



ELECTRICITY SUPPLY BOARD  
BORD SOLÁTHAIR AN LEICTREACHAIS

Master Contract for Differences Agreement  
Between  
ELECTRICITY SUPPLY BOARD  
and  
[Buyer]  
Being a 2012/13 PSO-Supported Contract  
Issued on [Date]

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## MASTER CONTRACT FOR DIFFERENCES AGREEMENT

### IMPORTANT NOTICE

This form of Master Contract for Differences Agreement has been prepared by the Electricity Supply Board and made available to participants in the Single Electricity Market established in Northern Ireland and Ireland. It is the responsibility of any person using this form of agreement to ensure that its terms are legally binding, valid and enforceable and satisfy the user's commercial and legal requirements. Neither the Electricity Supply Board nor any of its representatives or advisors involved in the preparation of this form of agreement shall be liable to any person, whether in contract, tort (including negligence and breach of duty) or otherwise for its use by any person or for any damages or losses arising from such use, and all such liability is hereby expressly disclaimed.

**THIS 2012/13 MASTER CONTRACT FOR DIFFERENCES AGREEMENT** is made the \_\_\_ day of \_\_\_\_\_  
2012

#### **BETWEEN:**

- (1) The Party identified in Schedule 2 as the Seller; and
- (2) The Party identified in Schedule 2 as the Buyer.

#### **RECITALS:**

- (A) The Seller is a statutory corporation organised under the laws of Ireland and is authorised to engage in, among other activities, the trading of electricity.
- (B) The Buyer is a [statutory corporation][company] [**delete as appropriate**] organised under the laws of Ireland and is authorised to engage in, among other activities, the trading of electricity.
- (C) The Commission for Energy Regulation ("CER") has directed the Seller to auction and to be the counterparty to an agreed volume of CfDs backed by specific Public Service Obligation ("PSO") supported plant.

**AGREEMENT:****1. Definitions and Interpretation**

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- 1.1 Capitalised words and phrases used in this Agreement (including the Recitals hereto) have the meaning given to them in Part 1 of Schedule 1, unless the context requires otherwise.
- 1.2 Unless the context requires otherwise:
- 1.2.1 the singular includes the plural and vice versa;
  - 1.2.2 a reference to any gender includes a reference to all other genders;
  - 1.2.3 "persons" includes individuals, firms, corporations, unincorporated associations and statutory authorities and all references to persons shall include their successors and permitted assignees;
  - 1.2.4 a reference to any enactment, order, regulation, directive, code, licence or similar instrument includes a reference to all enactments or instruments made under it and any amendment, re-enactment or replacement of it;
  - 1.2.5 a reference to any contract or agreement includes a reference to any variation, amendment, or supplement to it;
  - 1.2.6 a reference to a clause is a reference to a clause in this Agreement;
  - 1.2.7 a reference to a Schedule, or to a Part of a Schedule, is a reference to a Schedule, or a Part of a Schedule, as the case may be, to this Agreement;
  - 1.2.8 a reference to time is a reference to time in Ireland;
  - 1.2.9 a reference to a year is a reference to a calendar year;
  - 1.2.10 "includes" and its variations are to be construed without limitation;
  - 1.2.11 clause headings, clause descriptions and examples are for convenience only and do not affect the interpretation of this Agreement; and
  - 1.2.12 schedules to this Agreement form an integral part of this Agreement as if they were incorporated in this Agreement and references to this Agreement shall, unless the context otherwise requires, be deemed to include the Schedules to this Agreement.
- 1.3 All data required for input into calculations in this Agreement shall be rounded to the number of decimal places shown in Part 2 of Schedule 1 before being used for the calculations. Results of the

calculations shall also be rounded as shown in the Schedule. Payments shall be rounded to the nearest whole cent.

- 1.4 In the event of conflict between any provision of this Agreement and any provision of the Auction Rules, this Agreement shall prevail.
- 1.5 Nothing in this Agreement:
- 1.5.1 is intended to give, or shall give, either of the Parties any right to physical delivery of electricity; or
- 1.5.2 is intended to create, or shall create, in favour of either Party any legal or beneficial interest of any nature whatsoever in any of the plant, power station or other asset of the other Party.
- 1.6 In entering into this Agreement, Party A and Party B both agree to comply with the terms and provisions of those parts of the Auction Rules applying to them relating to the entering into of any Transactions, and such Auction Rules shall be deemed to be set out in this Agreement and have effect as if part of this Agreement.

## **2. Commencement and Term**

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- 2.1 Subject to Clause 2.2 below, this Agreement (including Clause 10.2 (Exposure Calculations and Payment Assurances)) enters into effect when both Parties have signed it and this Agreement continues until the Termination Date, unless terminated earlier pursuant to Clause 11 (Termination) or by agreement between the Parties and CER.
- 2.2 The provisions of Clauses 5 (Payment Obligations) and 7 (Billing and Payment) of this Agreement shall not enter into force between the Parties until 00:00 hours on 1 October 2012.

## **3. Transactions and their Confirmation Procedure**

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### **3.1 Transactions**

- 3.1.1 The Parties have agreed that all Transactions entered into will be governed by this Agreement.
- 3.1.2 All Transactions must be entered into in accordance with the Auction Rules.
- 3.1.3 All Transactions are entered into in reliance on the fact that this Agreement and all Confirmation Letters form a single agreement between the Parties.

3.1.4 If there is a conflict between the terms of a Transaction and the terms of this Agreement then the latter shall prevail for the purpose of the relevant Transaction.

### 3.2 **Agreement of a Transaction**

3.2.1 The Parties intend that they be legally bound by the terms of each Transaction from the moment they agree to those terms in accordance with the Auction Rules.

### 3.3 **Exchange of Written Confirmation Letters**

3.3.1 Unless otherwise agreed, the Seller shall, in respect of each Transaction, send to the Buyer by facsimile a written confirmation, substantially in the form set out in Schedule 6, of the Transaction (a "Confirmation Letter") recording the details of the Transaction within 2 Business Days of a Transaction having been entered into.

3.3.2 If the Buyer is satisfied that the Confirmation Letter accurately reflects the terms of the Transaction pursuant to the Auction Rules, the Buyer shall return the Confirmation Letter duly signed on its behalf to the Seller within 2 Business Days of receipt of the Confirmation Letter.

3.3.3 If the Buyer is not so satisfied, the Buyer shall inform the Seller of any inaccuracies within 2 Business Days of receipt of the Confirmation Letter from the Seller. If the Seller agrees that the Confirmation Letter is inaccurate, the Seller shall issue a new Confirmation Letter and the provisions of Clauses 3.3.1 and 3.3.2 shall apply with all necessary changes.

3.3.4 If the Buyer has not received a Confirmation Letter from the Seller within 2 Business Days of a Transaction having been entered into, the Buyer shall send to the Seller a Confirmation Letter, and Clauses 3.3.2 and 3.3.3 shall apply in relation to that Confirmation Letter by replacing all references to "Buyer" with "Seller" and all references to "Seller" with "Buyer" in those clauses and by replacing the reference to "2 Business Days" with "4 Business Days".

3.3.5 Failure by either Party to send or return a Confirmation Letter shall not: (a) affect the validity or enforceability of any Transaction; or (b) be a material breach of this Agreement under Clause 11.1.4.

### 3.4 Execution and evidence of a Transaction

- 3.4.1 The Parties consent to the recording of all telephone conversations between the Parties and between any of the Parties and the MTF Operator relating in whole or part to this Agreement including any Transaction. Each Party agrees to notify its employees and other relevant personnel of that consent and obtain their consent to that recording if required by law and agrees, to the extent permitted by applicable law, that recordings may be submitted in evidence in any proceedings.
- 3.4.2 The evidence of the terms of a Transaction contained in recordings made under Clause 3.4.1 and in any undisputed Confirmation Letter shall prevail over other oral or written evidence.

## 4. Representations and Warranties

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- 4.1 The Buyer and Seller make the representations and warranties in this Clause 4 throughout the Term which representations and warranties are deemed to be repeated by the Buyer and the Seller on each date on which a Transaction is entered into.
- 4.2 Each Party represents and warrants that:
- 4.2.1 **(Status)** it is duly organised and validly existing under the laws of the jurisdiction of its organisation or incorporation (and, if relevant under those laws, in good standing);
- 4.2.2 **(Power)** it has the power and authority to (a) enter into and execute this Agreement and the Transactions and any other documentation relating to this Agreement to which it is a party, (b) to deliver this Agreement and any other documentation relating to this Agreement that it is required by this Agreement to deliver, (c) to perform its obligations under this Agreement, and has taken all necessary action to authorise that execution, delivery and performance;
- 4.2.3 **(No violation or conflict)** the execution, delivery and performance referred to in Clause 4.2.2 do not violate or conflict with any law applicable to it, any provision of its constitutional documents, any order or judgement of any court or other agency of government applicable to it or any of its assets or any contractual restriction binding or affecting it or any of its assets;

- 4.2.4 **(Required Authorisations)** all governmental and other licences, authorisations, permits, consents, contracts and other approvals (if any) that are required to enable it to fulfil any of its obligations under this Agreement have been obtained and are in full force and effect and all conditions of these authorisations have been complied with;
- 4.2.5 **(Obligations Binding)** its obligations under this Agreement constitute its legal, valid and binding obligations, enforceable in accordance with their respective terms subject to applicable bankruptcy, reorganisation, insolvency, moratorium or similar laws affecting creditors' rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law);
- 4.2.6 **(No Event of Default)** no Event of Default, or event which with notice and/or lapse of time would constitute an Event of Default, has occurred with respect to it and is continuing and no such event would occur as a result of its entering into or performing its obligations under this Agreement;
- 4.2.7 **(No Litigation)** no litigation, arbitration, or administrative suit or proceeding at law or in equity or before any court, tribunal, government body, agency, official or arbitrator is pending, or, so far as it is aware, threatened against it or any of its Affiliates which would, if adversely determined, result in a material adverse change in its financial condition or its ability to perform its obligations under this Agreement, or that is likely to affect the legality, validity or enforceability against it of this Agreement or its ability to perform its obligations under this Agreement;
- 4.2.8 **(No reliance)** it is not relying upon any representations of the other Party other than those expressly set out in this Agreement;
- 4.2.9 **(Principal)** it has entered into and executed this Agreement as principal (and not as agent or in any other capacity, fiduciary or otherwise);
- 4.2.10 **(Risk Assumption)** it has entered into this Agreement with a full understanding of its material terms and risks and is capable of assuming those risks;
- 4.2.11 **(No advice)** the other Party is not acting as a fiduciary or an adviser for it, nor has the other Party given to it any advice, representation, assurance or guarantee as to the expected performance, benefit or result of this Agreement; and



4.2.12 **(Accurate Information)** all applicable information that is furnished in writing, if any, by or on behalf of it to the other Party and is identified for the purpose of this Clause 4 is, as of the date it is furnished to the other Party, true, accurate and complete in every material respect.

4.3 **(UK FSMA compliance)** The Buyer, if registered in the UK, warrants that it:

- (a) is a person to whom an unapproved financial promotion can be directed pursuant to article 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 ("FPO") being a company which satisfies one of the following conditions:
  - (i) a company which has a called-up share capital or net assets of not less than £5 million; or
  - (ii) a company which is a member of the same group as an undertaking which has a called-up share capital or net assets of not less than £5 million; or
  - (iii) a company which has more than 20 members, or which is a subsidiary undertaking of an undertaking which has more than 20 members, and which has a called-up share capital or net assets of not less than £500,000; or
  - (iv) a company which has more than 20 members, or which is a subsidiary undertaking of an undertaking which has more than 20 members and which is a member of the same group as an undertaking which has a called-up share capital or net assets of not less than £500,000, and
- (b) has provided the Seller with a separate written confirmation that it satisfies one of the above conditions in article 49 of the FPO or that it will comply with any request from the Seller to provide such separate written confirmation.

