Single Electricity Market Committee

ESB Power Generation Directed Contract Subscription Rules

03 April 2008

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1 Introduction

The Commission for Energy Regulation ("CER"), in consultation with the Northern Ireland Authority for Utility Regulation (jointly referred to as the Regulatory Authorities), have directed ESB Power Generation ("ESB PG") to offer Contracts for Differences to licensed retail suppliers in Ireland and Northern Ireland. The Regulatory Authorities have provided the form of contract that is to be used, have specified the aggregate volumes to be offered, and have specified the method by which the contracts will be priced. In addition, the Regulatory Authorities have specified a subscription process by which licensed retail suppliers may enter into these "Directed Contracts" during a specified time frame. All licensed retail suppliers serving customers in Ireland or Northern Ireland as of 31st March 2008 are eligible to participate in the Directed Contracts subscription process. In addition, new entrants serving customers in Ireland or Northern Ireland as of 30th April 2008 will be permitted to participate in the Supplemental Subscription Window, as described in Section 7 below.

This document contains rules designed to facilitate and to clarify the subscription process for suppliers. The rules were developed by ESB PG in consultation with the Regulatory Authorities. The document has been submitted to the CER for approval in accordance with condition 4 of ESB PG's licence to generate electricity. As this is an SEM matter the SEM Committee[1] has reviewed and decided to approve this guideline document on behalf of CER.

2 Dates for Directed Contract Subscriptions

The "Subscription Window" will run from 28 April 2008 through 15 May 2008.
The "Supplemental Subscription Window" will run from 19 May 2008 through 23 May 2008.

3 Execution of Directed Contract Documentation

Any eligible supplier wishing to enter into Directed Contracts during the Subscription Window must have provided the following documentation to ESB PG:

1 The SEM Committee is established in Ireland and Northern Ireland by virtue of section 8A of the Electricity Regulation Act 1999 as inserted by section 4 of the Electricity Regulation (Amendment) Act 2007, and Article 6 (1) of the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 respectively. The SEM Committee is a Committee of both CER and NIAUR (together the Regulatory Authorities) that, on behalf of the Regulatory Authorities, takes any decision as to the exercise of a relevant function of CER or NIAUR in relation to an SEM matter.

1. Executed the 2008/9 Master Contract for Differences Agreement. (The executed agreement must be in the form published by the Regulatory Authorities in advance of the Subscription Window);
2. Posted the appropriate credit cover;
3. Executed ESB's Trading Mandate;
4. Provided PG with a list of their authorised traders and contact details.

This entire suite of documentation must be received by PG at a minimum of 2 business days[2] prior to commencement of any trading activity between the supplier and PG for either the Subscription Window or the Supplemental Subscription Window.

4 Supplier Eligibility

The Regulatory Authorities intend to send to each eligible supplier by 14 April 2008 a matrix showing the total megawatt quantity of Directed Contracts for which they are entitled to subscribe. The eligibility is broken down by quarter and by product, as illustrated in the table below, per the products as defined in the 2008/9 Master Contract for Differences Agreement.

	[Supplier Name] Eligibilities for Directed Contracts with ESB PG		
Quarter	Baseload Quantity (MW)	Mid-Merit Quantity (MW)	*Peak Quantity (MW)*
Q4 2008			
Q1 2009			
Q2 2009			*n/a*
Q3 2009			*n/a*

ESB PG will also be provided with each supplier's eligibility and will confirm that each supplier's elections are within the eligibility parameters set by the Regulatory Authorities.

[2] Business days are Monday through Friday, excluding May 5th in both RoI and NI.

5 Pricing of Contracts

5.1 Strike Price

The strike price for each transaction will be set using the formula published by the Regulatory Authorities by 14 April 2008 and associated forward fuel prices. The forward price indices to be inputted to the formula for each fuel are described below.

For the avoidance of doubt, the prices in the formula are denominated in Euros per therm or Euros per tonne, as appropriate. The fuel indices below therefore have to be converted from Sterling pence per therm (in the case of Natural Gas) and US Dollars per metric tonne (in the case of Coal, Gasoil and Low Sulphur Fuel Oil) into Euros using the spot daily Sterling-Euro and spot daily US Dollars-Euro exchange rate. The Natural Gas price also has to be converted from Euro cents per therm to Euros per therm by dividing by 100.

