LEGAL DRAFTING TO GIVE EFFECT TO ALTERNATIVE MODIFICATION P200

SECTION E *(version 3.0)*

Paragraph 1.2.5 shall be amended by adding the following:

TLF Determination	Transmission Loss Factor Agent	TLFA

SECTION H *(version 10)*

Paragraph 1.2.4 shall be amended by adding the following:

(f) Communications Requirements Documents; ~~and~~

(g) the Reporting Catalogue; and

(h) the LFM Specification.

SECTION T *(version 15)*

The following paragraph 1.3.9 shall be added to Section T:

1.3.9 Data required from the TLFA are Transmission Loss Factors for all BM Units.

The following paragraphs 1.8 and 1.9 shall be added to Section T:

1.8 **Annex T–2**

1.8.1 Annex T–2 shall apply for the purposes of the determination of Transmission Loss Factors.

1.9 **Annex T–3**

1.9.1 Annex T–3 shall apply in for the purposes of the determination of each F-Volume in respect of each Qualifying BMU.

Paragraph 2.2.1 shall be amended to read:

2.2.1 For the purposes of the Code, the Transmission Loss Factor ~~for each BM Unit,~~ and factor α~~,~~ shall be as follows:

(a) for each BM Unit TLF_{ij} ~~= 0 for all BM Units,~~ shall be determined in accordance with Annex T-2; and

(b) $\alpha = 0.45$.

Paragraph 2.3.1 shall be amended to read:

2.3.1 In respect of each Settlement Period, for each BM Unit, the Transmission Loss Multiplier shall be calculated as follows:

(a) for all BM Units belonging to Trading Units which in the Settlement Period are delivering Trading Units:

$ZLF_{ij} = TLF_{ij} + ZTLMO_j$;

$TLM_{ij} = 1 + ZLF_{ij}$ ~~$TLFij$~~ $+ TLMO^{+}_{j}$;

(b) for all BM Units belonging to Trading Units which in the Settlement Period are offtaking Trading Units:

$ZLF_{ij} = TLF_{ij} + TLMO^{-}_{j}$;

$TLM_{ij} = 1 + TLF_{ij} + TLMO^{-}_{j}$;

where:

$ALF_j = -\alpha(\Sigma^{+}QM_{ij} + \Sigma^{-}QM_{ij}) / \Sigma^{+}QM_{ij}$;

$ZTLMO_j = ALF_j - \{\Sigma^{+} (QM_{ij} * TLF_{ij}) / \Sigma^{+}QM_{ij}\}$;

$TLMO^{+}_{j} = - \Sigma_i QHED_{ij} / \Sigma^{+}QM_{ij}$; and

~~$TLMO^{\pm}_{j} = \{\alpha(\Sigma^{\pm}QM_{ij} + \Sigma^{-}QM_{ij}) + \Sigma^{\pm} (QM_{ij} * TLF_{ij})\} / \Sigma^{\pm}QM_{ij}$; and~~

$TLMO^{-}_{j} = \{(\alpha-1)(\Sigma^{+}QM_{ij} + \Sigma^{-}QM_{ij}) - \Sigma^{-} (QM_{ij} * TLF_{ij})\} / \Sigma^{-}QM_{ij}$; and

Σ^{+} represents the sum over all BM Units belonging to Trading Units that are delivering Trading Units in the Settlement Period;

Σ^{-} represents the sum over all BM Units belonging to Trading Units that are offtaking Trading Units in the Settlement Period~~.~~;

Σ_i represents the sum over all BM Units.

Insert new paragraph 2.4 as follows:

2.4 Hedged Losses Adjustment

2.4.1 In respect of each Settlement Period and BM Unit, the BM Unit Total Losses Adjustment ($QHED_{ij}$) shall be calculated as follows:

$QHED_{ij} = QH_{ij} - QNH_{ij}$

2.4.2 For the purposes of paragraph 2.4.1, the BM Unit Non-Hedged Losses Adjustment (QNH_{ij}) and the BM Unit Hedged Losses Volume (QH_{ij}) shall be calculated as follows:

$QH_{ij} = ALF_j * F_i$; and

$QNH_{ij} = ZLF_{ij} * F_i$.

Paragraph 4.5.1 shall be amended to read:

4.5.1 In respect of each Settlement Period and each Energy Account, the Credited Energy Volume for each BM Unit to be allocated to the corresponding Energy Account of the Subsidiary Party and of the Lead Party will be determined as follows:

(a) in the case of the corresponding Energy Account of each Subsidiary Party:

$QCE_{iaj} = UQCE_{iaj} + AQHED_{iaj}$

where:

$UQCE_{iaj} = \{(QM_{ij} - QBS_{ij}) * (QMPR_{iaj}/100) + QMFR_{iaj}\} * TLM_{ij}$; and

$AQHED_{iaj} = QHED_{ij} * (QMPR_{iaj}/100)$

~~$QCE_{iaj} = \{(QM_{ij} - QBS_{ij}) * (QMPR_{iaj}/100) + QMFR_{iaj}\} * TLM_{ij}$~~

and values of QCE_{iaj} are then rounded towards zero to the nearest kWh;