**5. Payment Obligations**

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- 5.1 For each Transaction entered into, the Seller shall pay the Buyer, in respect of each Trading Period, any Difference Payment in respect of the Contract Quantity for that Trading Period that is payable by the Seller to the Buyer.
- 5.2 For each Transaction entered into, the Buyer shall pay the Seller, in respect of each Trading Period, any Difference Payment in respect of the Contract Quantity for that Trading Period that is payable by the Buyer to the Seller.
- 5.3 Payments under this Clause 5 shall be for all Transactions and shall be made in accordance with Clause 7 (Billing and Payment). This Clause 5 shall survive Termination of this Agreement.

## **6. Indexation**

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- 6.1 If any Index permanently ceases to be published then either Party may request, in writing, amendments to this Agreement and the Parties shall negotiate in good faith to agree and will notify CER forthwith of:
- 6.1.1 a substitute index (which will then replace such Index as the relevant Index) or adjustments to the amounts derived from the agreed Index; and
- 6.1.2 any other consequential changes necessary to give effect to the substitute Index, which produces as nearly as possible the same result having regard to the commercial intention of the Parties at the time of entering into this Agreement and, to the extent possible, such that neither Party benefits (whether at the expense of the other Party or by way of windfall) nor suffers a detriment, or where some benefit or detriment is unavoidable, it is, in so far as possible, shared equally by the Parties.
- 6.2 If the Parties are unable to reach agreement under Clause 6.1, then, after 20 days from the date on which the written request was made, either Party may refer the matter for resolution by the CER whose determination shall be final and binding upon the Parties.

## **7. Billing and Payment**

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### **7.1 Monthly Statement**

On or before the 7th Business Day of the Month following each Month which is wholly or partly in the Term, the Seller shall in respect of each Month send to the Buyer a written statement in respect of Transactions under this Agreement ("Monthly Statement") showing for the preceding Month:

- 7.1.1 A summary for each Transaction, comprising:
- (i) the Product;
  - (ii) the Strike Price;
  - (iii) the average SMP in the Month for the Trading Periods applicable to the Product;
  - (iv) the difference between the Strike Price and the average SMP;
  - (v) the Contract Quantity;
  - (vi) the number of Trading Periods applicable to the Product in the Month;

- 7.1.2 the amount owing to settle the Difference Payments owed by the Parties under Clause 5 for the Transaction for the Month, as calculated under Clause 7.3;
- 7.1.3 any amount owing from one Party to the other in respect of the Transaction pursuant to any other Clause in this Agreement;
- 7.1.4 the net amount payable from one Party to the other after taking into account all the matters set out above; and
- 7.1.5 if applicable, Value Added Tax ("VAT") for the Month.

## 7.2 **Payment Mechanics**

- 7.2.1 On the 12th Business Day of the Month in which the Monthly Statement is received by the Buyer or the 5th Business Day after receipt, whichever is the later (the "Due Date"), the Buyer or the Seller, as the case may be, shall pay to the other Party to whom it is due, the net amount payable in accordance with the Monthly Statement. The net amount payable in accordance with the Monthly Statement shall be paid without deduction of any charge, levy, expense, or other cost payable by or in respect of the Party required to make the payment.
- 7.2.2 Payment shall be made by the Due Date in Euro by direct bank transfer or equivalent transfer of immediately available funds to the Party to whom payment is due and to the credit of the account specified by that Party.
- 7.2.3 Where applicable, an amount equal to VAT payable to a Party shall not be required to be paid before the other Party provides it with an appropriate VAT invoice in relation to that amount. Each Party shall provide the other with any additional appropriate VAT invoices as required for the purposes of this Agreement.

## 7.3 **Calculations and multiple Transactions**

- 7.3.1 The average SMP for a Transaction for a Month is calculated by taking the average of the SMP in each Trading Period in which the Settlement Quantity for the Transaction is greater than zero; and where the same Settlement Quantities do not apply in all such Trading Periods, the average SMP shall be the weighted average SMP, calculated by taking the sum of (SMP \* Settlement Quantity \* Duration of a Trading Period) across all

such Trading Periods and dividing that quantity by the Aggregate Settlement Quantity for the Month.

- 7.3.2 The amount owing to settle the Difference Payments owed by the Parties under Clause 5 for a Transaction for a Month is calculated by multiplying the value of item (iv) (the difference between the Strike Price and the average SMP) in Clause 7.1.1 by the value of the Aggregate Settlement Quantity. Where the average SMP is higher than the Strike Price, that amount is paid by the Seller to the Buyer, and where the average SMP is lower than the Strike Price, that amount is paid by the Buyer to the Seller.
- 7.3.3 The Seller and the Buyer may agree that where the Transaction Term of more than one Transaction (for which the Seller and Buyer are each the same Party) falls wholly in a Month, the Seller may in addition provide to the Buyer for the Month a statement summarising the information in Clause 7.1 for all such Transactions for the Month.

#### 7.4 **Disputed Payments**

- 7.4.1 If a Party disputes in good faith any sum shown in the Monthly Statement received by it, or notified in accordance with Clause 7.8.2, 7.8.3, or 7.8.4, as being payable by that Party, it shall make payment of any undisputed amount to be paid by it (if any) on or before the Due Date and shall give notice of the amount in dispute and the reasons for the dispute to the other Party.
- 7.4.2 The Parties shall seek in good faith to settle the disputed amount as soon as reasonably possible. If the Parties are unable to settle the dispute then, after 30 days from the date on which the notice of the dispute was given, either Party, without prejudice to Clauses 12.2 to 12.5 (Disputes) which Clauses may be invoked if the Parties agree, may take such action as is permitted by this Agreement including resorting to the courts.
- 7.4.3 Any adjustment payment required to be made in accordance with the resolution of a dispute shall be made within 3 Business Days of that resolution.
- 7.4.4 A Party shall not under any circumstances be entitled to initiate any dispute concerning any sum shown in, or which should have been shown in, a Monthly Statement beyond the period allowed for the raising of a "Settlement Dispute" by a "Participant" as both terms are defined and referred to in the Trading and Settlement Code.

**7.5 Interest**

- 7.5.1 If a Party fails to pay to the other Party any amount due by the Due Date, interest shall be payable on that amount at an annual rate equal to the Main Refinancing Operations Minimum Bid Rate published by the European Central Bank applicable from time to time plus 3% compounded Monthly from and including the Due Date to but excluding the date payment is made.
- 7.5.2 If, following the resolution of a dispute or otherwise to correct any overpayment or underpayment, one Party is required to pay an amount to the other Party, interest shall be payable on that amount at an annual rate equal to the Base Lending Rate for Main Refinancing Operations Minimum Bid Rate published by the European Central Bank applicable from time to time plus 1% compounded Monthly from the original Monthly Statement Due Date or from the payment date (as applicable) if the dispute, overpayment or underpayment had not occurred to, but excluding, the date payment is made.
- 7.5.3 If the rate in this clause ceases temporarily or permanently to be published then the Party owed money may substitute a rate which it considers, acting reasonably, to be equivalent to that rate published by the European Central Bank.

**7.6 Netting**

- 7.6.1 If on any date, amounts under Clauses 7.1.4 and 7.1.5 ("Statement Amounts") would otherwise be payable in the same currency by each Party to the other as a result of more than one Monthly Statement being issued then, on that date, each Party's obligation to make payment of any such amount will be automatically satisfied and discharged, and if the Statement Amount that would otherwise have been payable by one Party exceeds the Statement Amount that would otherwise have been payable by the other Party, it shall be replaced by an obligation upon the Party by whom the larger Statement Amount would have been payable to pay to the other Party the excess of the larger Statement Amount over the smaller Statement Amount.

**7.7 Failure to Issue Monthly Statement**

- 7.7.1 If the Seller fails to issue a Monthly Statement in accordance with Clause 7.1 (Monthly Statement), then the Buyer may issue that Monthly Statement to the Seller and, once

issued, that Monthly Statement shall be treated as a Monthly Statement issued by the Seller for the purposes of this Agreement.

7.7.2 Except as provided in this Clause 7, failure to issue a Monthly Statement shall not affect the rights and obligations of the Parties under this Agreement and shall not be a material breach of this Agreement under Clause 11.1.4.

#### 7.8 **No accurate Information**

7.8.1 If any information required to prepare a Monthly Statement is not available at the time that Monthly Statement is prepared, then a Party may prepare that Monthly Statement based on its reasonable estimate of that information.

7.8.2 If arising from the issue of a Timetabled Settlement Re-run Statement there is any change to the information used to prepare a Monthly Statement after that Monthly Statement is received or information that was estimated in order to prepare a Monthly Statement becomes available, then within one Month after the end of the Month in which the complete Timetabled Settlement Re-run Statements for the month of re-settlement are issued either Party may, by notice to the other, require an adjustment payment to be made to reflect the changed or newly available information. The adjustment payment shall be made within 5 Business Days of receipt of the notice together with interest calculated in accordance with the terms of this Agreement.

7.8.3 If, arising otherwise than as provided in clause 7.8.2, there is any change to the information used to prepare a Monthly Statement after that Monthly Statement is received or information that was estimated in order to prepare a Monthly Statement becomes available, then within one Month after the end of the Month in which the relevant information became available either Party may, by notice to the other, require an adjustment payment to be made to reflect the changed or newly available information provided that the amount of the adjustment payment is not less than €10,000. The adjustment payment shall be made within 5 Business Days of receipt of the notice together with interest calculated in accordance with the terms of this Agreement.

7.8.4 Where an adjustment payment required by a Party pursuant to clause 7.8.3 is to be made by the Seller, the Seller shall, using the changed or newly available information, review the Monthly Statement most recently issued in respect of the relevant month to all Buyers and

shall issue a revised Monthly Statement to each Buyer if such revised Monthly Statement shows that an adjustment payment should be made by either Party to the other. Any such adjustment payment shall be made within 5 Business Days of issue of the revised Monthly Statement together with interest calculated in accordance with the terms of this Agreement.

7.8.5 This Clause 7 shall survive Termination of this Agreement.

## **8. Confidentiality of Information**

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8.1 The Parties shall treat the terms of this Agreement (including each Transaction) and all information provided under or in connection with this Agreement including Monthly Statements (together the "Confidential Information") as confidential and shall not disclose the Confidential Information without the prior written consent of the other Party, save that the consent shall not be required for disclosure:

8.1.1 to any director, employee of a Party and without prejudice to the requirements of any Electricity Licence it may hold, to any Affiliate, provided that that person in turn is required by that Party to treat the Confidential Information as confidential in favour of the other Party on terms substantially the same as those set out in this Clause 8;

8.1.2 to persons professionally engaged by a Party, provided that they in turn are required by that Party to treat the Confidential Information as confidential in favour of the other Party on terms substantially the same as those set out in this Clause 8;

8.1.3 to the extent required by any government department or agency or regulatory authority having jurisdiction over that Party (including the Regulatory Authorities);

8.1.4 to any bank, other financial institution or rating agency to the extent required in relation to the financing of a Party's business activities, provided that the bank, or other financial institution or rating agency, as the case may be, is required by that Party to treat the Confidential Information as confidential in favour of the other Party on terms substantially the same as those set out in this Clause 8;

8.1.5 to the extent required by any applicable laws, judicial process or the rules and regulations of any recognised stock exchange;

8.1.6 to any intending assignee of the rights and interests of a Party under this Agreement or to a person intending to acquire an interest (direct or indirect) in a Party provided that the



intending assignee or acquirer in turn is required to treat the Confidential Information as confidential in favour of the other Party on terms substantially the same as those set out in this Clause 8; or

- 8.1.7 to the extent that the Confidential Information is in or lawfully comes into the public domain other than by breach of this Clause 8.

## **9. Non-issuance of SMP**

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If, in respect of a Trading Period, the SMP is not issued at any time, then the Parties shall be relieved of their obligations under Clause 5 (Payment Obligations) for that Trading Period.