The rounding rules to be used in the calculation of the Directed Contract strike price using the regression formula in the 2008/9 Master Contract for Differences Agreement are as follows:

1 The fuel prices and exchange rates should be used to the number of decimal places to which they are published (by ECB, Platts, Heren, LEBA etc.). In other words, if a price/exchange rate is quoted to five decimal places (as exchange rates sometimes are), it should be used in the calculations with five decimal places. In the case of the regression coefficients in the DC strike price formulae, the coefficients should be used with the number of decimal places published by the Regulatory Authorities.

2 In any subsequent calculations (ie in converting from US$/tonne into €/tonne), the result of the calculation should be rounded to the number of decimal places of the constituent number in the calculation with lowest number of the decimal places. So in the case of a fuel whose price is quoted to two decimal places, the result of converting from sterling/dollars into euros should be rounded to two decimal places.

3 In the case of the gas terms, where there are three operands, when dividing by 100 to get from euro cents per therm to euros per therm, no further

rounding should be done. In other words if the result of bullet point (2) above is 39.45 euro cents per therm, the price in euros per therm should be €0.3945/therm. It should not be rounded at this stage.

4 The constituent fuel terms in each equation, individually calculated using the rounding rules set out above, should then be added together, together with the constant. The oil price terms will generally have one or two decimal places, the gas price term up to four decimal places, the carbon term two decimal places etc.

5 If a constituent term in the regression equation consists of the product of two fuel prices (e.g., gas and LSFO or gas and carbon), the rounding takes place on the result of the three terms (i.e., the regression coefficient and the two fuel prices) being multiplied together. In MS Excel formula terms the formula would look like this:

= ROUND (coefficient * $price_1$ * $price_2$, 2)

6 The result of the addition of the various constituent terms in the strike price equations should then be rounded, to conform with Schedule 1, Part 2 of the 2008/9 Master Contract for Differences Agreement, to two decimal places.

5.1.1 Natural Gas

The Settle price (in pence Sterling per therm) for the Quarterly Intercontinental Exchange ("ICE") Natural Gas Futures as reported in European Spot Gas Markets published by Heren Energy will be used.

5.1.2 Coal

The Average of the Bid and Ask prices (in US dollars per tonne) for quarterly Forward Coal CIF ARA API2 swap transactions as reported daily in Argus Coal Daily International will be used. If no price is available from "Argus Coal Daily International" for a given quarter, the price for the most recent quarter will be used.

5.1.3 Gasoil

The Mid Point quarterly price (in US dollars per metric tonne) for swap transactions for 0.2% Gasoil CIF cargoes in NWE including cost, insurance and freight (CIF), as reported by Platts Forward Curve Oil will be used. If no price is available from Platts for a given quarter, the price for the most recent preceding quarter will be used.

Note that Platts publish the Gasoil cargo swap prices as a differential to their Gasoil Frontline Swap. Therefore to get the actual price for Gasoil to use in the Directed Contract strike price formula it is necessary to add the mid-point value of the above index to the mid-point value of the Gasoil Frontline Swap.

5.1.4 Low Sulphur Fuel Oil

The Mid Point quarterly price (in US dollars per metric tonne) for swap transactions for 1% free on board (FOB) fuel oil cargoes in Northwest Europe ("NWE"), as reported by Platts Forward Curve Oil will be used. If no price is available from Platts for a given quarter, the price for the most recent preceding quarter will be used.

5.1.5 Carbon

The daily price weighted average closing price (in euro per tonne) reported by the London Energy Brokers Association (LEBA) for a given calendar year will be used. The calendar price for a given year will apply to all quarters falling within that year.

5.1.6 Foreign Exchange

The forward fuel prices to be used in the daily strike price calculation will be converted to Euro per tonne using the daily spot Dollar-Euro foreign exchange rate and into Euro per therm using the daily spot Sterling-Euro foreign exchange rate, as defined in the 2008/9 Master Contract for Differences Agreement. The source is the daily euro foreign exchange reference spot rate from the European Central Bank.[3]

Appendix 2 to these Subscription Rules sets out further detail on how the fuel prices will be used.

5.2 Pricing Formula

The Regulatory Authorities have reserved the right to alter and republish the pricing formula during the Subscription Window and the Supplemental Subscription Window. The formula may be altered if there is recognition that it is no longer correct. This could occur where daily price of a fuel or carbon falls outside the range of fuel/carbon

[3] http://www.ecb.int/stats/exchange/eurofxref/html/index.en.html

prices under which the formula was developed or where there is a significant change in future plant availability.

