominal	**3.7%**		**-6.6%**
Gas Year 12/13 (13/14 Monies)			
Cent/Therm	**9.95**		**7.28**
% Increase - Real	**2.5%**		**-7.8%**

The above is a worked example of the effect of the proposed new tariffs on both a Moffat and an Inch Shipper where each have a customer with an annual consumption of 365 MWh and a load factor of 1.3 (~77%). In order to ascertain the correct capacity payment for the Moffat shipper, the relevant tariff is calculated by adding the Onshore and Interconnector capacity tariffs. This figure is then multiplied by the applicable capacity (the annual consumption divided by 365 and multiplied by the load factor).

The commodity payment for the Moffat Shipper is calculated by adding the Onshore and Interconnector commodity tariffs and multiplying this figure by the annual consumption. The total capacity and commodity payment figure for the Moffat Shipper is divided by the annual consumption to give the cost per MWh. A similar calculation is carried out for the Inch Shipper except the capacity tariff is made up of Onshore and Inch capacity tariffs added together and the commodity tariff is made up of the Onshore and Inch commodity tariffs added together.

As can be seen above this will result in an increase of circa 2.5% real for Moffat shippers and a decrease of 7.8% real for Inch shippers on the 2012/13 tariff's respectively.

Please see Appendix 4 for the individual tariff calculations.

APPENDIX 1: Correction Factor Calculations[3]

IC

CALCULATION OF KICt-1

$KIC_{t-1} = \{ (RIC_{t-1} + (0.5*UICF_{t-1})) * (1+ HICPA_{t-1} /1+ HICPR_{t-1}) - PICA_{t-1} - (AICR_{t-1} + (0.5*UICA_{t-1})) \}*(1+(I_t /100)*(1+(I_{t-1} /100))$

Description		Formula Ref	Value
Allowed Revenue period t-1	*Year t-1 Monies*	*RICt-1*	44.40
Forecast Other Revenue from IC in period t-1	*Year t-1 Monies*	*0.5*UICFt-1*	0.00
Actual Inflation t-1		*HICPAt-1*	2.20%
Allowed Inflation t-1		*HICPRt-1*	1.10%
Calculation - Revenue * Inflation	***(RICt-1 + (0.5*UICFt-1)) * (1+ HICPAt-1 /1+ HICPRt-1)***		**44.89**
Expected pass-through costs less Actual	*Year t-1 Monies*	*PICAt-1*	0.33
Actual Revenue Recovered in period t-1	*Year t-1 Monies*	*AICRt-1*	42.35
Actual Other Revenue from IC in period t-1	*Year t-1 Monies*	*0.5*UICAt-1*	0.00
Calculation - Actual Revenue	***PICAt-1 - (AICRt-1 + (0.5*UICAt-1)***		**-42.68**
Actual Revenue Recovered Vs Allowed			95%
Euribor Rate period t		*It*	2.49%
Euribor Rate period t-1		*It-1*	3.42%
Correction Factor period t-1	*Year t+1 Monies*	***KICt-1***	**2.34**

Inch

CALCULATION OF KINCHt-1

$KINCH_{t-1} = \{ (RINCH_{t-1} + (0.5*UINCHF_{t-1})) * (1+ HICPA_{t-1} /1+ HICPR_{t-1}) - PINCHA_{t-1} - (AINCHR_{t-1} + (0.5*UINCHA_{t-1})) \}*(1+(I_t /100)*(1+(I_{t-1} /100))$

Description		Formula Ref	Value
Allowed Revenue period t-1	*Year t-1 Monies*	*RINCHt-1*	1.99
Forecast Other Revenue in period t-1	*Year t-1 Monies*	*0.5*UINCHFt-1*	0.00
Actual Inflation t-1		*HICPAt-1*	2.20%
Allowed Inflation t-1		*HICPRt-1*	1.10%
Calculation - Revenue * Inflation	***(RINCHt-1 + (0.5*UINCHFt-1)) * (1+ HICPAt-1 /1+ HICPRt-1)***		**2.0142**
Expected pass-through costs less Actual	*Year t-1 Monies*	*PINCHAt-1*	0.07
Actual Revenue Recovered in period t-1	*Year t-1 Monies*	*AINCHRt-1*	2.07
Actual Other Revenue from IC in period t-1	*Year t-1 Monies*	*0.5*UINCHAt-1*	0.00
Calculation - Actual Revenue	***PINCHAt-1 - (AINCHRt-1 + (0.5*UINCHAt-1))***		**-2.15**
Actual Revenue Recovered Vs Allowed			104.1%
Euribor Rate period t		*It*	2.49%
Euribor Rate period t-1		*It-1*	5.42%
Correction Factor period t-1	*Year t+1 Monies*	***KINCHt-1***	**-0.15**

