ANNEX B

CLEAN VERSION OF P72 LEGAL TEXT

ANNEX T-1: CALCULATIONS

1. Interpretation

1.1 For the purposes of this Annex T-1, and paragraph 4.4, in relation to a BM Unit and Settlement Period, an "**accepted Offer**" means the Period BM Unit Total Priced Accepted Offer Volume ($QAPO^{n}_{ij}$), and an "**accepted Bid**" means the Period BM Unit Total Priced Accepted Bid Volume ($QAPB^{n}_{ij}$) but excluding Offers and Bids where the value of Period BM Unit Total Priced Accepted Offer Volume or Period BM Unit Total Priced Accepted Bid Volume (as the case may be) is zero.

1.2 For the purposes of any other provision of the Code, in relation to a BM Unit and Settlement Period, an "**accepted Offer**" means the Period BM Unit Total Accepted Offer Volume (QAO^{n}_{ij}), and an "**accepted Bid**" means the Period BM Unit Total Accepted Bid Volume (QAB^{n}_{ij}) but excluding Offers and Bids where the value of Period BM Unit Total Accepted Offer Volume or Period BM Unit Total Accepted Bid Volume (as the case may be) is zero.

1A De Minimis Volumes

1A.1 In respect of each Settlement Period, De Minimis Accepted Offers and De Minimis Accepted Bids will be defined in the following way.

(a) All accepted Bids for which $| QAPB^{n}_{ij} | < DMAT_{d}$ shall be tagged as De Minimis Accepted Bids.

(b) All accepted Offers for which $QAPO^{n}_{ij} < DMAT_{d}$ shall be tagged as De Minimis Accepted Offers.

1A.2 All accepted Bids and accepted Offers which are not De Minimis Accepted Bids and De Minimis Accepted Offers will be defined as Non-De Minimis Bids and Non-De Minimis Offers respectively.

2. Arbitrage

2.1 In respect of each Settlement Period, Arbitrage Accepted Offers and Arbitrage Accepted Bids will be defined in the following way.

2.2 If, for the highest priced accepted non-De Minimis Bid, $QAPB^{g}_{ij}$ (if any) which is not an Arbitrage Accepted Bid, there exists any accepted non-De Minimis Offer which is not an Arbitrage Accepted Offer $QAPO^{n}_{ij}$ for which it is true that $PO^{n}_{ij} \leq PB^{g}_{ij}$, then the following procedure will be carried out:

(a) All accepted Non-De Minimis Offers for which $PO^{n}_{ij} \leq PB^{g}_{ij}$ will be ranked in price order, cheapest first.

(b) The set of accepted Non-De Minimis Offers $\{QAPO^{n_1}{}_{ij}, QAPO^{n_2}{}_{ij}, ..., QAPO^{n_w}{}_{ij}\}$ is then a ranked set of accepted Offers for all of which it is true that $PO^{n_w}{}_{ij} \leq PB^{g}{}_{ij}$.

(c) Then for all v such that

$$\sum^{v} QAPO^{n_v}{}_{ij} \leq -QAPB^{g}{}_{ij}$$

where $\sum^{v}$ is the sum over all ranked accepted Non-De Minimis Offers up to v,

the $QAPO^{n_v}{}_{ij}$ will be defined as Arbitrage Accepted Offers and the fraction φ of $QAPB^{g}{}_{ij}$ which is equal to $\sum^{v}\left(-QAPO^{n_v}{}_{ij}\right)$ will be defined as an Arbitrage Accepted Bid (this fraction may be one (1)).

(d) If:

$$\sum^{v} QAPO^{n_v}{}_{ij} < -QAPB^{g}{}_{ij}$$

where $\sum^{v}$ is the sum over all ranked accepted Non-De Minimis Offers up to v,

then, if a ranked accepted Non-De Minimis Offer, v+1 exists, the fraction γ of $QAPO^{n_{v+1}}{}_{ij}$ which satisfies

$$\sum^{p} QAPO^{n_v}{}_{ij} + g * QAPO^{n_{v+1}}{}_{ij} = -QAPB^{g}{}_{ij}$$

will also be defined as an Arbitrage Accepted Offer and $QAPB^{g}{}_{ij}$ will be defined as an Arbitrage Accepted Bid. All accepted Bids and accepted Offers which are not Arbitrage Accepted Bids and Arbitrage Accepted Offers will be defined as Non-arbitrage Bids and Non-arbitrage Offers respectively.

2.3 The process in paragraphs 2.1 and 2.2 will then be repeated for the highest priced accepted Non-De Minimis Bid (if any) that remains a Non-arbitrage Bid.

2.4 If, for the purposes of carrying out the procedure in paragraphs 2.1 and 2.2:

(a) there are two or more accepted Non-De Minimis Bids that are Non-arbitrage Bids, that have the same highest Bid Price, or

(b) there are two or more ranked accepted Non-De Minimis Offers that have the same Offer Price

then one of the accepted Bids or (as the case may be) ranked accepted Offers will be selected at random.