6 Subscription Window

6.1 Daily and Aggregate Subscription Limits

On each business day during the Subscription Window, suppliers can elect to enter into transactions for a percentage of their eligibility for each product and quarter.

To do so, suppliers must inform ESB PG via fax (in the form, constituting the Daily DC Supplier Subscription Form, set out in Appendix 1) between 8:30am and 11:00am on a given election day of the following:

a) the product that is being subscribed for (baseload, mid-merit or peak); and

b) the percentage quantity that is being subscribed for in each quarter.

The quantity must be expressed as a whole number percentage of that supplier's eligibility for that product and quarter. Where a supplier's election does not constitute whole percentages, ESB PG shall round the subscription down to the nearest whole number percentage. Suppliers may elect different percentages of the different products and across quarters. Suppliers may also choose not to elect a particular product or quarter.

The quantity subscribed for a given product and quarter on a given business day is subject to a minimum and a maximum.

- The minimum subscription will be 1% of eligibility for that product and quarter, the minimum daily amount.

- The maximum subscription will be 15% or 15 MW for that product and quarter, whichever is greater, the maximum daily amount. For each product type and each quarter elected, ESB PG will calculate what percent 15 MW is of the supplier's eligibility in that quarter and for that product type. If eligibility is zero for a particular quarter and product type, then this percentage is not applicable for that quarter and product type. Each figure will be rounded to the nearest whole percentage point.

Daily subscriptions are subject to the credit requirements set out in Section 8.

In the event that a supplier submits a subscription that:

- Exceeds the maximum daily amount in respect of any product and quarter, ESB PG will in respect of the relevant product and quarter calculate the maximum volume consistent with the maximum daily amount and will deem the subscription to be for that amount.

- On any given day exceeds its total eligibility for any product and quarter as per the matrix in Section 4 above, ESB PG will calculate the maximum volume consistent with the total eligibility matrix and will deem the subscription to be for that amount.

- Is for an amount less than the minimum daily amount, ESB PG will deem the subscription in respect of that day to be rejected for that product.

ESB PG will notify each supplier of any rejections (by product and quarter), and the cause of the rejection, on the relevant trading day by 1:00pm.

6.2 Subscription Logistics

As stipulated in Section 6.1, subscriptions by eligible suppliers must be made via fax (in the prescribed form as set out in Appendix 1) between 8:30am and 11:00am on business days during the Subscription Window.

Suppliers should submit one fax of the Daily DC Supplier Subscription Form on any given trading day. In the event that multiple elections are submitted by a supplier for a given trading day, ESB PG will utilise the first valid fax as the daily subscription election. To be valid, a fax must be clear and unambiguous. Where the supplier's faxed subscription form is either unclear or ambiguous, the judgement of ESB PG as to its unclear or ambiguous terms shall be final. Suppliers are accordingly requested to submit the subscription form to ESB PG also via email (<*TO BE DETERMINED*>@esb.ie) within the 8:30am to 11:00am period.

ESB PG will convert the percentages of eligibility into MW quantities by quarter and product. In addition, ESB PG will use the DC strike price formulae as set by the Regulatory Authorities to determine transaction prices by product and by quarter.

The Regulatory Authorities have specified that ESB PG shall input each trading day's closing forward fuel and emissions and foreign exchange prices into the Directed Contract pricing formulas to set the transactions prices. Hence, while the subscriptions will be made in the 8:30 AM to 11:00 AM period, the transaction prices will not be known until that trading day's closing fuel and emissions prices and exchange rates are published.

Within two business days following subscription, ESB PG will send to the supplier a Transaction Confirmation Letter in the form of Schedule 6 to the 2008/9 Master Contract for Differences Agreement for each transaction entered into. (Each subscription for a given product and quarter is considered a transaction.) The transaction confirmation will contain the MW quantities and prices by quarter. The transaction confirmation will reflect any adjustments made to subscriptions to reflect breaches of maximum or minimum daily amounts, total eligibility or the credit provisions set out in Section 8.

The supplier will have the opportunity to review the accuracy of the transaction confirmation and to request corrections if necessary pursuant to the terms of Section 3.3 of the 2008/9 Master Contract for Differences Agreement. As provided at clause 3.3.5 of the 2008/9 Master Contract for Differences Agreement, in the event that the price information contained in the confirmation differs from the calculated price under the pricing formula then the price formula calculation shall prevail. Similarly, in the event that the MW quantity information contained in the confirmation differs from the valid percentage of eligible volume subscribed, then the latter shall prevail.