## **10. Liability/Exposure Calculation and Payment Assurances**

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### **10.1 No Consequential Loss**

Except to the extent included in any amounts to be paid under any Termination Payment, neither Party shall be liable to the other, whether in contract, tort (including negligence and breach of duty) or otherwise at law, for any loss of use, profits, contracts, production, revenue or for business interruption or for any consequential or indirect loss or damage of whatsoever nature and howsoever arising.

### **10.2 Exposure Calculations and Payment Assurances**

10.2.1 A Credit Exposure calculation will be made by the Seller for all Transactions on the Credit Exposure Calculation Day. The Credit Exposure calculation will utilise the Forward Exposure methodology specified in Schedule 4.

10.2.2 If the Seller has a positive net Credit Exposure aggregated for its relevant Transactions, as calculated pursuant to Schedule 4, the Seller may, by facsimile sent prior to 17:00 hours on a Business Day, request the Buyer to provide the Margin in an amount equal to the Credit Exposure (a "Margin Call"). The Margin may be provided in the form of Cash Deposit or a Letter of Credit. The Margin requirement will be rounded up to the nearest €20,000 Euro or £18,000 Pounds Sterling.

10.2.3 If the Seller issuing the Margin request provides written notice of the Margin Call request, the Buyer shall provide the Margin not later than 17:00 hours on the third Business Day following the date that notice was served.

- 10.2.4 In the event that the Buyer fails to provide the Margin when due, then an Event of Default will be deemed to have occurred and the Seller will be entitled to the remedy set forth in Clause 11.4 (Termination Payment).
- 10.2.5 The Credit Exposure will be calculated on the Credit Exposure Calculation Day during the Term. If, between calculations of Credit Exposure on the Credit Exposure Calculation Day, the Intra-Month Margin Call Threshold as defined in Schedule 4 is exceeded, then the Seller may, at its discretion, require a further Margin Call ("the Intra-Month Margin Call") in accordance with the Credit Exposure calculation set out in Schedule 4.
- 10.2.6 Any Cash Deposit or Letter of Credit for the benefit of the Seller in excess of the required Credit Exposure, as determined under the Credit Exposure calculation, will be deemed to be Surplus Margin. The Surplus Margin will be cancelled within two Business Days by the Seller upon receipt of a written request from the Buyer by facsimile sent prior to 17:00 hours on a Business Day.
- 10.2.7 For Margins provided by Cash Deposit, the Seller will satisfy its obligation to cancel the Surplus Margin by signing and transmitting by facsimile to the Buyer a notice indicating and agreeing to the new Margin amount.
- 10.2.8 If the Margin is provided by a Letter of Credit then the Seller will notify the Buyer of the Surplus Margin, providing permission to the Buyer to cancel the Surplus Margin. The Buyer may then cancel the Surplus Margin. The Surplus Margin is deemed to be cancelled upon receipt by the Seller of a duly approved and executed replacement Letter of Credit.
- 10.2.9 In the event that the Seller fails to satisfy its obligation to cancel Surplus Margin when due in accordance with this clause, then an Event of Default will be deemed to have occurred and the Buyer will be entitled to the remedy set forth in Clause 11.4 (Termination Payment).
- 10.2.10 The entity providing a letter of credit must meet the requirements of the Specification of the Minister for Finance issued in accordance with the provisions of Section 2 of the Financial Transactions of Certain Companies and Other Bodies Act 1992, as amended from time to time.

- 10.2.11 The Buyer must provide Margin prior to submission of a bid. In accordance with this Clause 10 and Schedule 4, the Margin must equal not less than 15% of the Underlying Value of the Bid adjusted for any VAT rates payable, net of any Credit Exposures due in respect of any other Transactions executed under this Agreement.
- 10.2.12 In respect of Credit Exposure arising during the PSO Auction Window, the Seller may, at its discretion, reduce the level of Margin required prior to submission of a bid below 15% of the Underlying Value of the Bid. If it does so, it shall notify potential buyers via the relevant offer document (e.g. Auction Rules, Credit Rules Notice, Invitation to Bid, and/or PSO Auction Notices) and shall state the date from which the requirement to lodge the full Margin pursuant to the calculations in this Clause 10 and Schedule 4 shall apply.
- 10.2.13 The expiry date of any Letter of Credit shall be no earlier than one calendar month after the end of the Transaction Term of any Transaction to which it relates. This clause 10.2.13 shall survive termination of this Agreement.

## **11. Termination**

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### **11.1 Event of Default**

Event of Default means the occurrence at any time with respect to a Party (the "Defaulting Party") of any of the following events:

#### **11.1.1 Insolvency**

The Party:

- (i) is dissolved (other than pursuant to a consolidation, amalgamation or merger);
- (ii) becomes insolvent or is unable to pay its debts as they become due or fails or admits in writing its inability generally to pay its debts as they become due;
- (iii) makes a general assignment, arrangement or composition with or for the benefit of its creditors;
- (iv) institutes or has instituted against it a proceeding seeking a judgement of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is

presented for its examinership, winding-up or liquidation, and, in the case of any such proceeding or petition instituted or presented against it, that proceeding or petition (i) results in a judgement of insolvency or bankruptcy or the entry of an order for relief or the making of an order for its winding-up or liquidation or (ii) is not withdrawn, dismissed, discharged, stayed or restrained in each case within 30 days of the institution or presentation of that proceeding or petition;

- (v) has a resolution passed for its winding-up, official management or liquidation (other than pursuant to a consolidation, amalgamation or merger);
- (vi) seeks or becomes subject to the appointment of an administrator, examiner, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for it or for all or substantially all its assets;
- (vii) has a secured party take possession of all or substantially all its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all its assets and that secured party maintains possession, or that process is not withdrawn, dismissed, discharged, stayed or restrained, in each case within 30 days of that event;
- (viii) causes or is subject to any event with respect to it which, under the applicable laws of any jurisdiction, has an analogous effect to any of the events specified in Clauses 11.1.1 (i) to (vii) (inclusive); or
- (ix) takes any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the acts referred to in this Clause 11.1.1.

#### 11.1.2 **Representation or Warranty**

Any representation or warranty made in this Agreement, or deemed to have been made or repeated, by a Party proves to have been false or materially misleading at the time it was made or was deemed to have been made.

#### 11.1.3 **Non-Payment**

Subject to Clause 7.4 (Disputed Payments), a Party fails to pay any amount when due under this Agreement, and that failure is not remedied on or before the 3rd Business Day after the Non-Defaulting Party gives the Party notice of that failure.

**11.1.4 Material Obligations**

A Party fails to perform a material obligation under this Agreement (but other than an obligation referred to in Clause 11.1.3) and that failure is not remedied within 5 Business Days of the Non-Defaulting Party giving the Party notice of that failure;

**11.1.5 Payment Assurances**

The Buyer fails to provide the Margin or the Seller fails to return the Surplus Margin in accordance with Clause 10.2 (Exposure Calculations and Payment Assurances).

**11.2 Termination Right**

11.2.1 If, at any time, an Event of Default has occurred and is continuing, the Non-Defaulting Party may designate a day as an early termination date (the "Early Termination Date") in respect of all outstanding Transactions between the Parties by giving not more than 20 days' notice to the Defaulting Party. This notice shall specify the relevant Event of Default. The Early Termination Date may not be earlier than the day the notice is effective.

11.2.2 The right under Clause 11.2.1 is in addition to any other remedies available under this Agreement or at law.

11.2.3 The notice of the Early Termination Date may be made by telephone if that notice is confirmed in writing within 2 Business Days.

**11.3 Early Termination Date**

11.3.1 If notice designating an Early Termination Date is given under Clause 11.2.1, the Early Termination Date will occur on the date so designated even if the circumstances giving rise to the Event of Default are no longer continuing.

11.3.2 Upon the effective designation of an Early Termination Date: (a) no further payments or compliance with Clause 7 will be required in respect of all Transactions; and (b) the amount, if any, payable in respect of an Early Termination Date shall be determined pursuant to Clause 11.4 (Termination Payment).

**11.4 Termination Payment**

- 11.4.1 On, or as soon as reasonably practicable after, the Early Termination Date, the Non-Defaulting Party shall in good faith calculate the termination payment (the "Termination Payment"), being the Loss for all Transactions.
- 11.4.2 "Loss" means an amount that the Non-Defaulting Party reasonably determines in good faith to be its total losses and costs (or gain, in which case expressed as a negative number) in connection with the termination of the Transactions, including any loss of bargain, cost of funding or, at the election of the Non-Defaulting Party but without duplication, loss or cost incurred as a result of its terminating, liquidating, obtaining or re-establishing any related trading position (or any gain resulting from any of them). Loss includes losses and costs (or gains) in respect of any payment required to have been made and not made on or before the Early Termination Date. Loss does not include the Non-Defaulting Party's legal fees and out-of-pocket expenses. The Non-Defaulting Party may (but need not) determine its Loss by reference to quotations of relevant rates or prices from one or more leading traders in the wholesale electricity market in Ireland and Northern Ireland who are independent of the Parties. In addition the Seller (if it is the Non-Defaulting Party) may (but need not) rely on the formula in Part A of Schedule 4 to arrive at estimates of future SEM prices when determining its loss.
- 11.4.3 The Non-Defaulting Party shall notify the Defaulting Party of the Termination Payment including detailed support for the Termination Payment calculation.
- 11.4.4 A Party shall not be required to enter into replacement transactions in order to determine the Termination Payment.
- 11.4.5 If the Termination Payment is a positive number, the Defaulting Party shall pay the Termination Payment to the Non-Defaulting Party within 2 Business Days of delivery of invoice or notification of the Termination Payment amount (the "Termination Payment Date"), which amount shall bear interest calculated in accordance with Clause 7.5 (Interest). If any part of the Termination Payment is unpaid by the Termination Payment Date, the Non-Defaulting Party shall be entitled to draw down any Margin provided by the Defaulting Party under Clause 10.2 (Exposure Calculations and Payment Assurances) to the extent only of any shortfall in the Termination Payment.

- 11.4.6 If the Termination Payment is a negative number, the Non-Defaulting Party shall pay the Termination Payment to the Defaulting Party within 30 Business Days of the Termination Payment Date, which amount shall bear interest calculated in accordance with Clause 7.5 (Interest).
- 11.4.7 (i) The Non-Defaulting Party may, at its option, set off the Termination Payment against any or all other amounts owing (whether or not matured, contingent or invoiced) between the Parties under this Agreement or under any other agreements, instruments or undertakings between the Parties.
- (ii) The right of set-off shall be without prejudice and in addition to any right of set-off, combination of accounts, lien, charge or other right to which any Party is at any time otherwise entitled (whether by operation of law, by contract or otherwise).
- (iii) If an amount is unascertained, the Non-Defaulting Party may reasonably estimate the amount to be set off. The Parties shall make any adjustment payment required within 3 Business Days of the amount becoming ascertained.
- 11.4.8 Disputed amounts under this Clause 11.4 shall be paid by the Defaulting Party subject to refund with interest calculated in accordance with Clause 7.5 (Interest) if the dispute is resolved in favour of the Defaulting Party.
- 11.4.9 Termination of this Agreement shall not affect:
- (i) any rights or obligations which may have accrued prior to such termination; and
- (ii) any rights or obligations of either Party under this Agreement which are expressly stated to continue beyond such termination.
- 11.4.10 Each Party acknowledges that payment obligations in Clause 11.4 are reasonable in light of the anticipated harm and difficulty of estimation or calculation of actual damages. Each Party waives the right to contest those payments as an unreasonable penalty or otherwise.
- 11.5 **Illegality**
- If, due to the adoption of, or any change in, any applicable law after the date on which a Transaction is entered into, or due to the promulgation of, or any change in, the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of, any applicable law after that date, it becomes

unlawful (other than as a result of a breach by the relevant Party of Clause 4.2.4) for a Party (the **"Affected Party"**)

- (i) to perform any absolute or contingent obligation to make a payment or delivery or to receive a payment or delivery in respect of that Transaction or to comply with any other material provision of this Agreement relating to that Transaction; or
- (ii) to perform, or for the Credit Support Provider of that Party to perform, any contingent or other obligation which the Party (or that Credit Support Provider) has under any Credit Support Document relating to that Transaction (each an **"Illegality"**);

then, unless the Parties otherwise agree in writing, either Party may elect to terminate, liquidate and accelerate that Transaction in accordance with Clauses 11.2, 11.3 and 11.4, except that, for the purposes of Clause 11.2, either Party may designate an Early Termination Date and, for the purposes of Clause 11.3 and 11.4, references to the Defaulting Party will be read as references to the Affected Party, references to the Non-Defaulting Party will be read as references to the Party which is not the Affected Party, and references to "all Transactions" will be read as references to all Transactions affected by the Illegality. However, if both Parties are Affected Parties, each Party shall determine the Termination Payment in respect of the terminated Transactions and the amount payable shall be the arithmetic average of the two Termination Payments.