(b) in the case of the corresponding Energy Account of the Lead Party:

$QCE_{iaj} = UQCE_{iaj} + AQHED_{iaj}$;

$UQCE_{iaj} = (QM_{ij} * TLM_{ij}) - \sum_a QCE_{iaj}$; and

$AQHED_{iaj} = QHED_{ij} - \sum_a AQHED_{iaj}$

~~$QM_{ij} * TLM_{ij}) - \sum_a QCE_{iaj}$~~

where $\sum_a$ represents the sum over all Energy Accounts for Subsidiary Parties of the Lead Party (not including Energy Accounts for the Lead Party itself).

The following Annex T-2 shall be added:

ANNEX T-2

TRANSMISSION LOSS FACTORS

1. Introduction

1.1 This Annex T-2 sets out the basis for determining Transmission Loss Factors.

1.2 Transmission Loss Factors will be determined by the TLFA:

(a) by reference to nodal TLFs determined by the application of the Load Flow Model in accordance with paragraph 7.2, and

(b) in accordance with the further provisions of paragraph 7.

1.3 For the purposes of this Annex T-2:

(a) a **node** is a point on an electrical network at which:

(i) a power flow on to or off the network can occur, or

(ii) two or more circuits (forming part of the network) meet;

(b) a **load flow model** is a mathematical model of an electrical network which represents power flows between pairs of adjacent nodes on the network, and from which nodal TLFs can be determined for each node for given power flows;

(c) a **nodal TLF**, in relation to a node on a network and a given power flow at the node, is the rate of change of electrical losses on the network with respect to change of power flow at that node, with network balance being maintained by the slack node;

(d) the **Load Flow Model** is the load flow model established and adopted by the TLFA in accordance with paragraph 3;

(e) the **slack node** is a node that acts:

(i) for the purposes of a load flow model, as a sink for power flow surpluses or deficits arising from inaccuracies in the load flow model; and

(ii) in relation to adjacent nodes, as the reference node for calculating the phase angle of the power flow between the nodes;

(f) in relation to a BSC Year, BSC Spring shall be considered to be the periods 1st April to 31st May and 1st March to 31st March in that BSC Year; and

(g) in relation to the BSC Year (the **first effective** BSC Year) in which the Relevant Implementation Date falls:

(i) unless the Relevant Implementation Date is a 1st April:

(1) a reference to a BSC Year shall, where the context requires, be construed as a reference to the period from the Relevant Implementation Date to the end of the first effective BSC Year; and

(2) each of the dates specified in paragraphs 4.4(a)(ii), 4.4(b)(ii), 4.4(c), 6.3, 7.2(a), 7.2(b), 7.2(c), 7.5(a), 7.5(b), 7.6(b) and 7.6(c) shall be extended by the period from the start of the first effective BSC Year to the Relevant Implementation Date;

(ii) for the avoidance of doubt, this Annex T-2 shall take effect so as to require to be done anything necessary to be done before the Relevant Implementation Date in order to give effect to this Annex T-2 with effect on and from the Relevant Implementation Date.

2. LFM Specification

2.1 The Panel shall, in consultation with the Transmission Company and other Parties and the Authority, establish (to form part of the BSC Service Description for the TLFA) a specification (**LFM Specification**) for a load flow model for the Transmission System, to operate based on the data inputs specified in paragraph 7.2(e), and consistent with the requirements in paragraph 2.2.

2.2 The LFM Specification shall provide for the following assumptions and approximations to be made in the load flow model:

(a) only electrical losses associated with power flows between adjacent nodes (forming part of the network) ("**Load Flow Model power flows**") will be used in determining nodal TLFs; and

(b) in respect of the power flow between adjacent nodes it is assumed:

(i) there is no Reactive Power component;

(ii) the ratio of the change of power flow over a circuit to the injection at a given node is not dependent on overall electrical load on the network;

(iii) the sine of the voltage phase angle is equal to the phase angle (as measured in radians); and

(iv) the power flow in a circuit is equal to the difference in the voltage phase angles across the circuit multiplied by the circuit susceptance.

3. Load Flow Model

3.1 The TLFA shall establish, and (subject to paragraph 3.2) adopt and from time to time modify, a load flow model which implements and complies with the LFM Specification.

3.2 The TLFA shall not adopt such load flow model or a modification thereof unless the model reviewer has reported to the Panel (in such terms, and as to such materiality, as the Panel may decide) that such model or modification complies with the LFM Specification; and the TLFA shall not modify the Load Flow Model except as the Panel may instruct or agree.