[3] Note: Terminology in tables is a per Transmission Submission during PC2

Onshore

CALCULATION OF KEXITt-1

$KEXIT_{t-1} = \{ (REXIT_{t-1} + 0.5*UEXITF_{t-1})*(1+ (HICPA_{t-1}/100)/1+ (HICPR_{t-1}/100)) - PEXITA_{t-1} - (AEXITR_{t-1} + (0.5*UEXITA_{t-1})) \}*(1+(I_t /100)*(1+(I_{t-1} /100))$

Description		Formula Ref	Value
Allowed Revenue period t-1	*Year t-1 Monies*	*REXITt-1*	117.44364
Forecast Other Revenue in period t-1	*Year t-1 Monies*	*0.5*UEXITFt-1*	0.00
Actual Inflation t-1		*HICPAt-1*	2.20000%
Allowed Inflation t-1		*HICPRt-1*	1.10%
Calculation - Revenue * Inflation	***(REXITt-1 + (0.5*UEXITFt-1)) * (1+ HICPAt-1 /1+ HICPRt-1)***		**118.72147**
Expected pass-through costs less Actual (100%)	*Year t-1 Monies*	*PEXITAt-1*	0.48
Expected pass-through costs less Actual (50%)	*Year t-1 Monies*	*PEXITAt-1*	1.16
Actual Revenue Recovered in period t-1	*Year t-1 Monies*	*AEXITRt-1*	113.09
Actual Other Revenue from IC in period t-1	*Year t-1 Monies*	*0.5*UEXITAt-1*	0.00
Calculation - Actual Revenue	***PEXITAt-1 - (AEXITRt-1 + (0.5*UEXITAt-1))***		**-114.73**
Actual Revenue Recovered Vs Allowed			96%
Euribor Rate period t		*It*	2.49%
Euribor Rate period t-1		*It-1*	3.42%
Correction Factor period t-1	*Year t+1 Monies*	***KEXITt-1***	**4.23**

APPENDIX 2: Revenue Control Formula Calculations[4]

INTERCONNECTOR	*Revenue Allowed in year t+1*		
Description		**Formula Ref**	**Value**
Inflation		*HICPDj*	4.05%
Allowed Revenue for period t+1	*10/11 Monies*	*BICt+1*	58.26
Calculation - Inflated Allowable Revenue	***{(1+(HICPj /100))* BICt+1}***		**60.61**
Forecast less Allowable pass through costs (50%)	*Yr t+1 Monies*	*PICFt+1*	0.11
Forecast less Allowable pass through costs (100%)	*Yr t+1 Monies*	*PICFt+2*	-0.52
Correction Factor Kt-1	*Yr t+1 Monies*	*KICt-1*	2.34
Forecast Other Revenue from IC in period t+1	*Yr t+1 Monies*	*0.5*UICFt*	0.00
Allowable Revenue to be Recovered in year t+1			**62.55**

INCH	*Revenue Allowed in year t+1*		
Description		**Formula Ref**	**Value**
Inflation		*HICPDj*	4.05%
Allowed Revenue for period t+1	*10/11 Monies*	*BINCHt+1*	1.99
Calculation - Inflated Allowable Revenue	***{(1+(HICPj /100))* BINCHt+1}***		**2.07**
Forecast less Allowable pass through costs (50%)	*Yr t+1 Monies*	*PINCHFt+1*	-0.028
Forecast less Allowable pass through costs (100%)	*Yr t+1 Monies*	*PINCHFt+2*	-0.043
Correction Factor Kt-1	*Yr t+1 Monies*	*KINCHt-1*	-0.15
Forecast Other Revenue in period t+1	*Yr t+1 Monies*	*0.5*UICFt*	0.00
Allowable Revenue to be Recovered in year t+1			**1.85**