#### 11.6 **Event of Default and Illegality**

If an event or circumstance which would otherwise constitute or give rise to an Event of Default also constitutes an Illegality, it will be treated as an Illegality and will not constitute an Event of Default.



**12. Disputes**

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- 12.1 (i) Subject to Clauses 6 (Indexation) and 7.4 (Disputed Payments), each Party shall use good faith and reasonable commercial efforts to informally resolve all disputes arising out of the implementation of this Agreement within 30 days of receipt of notification of a dispute by either Party.
- (ii) Any dispute between the Parties under this Agreement shall be referred to a designated senior representative of each of the Parties, who shall seek to resolve the dispute.
- (iii) If such representatives can resolve the dispute, such resolution shall be reported in writing to and shall be binding upon the Parties.
- (iv) If such representatives cannot resolve the dispute within the 30 day period referred to above or a Party fails to appoint a representative within 10 days of written notice of the existence of a dispute, either Party may, proceed as set out below.
- 12.2 In accordance with Clause 12.1 (iv) the dispute shall be escalated by issuing a written notice ("Expert Determination Notice") to the other Party requiring the dispute to be dealt with in accordance with Clause 12.3.
- 12.3 Where an Expert Determination Notice is given in respect of a dispute it shall be determined in accordance with Clauses 12.3.1 to 12.3.8.
- 12.3.1 (i) The Parties shall seek to agree the identity of an Expert. If the Parties do not agree the identity of an Expert within 5 Business Days of an Expert Determination Notice then either Party may apply to the President of the Law Society of Ireland to nominate an Expert to determine the dispute requesting that the nomination be made within 10 Business Days of receipt of the application.
- (ii) The Parties shall jointly appoint the nominated or agreed Expert within 3 Business Days of the written agreement or receipt of a nomination pursuant to this Clause 12.3.1, failing which either Party may, by written notice to the Expert and the other Party, appoint the Expert.
- 12.3.2 No person shall be appointed as an Expert in any dispute in respect of which that person has any personal, financial or professional interest in the dispute except by prior written consent of the Parties, and the Parties shall make appointments subject to the proposed

Expert disclosing to the Parties any circumstances likely to create a presumption of bias or prevent a prompt resolution of the dispute.

12.3.3 The Expert shall act as an expert and not as an arbitrator. The Expert shall have the power to make determinations as he or she thinks fit, including determinations as to the Parties' contractual rights and obligations and amounts owed by one Party to the other (including the awarding of costs).

12.3.4 Where a dispute is referred to an Expert the procedures to be followed shall be as determined by the Expert subject only to the following, which the Parties shall reflect in the Expert's terms of reference:

- (i) the Expert shall consult with CER;
- (ii) the Expert shall have the power to determine requirements for hearings and the form and timing of submissions (subject to any procedures agreed between the Parties and notified to the Expert);
- (iii) all written communications or submissions received by the Expert shall be made available to both Parties;
- (iv) the Expert shall prepare a preliminary determination and provide such preliminary determination, together with written reasons for the preliminary determination, to the Parties within 30 Business Days of appointment or by such later date as the Expert may specify but no later than 90 Business Days after appointment; and
- (v) the Parties shall have the right to submit written comments on such preliminary determination within 7 Business Days of receipt. The Expert shall take account of such comments and shall be required to issue a final determination within 20 Business Days of the expiry of such 7 Business Day period.

12.3.5 Subject to any award of costs, including legal costs, by the Expert in its final determination:

- (i) the Expert's costs shall be borne equally by the Parties, and the Parties shall make such payments on account of the Expert's costs as the Expert may reasonably require; and
- (ii) each Party shall bear its own cost and expenses, including those of all advisers, witnesses and employees retained by it.

- 12.3.6 The Parties shall comply with any determinations of an Expert in relation to the conduct of proceedings instituted pursuant to this Clause 12.
- 12.3.7 In the event that an Expert becomes unwilling or unable to act in relation to a dispute or fails to make a determination within the timescales required by this Agreement, then either Party may by written notice to the other ("Substitution Notice") require a substitute Expert to be appointed in accordance with the procedure specified in Clause 12.3.
- For this purpose, Clause 12.3.1 shall be interpreted as if the words "a Substitution Notice" were included in place of "an Expert Determination Notice".
- 12.3.8 The determination of the Expert in relation to a dispute subject to Expert determination shall be final, conclusive and binding upon the Parties.
- 12.4 During the course of any Expert determination under this Clause 12:
- (i) the Parties shall continue to perform their respective obligations under this Agreement; and
  - (ii) neither Party shall exercise any other remedies arising by virtue of the matters in dispute.
- 12.5 If as a result of any Expert determination the Parties are required to vary this Agreement (either through their actings and/or by written amendment) then the provisions of Clause 17.5 (Amendments) shall apply.

### **13. Governing Law and recourse to Courts of Competent Jurisdiction**

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- 13.1 This Agreement and any matter arising out of or relating to or in any way connected with its subject matter (including any Transaction) shall be interpreted, construed and governed by the laws of Ireland.
- 13.2 Subject to the referral of any matter to an Expert under this Agreement, the Parties submit to the exclusive jurisdiction of the courts of Ireland in connection with this Agreement (including any Transaction).

### **14. Taxes**

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Each Party shall be responsible for the discharge of any income, corporation or other relevant taxation of income or gain or liability arising out of any amount received by it from the other Party under this Agreement.

**15. Assignment**

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- 15.1 Neither Party may, without the prior consent of the other Party and CER, assign or otherwise transfer this Agreement.
- 15.2 Either Party may assign its rights under this Agreement by way of security to or in favour of any bank or financial institution in relation to the financing of that Party's business activities.
- 15.3 A Party may assign all or any part of its interests in any Termination Payment payable to it from a Defaulting Party under Clause 11.4.1.

**16. Notices**

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- 16.1 (a) In respect of PSO Auctions conducted directly between the Parties, clauses 16.2 to 16.6 shall apply.
- (b) In respect of PSO Auctions conducted through an MTF Operator, clauses 16.2 to 16.6 shall apply supplemented by clause 16.7. If there is a conflict between clauses 16.2 to 16.6 on the one hand and clause 16.7 on the other, clause 16.7 shall prevail.
- 16.2 Except where expressly provided otherwise in this Agreement, any notice or other written communication authorised or required by this Agreement to be given or sent by either Party to the other (a "Communication") shall be in writing and signed by a duly authorised representative of the sender.
- 16.3 Communications shall either be personally delivered or be sent by pre-paid registered post (airmail if overseas), facsimile or e-mail.
- 16.4 Communications shall be sent to the address, facsimile number or e-mail specified for the receiving Party in Schedule 2 and shall be marked to the attention of the individual named in Schedule 2. Either Party may, by written notice to the other, change its contact details given in Schedule 2.
- 16.5 Communications delivered in accordance with Clause 16.3 and Clause 16.4 are taken to have been effective as follows:
- 16.5.1 If delivered by hand, on the Business Day of delivery or on the 1<sup>st</sup> Business Day after the date of delivery if delivered on a day other than a Business Day;
- 16.5.2 if sent by first class post, on the 2<sup>nd</sup> Business Day after the day of posting or, if sent from one country to another, on the 5<sup>th</sup> Business Day after the day of posting;

- 16.5.3 if sent by facsimile transmission and a valid transmission report confirming good receipt is generated, on the day of transmission if transmitted before 18:00 hours on a Business Day or otherwise on the 1<sup>st</sup> Business Day after transmission;
- 16.5.4 in the case of e-mail, on the day of receipt if received before 18:00 hours on a Business Day, or otherwise on the first Business Day after receipt.
- 16.6 In proving service of the Communication, it shall be sufficient to show that delivery by hand was made or that the envelope containing the Communication was properly addressed and posted by pre-paid registered post or that the facsimile was despatched and a confirmatory transmission report received or that the sender of the e-mail received an acknowledgment from the receiving Party's IT system.
- 16.7 Where a PSO Auction is conducted through an MTF by an MTF Operator, any notice or other written communication relating to that PSO Auction or to any Transaction effected or contemplated under it and which is authorised or required by this Agreement to be given or sent by or on behalf of either Party to the other or between either Party and the MTF Operator shall be governed by the Auction Rules applying to that PSO Auction.

## **17. General**

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### **17.1 Severability**

17.1.1 Any provision of this Agreement which is or becomes illegal, invalid or unenforceable, shall be deemed to be deleted to the extent of the illegality, invalidity or unenforceability, and the remaining provisions (and that provision, to the extent not so deleted) shall remain in full force and effect.

17.1.2 In the circumstances contemplated by this Clause 17.1, the Parties shall negotiate in good faith to agree a mutually satisfactory provision to be substituted for the provision affected which as nearly as possible gives effect to their intentions and their legal and commercial objectives as expressed in this Agreement. Otherwise the matter shall be resolved as a dispute.

### **17.2 Enforcement of judgements**

Each Party agrees that a finding or conclusion of an Expert, determination by an Expert in accordance with Clause 12 (Disputes), or a judgement in any proceedings brought or pertaining to this Agreement

in the courts of Ireland shall be conclusive and binding upon each Party and may be enforced in the courts of any other jurisdiction.

**17.3 Further assurances**

Each Party agrees to do and must procure that each of its employees and agents does all such things and executes all such deeds, instruments, transfers or other documents as may be necessary or desirable to give full effect to this Agreement and the rights and obligations of the Parties under it.

**17.4 Waiver**

17.4.1 No delay by or omission of either Party in exercising any right, power, privilege or remedy under this Agreement shall operate to impair such right, power, privilege or remedy or be construed as a waiver of that right, power, privilege or remedy.

17.4.2 Any single or partial exercise of any such right, power, privilege or remedy shall not preclude any other or further exercise of that right, power, privilege or remedy or the exercise of any other right, power, privilege or remedy.

17.4.3 No waiver of any breach of this Agreement shall (unless expressly agreed in writing) be construed as a waiver of a future breach of the same term or as authorising the continuation of the particular breach.

**17.5 Amendments**

This Agreement can be amended only by written agreement between the Parties signed by their duly authorised representatives and will be subject to the prior written approval of CER.

**17.6 Entire agreement**

17.6.1 This Agreement together with any other document expressed to be incorporated herein constitutes the entire agreement and understanding of the Parties with respect to its subject matter and supersedes and extinguishes any representations previously given or made other than those included in this Agreement and any other document expressed to be incorporated herein.

17.6.2 Each Party acknowledges and agrees that on entering into this Agreement it does not rely on, and shall have no remedy in respect of, any warranty, representation, undertaking or assurance (whether negligently or innocently made) of any person other than as expressly set out in this Agreement as a representation, and that liability in respect of any such warranty, representation, undertaking or assurance is expressly excluded.

17.6.3 Nothing in this clause limits or excludes any liability for fraud in relation to any such representation, warranty, undertaking or assurance.