3.3 The Panel shall appoint, and may from time to time reappoint or replace, an independent expert (the **model reviewer**) for the following purposes:

(a) to inspect and test the Load Flow Model and report to the Panel as to the compliance of the Load Flow Model with the LFM Specification or any particular aspect of the LFM Specification:

(i) before the Load Flow Model is first used for the purposes of this Annex T-2;

(ii) upon any modification of the Load Flow Model (whether upon a change to the LFM Specification or otherwise); and

(iii) on any other occasion on which the Panel decides to obtain such a report; and

(b) to verify and report to the Trading Disputes Committee as to whether nodal TLFs were determined in accordance with the Load Flow Model, on any occasion on which it is necessary to do so for the purposes of any Trading Dispute.

3.4 Any report produced by the model reviewer on nodal TLFs for the Trading Disputes Committee shall be final and binding on all Parties (save in the case of fraud or manifest error) and if a Party refers a Trading Dispute to arbitration under Section W3.6, then save in the case of fraud or manifest error, the arbitrator(s) appointed in accordance with Section H7 shall not have the power to open up, review or in any way revise the model reviewer's report on whether nodal TLFs were, or were not, determined in accordance with the Load Flow Model.

3.5 BSCCo shall enter into a contract of engagement (for the term for which the model reviewer is appointed) with the model reviewer, which shall, inter alia:

(a) provide terms of reference set or approved by the Panel for the model reviewer; and

(b) require the model reviewer to enter into a confidentiality undertaking in favour of the TLFA in such terms as the Panel shall reasonably require or approve.

3.6 To ensure the integrity of the Load Flow Model:

(a) the TLFA shall deposit a copy of the Load Flow Model in escrow with an escrow agent in such form and on such terms and conditions as BSCCo may require; and

(b) the TLFA shall be responsible for the payment of all fees due to the escrow agent.

3.7 The TLFA shall be required to make the Load Flow Model (and any details thereof) available to the model reviewer and the BSC Auditor (and as may be required by the arbitral tribunal in connection with any arbitration); but shall not be required to make available or disclose the Load Flow Model or details thereof to the Panel, any Panel Committee or Parties.

3.8 For the avoidance of doubt, once the Load Flow Model (or any modification thereof) has been adopted by the TLFA, nodal TLFs which are properly determined by the Load Flow Model shall be definitive; and accordingly:

(a) (without prejudice to any question as to whether such nodal TLFs were in fact properly determined) no Party may challenge or question on any grounds the validity of any nodal TLF which was so determined; and

(b) any modification of the Load Flow Model shall have effect only prospectively, that is for the purposes of determining Transmission Loss Factors in respect of BSC Years for which (at the time the modification was made) Transmission Loss Factors have not already been determined in accordance with paragraph 7.

3.9 For the purposes of paragraph 3.8(i), nodal TLFs are properly determined if they are determined by and only by the application of the Load Flow Model on the basis of data input in compliance with the further provisions of this Annex T-2.

4. Zones, Nodes and Mapping

4.1 For the purposes of this Annex T-2:

(a) a **Zone** is the geographic area in which a GSP Group lies, determined by the Panel (applying such criteria as it shall decide in its discretion) but so that the Zones are mutually exclusive and comprise the whole of (and nothing but) the area specified in Schedule 1 of the Transmission Licence;

(b) the Panel may from time to time review and upon reasonable notice to Parties change its determination of any Zones, where there is any change in the GSP Group, or upon the application of a Party, or otherwise on its own initiative; provided that a change in the determination of any Zone(s) shall be effective only in relation to BSC Years for which (at the time the change was made) Transmission Loss Factors have not already been determined in accordance with paragraph 7;

(c) the Panel may, but shall not be required to, consult any Party on the determination of any part of the boundary of a Zone where it considers there is material doubt as to such determination; and

(d) the Panel shall publish a description of the Zones from time to time (but may do so by referring to any other document which describes or identifies the geographic areas determined by the Panel to be the Zones).

4.2 For the purposes of this Annex T-2:

(a) a **Node** is a node on the Transmission System; and

(b) the Transmission Company shall:

(i) identify each Node and prepare, keep up-to-date, and maintain, a list of all Nodes, each identified or capable of being identified geographically; and

(ii) provide to BSCCo the list of Nodes as from time to time updated.

4.3 For the purposes of this Annex T-2:

(a) a **network mapping statement** is a statement of the following:

(i) for each Volume Allocation Unit (other than a GSP Group or BM Unit embedded in a Distribution System), the Node which represents or best represents that Volume Allocation Unit or (as the case may be) the Boundary Point(s) at which that Volume Allocation Unit is connected to the Transmission System (it being recognised that one Node may represent several such points);

(ii) for each Node which represents or best represents a Volume Allocation Unit in accordance with paragraph 4.3(a)(i), the Zone in which the Node lies or should best be considered to lie; and

(iii) for each BM Unit, the Zone in which the BM Unit lies, on the basis of the same correspondences as have been established under paragraphs (i) and (ii), except that:

(1) Interconnector BM Units lie in the Zone in which (in accordance with paragraph (ii)) the Node for the relevant Interconnector lies; and

(2) Supplier BM Units and other BM Units embedded in a Distribution System lie in the Zone which represents the geographical area of the corresponding GSP Group; and

(b) in relation to each BSC Year:

(i) the **initial** network mapping statement is the version of the network mapping statement approved by the Panel under paragraph 4.4;

(ii) for the purposes of determining Nodal power flows under paragraph 7.2(d) the initial network mapping statement shall be used and any update thereof under paragraph 4.4(d) shall have no effect;

(iii) the **prevailing** network mapping statement is the initial network mapping statement as from time to time updated by BSCCo under paragraph 4.4(d); and

(iv) the prevailing network mapping statement shall be used to determine the Zone in which each BM Unit is located for the purposes of determining from time to

time the Transmission Loss Factor applicable to such BM Unit under paragraph 7.6(a).