6.3 Notification of Subscriptions

At the end of each business day within the Subscription Window, ESB PG will notify the Regulatory Authorities and the eligible suppliers of the total cumulative MW quantity (by product and quarter) of Directed Contract volumes subscribed to, up to and including that date.

ESB PG will also notify the Regulatory Authorities by 2:00pm of the following business day for a given trading day of:

1. the volumes transacted by each supplier, by product for each quarter, and

2. ESB PG's calculation of the ESTSEM prices per product and quarter,

for each trading day during the Subscription Window.

7 Supplemental Subscription Window

The Supplemental Subscription Window is designed to give suppliers who have fully subscribed their eligibility during the initial Subscription Window an opportunity to enter into additional Directed Contract transactions.

New entrants who were licensed in the period to mid-May and are not affiliated with any existing market participant will also be permitted to participate in the Supplemental Subscription Window. Such suppliers will have a maximum entitlement based on their MIC as measured at 12 May 2008. New entrant eligibility will be notified to ESB PG by the Regulatory Authorities. ESB PG will monitor new entrant activity during the Supplemental Subscription Window to assure that subscriptions by new entrants do not exceed eligibilities.

Suppliers who participated in the initial Subscription Window will be eligible to participate in the Supplemental Subscription Window only if they subscribed 100% of their eligibility in all products (baseload, mid-merit and peak). A supplier who is fully subscribed for baseload, for example, but not fully subscribed for peak will not be permitted to make additional elections during the Supplemental Subscription Window.

Following the Subscription Window, ESB PG will notify those suppliers who are eligible to participate in the Supplemental Subscription Window of the unsubscribed quantities that remain for each product (baseload, mid-merit and peak) and for each quarter. The eligibility of suppliers will be reset for the purposes of the Supplemental Subscription Window and each supplier who is eligible to participate will be separately eligible to take all of the unsubscribed quantities over the course of the Supplemental Subscription Window, subject to the daily subscription limits described below and the posting of sufficient credit cover.

7.1 Subscription Logistics

Suppliers making quantity elections during the Supplemental Subscription Window will be required to do so in the same manner in which the elections were made during the Subscription Window.

In particular, the subscriptions must be made via fax between 8:30 AM and 11:00 AM on business days during the Supplemental Subscription Window as per the form in Appendix 1.

Further, as was the case during the Subscription Window, the following also apply to suppliers in the Supplemental Subscription Window:

- Supplier elections will be subject to a minimum of 1%, the minimum daily amount. Suppliers also may choose not to elect a particular product.
- Supplier elections will be subject to a maximum of 15% or 15 MW, the maximum daily amount, as illustrated above.
- Supplier elections must be specified as whole number percentages.
- Suppliers may elect different percentages of the different products.
- Subscriptions are subject to the credit requirements set out in Section 8.

ESB PG shall apply the same rules as during the Subscription Window for breaches of maximum or minimum daily amounts (the total eligibility matrix does not apply during the Supplemental Subscription Window).

Where a supplier's election does not constitute whole percentages, ESB PG shall round the subscription down to the nearest whole number percentage.

7.2 Oversubscription

If the available Directed Contract quantities for a given product are oversubscribed as a result of multiple suppliers' electing the same transaction on the same day during the Supplemental Subscription Window, those suppliers' elections will be scaled down on a pro rata basis until 100% of the available Directed Contract quantities are subscribed.

7.3 Notification of Subscriptions

ESB PG shall apply the same notifications during the Supplemental Subscription Window as during the Subscription Window to both the Regulatory Authorities and eligible suppliers.

8 Management of Credit Cover

The SEM Committee has decided that the credit cover requirements for Directed Contracts may be determined by the seller. The arrangements should take account of, inter alia, the seller's legal or statutory requirements and risk tolerance. The arrangements however should be no more onerous than those specified in the 2008/9 Master Contract for Differences Agreement.

ESB PG's requirements are set out below:
Each supplier with Directed Contract (DC) eligibility intending to exercise any of its DC eligibility will need to have posted credit cover in advance of the relevant subscription window. Suppliers will be required to lodge separate Letters of Credit in respect of 2008/9 DC subscriptions, and will not be entitled to utilise for the purpose of 2008/9 DC subscriptions any Surplus Margin (as defined in the 2007/8 DC Master Agreement) on their Letter of Credit provided as cover against 2007/8 DCs.