2.5 If the completed application of paragraphs 2.1 to 2.4 inclusive (the 'initial calculation') would result in there being any accepted Non-De Minimis Bid or ranked accepted Non-De Minimis Offer which:

(1) is not an Arbitrage Accepted Bid or (as the case may be) Arbitrage Accepted Offer, but

(2) has the same price (other than merely by virtue of being a fraction (1 – ã) or (1 - φ) pursuant to the initial calculation) as an accepted Non-De Minimis Bid which is an Arbitrage Accepted Bid or (as the case may be) ranked accepted Non-De Minimis Offer which is an Arbitrage Accepted Offer,

then:

(i) all such accepted Non-De Minimis Bids $QAPB^{n_r}{}_{ij}$ or ranked accepted Non-De Minimis Offers $QAPO^{n_r}{}_{ij}$ (whether or not Arbitrage Accepted Bids or Arbitrage Accepted Offers on the basis of the initial calculation) which have the same price are "threshold Bids" or "threshold Offers";

(ii) no threshold Bid or threshold Offer shall be defined as an Arbitrage Accepted Bid or Arbitrage Accepted Offer pursuant to the relevant provision, but instead the fraction ä of each threshold Bid $QAPB^{n_r}{}_{ij}$ or threshold Offer $QAPO^{n_r}{}_{ij}$ which satisfies the following shall be defined as a Arbitrage Accepted Bid or (as the case may be) Arbitrage Accepted Offer:

$$\delta * \sum^{n_r} QAPB^{n_r}{}_{ij} = \sum^{n_{r'}} QAPB^{n_{r'}}{}_{ij}$$

or (as the case may be)

$$\delta * \sum^{n_r} QAPO^{n_r}{}_{ij} = \sum^{n_{r'}} QAPO^{n_{r'}}{}_{ij}$$

where

$\sum^{n_r}$ is the sum over all threshold Bids or (as the case may be) threshold Offers, and

$\sum^{n_{r'}}$ is the sum over all threshold Bids or (as the case may be) threshold Offers (including a fraction ã or φ) which, on the basis of the initial calculation would have been defined as Arbitrage Accepted Bids or Arbitrage Accepted Offers.

3. Trade Tagging

3.1 In respect of each Settlement Period, Trade Tagged Offers and Trade Tagged Bids will be defined in the following way.

(a) If:

$$\sum^{n'} (-\mathrm{QAPB}^{n'}{}_{ij}) \leq \mathrm{BRL}_j$$

where $\sum^{n'}$ is the sum over those accepted Bids that are both Non-De Minimis Bids and Non-arbitrage Bids; or

$$\sum^{n^*} \mathrm{QAPO}^{n^*}{}_{ij} \leq \mathrm{BRL}_j$$

where $\sum^{n^*}$ is the sum over those accepted Offers that are both Non-De Minimis Offers and Non-arbitrage Offers

then no Bids or Offers will be Trade Tagged.

(b) Otherwise, the following procedure will be carried out. The set of all accepted Bids, which are neither De Minimis Bids nor Arbitrage Bids, will be ranked in price order, cheapest first. In any case where such Bids have the same price as each other, the ordering of such Bids will be random, subject to paragraph (g). The set of Non-De Minimis and Non-arbitrage Bids $\left\{QAPB^{n'_1}{}_{ij}, QAPB^{n'_2}{}_{ij}, ..., QAPB^{n'_w}{}_{ij}\right\}$ is then a set of Ranked Bids. The set of all accepted Offers, which are neither De Minimis Offers nor Arbitrage Offers will be ranked in price order, most expensive first. In any case where such Offers have the same price as each other, the ordering of such Offers will be random, subject to paragraph (g). The set of Non-De Minimis and Non-arbitrage Offers $\left\{QAPO^{n^*_1}{}_{ij}, QAPO^{n^*_2}{}_{ij}, ..., QAPO^{n^*_x}{}_{ij}\right\}$ is then a set of Ranked Offers.

(c) If:

$$\sum^{n'}\left(-QAPB^{n'}{}_{ij}\right) \leq \sum^{n^*} QAPO^{n^*}{}_{ij}$$

where $\Sigma^{n'}$ is the sum over those accepted Bids that are both Non-De Minimis and Non-arbitrage Bids and Σ^{n^*} is the sum over those accepted Offers that are both Non-De Minimis and Non-arbitrage Offers

then for the smallest value of q such that

$$\sum^{n'_{v>q}}\left(-QAPB^{n'_v}{}_{ij}\right) \leq BRL_j$$

where $\sum^{n'_{v>q}}$ is the sum over those Non-De Minimis and Non-arbitrage Bids for which v is greater than q

then, subject to paragraph (g):

(A) for all $q \geq 1$ the Ranked Non-De Minimis and Non-arbitrage Bids numbered n'_1 to n'_{q-1} will be defined as Trade Tagged Bids, and