4.4 For each BSC Year:

(a) BSCCo shall:

(i) prepare (on the basis of data relating to the Reference Year, and taking account of the prevailing network mapping statement for the preceding BSC Year) a draft network mapping statement;

(ii) provide a copy of the draft network mapping statement to the Panel and each Party, wherever practicable not later than 31st August in the preceding BSC Year; and

(iii) submit to the Panel any representations or comments on the draft statement which were received from Parties within ten Business Days after the statement was provided under paragraph (ii);

(b) the Panel shall approve the draft network mapping statement with such amendments (if any) as the Panel may decide, taking into account (inter alia):

(i) any representations and comments submitted to it under paragraph (a)(iii); and

(ii) any determination made by the Panel under paragraph 4.5 in relation to a question or dispute which was raised with the Panel not later than the date referred to in paragraph 4.4(a)(iii) in the preceding BSC Year;

(c) BSCCo shall, no later than 19th October in the preceding BSC Year, provide the approved version of the network mapping statement to the TLFA and the Transmission Company and publish the same on the BSC Website; and

(d) following the approval of the initial network mapping statement BSCCo shall:

(i) from time to time update the network mapping statement so as to reflect any changes to, or in respect of, the list of Nodes, the definition of any Zone, BM Units, Transmission System Boundary Points or Systems Connection Points and any determination by the Panel under paragraph 4.5; and

(ii) publish each such update of the network mapping statement on the BSC Website.

4.5 Any question or dispute as to the matters in sub-paragraph (i) and (ii) of paragraph 4.3(a) shall be determined by the Panel in its discretion, after consultation with the Transmission Company and the Lead Party(ies) of the BM Unit(s) affected by such question or dispute, having regard (so far as appears to the Panel to be relevant) to the parts of the Transmission System in which power flows are typically most influenced by changes in power flows at the relevant Node or (as the case may be) the relevant BM Unit.

4.6 The Transmission Company and each Distribution System Operator and the CRA/CDCA shall cooperate with and provide information as may be required to BSCCo and the Panel in connection with the preparation of the network mapping statement and the determination of any question or dispute under paragraph 4.5.

5. Network Data

5.1 For the purposes of this Annex T-2:

(a) **Network Data** means the following data relating to the Transmission System:

(i) the identity of each pair of adjacent Nodes; and

(ii) for each such pair of Nodes, values of the resistance and the reactance between the Nodes; and

(b) Network Data shall be established on the assumption of an 'intact network', that is disregarding any planned or other outage of any part of the Transmission System.

5.2 The Transmission Company shall determine Network Data in good faith and based on its operational knowledge of the Transmission System, and in accordance with any relevant assumption made in the LFM Specification, but in the absence of a manifest error no Party may challenge or question the validity or correctness of the Network Data determined by the Transmission Company.

5.3 The Transmission Company and the TLFA shall cooperate so as to ensure that the form and medium in which Network Data is provided by the Transmission Company is compatible with the Load Flow Model and the BSC Agent System on which the model operates.

6. Sample Settlement Periods

6.1 For each BSC Year, Transmission Loss Factors shall be determined by reference to nodal TLFs for sample Settlement Periods in the 12 month period (a **Reference Year**) ending 31st August in the preceding BSC Year.

6.2 For the purposes of so determining Transmission Loss Factors, the Panel, after consultation with the Transmission Company and other Parties:

(a) shall divide the Reference Year into a number of different periods (each a **Load Period**), representing (in the opinion of the Panel) typically different levels of load on the Transmission System, defined by time of day, day of week, season and such other factors as the Panel considers relevant, such that every Settlement Period in the Reference Year falls into one and only one Load Period;

(b) shall specify, for each Load Period, a representative (in the opinion of the Panel) number of sample Settlement Periods (each a **Sample Settlement Period**) within that Load Period; and

(c) will revise the specification of Load Periods or Sample Settlement Periods (if required) for each BSC Year.

6.3 BSCCo shall, not later than 31st August in the preceding BSC Year notify the specification of each Load Period and the Sample Settlement Periods to the TLFA, the Transmission Company and the CDCA, and publish such specification on the BSC Website.

7. Determination of TLFs

7.1 For each BSC Year Transmission Loss Factors for each BM Unit shall be determined in accordance with this paragraph 7.