**17.7 Conflict**

If there is any inconsistency between a provision in this Agreement (for this purpose excluding the Schedules) and a provision in a Schedule, the provision in this Agreement prevails to the extent of the inconsistency.

**17.8 Relationship**

17.8.1 This Agreement shall not be interpreted or construed to create any joint venture, agency or partnership between the Parties or to impose any partnership obligation or liability on either Party.

17.8.2 Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be the agent or representative, or otherwise to bind, the other Party.

**17.9 Third Party Beneficiaries**

17.9.1 This Agreement shall not be construed as granting rights to or creating any duty to, or standard of care with reference to, or any liability to any person who is not a Party.

Signed by

.....

.....PRINT NAME

Duly authorised for and on behalf of the Seller

In the presence of:

..... (Witness)

..... (Address)

.....

Date .....

Signed by

.....

.....PRINT NAME

Duly authorised for and on behalf of the Buyer

In the presence of:

..... (Witness)

..... (Address)

.....

Date .....



**SCHEDULE 1**  
**DEFINITIONS AND ROUNDING**

**Part 1: Defined Terms**

The following are defined terms used in this Agreement:

<b>"Affiliate"</b>	means in relation to any Party, any holding company or subsidiary or any subsidiary of a holding company of the relevant Party, in each case within the meaning of section 155 of the Companies Act 1963 (Ireland) where the law applicable to this Agreement is the law of Ireland, and section 1159 of the Companies Act 2006 where the law applicable to this Agreement is the law of Northern Ireland;
<b>"Aggregate Settlement Quantity"</b>	means the sum of the Settlement Quantity in MW multiplied by the duration of a Trading Period across all Trading Periods in the Month (stated in MWh);
<b>"Agreement"</b>	means this 2012/13 Master Contract for Differences Agreement, including all Schedules, between the Buyer and Seller named in Schedule 2;
<b>"Auction Rules"</b>	means terms and conditions for PSO Auctions, published by ESB Power Generation or the MTF Operator and amended by ESB Power Generation from time to time. The Auction Rules may include specific provisions for credit requirements during the period of the auctions;
<b>"Base Lending Rate"</b>	means the Main Refinancing Operations Minimum Bid rate as published by the European Central Bank;
<b>"Business Day"</b>	means a weekday (other than a Saturday or Sunday) which is not a public holiday or bank holiday in Ireland or Northern Ireland. For information, a list of bank and public holidays is provided in Part 3 of this Schedule;

<b>"Buyer"</b>	Means the Party identified as such in Schedule 2;
<b>"Cash Deposit"</b>	means a cash deposit made by the Buyer to a bank account designated by the Seller, on reasonable terms, prescribed by the Seller, as to interest accruing and replacement of Cash Deposit by Letter of Credit
<b>"CER"</b>	has the meaning given in the Trading and Settlement Code;
<b>"Communication"</b>	has the meaning given in Clause 16;
<b>"Confidential Information"</b>	means as defined in Clause 8;
<b>"Confirmation Letter"</b>	means as per Schedule 6 and as set out in Clause 3.3;
<b>"Contract Period"</b>	means the period starting in the first Trading Period for which the Contract Quantity is greater than zero, and ending in the last Trading Period in which the Contract Quantity is greater than zero;
<b>"Contract Quantity"</b>	means, at any time and in respect of any Transaction, the contracted volume for that Transaction as specified in the Confirmation Letter for that Transaction;
<b>"Credit Exposure"</b>	has the meaning given in Schedule 4;
<b>"Credit Exposure Calculation Day"</b>	means the thirteenth Business Day of the Month;
<b>"Current Month"</b>	means, in respect of any given day, from 00:00 on the first day of the calendar month in which that day falls to 24:00 on the last calendar month in which that day falls;
<b>"Defaulting Party"</b>	has the meaning given in Clause 11;
<b>"Delivery Quarter"</b>	means, in respect of any given day in respect of which Credit Exposure may be calculated, the Quarter in which that day falls and in which the Contract Quantity is not zero;
<b>"Difference Payment"</b>	means a payment referred to in Clause 5 and calculated under Schedule 3;
<b>"Dollar-Euro Foreign Exchange Rate"</b>	means the rate at which US Dollars can be converted into Euro as published daily by the European Central Bank;

<b>"Due Date"</b>	has the meaning given in Clause 7.2;
<b>"Early Termination"</b>	means the termination of this Agreement pursuant to Clause 11;
<b>"Early Termination Date"</b>	means the date of Early Termination referred to in Clause 11.3.1;
<b>"Electricity Licence"</b>	means in Ireland or Northern Ireland an electricity generation licence or an electricity supply licence, transmission system operation licence, distribution system operator licence or transmission system owner licence (as the context may require) granted by the Regulatory Authorities;
<b>"Eligible Auction Participants"</b>	has the meaning given in the Auction Rules;
<b>"Euro" and "€"</b>	means the currency of the Member States of the European Union that adopt the single currency in accordance with the Treaty establishing the European Community as amended by the Treaty of European Union and which is the lawful currency of Ireland;
<b>"Event of Default"</b>	has the meaning set out in Clause 11.1;
<b>"Expert"</b>	means in relation to a dispute, an independent expert experienced and skilled (and so far as possible, an acknowledged expert) in the field that is the subject of the dispute;
<b>"Expert Determination Notice"</b>	has the meaning set out in Clause 12.2;
<b>"Forward Carbon Price"</b>	means the settle price (in Euro per tonne of Carbon Dioxide) for the December month Intercontinental Exchange ECX EUA Carbon futures as reported on <a href="http://www.theice.com">www.theice.com</a> as "ICE ECX EUA Futures (monthly)" for the given calendar year. This data is available under the report section of this website once the following options are selected – Category "End of Day Report"; Market – "ICE Futures Europe"; Report – "ICE

Futures Europe”.

**"Forward Coal Price"**

means the average price (in US dollars per tonne) for quarterly Forward Coal API2 swap transactions as reported daily in "Argus Coal Daily International". The API 2 index reflects the price for physical coal including cost, insurance and freight at Amsterdam, Rotterdam or Antwerp. If no price is available from "Argus Coal Daily International" for a given quarter, the price for the latest preceding quarter for which a price is available will be used.

However, for months during the Delivery Quarter the rules set out in Part D of Schedule 4 shall take precedence;

**"Forward Exposure"**

has the meaning given in Schedule 4;

**"Forward Gasoil Price"**

means the midpoint quarterly price for swap transactions for 0.1% Gasoil CIF cargoes in NWE, as reported by Thomson Reuters Eikon Forward Curve Oil. If Thomson Reuters Eikon reports monthly prices for the quarter and does not publish quarterly prices, the quarterly price will be obtained by taking an arithmetic average of the monthly prices for months falling within the quarter. If no price is available from Thomson Reuters Eikon for a given quarter, the price for the latest preceding quarter for which a price is available will be used.

However, for months during the Delivery Quarter the rules set out in Part D of Schedule 4 shall take precedence;

**"Forward Low Sulphur Fuel Oil Price"**

means the midpoint quarterly price (in US dollars per metric tonne) for swap transactions for 1% free on board fuel oil cargoes in Northwest Europe ("NWE"), as reported by Thomson Reuters Eikon "Forward Curve Oil". If Thomson Reuters Eikon reports monthly prices for the quarter and does not report a quarterly price, the quarterly price will be obtained

by taking an arithmetic average of the monthly prices for months falling within that quarter. If no price is available from Thomson Reuters Eikon for a given quarter, the price for the latest preceding quarter for which a price is available will be used. However, for months during the Delivery Quarter the rules set out in Part D of Schedule 4 shall take precedence.

**"Forward Natural Gas Price"**

Means the Settle price (in pence Sterling per therm) for quarterly Intercontinental Exchange Natural Gas Futures as reported on [www.theice.com](http://www.theice.com) as the "Daily Volumes for ICE UK Natural Gas Futures (Quarters)". This data is available under the report centre section of this website once the following options are selected - Category "End of Day Report"; Market – "ICE Futures Europe"; Report –ICE Futures Europe. The Natural Gas Future is a Futures contract that is based on the price of natural gas delivered within UK natural gas grid at the National Balancing Point.

If ICE publishes prices for monthly futures and does not publish a quarterly futures price, the quarterly price will be obtained by taking an arithmetic average of the monthly prices for months falling within that quarter. However, for months during the Delivery Quarter the rules set out in Part D of Schedule 4 shall take precedence.

**"Fuel Price Index or Indices"**

refers to one or more of the following: the Forward Natural Gas Price, Forward Low Sulphur Fuel Oil Price, Forward Gasoil Price, Forward Coal Price and the Forward Carbon Price;

**"Index"**

means any of the Fuel Price Indices used in Schedule 4 to calculate Forward Exposure;

**"Intra-Month Margin Call"**

has the meaning given in Clause 10.2.5;

**"Intra-Month Margin Call Threshold"**

has the meaning given in Schedule 4;

<b>“Invitation to Bid”</b>	means the documentation in respect of a proposed PSO Auction provided by ESB Power Generation or the MTF Operator to interested parties before the date of that PSO Auction in accordance with the Auction Rules, and which in the normal course sets out, amongst other things, indicative volumes and indicative reserve prices;
<b>"Letter of Credit"</b>	means a document in the agreed form or in substantially the agreed form as set out in Schedule 7;
<b>"Loss"</b>	has the meaning given in Clause 11.4.2;
<b>“Master Agreement”</b>	means this Agreement
<b>“Margin”</b>	means either a Letter of Credit or Cash Deposit required to be provided by the Buyer to the Seller to cover the Seller's Credit Exposure pursuant to Clause 10.2;
<b>"Margin Call"</b>	has the meaning given in Clause 10.2.2;
<b>"Month"</b>	means a period beginning at 00:00 hours on the first day of a calendar month and ending at 24:00 hours on the last day of the calendar month and "Monthly" shall be construed accordingly;
<b>“Monthly Statement”</b>	has the meaning given in Clause 7.1;
<b>“Multilateral Trading Facility” or “MTF”</b>	means the Multi-Lateral Trading Facility registered by the MTF Operator as such with the Financial Services Authority in the UK used by Eligible Auction Participants for the purposes of executing Transactions;
<b>“MTF Operator”</b>	means Tullett Prebon (Europe) Limited;
<b>“NIAUR”</b>	has the meaning given in the Trading and Settlement Code;
<b>“Non-Business Day”</b>	means a day other than a Business Day;
<b>"Non-Defaulting Party"</b>	means the Party who is not the Defaulting Party;
<b>"Party"</b>	means the Buyer or Seller (as the case may be) and their respective permitted legal successors and assigns and

<b>"Parties"</b>	means both of them;
<b>"Pounds Sterling," "Sterling" and "£"</b>	mean the lawful currency of the United Kingdom;
<b>"Product"</b>	means any of Baseload, Mid-Merit (0700-2300), Mid-Merit 2 (0700-1900), Peak (1700-2100) or any other products as may be defined from time to time, either in Schedule 8, or in ESB offer documents (e.g. Auction Rules, Invitation to Bid, and/or PSO Auction Notice);
<b>"PSO"</b>	means a Public Service Obligation imposed on the Seller by the CER pursuant to a statutory instrument made under the Electricity Regulation Act 1999, as amended;
<b>"PSO-Supported Contracts"</b>	means those contracts for differences, whose volume is based on the forecast output of specific PSO-supported generation plant, that the CER has directed ESB to offer for sale either directly between the Parties or indirectly through an MTF;
<b>"PSO Auction"</b>	means an auction of PSO-Supported Contracts conducted by ESB Power Generation pursuant to a direction from the CER; Different Auction Rules may apply simultaneously to PSO Auctions conducted directly between the Parties on the one hand and through an MTF Operator on the other;
<b>"PSO Auction Window"</b>	means a period specified by the Seller during which ESB Power Generation conducts a round of auctions to sell PSO supported Contracts;
<b>"Quarter"</b>	means any period which: <ul style="list-style-type: none"> <li>• Starts at 0:00 on 1 January and finishes at 24:00 on 31 March; or</li> <li>• Starts at 0:00 1 April and finishes at 24:00 on 30 June; or</li> <li>• Starts at 0:00 on 1 July and finishes at 24:00 on 30 September; or</li> </ul>

- Starts at 0:00 on 1 October and finishes at 24:00 on 31 December.