The credit cover requirements during the 2008/9 subscription windows are calculated as follows:

- The expected prices for each product in each quarter will be calculated based on the closing fuel and carbon prices and exchange rates on the business day that the RAs publish the DC pricing formula (the RAs currently intend to publish the pricing formulae on the 14 April 2008).
- By 5pm on the day following the publication of the DC pricing formula by the RAs, ESB PG will issue a matrix of ESTSEM p,q[4] prices based on the close of previous day fuel and carbon prices and exchange rates.
- This matrix will be "baselined" for the duration of the Subscription Window and the Supplemental Subscription Window for the purpose of credit cover calculations.
- The matrix will have the format set out **<u>illustratively</u>** below:

[4] $ESTSEM_{p,q}$ is an estimate of the average SEM price, the formula for which will be determined by the Regulatory Authorities.

	ESTSEM p,q		
	Baseload	Mid-Merit	Peak
Q4 2008	€ 60/MWh	€ 70/MWh	€ 80/MWh
Q1 2009	€ 60/MWh	€ 70/MWh	€ 80/MWh
Q2 2009	€ 60/MWh	€ 70/MWh	n/a
Q3 2009	€ 60/MWh	€ 70/MWh	n/a

Note: The ESTSEM p,q prices noted above are for illustrative purposes only and not reflective of actual prices for DCs.

- Each supplier is required to provide ESB PG with 15% of the value of the underlying energy in credit cover for any volumes they wish to subscribe for, based upon the DC Strike Prices. ESB PG has the right to decline any subscription volume in excess of the credit cover in place.

- Therefore each supplier should calculate the maximum DC volume they may wish to subscribe for during the relevant Subscription Window in MWh (see the non-binding worked example below).

- If a supplier's elections exceed the amount of credit cover lodged then ESB PG will:

  - Calculate the credit cover required for the otherwise eligible bids for that day
  - Compare that value to the remaining unused credit cover.
  - If the required credit cover is greater than the remaining credit cover then all the (otherwise eligible) bids for that day are scaled back by the ratio of "remaining credit cover" to "required credit cover".
  - Send out confirmations for the accepted subscriptions consistent with the standard timetable for confirmations.

- If a supplier subsequently posts additional credit cover before the end of the relevant Subscription Window, they will be eligible for additional subscriptions up to the limit of the additional credit cover. The subsequent elections will be subject to the same constraints on maximum daily amounts and total eligibility. Therefore if the supplier in question does not lodge the additional credit cover until late in the Subscription Window, it may be at risk of not being able to subscribe to its total eligibility as per the total eligibility matrix.

Note that the above process has been based upon certain assumptions. ESB PG reserves the right to amend the above process if there are material changes in the following areas:

- The duration between the date the DC pricing formula is published (and hence the date the prices are "baselined" for the purposes of the upfront credit requirements) and the start of the Subscription Window.
- The duration between the start of the Subscription Window and the end of the Supplemental Subscription Window.
- Revisions to the DC strike price formula in accordance with the provisions set out in Section 5.2 above.

Once the Subscription Window and the Supplemental Subscription Window processes have been completed, the specific provisions covering credit during the subscription process as described in this section will expire. The normal monthly and intra-monthly margining provisions will apply as per the 2008/09 Master Contract for Differences Agreement.

Non-binding Worked Example:

- Suppose a supplier decides that they wish to subscribe to the following volumes:

	Baseload	Mid-Merit	Peak
Q4 2008	10,000 MWh	8,000 MWh	1,000 MWh
Q1 2009	5,000 MWh	4,000 MWh	1,000 MWh
Q2 2009	5,000 MWh	4,000 MWh	n.a.
Q3 2009	10,000 MWh	8,000 MWh	n.a.

- Then the supplier should calculate the credit cover required to support their likely maximum DC subscription as follows:

	Baseload	Mid-Merit	Peak	Total
Q4 2008	€60/MWh x 10,000 MWh x 15% = €90,000	€70/MWh x 8,000 MWh x 15% = €84,000	€80/MWh x 1,000 MWh x 15% = €12,000	€186,000
Q1 2009	€60/MWh x 5,000 MWh x 15% = €45,000	€70/MWh x 4,000 MWh x 15% = €42,000	€80/MWh x 1,000 MWh x 15% = €12,000	€99,000
Q2 2009	€60/MWh x 5,000 MWh x 15% = €45,000	€70/MWh x 4,000 MWh x 15% = €42,000	n/a	€87,000
Q3 2009	€60/MWh x 10,000 MWh x 15% = €90,000	€70/MWh x 8,000 MWh x 15% = €84,000	n/a	€174,000
Total	€270,000	€252,000	€24,000	€546,000

Therefore the supplier would need to have lodged a minimum of €546,000 credit cover before the start of the Subscription Window in order to cover the intended volume as set out in the example.