7.2 For each Sample Settlement Period:

(a) the Transmission Company shall, not later than 5th October in the preceding BSC Year, send to BSCCo the Network Data;

(b) the CDCA shall, not later than 5th October in the preceding BSC Year, send to BSCCo Metered Volumes for each Volume Allocation Unit (other than GSP Groups and BM Units embedded in a Distribution System);

(c) BSCCo shall, not later than 19th October in the preceding BSC Year, send to the TLFA the information received by BSCCo pursuant to 7.2(a) and 7.2(b);

(d) the TLFA shall translate the Metered Volume data provided by BSCCo to power flows (on the assumption they are constant in a Settlement Period) for each Node by applying the initial network mapping statement (**Nodal power flows**); and

(e) the TLFA shall input into the Load Flow Model the Network Data under paragraph (a) and Nodal power flow data under paragraph (d) and apply the Model to derive a nodal TLF for each Node (**Nodal TLF**).

7.3 For each Sample Settlement Period the TLFA shall determine the Zonal TLF (TLF_{Zj}) for each Zone according to the following formula:

$$TLF_{Zj} = \Sigma_N (TLF_{Nj} * QM_{Nj}) / \Sigma_N QM_{Nj}$$

where for that Settlement Period, and for each Node in that Zone (determined by the TLFA on the basis of the initial network mapping statement):

TLF_{Nj} is the value of Nodal TLF; and

QM_{Nj} is the absolute value of the Nodal power flow;

and where Σ_N is summation by Node in a Zone.

7.4 For each BSC Season (the **relevant** BSC Season) in each BSC Year the TLFA shall determine the Seasonal Zonal TLF (TLF_{Zs}) for each Zone according to the following formula:

$$TLF_{Zs} = \Sigma_p ((\Sigma_s TLF_{Zj} / S_{ps}) * J_{ps}) / \Sigma_p J_{ps}$$

where (in relation to the Reference Year):

S_{ps} is the number of Sample Settlement Periods within a Load Period which fall within the relevant BSC Season;

J_{ps} is the total number of Settlement Periods falling within a Load Period which fall within the relevant BSC Season;

Σ_s is summation by Sample Settlement Periods within a Load Period which fall within the relevant BSC Season; and

Σ_p is summation by Load Period within the relevant BSC Season.

7.5 For each BSC Year:

(a) the TLFA shall, not later than 30th November in the preceding BSC Year:

(i) determine the Adjusted Seasonal Zonal TLF ($ATLF_{Zs}$) for each Zone and each BSC Season according to the following formula:

$ATLF_{Zs} = TLF_{Zs} * 0.5$

(ii) send the Adjusted Seasonal Zonal TLFs to BSCCo; and

(b) BSCCo shall, not later than 31st December in the preceding BSC Year, publish the Adjusted Seasonal Zonal TLFs ($ATLF_{Zs}$) for each Zone and each BSC Season on the BSC Website.

7.6 For each BSC Season in each BSC Year:

(a) the Transmission Loss Factor (TLF_{ij}) for each BM Unit shall be the Adjusted Seasonal Zonal TLF ($ATLF_{Zs}$) for the Zone in which that BM Unit is located (allocated on the basis of the prevailing network mapping statement) and for that BSC Season;

(b) the TLFA shall, not later than 30th November in the preceding BSC Year, determine and send the Transmission Loss Factors for each BM Unit to BSCCo;

(c) BSCCo shall, not later than 31st December in the preceding BSC Year, send such Transmission Loss Factors to the CRA; and

(d) upon any revision of the network mapping statement under paragraph 4.4(d), in relation to any BM Unit affected by such revision, BSCCo shall determine the new or revised Transmission Loss Factors (in accordance with paragraph 4.4(d)) and send such Transmission Loss Factors to the CRA.

7.7 The CRA shall maintain in CRS, as BM Unit registration data, the Transmission Loss Factors for each BM Unit.

SECTION V *(version 21)*

Insert new paragraph 4.6 as follows:

4.6 Transmission Loss Factor Data

4.6.1 BSCCo shall arrange for the report(s) and data set out in Table 9 in Annex V-1 to be made available as set out in that table.

4.6.2 Paragraph 3.2 shall apply for the purposes of paragraph 4.6.1 as if references in paragraph 3.2:

(a) to BSC Agents included BSCCo; and

(b) to Tables in Annex V-1 included Table 9.

The following text shall be deleted at Table 9 of Annex V-1:

~~THIS TABLE IS INTENTIONALLY LEFT BANK~~

Insert as Table 9 at Annex V-1 the following:

TABLE 9 – TRANSMISSION LOSS FACTOR DATA

Name of report(s) / Category of Data	Frequency	Recipient	General Description
Network Data	Annually	Any Party (on request)	A report containing the Network Data determined by the Transmission Company in accordance with, and in the format specified in paragraph 5.1 of Annex T-2.
Metered Volumes	Annually	Any Party (on request)	A report containing the Metered Volume data provided to BSCCo in accordance with paragraph 7.2 of Annex T-2.
Nodal TLFs	Annually	Any Party (on request)	For each Node, a report providing Nodal TLFs as determined by the TLFA in accordance with paragraph 7.2 of Annex T-2.
Nodal power flows	Annually	Any Party (on request)	A report providing Nodal power flows as determined by the TLFA in accordance with paragraph 7.2 of Annex T-2.
Load Flow Model power flows	Annually	Any Party (on request)	A report containing the circuit power flows used to determine Nodal power flows in accordance with paragraph 7.2 of Annex T-2.