<b>"Receivables"</b>	has the meaning given in Schedule 4;
<b>"Reference DC Product"</b>	means, unless revised otherwise by ESB PG and notified accordingly to Eligible Auction Participants, the product offered for sale pursuant to Directed Contracts by reference to which Credit Exposure shall be calculated under this Agreement in accordance with Schedule 4. The $\alpha_q$ , $\beta_q$ , $\delta_q$ , and $\epsilon_q$ , values for the calculation of Credit Exposure under this Agreement shall be equal to the parameters published by the Regulatory Authorities for the Reference DC Product for the corresponding Quarter, unless any of the criteria set out in section 1 of the Estimated Future SEM Price in Schedule 4 are not met, in which case ESB may substitute other values for $\alpha_{p,q}$ , $\beta_{p,q}$ , $\delta_{p,q}$ , and $\epsilon_{p,q}$ ;
<b>"Regulatory Authorities"</b>	means the NIAUR and CER or either one of them as the context admits or requires;
<b>"Seller"</b>	means the Party identified as such in Schedule 2;
<b>"Settlement Day"</b>	has the meaning given in the Trading and Settlement Code;
<b>"Settlement Quantity"</b>	means for a Transaction and a Trading Period where the Parties agree that only a percentage of the Contract Quantity is used to calculate the Difference Payment, the quantity representing the percentage; and otherwise is equal to the Contract Quantity;
<b>"Settlement Re-run Statement"</b>	has the meaning given in the Trading and Settlement Code;
<b>"SEM or Single Electricity Market"</b>	means the arrangements for wholesale trading of electricity on the island of Ireland through a compulsory pool effective since 1 November 2007;
<b>"SMP"</b>	has the meaning given in the Trading and Settlement Code;
<b>"Statement Amounts"</b>	has the meaning given in Clause 7.6.1;



<b>"Sterling-Euro Foreign Exchange Rate"</b>	means the rate at which Sterling can be converted into Euro as published daily by the European Central Bank ;
<b>"Strike Price"</b>	means for a Transaction, the price determined as a result of the PSO Auctions, expressed in Euro/MWh, and included on the Transaction's Confirmation Letter to be used in the calculation of Difference Payments in accordance with the methodology set out in Schedule 3. For the avoidance of doubt, the Strike Price for a given Transaction may vary by Quarter or Month. This price is exclusive of applicable taxes;
<b>"Substitution Notice"</b>	has the meaning given in Clause 12.3.7;
<b>"Surplus Margin"</b>	means the Letter of Credit or Cash Deposit amounts provided by the Buyer in excess of the Credit Exposure;
<b>"Tax"</b>	means any tax, levy, impost, duty, charge, assessment or fee of any nature that is imposed by any Government or any taxing authority;
<b>"Term"</b>	means with respect to this Agreement, the period commencing on the date this Agreement comes into effect in accordance with Clause 2.1 and continuing until it is terminated in accordance with its terms (if sooner);
<b>"Termination Date"</b>	means 30 September 2013;
<b>"Termination Payment"</b>	has the meaning given in Clause 11.4.1;
<b>"Termination Payment Date"</b>	has the meaning given in Clause 11.4.5;
<b>"Timetabled Settlement Re-run"</b>	has the meaning given in the Trading and Settlement Code;
<b>"Timetabled Settlement Re-run Statement"</b>	means a Settlement Re-run Statement in respect of a Timetabled Settlement Re-run;
<b>"Trading and Settlement Code" or "T&amp;SC"</b>	means the code of that name which sets out the rules and procedures for an electricity trading and settlement system for the SEM and including any replacement of that code (whether by way of regulation or other instrument);
<b>"Trading Period"</b>	has the meaning given in the Trading and Settlement Code;

**"Transaction"**

means an oral or written agreement between the Parties, whether executed directly between the Parties or through the intermediary of an MTF Operator, to undertake one or more transactions for the calculation and payment of difference payments by reference to SMP, which agreement, amongst other things, supplements this Master Agreement (or incorporates the terms of this Master Agreement by reference) and includes details of the Transaction Term, the Contract Quantity, the Settlement Quantity and the Strike Price;

**"Transaction Term"**

means, for a Transaction, the period from the start of the first Trading Period covered by the Transaction until the time the Transaction expires or is terminated;

**"Underlying Value of the Bid"**

Means the product of the Bid Price and the Contract Quantity (if the bid were to be accepted) in each half hour Trading Period of the Contract Period, divided by 2 and then summed across the Contract Period, i.e.

$$= \sum_{t=1}^{t=n} (SP * Q_t) / 2$$

Where:

SP is the Strike Price of the Transaction;

$Q_t$  is the Contract Quantity in Trading Period t; and

$\sum_{t=1}^{t=n}$  is the sum from the first Trading Period t of the Contract Period to the last (n<sup>th</sup>) Trading Period of the Contract Period; and

**"VAT"**

Value Added Tax and its abbreviation "VAT" mean the tax applied in the UK pursuant to the Value Added Tax Act 1994, as amended and as implemented and construed by statutory instruments and regulations, or the tax applied in the Republic of Ireland pursuant to the Value Added Tax Act 1972 as amended and construed, whichever is appropriate.

### Part 2: Rounding rules

The following are the rounding rules.

Variables Measured in	Decimal places
MW	3
MWh	3
€ or £	2
€/MWh or £/MWh	2
€/GJ or £/GJ	2

#### Rounding of payments:

Payments shall be rounded to the nearest penny or whole cent as applicable. The average SMP and the weighted average SMP values are not rounded.

### Part 3: Bank and public holidays 2012/2013

For the purposes of this agreement the following dates are those known at the time of execution to be bank and public holidays between 1<sup>st</sup> October 2012 and 30<sup>th</sup> September 2013:

29 October 2012
25 December 2012
26 December 2012
01 January 2013
18 March 2013
29 March 2013
01 April 2013
06 May 2013
27 May 2013
03 June 2013
12 July 2013
05 August 2013
26 August 2013

**SCHEDULE 2**  
**BUYER AND SELLER INFORMATION**

**Buyer Information**

Name of Buyer:

Address of Buyer:

**Notices**

Address:

Facsimile:

For the attention of (position):

Telephone:

E-mail:

**Seller Information**

Name of Seller:

Address of Seller:

**Notices**

Address:

Facsimile:

For the attention of (position):

Telephone:

E-mail:

**SCHEDULE 3**  
**DIFFERENCE PAYMENTS**

**A. Strike Price**

The Strike Price for a Transaction is as specified in that Transaction's Confirmation Letter. The Strike Price for a Transaction may vary by Quarter or Month. The Strike Price applied in a given Trading Period, in order to calculate the Difference Payment for that Trading Period, shall be the Strike Price for the Quarter or Month in which the Trading Period falls.

**B. SMP Reference Price**

The SMP is the reference price for each Trading Period and is used to calculate Difference Payments.

**C. Difference Payment due to Seller**

For each Transaction, the Difference Payment due to Seller ("DPS") for a Trading Period is calculated as follows:

$$DPS_{tp} = 0.50 * \text{Max} (0, (SP_{tp} - SMP_{tp}) * Q_{tp})$$

where:

SMP<sub>tp</sub> is the SMP in €/MWh for the Trading Period;

SP<sub>tp</sub> is the Strike Price in €/MWh for that Transaction applicable to the Trading Period; and

Q<sub>tp</sub> is the Settlement Quantity in MW for that Transaction applicable to the Trading Period.

By way of non-binding illustrative example for the above calculation, say:

$$SMP_{tp} = 46 \text{ €/MWh}$$

$$SP_{tp} = 50 \text{ €/MWh}$$

$$Q_{tp} = 5 \text{ MW},$$

then the Difference Payment due to the Seller will be:  $0.5 * \text{Max} (0, (50-46) * 5) = \text{€}10$ .

**D. Difference Payment due to Buyer**

For each Transaction, the Difference Payment due to Buyer ("DPB") for a Trading Period is calculated as follows:

$$DPB_{tp} = 0.50 * \text{Max} (0, (SMP_{tp} - SP_{tp}) * Q_{tp})$$

where:

$SMP_{tp}$  is the SMP in €/MWh for the Trading Period;

$SP_{tp}$  is the Strike Price in €/MWh for the Trading Period; and

$Q_{tp}$  is the Settlement Quantity in MW for that Transaction applicable to the Trading Period.

By way of non-binding illustrative example for the above calculation, say:

$SMP_{tp} = 55 \text{ €/MWh}$

$SP_{tp} = 50 \text{ €/MWh}$

$Q_{tp} = 5 \text{ MW}$ ,

then the Difference Payment due to the Buyer will be:  $0.5 * \text{Max}(0, (55-50)*5) = \text{€}12.50$ .

## SCHEDULE 4

### CREDIT EXPOSURE CALCULATION

The Credit Exposure will be calculated to be equal to the sum of:

- "Forward Exposure" – the aggregate net Forward Exposure for all Transactions under this Agreement; and
- "Receivables" – the aggregate net amounts owing for Difference Payments incurred but not yet paid for all Transactions under this Agreement, inclusive of any VAT amounts that may be payable in respect of such Transactions.

If the calculation of Credit Exposure above yields a net positive amount for the Seller, then the Seller shall have the right to call for Margin pursuant to Clause 10.2 (Exposure Calculations and Payment Assurances).

The methodology by which Forward Exposure and Receivables shall be calculated is specified in detail below using the Dollar-Euro Foreign Exchange Rate and the Sterling Euro Foreign Exchange Rate.

#### **A. Forward Exposure Definition**

On any given Business Day, Forward Exposure is intended to reflect the expected Difference Payments to be paid to a Party during the remaining Term of this Agreement and is calculated as follows:

For each Transaction and for each Month and Product type during the remaining Term:

$$\text{Forward Exposure to the Seller} = (1 + \text{VAT}_j) * (\text{SP} - 0.85 * \text{ESTSEM}_{p,q}) * \sum_{t=1}^{t=n} Q_t / 2$$

where:

$\sum_{t=1}^{t=n}$  is the sum from the first Trading Period  $t$  of the Contract Period to the last ( $n^{\text{th}}$ ) Trading Period of the Contract Period.

SP is the Strike Price in €/MWh for that Transaction.

ESTSEM<sub>p,q</sub> is an estimate of the average SEM price in €/MWh for the Delivery Quarter and for the Product that corresponds to the Transaction, calculated as set out below;

$Q_t$  is the Settlement Quantity (in MW) for that Transaction in Trading Period  $t$ ; and

$VAT_j$  is the VAT rate payable to the relevant VAT Authorities in jurisdiction  $j$  (Republic of Ireland/ Northern Ireland), in the event that VAT is payable on termination payments on Transactions under this Agreement.