- A supplier may elect its preferred mix of baseload, mid-merit and peak product, subject to its eligibility matrix, provided that the value of the underlying energy calculated at the “baselined” prices above does not exceed the €546,000 credit cover lodged.

9 Appendix

9.1 Appendix 1: Daily DC Supplier Subscription Form (Part 1)

Power Generation

Daily DC Supplier Subscription Form
Directed Contracts 2008/9

Part 1: Supplier Information

General Information

This submission form must be submitted to PG before the close of daily Subscription Window and in accordance with the DC Subscription Rules.

Each Eligible Supplier must complete:
(a) the information required in Table 1 of Part 1 and all of Part 2, and
(b) submit the fully completed subscription form via fax,
as executed by an authorised representative of the Eligible Supplier.

Table 1: Identity of Supplier
(to be completed by Eligible Supplier)

Participant Entity Name:	
Address:	
Telephone:	
Facsimile:	
Email address:	
Authorised Representative:	

Note: For the avoidance of doubt in legibility, please complete this form electronically and provide ESB PG with the printed fax form completed.

Appendix 1: Daily DC Supplier Subscription Form (Part 2)

Power Generation

Part 2: 2008/9 Directed Contracts Subscription Form

Supplier Name:

Trading Date:

	Q4 2008	Q1 2009	Q2 2009	Q3 2009
Baseload				
Mid-Merit (0700-2300)				
Peak (1700-2100)				

Note: The products above are as defined in the 2008/9 Master Contract for Differences Agreement.

IMPORTANT NOTICE:
This Subscription Form is issued by ESB Power Generation in accordance with the DC Subscription Rules. Only an Eligible Supplier may submit an election in this DC Subscription Window.

By submitting a bid in this DC Subscription Window, the Eligible Supplier shall be deemed to have unconditionally accepted:
(a) the terms and conditions of the Subscription Rules; and
(b) that successful bids will be transacted under the 2008/9 Master Contract for Differences Agreement between ESB PG and the Supplier, including the Schedules to that Agreement.

Please return this template via **FAX** to **01 7021164** between 8:30am to 11:00am today.
** **PLEASE DO NOT ALTER FORMAT** **
Additional Info: An email of this form can be sent to ESB PG at <*TO BE DETERMINED*>@esb.ie.

Supplier Signature: ______________________ **Date:** ______________________

Name of Signatory: ______________________ **Date:** ______________________

9.2 Appendix 2: Fuel Indexation Methodology

The rules described below set out the methodology for applying fuel indices in the strike price calculation during the relevant subscription window.

Natural Gas ICE, NBP

Quarter	**Approach**	**Rationale**
Q4 2008	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q1 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q2 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q3 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window

Coal (CIF ARA, API2)

Quarter	Approach	Rationale
Q4 2008	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q1 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q2 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q3 2009	Use the Q2 2009 price if published quarterly price is unavailable.	Quarterly prices may not be directly observable by the start of the subscription window.

Gas oil CIF NWE

Quarter	Approach	Rationale
Q4 2008	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q1 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q2 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q3 2009	Use the Q2 2009 price if published quarterly price is unavailable	Quarterly prices will be directly observable by the start of the subscription window

Low Sulphur Fuel Oil (1% FOB NWE)

Quarter	Approach	Rationale
Q4 2008	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q1 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q2 2009	Use published quarterly price	Quarterly prices will be directly observable by the start of the subscription window
Q3 2009	Use the Q2 2009 price if published quarterly price is unavailable	Quarterly prices may not be directly observable by the start of the subscription window

Carbon

Quarter	Approach	Rationale
Q4 2008	Use the LEBA closing weighted average price for 2008	LEBA do not publish quarterly granularity prices. However, this is not an issue as emissions limits apply annually, not quarterly
Q1 2009	Use the LEBA closing weighted average price for 2009	
Q2 2009	Use the LEBA closing weighted average price for 2009	
Q3 2009	Use the LEBA closing weighted average price for 2009	