SECTION T *(version 15)*

The following Annex T-3 shall be added:

ANNEX T-3

TRANSITIONAL SCHEME APPLICABLE TO ZONAL TRANSMISSION LOSSES

1. Introduction

1.1 This Annex T-3 sets out:

(a) the basis for the determination of F-Volumes in respect of each Qualifying BM Unit; and

(b) ongoing obligations in respect of the application and administration of F-Volumes throughout the F-Volume Term.

1.2 For the purposes of the Code, in relation to a BM Unit, in respect of a Settlement Period, the **F-Volume** is:

(a) in the case of a BM Unit which is a Qualifying BM Unit in relation to that Settlement Period, the volume of electricity (in MWh) determined in respect of the month in which the Settlement Period falls in accordance with paragraph 3;

(b) in the case of any other BM Unit, zero.

1.3 For the purposes of this Annex T-3:

(a) the **F-Volume Term** is the period of 15 years commencing on the Relevant Implementation Date;

(b) for the avoidance of doubt, this Annex T-3 shall take effect so as to require to be done anything necessary to be done before the Relevant Implementation Date in order to give effect to this Annex T-3 with effect on and from the Relevant Implementation Date;

(c) the **Qualification Date** is 31st March 2006; and

(d) the **Qualification Period** is the period of 12 months expiring on and including the Qualification Date.

1.4 For the purposes of this Annex T-3:

(a) the data by reference to which:

(i) it is determined whether a BM Unit is an Original Qualifying BM Unit, and

(ii) the Baseline Volumes for each Original Qualifying BM Unit are determined

shall (subject to paragraph (b)) be the data prevailing (in relation to any Settlement Day) pursuant to the Volume Allocation Run most recently undertaken at the time at which BSCCo actually makes (pursuant to paragraph 5.1) the determination under paragraph (a) or (b) (as the case may be); and

(b) such determinations shall be revised to reflect the outcome any Trading Dispute raised in relation to such data, but shall not otherwise be revised or affected by any Reconciliation Volume Allocation Run carried out after such determination was made.

2. Qualification

2.1 A BM Unit is a **Qualifying BM Unit** in relation to a Settlement Period if:

(a) the Settlement Period falls within the F-Volume Term; and

(b) the BM Unit is an Original Qualifying BM Unit or a Successor Qualifying BM Unit; and

(c) the BM Unit does not, in that Settlement Period, belong to a Base Trading Unit.

2.2 (Subject to paragraph 4 in relation to an Interconnector) an **Original Qualifying BM Unit** is a BM Unit which belonged to a Qualifying Trading Unit on the Qualification Date.

2.3 A Trading Unit was a **Qualifying Trading Unit** where:

(a) on the Qualification Date, the Trading Unit was not a Base Trading Unit; and

(b) the following requirement was satisfied in relation to the Trading Unit:

$$\Sigma_{ij.} QM_{ij.} > 0$$

where $\Sigma_{ij.}$ represents the sum over all BM Units which belonged to that Trading Unit on the Qualification Date and (irrespective of whether any such BM Unit belonged to that Trading Unit on any day in the Qualification Period other than the Qualification Date) over all Settlement Periods in the Qualification Period.

2.4 (Subject to paragraph 4 in relation to an Interconnector) in relation to an Original Qualifying BM Unit, another BM Unit is (at any given time) the Successor Qualifying BM Unit where:

(a) the Original Qualifying BM Unit has ceased to be registered as a BM Unit; and

(b) the F-Volume of the BM Unit is zero; and

(c) the BM Unit comprises the Plant and Apparatus which (at the Qualification Date) was comprised in the Original Qualifying BM Unit, determined in accordance with the principles in paragraph 2.5.

2.5 For the purposes of paragraph 2.4(c), in relation to each Original Qualifying BM Unit:

(a) a BM Unit which is for the time being the Successor Qualifying BM Unit shall continue to be the Successor Qualifying BM Unit until and unless it ceases to be registered as a BM Unit;

(b) there may not be more than one Successor Qualifying BM Unit at any given time;

(c) there may be no Successor Qualifying BM Unit where:

(i) none of the principal Plant and Apparatus is (at such time) comprised in any BM Unit; or

(ii) the BM Unit receiving the principal Plant and Apparatus of an Original Qualifying BM Unit already has an F-Volume of greater than zero;