EXIT	*Revenue Allowed in year t+1*		
Description		**Formula Ref**	**Value**
Inflation		*HICPDj*	4.05%
Allowed Revenue for period t+1	*10/11 Monies*	*BEXITt+1*	128.13
Calculation - Inflated Allowable Revenue	***{(1+(HICPj /100))* BICt+1}***		**133.32**
Forecast less Allowable pass through costs (50%)	*Yr t+1 Monies*	*PEXITt+1*	0.28
Forecast less Allowable pass through costs (100%)	*Yr t+1 Monies*	*PEXITt+1*	0.14
Correction Factor Kt-1	*Yr t+1 Monies*	*KEXITt-1*	4.23
Forecast Other Revenue from IC in period t+1	*Yr t+1 Monies*	*0.5*UEXITFt*	0.00
Allowable Revenue to be Recovered in year t+1			**137.96**

[4] Note: Terminology in tables is a per Transmission Submission during PC2

APPENDIX 3: Assumptions Used in Formulating the 2013/14 Commodity Forecast

The main assumptions used in formulating the Entry/Exit forecast for the gas year 2013/14 may be summarised as follows:

- Demand from the power stations is forecast to contract by -9% in 13/14.
    - Gas prices are assumed to be less favourable, relative to coal in 13/14.
    - No growth in Electricity demand assumed, projections are based on consultation with Eirgrid and their latest published GAR
    - Installed wind capacity is assumed to grow by 12%
- DM demand is forecast to grow by 2% in 13/14.
- Marginal decrease in NDM demand (-0.02%) is forecast as demand reduction continues due to lack of growth and efficiency measures.
- Corrib not assumed to commence production until after gas year 2013/14.
- Change in capacity booking regime, see Section 4 above

➢ APPENDIX 4: Revenue Control Tariff Calculation

INTERCONNECTOR TARIFF CALCULATION	€'m
Revenue Allowed for 2013/14	**62.55**
Demand	**2013/14**
peak days GWh	158.42
commodity GWh	47,218.74
Tariff	
capacity - c per peak day kWh	35.5325
commodity - c per kWh	0.0132
Revenue	
capacity	56.29
commodity	6.25
Total	**62.55**

INCH TARIFF CALCULATION	€'m
Revenue Allowed for 2013/14	**1.85**
Demand	**2013/14**
peak days GWh	36.3
commodity GWh	3,903.4
Tariff	
capacity - c per peak day kWh	4.5717
commodity - c per kWh	0.0047
Revenue	
capacity	1.66
commodity	0.18
Total	**1.85**

ONSHORE TARIFF CALCULATION	€'m
Revenue Allowed for 2013/14 *	**133.22**
Demand	**2013/14**
peak days GWh	235.52
commodity GWh	49,800.17
Tariff	
capacity - c per peak day kWh	50.9093
commodity - c per kWh	0.0268
Revenue	
capacity	119.90
commodity	13.32
Total	**133.22**

*** Total allowed Revenue (€137.96m) less 3.4% allocated to Revenue forecasted to be recovered from Short Term Capacity Bookings**

APPENDIX 5: Interest Rate Multiplier/Euribor Rates

The interest rate multiplier is used to uplift revenue over/under recoveries for the previous year (e.g. 11/12). In 2011/12 Transmission experienced a revenue under-recovery. This under recovery of revenue was under 103% for the Exit and Interconnector System and therefore attracted an interest rate of Euribor + 2%. The Inch System experienced over-recovery of above 103% and therefore attracted an interest rate of Euribor + 4%.
The Euribor Rate applied is based on information downloaded from the Euribor website:

http://www.euribor.org/html/content/euribor_data.html.

Euribor 2011/12	1.42%	
Euribor 2012/13	0.49%	
Euribor + 2% 2011/12	3.42%	*It-1*
Euribor + 2% 2012/13	2.49%	*It*
Euribor + 4% 2011/12	5.42%	*It-1*
Euribor + 4% 2012/13	4.49%	*It*
The interest rate factor calculated as		
=(1+*It-1*/100)*(1+*It*/100)	1.060	@Euribor + 2%
=(1+*It-1*/100)*(1+*It*/100)	1.101	@Euribor + 4%