<b>Number of hours applicable to each Product in each quarter over the period 1<sup>st</sup> Oct 2012 to 30 Sep 2013</b>				
<u>Quarter</u>	<u>Baseload</u>	<u>Mid-merit</u>	<u>Mid-Merit 2</u>	<u>Peak</u>
<u>Q4 2012</u>	2209	1472	792	368
<u>Q1 2013</u>	2159	1440	768	360
<u>Q2 2013</u>	2184	1456	780	0
<u>Q3 2013</u>	2208	1472	792	0



<b>Number of hours applicable to each Product in each Month over the period 1<sup>st</sup> Oct 2012 to 30 Sep 2013</b>				
<u>Month</u>	<u>Baseload</u>	<u>Mid-merit</u>	<u>Mid-Merit 2</u>	<u>Peak</u>
Oct-12	745	496	276	124
Nov-12	720	480	264	120
Dec-12	744	496	252	124
Jan-13	744	496	276	124
Feb-13	672	448	240	112
Mar-13	743	496	252	124
Apr-13	720	480	264	
May-13	744	496	276	
Jun-13	720	480	240	
Jul-13	744	496	276	
Aug-13	744	496	264	
Sep-13	720	480	252	

By way of a non-binding illustrative example of a Forward Exposure calculation by the Seller for a Baseload product in October 2012, assume that:

$$SP = \text{€}55/\text{MWh}$$

$$\text{VAT}_j = 0$$

$$\text{ESTSEM}_{p,q} = \text{€}55.8/\text{MWh}$$

$Q_t = 5\text{MW}$  for all 745 hours of the Contract Period (i.e.  $n = 1490$  Trading Periods) so

$$\sum_{t=1}^{t=n} Q_t / 2 = (5 / 2 * 1490) = 3725 \text{ MWh}$$

Then the Forward Exposure to the Seller for that Month will be:  $(55 - 0.85 * 55.8) * 3725 = \text{€}28,198.25$

For each Transaction, Forward Exposure is aggregated across the remaining Transaction Term to arrive at a Forward Exposure value for that Transaction. Forward Exposure is then aggregated across

Transactions to arrive at an aggregate net Forward Exposure for all Transactions to be used in the calculation of Credit Exposure.

Any negative Forward Exposure amounts will offset positive Forward Exposure amounts in the calculation of Forward Exposure for a Transaction and in the calculation of net aggregate Forward Exposure for all Transactions.

### ***Estimated Future SEM Price***

The Parties agree to use the formulae below to arrive at an estimate of the average SEM price for each Product in each remaining Quarter during the Term.

$$\text{ESTSEM}_{p,q} = \alpha_{p,q} + \beta_{p,q} * \text{NG}_q + \delta_{p,q} * \text{CL}_q + \varepsilon_{p,q} * C_q + \pi_{p,q}$$

Where:

$\text{ESTSEM}_{p,q}$  = Estimated Average SEM Price for a Product and for a Quarter

$\alpha_{p,q}$  = is a formula constant for a Product and for a Quarter

$\pi_{p,q}$  = is another formula constant for a Product and for a Quarter to represent the estimated difference in value between the Product and its Reference DC Product

$\beta_{p,q}$ ,  $\delta_{p,q}$ , and  $\varepsilon_{p,q}$  are formula coefficients for a Product and for a Quarter

$\text{NG}_q$  is the price (in pence sterling per therm) for quarterly Intercontinental Exchange Natural Gas Futures for the relevant quarter, as published on [www.theice.com](http://www.theice.com) as the "Daily Volumes for ICE UK Natural Gas Futures (Quarters)" ÷ (GBP/EURO Exchange Rate), ÷ 100.

$\text{CL}_q$  is the price (in US dollars per metric tonne) for quarterly Forward Coal API2 swap transactions, as reported by Argus Coal Daily International ÷ USD/EURO Exchange Rate.

$C_q$  is the Forward Carbon Price for the Quarter in € per metric tonne of Carbon Dioxide

The Parties agree that:

1. The values of the coefficients  $\alpha_{p,q}$ ,  $\beta_{p,q}$ ,  $\delta_{p,q}$ , and  $\varepsilon_{p,q}$ , used shall be the latest values published by the Regulatory Authorities in respect of the Contract Period in question for the Reference DC Product in question, save that ESB has the right, upon advice from the Regulatory Authorities, to re-estimate the values  $\alpha_{p,q}$ ,  $\beta_{p,q}$ ,  $\delta_{p,q}$ , and  $\varepsilon_{p,q}$ , and substitute ESB's own values for those published by the Regulatory Authorities, or to reformulate ESTSEM, when it considers that

the ESTSEM no longer provides a reliable estimate of the system marginal price of electricity in the SEM for that Product and for that Quarter.

2. The value of  $\pi_{p,q}$  used shall be the value published by ESB in accordance with the following methodology (also refer to the non-binding worked example in this Schedule):
  - a. prior to a Product being offered, ESB will announce the Reference DC Product for the Product in question;
  - b. where the Product is traded during a PSO Auction Window, ESB will calculate  $\pi_{p,q}$  as the weighted average price in €/MWh of Product sold at auction during the PSO Auction Window minus the weighted average value of the Reference DC Product during the PSO Auction Window, calculated according to the ESTSEM formula for that Reference DC Product, where the weightings shall be in proportion to the volumes of the Product sold on each day during the PSO Auction Window;
  - c. where the Product is one that has only been traded outside the PSO Auction Window ESB shall set the value of  $\pi_{p,q}$  as part of the offer.

#### **B. Receivables**

Receivables owing to a Party shall be (i) the amounts invoiced, but not yet paid and (ii) amounts incurred, but not yet invoiced. The net aggregate amount owing for all Transactions will be used as the Receivables amount in the calculation of Credit Exposure. Negative amounts (i.e., amounts payable) will offset positive amounts in the calculation of Receivables.

#### **C. Intra-Month Margin Call Threshold**

The Seller may require an Intra-Month Margin Call to be made if at any time the amount of Margin lodged by the Seller is less than the Intra-Month Margin Call Threshold, where the Intra-Month Margin Call Threshold is defined as:

$$= (1+\text{VAT}_j) * [\text{Receivables} + (\text{SP} - \text{ESTSEM}_{p,q} + 0.03 \text{ESTSEMM}_{p,q}) * \sum_{t=1}^{t=n} Q_t / 2]$$

Where:

Receivables has the meaning given to it in Part B of this Schedule;

$\sum_{t=1}^{t=n}$ , SP, ESTSEM<sub>p,q</sub>, Q<sub>t</sub> and VAT<sub>j</sub> have the meaning given to them in Part A of this Schedule;

ESTSEMM<sub>p,q</sub> was the value of ESTSEM<sub>p,q</sub> when the last monthly credit calculation was made.

At any time, in the event that the Intra-Month Margin Call Threshold is breached, the Seller may recalculate the Credit Exposure Calculation set out in this Schedule, and make a Margin Call consistent with this revised calculation.

#### **D. Approach to margining during the “Delivery Quarter”**

During the Delivery Quarter for a given Transaction, the following additional rules will be used to calculate the Credit Exposure.

- For simplicity, the Forward Exposure calculation will apply to all days which have not yet been invoiced. Hence, when the margin calculation is made on Credit Exposure Calculation Day in the Current Month, the Seller will not use initial or estimated SMPs to calculate Receivables in respect of the days in the Current Month that have already occurred. The whole Current Month will be treated as a Forward Exposure, including those days that have already occurred.
- The values of NG<sub>q</sub> and C<sub>q</sub> will be estimated as an unweighted average of the monthly fuel prices in the remaining months in the Quarter, including the Current Month - i.e. for simplicity no account will be taken of the fact that there are 31 days in October, 30 days in November, etc.
- The following data will be used as the relevant monthly prices for the remaining months in the Quarter:
  - Current Month:
    - “Current Month Natural Gas Price” means the midpoint NBP price for the Balance of Month (BOM) contract under the caption “ESGM Price assessment” as reported in “European Spot Gas Markets” published by Heren Energy.
    - “Current Month Low Sulphur Fuel Oil Price” means the midpoint spot price for Fuel oil 1% cargoes FOB in North West Europe (“NWE”) as reported by Thomson Reuters Eikon.

- “Current Month Gasoil Price” means the midpoint spot price for 0.1% gasoil cargoes CIF in North West Europe (“NWE”) as reported by Thomson Reuters Eikon.
  - Other remaining months in the Quarter: The remaining months in the Quarter will be quoted at monthly granularity for the relevant indices, based on the forward fuel price definitions contained in Schedule 1 of this Agreement.
- The method for estimating the value of  $CL_q$  within the Delivery Quarter will depend on whether the calculation is being done in the first, the second or the third month of the Delivery Quarter.
  - **First Month within quarter** When calculating Credit Exposure in the first Month of the Delivery Quarter (e.g. October),  $CL_q$  is deemed to be the Average forward cif ARA (Rotterdam) API 2 price for the current quarter as reported in the Forward Prices table of the Argus Coal Daily International report.
  - **Second Month within quarter** When calculating Credit Exposure in the second month of the Delivery Quarter (e.g. November),  $CL_q$  is deemed to be the simple average of
    - (i) the cif ARA coal price as reported in the International Coal Prices table of the Argus Coal Daily International report, and
    - (ii) the Average forward cif ARA (Rotterdam) API 2 price for the third month of the quarter, as reported in the Forward Prices table of the Argus Coal Daily International report.
  - **Third Month within quarter** When calculating Credit Exposure in the third month of the Delivery Quarter,  $CL_q$  is deemed to be the cif ARA coal price as reported in the International Coal Prices table of the Argus Coal Daily International report

**SCHEDULE 5****EXAMPLES OF DIFFERENCE PAYMENT/CREDIT EXPOSURE CALCULATIONS****A. Example of Difference Payments**

A non-binding illustrative example is set out using a Baseload Transaction.

This illustrative calculation of Difference Payments is shown for a representative trading month in Q4, assuming that the half-hour SMPs are as follows:

Trading Period	Start Time	SMP		Trading Period	Start Time	SMP
1	0:00	46		25	12:00	50
2	0:30	41		26	12:30	60
3	1:00	41		27	13:00	47
4	1:30	54		28	13:30	40
5	2:00	53		29	14:00	59
6	2:30	58		30	14:30	41
7	3:00	52		31	15:00	44
8	3:30	58		32	15:30	49
9	4:00	55		33	16:00	57
10	4:30	48		34	16:30	55
11	5:00	48		35	17:00	40
12	5:30	56		36	17:30	57
13	6:00	48		37	18:00	46
14	6:30	49		38	18:30	40
15	7:00	50		39	19:00	56
16	7:30	40		40	19:30	55
17	8:00	54		41	20:00	41
18	8:30	51		42	20:30	45
19	9:00	60		43	21:00	44
20	9:30	44		44	21:30	53
21	10:00	44		45	22:00	60

Trading Period	Start Time	SMP		Trading Period	Start Time	SMP
22	10:30	51		46	22:30	44
23	11:00	41		47	23:00	51
24	11:30	52		48	23:30	55

This example of the Difference Payments assumes that there is one Transaction governed by the Agreement.

The Transaction is a Baseload product with a Strike Price of €50/MWh and a Contract Quantity of 5MW:

Baseload Transaction		
Trading Period Falling in Quarter	Strike Price [€/MWh]	Contract Quantity (MW)
Q4	50	5

The Difference Payment on the representative day for the Baseload Transaction are shown below.

Product	Average SMP for applicable hours of product	Strike Price	Difference Payment €/MWh or £/MWh (Buyer to Seller)	Difference Payment €/MWh or £/MWh (Seller to Buyer)	MWh = MW * no. of hours	Difference Payment € or £ (Buyer to Seller)	Difference Payment € or £ (Seller to Buyer)
Baseload	49.64583	50	0.35417	0	120	42.50	0
Net settlement for day						42.50	

### B. Example of Credit Exposure

A non-binding illustrative example of the calculation of the Credit Exposure is set out below. It assumes the Transaction is a 5MW Baseload product with a Strike Price of €50/MWh.

This example shows the Credit Exposure calculation as of the credit margining date in October. Since this Credit Exposure assessment is made prior to the date on which Difference Payments begin, there are no Receivables.

For the Forward Exposure calculation, the example assumes that the ESTSEM for each Quarter is as follows:

Quarter	Baseload ESTSEM (€ /MWh)
Q4	51
Q1	51
Q2	51
Q3	51

As specified in Schedule 4, the Forward Exposure to the Seller is defined as:

$$\text{Forward Exposure to the Seller} = (1 + \text{VAT}_j) * (\text{SP} - 0.85 * \text{ESTSEM}_{p,q}) * \sum_{t=1}^{t=n} Q_t / 2$$

The table below illustrates the per MWh exposure (i.e.,  $(1 + \text{VAT}_j) * (\text{SP} - 0.85 * \text{ESTSEM}_{p,q}) * \sum_{t=1}^{t=n} Q_t / 2$ ) for the Seller for each Transaction for each Quarter, assuming that  $\text{VAT}_j = 0$ .