(d) where the Plant and Apparatus which was comprised in the Original Qualifying BM Unit is divided so that part only of such Plant and Apparatus becomes comprised in another BM Unit, subject to paragraph (a), the Successor Qualifying BM Unit shall be the BM Unit which (for the time being) comprises the largest part of the principal Plant and Apparatus;

(e) the existence and identity of a Successor Qualifying BM Unit shall be determined, for the avoidance of doubt, irrespective of:

(i) the identity of the Lead Party for any BM Unit;

(ii) whether there has, for any period, been no such Successor Qualifying BM Unit;

(iii) any change in the location of any Plant and Apparatus which was comprised in the Original Qualifying BM Unit, or in the Boundary Point at which such Plant and Apparatus is connected to the Total System, or in the location or identity of the Metering System(s) which measure the Exports and/or Imports of any such Plant and Apparatus;

(iv) whether any such Plant and Apparatus has, for any period of time, not been comprised in any BM Unit; or

(v) the maintenance, refurbishment, repair, replacement of parts or modification of any such Plant and Apparatus.

2.6 For the purposes of paragraph 2.5:

(a) the principal Plant and Apparatus is the Plant and Apparatus comprising the Generating Unit or Units which were comprised in the Original Qualifying BM Unit;

(b) the largest part of the principal Plant and Apparatus at any given time is the principal Plant and Apparatus which (at such time) constitutes the largest part to be comprised in any BM Unit of the generation capacity of the Generating Unit or Units which were comprised in the Original Qualifying BM Unit.

2.7 Where any of the Plant and Apparatus which was at the Qualification Date comprised in an Original Qualifying BM Unit:

(a) ceases to be comprised in, or

(b) becomes comprised in

a BM Unit, the Lead Party for such BM Unit shall, before or as soon as practicable after such event, submit to BSCCo a declaration to that effect, signed by an officer of the Lead Party, specifying the Plant and Apparatus concerned, the BM Unit concerned, the date with effect from which such event occurred, whether the Party considers that as a result the BM Unit is a Successor Qualifying BM Unit, and such further details as may be required under BSCP 15.

2.8 Any dispute as to the existence or identity of a Successor Qualifying BM Unit shall be determined (at the behest of any Party or BSCCo) by the Panel, whose decision shall be final and binding on all Parties.

2.9 If any Plant and Apparatus which was comprised in an Original Qualifying BM Unit is used in the construction of a new power generation project in respect of which any new BM Unit is registered, then if the requirement in paragraph 2.10 is satisfied:

(a) such Plant and Apparatus shall not be taken into consideration in applying paragraph 2.5(c);

(b) if such Plant and Apparatus comprises the largest part of the principal Plant and Apparatus of the Original Qualifying BM Unit, there shall be no Successor Qualifying BM Unit.

2.10 The requirement is that, on the application of any Party made not less than 1 month before the registration of the new BM Unit under paragraph 2.9 (or in the case of an application by a Party other than the Lead Party, by such later time as the Panel may in its discretion agree), the Panel has accepted (in its discretion) that:

(a) the Lead Party is not connected with the Lead Party of the Original Qualifying BM Unit; and

(b) the construction of the new power generation project represents a substantially new investment and is not a continuation of the investment represented by the Original Qualifying BM Unit.

2.11 In determining the matters in paragraph 2.10(a) and (b), the Panel may have regard to such matters as (in its discretion) it decides, including:

(a) the location of the new power generation project; and

(b) whether consent under S36 of the Act was required for the new power generation project.

2.12 The Lead Party of the Original Qualifying BM Unit, the new BM Unit referred to in paragraph 2.9, and any other BM Unit which at any time comprised any of such Plant and Apparatus shall provide to the Panel such information as the Panel may require in connection with its determination under paragraph 2.10.

3. Calculation of F-Volumes

3.1 Subject to paragraph 3.3, the F-Volume for a Qualifying BM Unit in relation to any month of the year shall be the Baseline Volume applicable to that month for that BM Unit or (in the case of a Successor Qualifying BM Unit) for the Original Qualifying BM Unit.

3.2 In relation to an Original Qualifying BM Unit, subject to paragraph 3.3, in respect of any month of the year (month M), the Baseline Volume (BV_M) shall be the amount determined as follows

(a) if $\Sigma_j QM_{ij} \leq 0$

then BV_M = zero

(b) otherwise,

$$BV_M = \{\Sigma_j \Sigma_i QM_{ij} * \Sigma_j QM_{ij} / \Sigma_j \Sigma_{i'} QM_{ij} \} / \Sigma_j 1$$

where:

Σ_j is the sum over all relevant Settlement Periods in month M of the Qualification Period;

Σ_i is the sum over all BM Units belonging to the Qualifying Trading Unit;

$\Sigma_{i'}$ is the sum over all BM Units belonging to the Qualifying Trading Unit for which (in relation to month M) $\Sigma_j QM_{ij} > 0$;

and where (in relation to a BM Unit) a relevant Settlement Period is a Settlement Period which is not earlier than the first active Settlement Period.