Baseload			
Quarter	SP	0.85 * ESTSEM	(SP - 0.85 * ESTSEM)
Q4	50.00	43.35	6.65
Q1	50.00	43.35	6.65
Q2	50.00	43.35	6.65
Q3	50.00	43.35	6.65

The tables below illustrate the MWh quantities that would be applied to the Quarterly per MWh exposure amounts to arrive at the Forward Exposure for the Transaction for each Quarter.



Baseload			
Quarter	Hours	MW	Total MWh
Q4 2012	2209	5.00	11,045.00
Q1 2013	2159	5.00	10,795.00
Q2 2013	2184	5.00	10,920.00
Q3 2013	2208	5.00	11,040.00

The table below summarizes the Forward Exposure for the Transaction for each Quarter.

Baseload			
Quarter	€/MWh Exposure	MWh	€ Exposure to Seller
Q4 2012	6.65	11,045.00	73,449.25
Q1 2013	6.65	10,795.00	71,786.75
Q2 2013	6.65	10,920.00	72,618.00
Q3 2013	6.65	11,040.00	73,416.00
Exposure for Baseload Transaction			291,270.00

**C. Example of ESTSEM Calculation Illustrating the Use of  $\pi_{p,q}$  and a Reference DC Formula**

A non-binding illustrative example of the calculation of the Credit Exposure is set out below. It assumes the following transaction has taken place on 15<sup>th</sup> June 2012.

<b>Product: Baseload Q1 2013</b> <b>Delivery Period: 1 Jan 2013 to 31 March 2013</b> <b>Reference DC Product: Baseload</b> <b>Reference DC quarter: Q1 2013</b>		
Date	Strike Price [€/MWh]	Contract Quantity
1 Jan – 31 Jan 2013	65	7 MW
1 Feb – 28 Feb 2013	65	6MW
1 Mar – 31 Mar 2013	65	5MW

Suppose that this product was subsequently sold at PSO Auctions of 22<sup>nd</sup> June and 29<sup>th</sup> June as well. The total volumes of this Product sold, and the prices compared to the Reference DC Product strike prices on those days were as follows:

<b>Q1 2013 Quarterly Baseload traded during the auction window</b>				
Date	Reference DC formula price [€/MWh]	Strike Price [€/MWh]	Differential [€/MWh]	Total Contract volume traded by ESB PG (all counterparties)
15 <sup>th</sup> June	60	65	5	1000GWh
22 <sup>nd</sup> June	61	64	3	2000GWh
29 <sup>th</sup> June	62	65	3	1000GWh
Weighted average ( $\pi_{p,q}$ )	61	64.5	3.5	

The weighted average difference between the Product sold at the auctions and the Reference DC formula price was €3.5/MWh (a value published by ESB), so  $\pi_{p,q}$  for this Product for Quarter is €3.5/MWh

Now assume that on credit margining in June the ESTSEM for the Reference DC Product, Q1 2013 Baseload is €63.5/MWh, then the ESTSEM to be used for Q1 2013 Quarterly Baseload will be €67/MWh (i.e. €63.5/MWh + €3.5/MWh).

**SCHEDULE 6**  
**CONFIRMATION LETTER (ILLUSTRATIVE)**

## 2 Way CfD Trade Confirmation



**Power Generation**

Electricity Supply Board  
Energy Trading & Regulation  
Lower Fitzwilliam Street, Dublin 2, Ireland.  
Sráid MacLiam Íochtair, Baile Átha Cliath 2, Éire.  
Phone: 353-1-702 6279 / 702 6252 Fax: 353-1-677 1034 Website: [www.esb.ie](http://www.esb.ie)

Contract No: 100133  
Trade No: 110565

**PRODUCT:**

- Baseload - For Trading Periods at the Contract Quantity arising in all hours.
- Mid-Merit (0700-2300) - For Trading Periods at the Contract Quantity during the hours beginning at 07:00 and ending at 23:00 on Business Days and for Trading Periods on days that are not Business Days at 80% of the Contract Quantity.
- Mid-Merit 2 (0700-1900) - For Trading Periods at the Contract Quantity during the hours beginning at 07:00 and ending at 19:00 on weekdays.
- Peak (1700-2100) - For Trading Periods arising during the hours beginning at 17:00 and ending at 21:00 on all days during, October, November, December, January, February and March at the Contract Quantity.

Contract Quantity and Strike Price: The Contract Quantity and Strike Price for the applicable time periods for this Transaction are set out below.

Trading Period Falling in Month	Strike Price EUR/MWh	Contract Quantity (MW)
October	0.00	0.000
November	0.00	0.000
December	0.00	0.000
January	0.00	0.000
February	0.00	0.000
March	0.00	0.000
April	0.00	0.000
May	0.00	0.000
June	0.00	0.000
July	0.00	0.000
August	0.00	0.000
September	0.00	0.000

This Confirmation Letter shall confirm the Transaction agreed to on Sep 2, 2012 between TEST (Buyer) and ESB (Seller). This Confirmation Letter is being provided pursuant to and in accordance with the Master Contract for Differences Agreement dated July 5, 2012 between Buyer and Seller, and constitutes part of and is subject to the terms and provisions of such Master Contract for Differences Agreement. Terms used but not defined herein shall have the meanings ascribed to them in the Master Contract for Differences Agreement.

**Please sign the confirmation and return to Fax. No. +353-1-6771034**

Electricity Supply Board

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Phone No: \_\_\_\_\_

Fax: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

TEST

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Phone No: \_\_\_\_\_

Fax: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**SCHEDULE 7**  
**LETTER OF CREDIT**  
**EURO IRREVOCABLE**  
**STANDBY LETTER OF CREDIT TEMPLATE**

To:

[Date]

Dear Sirs,

**Irrevocable Letter of Credit No. [ ]: Total Sum [ ]**

1. In this letter, except where the context otherwise requires, the following expressions have the meanings set opposite them:-

"Bank"	[ ]
"Beneficiary"	[ ]
"Business Day"	a day on which banks are open for business in Dublin and Belfast
"Company"	[ ]
"Contract"	[Details of the underlying contract]
"Demand"	A written notice of demand in the form set out at Annex 1
"Effective Date"	[ - ]
"Expiry Date"	[ - ]
"Total Sum"	[ ] [Amount in words]

2. In consideration of Beneficiary agreeing to accept this Letter of Credit, upon the Bank receiving on or before the Expiry Date a Demand, the Bank irrevocably and unconditionally (but subject to the remaining provisions of this letter) agrees to pay to Beneficiary the amount specified in the Demand on the later of three (3) Business Days after the receipt by the Bank of the Demand or such later date as may be specified in the Demand.
3. (a) Partial drawings are allowed.
- (b) The aggregate amount payable by the Bank under this Letter of Credit shall not exceed the Total Sum for the time being applicable;
- (c) Any payment made hereunder shall be made by transfer to the following account [ ] or such other account as may be notified in writing by the Beneficiary from time to time.

- (d) The obligations of the Bank hereunder shall cease on the Expiry Date, except in respect of any Demand received by the Bank hereunder on or prior to such date.
  - (e) No demand may be made prior to the Effective Date.
4. Each Demand shall specifically refer to this Letter of Credit No. [ ] and shall be given to the Bank by notice in writing by an authorised signatory of [ ] at its address stated in this Letter of Credit or by tested telex at [ ].
  5. The benefit of this Letter of Credit may not be assigned, transferred or charged by the Beneficiary in whole or in part save with the prior written consent of the Bank and the Company.
  6. Only an instrument in writing signed on behalf of all the parties hereto may amend this Letter of Credit.
  7. This Letter of Credit shall be governed by and construed in accordance with the laws of Ireland. Except to the extent that it is inconsistent with the express terms of this Letter of Credit, this Letter of Credit is subject to the International Standby Practices (ISP 98), International Chamber of Commerce Publication No. 590.
  - 8 [This Letter of Credit is issued to replace Letter of Credit No. [ ] issued by the Bank in favour of the Beneficiary].

Yours faithfully,

[Bank]

**Annex 1**

To: [Bank]

**Irrevocable Letter of Credit No. [ ] dated [ ] (the "Letter of Credit")**

We refer to the above Letter of Credit issued by you and hereby notify you that an Event of Default has occurred under the Contract and we hereby demand payment no later than [ ] of [ ] (being the aforementioned sum in default) under the Letter of Credit.

Payment should be made to the following account:

Name: [ ]

Account number: [ ]

Bank: [ ]

Terms defined in the Letter of Credit shall have the same meanings in this demand.

The date of this Demand is not later than the Expiry Date.

For [ ]

By:

Director:

Date:

.....

**SCHEDULE 8****PRODUCTS**

- 1.1 “Baseload” means at the same Contract Quantity and Settlement Quantity for all Trading Periods during the Contract Period.

The Reference DC Product for the purpose of margin calculations for each Baseload product will be the DC Baseload product for the corresponding Quarter(s) in 2012/13 or as revised. In the case of Baseload products of less than quarterly duration, the corresponding Quarter will be the quarter within which the Transaction Term falls.

- 1.2 “Mid-Merit (0700-2300)” means at a Contract Quantity which has the same value during all Trading Periods during the Contract Period, and where the Settlement Quantity is equal to:

1.2.1 100% of the Contract Quantity in all Trading Periods beginning at 07:00 and ending at 23:00 on Business Days;

1.2.2 80% of the Contract Quantity in all Trading Periods beginning at 07:00 and ending at 23:00 on Non-Business Days; and

1.2.3 zero at other times.

The Reference DC Product for the purpose of margin calculations for each Mid-Merit (0700-2300) product will be the DC Mid-Merit product for the corresponding Quarter(s) in 2012/13 or as revised. In the case of Mid-Merit products of less than quarterly duration, the corresponding Quarter will be the quarter within which the Transaction Term falls.

- 1.3 “Mid-Merit 2 (0700-1900)” means at a Contract Quantity which has the same value during all Trading Periods during the Contract Period, and where the Settlement Quantity is equal to:

1.3.1 100% of the Contract Quantity in all Trading Periods beginning at 07:00 and ending at 19:00 on week days;

1.3.2 zero at other times.

The Reference DC Product for the purpose of margin calculations for each Mid-Merit 2 (0700-1900) product will be the DC Mid-Merit product for the corresponding Quarter(s) in 2012/13 or as revised. In



the case of Mid-Merit 2 (0700-1900) products of less than quarterly duration, the corresponding Quarter will be the quarter within which the Transaction Term falls.

1.4 "Peak (1700-2100)" means at the same Contract Quantity for all Trading Periods arising during the Contract Period, and where the Settlement Quantity is equal to:

1.4.1 100% of the Contract Quantity in all Trading Periods beginning at 17:00 and ending at 21:00 on all days during the Months of October, November, December, January, February and March during the Contract Period;

1.4.2 zero at other times.

The Reference DC Product for the purpose of margin calculations for each Peak (1700-2100) product will be the DC Peak product for the corresponding Quarter(s) in 2012/13 or as revised. In the case of Peak (1700-2100) products of less than quarterly duration, the corresponding Quarter will be the quarter within which the Transaction Term falls.

1.5 ESB reserves the right to define new Products, the details of which will be given in the relevant Auction Notice.

1.6 For each Product specified in paragraphs 1.1 to 1.4 of this Schedule, or any new Product that ESB may from time to time define, ESB shall elect a Reference DC Product by reference to which the other Party's Credit Exposure shall be calculated, and shall notify Eligible Auction Participants of the Reference DC Product when conducting any PSO Auction.