3.3 For the purposes of this paragraph 3:

(a) a BM Unit:

(i) whose registration was effective on any day (other than the Qualification Date) in the Qualification Period, and

(ii) which comprised the same Plant and Apparatus as a BM Unit (the 'qualifying' BM Unit) whose registration was effective on the Qualification Date

shall be deemed to be the same BM Unit as the qualifying BM Unit;

(b) the sums Σ_i and $\Sigma_{i'}$ shall be determined irrespective of whether any BM Unit belonged to the Qualifying Trading Unit on any day in the Qualification Period other than the Qualification Date.

3.4 Where in relation to an Original Qualifying BM Unit the first active Settlement Period fell after the start of the Qualification Period:

(a) for each month of the year which (in the Qualification Period) fell before the first active month, the Baseline Volume shall be zero;

(b) in relation to the month of the year which (in the Qualification Period) was the first active month, the Baseline Volume shall be the amount determined in accordance with paragraph 3.2 (irrespective of when the first active Settlement Period fell in that month).

3.5 For the purposes of this paragraph 3, in relation to a BM Unit (construed in accordance with paragraph 3.3(a)), the first active Settlement Period is the first Settlement Period in which there was an Export from or an Import to the BM Unit, and the first active month is the month in the Qualification Period in which the first active Settlement Period fell.

4. Interconnectors

4.1 An Interconnector is a **qualifying** Interconnector where:

(a) registrations of Interconnector BM Units associated with the Interconnector were effective on the Qualification Date;

(b) the following requirement was satisfied in relation to the Interconnector:

$\Sigma_{ij} QM_{ij} > 0$

where Σ_{ij} represents the sum over all Interconnector BM Units associated with that Interconnector on any Settlement Period in the Qualification Period and over all Settlement Periods in the Qualification Period.

4.2 In relation to an qualifying Interconnector:

(a) the Production Interconnector BM Unit of the Party which was the Interconnector Error Administrator on the Qualification Date shall be an Original Qualifying BM Unit;

(b) the Production Interconnector BM Unit of any other Party which is the Interconnector Error Administrator at any time after the Qualification Date shall be a Successor Qualifying BM Unit;

(c) no other Interconnector BM Unit shall be an Original Qualifying BM Unit or a Successor Qualifying BM Unit; and

(d) paragraphs 2.2 to 2.7 shall not apply.

4.3 In relation to a qualifying Interconnector, paragraph 3 shall apply on the basis that:

(a) in paragraph 3.2:

Σ_i is the sum over all Interconnector BM Units associated from time to time with the Interconnector; and

$\Sigma_{i'}$ is the sum over all BM Units associated from time to time with the Interconnector for which (in relation to month M) $\Sigma_i QM_{ij} > 0$; and

(b) for the purposes of paragraph 3.4, references to the first active Settlement Period are to the first Settlement Period in which there was an Export from or an Import to the Interconnector.

5. Procedures

5.1 BSCCo shall, not less than 6 months before the Relevant Implementation Date, determine and send to the CRA, and publish on the BSC Website, the identity of, and the F-Volume for, each Original Qualifying BM Unit.

5.2 The CRA shall maintain in CRS, as BM Unit registration data, the F-Volume for each Original Qualifying BM Unit.

5.3 Where a BM Unit becomes a Successor Qualifying BM Unit:

(a) BSCCo shall so inform the CRA as soon as practicable upon BSCCo becoming aware (pursuant to paragraph 2.6 or otherwise) of such event, specifying the relevant Original Qualifying BM Unit and the date with effect from which the BM Unit became a Successor Qualifying BM Unit;

(b) the CRA shall update the CRS to reflect such event.

5.4 Each BSC Agent shall, if so requested by BSCCo, provide to BSCCo any data held by the BSC Agent and required by BSCCo for the purposes of its determinations under this paragraph 5.

SECTION X-1 *(version 32)*

The following new definitions shall be inserted in alphabetical order in Annex X-1:

"**Load Flow Model**":	Has the meaning given to that term in paragraph 1.3 of Annex T-2;
"**Load Flow Specification**":	Has the meaning given to that term in paragraph 2.1 of Annex T-2;
"**Load Period**":	Has the meaning given to that term in paragraph 6.2 of Annex T-2;
"**Network Data**":	Has the meaning given to that term in paragraph 5.1 of Annex T-2;
"**Node**":	Has the meaning given to that term in paragraph 4.2 of Annex T-2;
"**Reference Year**":	Has the meaning given to that term in paragraph 6.1 of Annex T-2;
"**Sample Settlement Period**":	Has the meaning given to that term in paragraph 6.2 of Annex T-2;
"**Zone**":	Has the meaning given to that term in paragraph 4.1 of Annex T-2;

Annex X–2 *(version 23)*

The following definition in Table X – 2 shall be amended as follows:

Transmission Loss Factor	TLF_{ij}		The factor specified in Section T2.2.1(a)., ~~being equal to zero.~~ *The Transmission Loss Factor is that factor used to allocate transmission losses on a locational basis to BM Unit i in Settlement Period j.*