(B) if

$$\sum^{n'_{v>q}}\left(-QAPB^{n'_v}{}_{ij}\right) = BRL_j$$

then the Ranked Non-De Minimis and Non-arbitrage Bid numbered n'_q will be defined as a Trade Tagged Bid; or if

$$\sum^{n'_{v>q}}\left(-QAPB^{n'_v}{}_{ij}\right) < BRL_j$$

then the fraction γ of $QAB^{n'_q}{}_{ij}$ which satisfies

$$-\left(\sum^{n'_{v>q}} QAPB^{n'_v}{}_{ij} + (1-g) * QAPB^{n'_q}{}_{ij}\right) = BRL_j$$

will also be defined as a Trade Tagged Bid.

(d) Since $\sum^{n'}\left(-QAPB^{n'}{}_{ij}\right) \le \sum^{n^*} QAPO^{n^*}{}_{ij}$ there must exist a number e and a number φ (which may be a fraction or zero) for which

$$-\left(\sum^{n'_{v<q}} QAPB^{n'_v}{}_{ij} + g * QAPB^{n'_q}{}_{ij}\right) = \sum^{n^*{}_{v<e}} QAPO^{n^*{}_v}{}_{ij} + j * QAPO^{n^*{}_e}{}_{ij}$$

where $\sum^{n'_{v<q}}$ is the sum over those Non-De Minimis and Non-arbitrage Bids for which v is less than q and $\sum^{n^*{}_{v<e}}$ is the sum over those Non-De Minimis and Non-arbitrage Offers for which v is less than e.

Subject to paragraph (g), the Ranked Offers numbered 1 to e–1 for which this is true will be defined as Trade Tagged Offers. If φ is a fraction rather than 0, then the fraction φ of the Ranked Offer numbered l will be defined as a Trade Tagged Offer.

(e) If

$$\sum^{n'}\left(-QAPB^{n'}{}_{ij}\right) > \sum^{n^*} QAPO^{n^*}{}_{ij}$$

where $\Sigma^{n'}$ is the sum over those accepted Bids that have not been defined as either De Minimis Accepted Bids nor Arbitrage Accepted Bids and Σ^{n^*} is the sum over those accepted Offers that have not been defined as either De Minimis Accepted Offers nor Arbitrage Accepted Offers,

then for the smallest value of q such that

$$\sum^{n^*{}_{v>q}} QAPO^{n^*{}_v}{}_{ij} \le BRL_j$$

where $\sum^{n^*{}_{v>q}}$ is the sum over those Non-De Minimis and Non-arbitrage Offers for which v is greater than q

then, subject to paragraph (g):

(A) the Ranked Offers numbered n'_1 to n'_{q-1} will be defined as Trade Tagged Offers and

(B) if

$$\sum^{n^*{}_{v>q}} QAPO^{n'_v}{}_{ij} = BRL_j$$

then the Ranked Bids numbered n'_q will be defined as a Trade Tagged Bid or if

$$\sum^{n^*{}_{v>q}} QAPO^{n'_v}{}_{ij} < BRL_j$$

the fraction γ of $QAPO^{n'_q}{}_{ij}$ which satisfies

$$\sum^{n'_{v>q}} QAPO^{n'_v}{}_{ij} + (1-g) * QAPO^{n'_q}{}_{ij} = BRL_j$$

will also be defined as a Trade Tagged Offer.

(f) Since $\sum^{n'}\left(-QAPB^{n'}{}_{ij}\right) > \sum^{n^*} QAPO^{n^*}{}_{ij}$ there must exist a number e and a number φ (which may be a fraction or zero) for which

$$-\left(\sum^{n^*_{v<e}} QAPB^{n^*_v}{}_{ij} + j * QAPB^{n^*_e}{}_{ij}\right) = \sum^{n'_{v<q}} QAPO^{n'_v}{}_{ij} + g * QAPO^{n_q}{}_{ij}$$

where $\sum^{n^*_{v<e}}$ is the sum over those Non-De Minimis and Non-arbitrage Bids for which v is less than e and $\sum^{n'_{v<q}}$ is the sum over those Non-De Minimis and Non-arbitrage Offers for which v is less than q

Subject to paragraph (g), the Ranked Bids numbered 1 to e-1 will be defined as Trade Tagged Bids. If φ is not equal to zero then the fraction φ of the Ranked Bid numbered n'_1 will be defined as Trade Tagged Bid.

(g) However, for each of paragraphs (c), (d), (e) and (f) (each a "relevant provision") separately, if the application of the relevant provision (the 'initial calculation') would result in there being any Ranked Bid or Ranked Offer which:

(1) is not a Trade Tagged Bid or (as the case may be) Trade Tagged Offer, but

(2) has the same price (other than merely by virtue of being a fraction (1 – ã) or (1 - φ) pursuant to the initial calculation) as a Ranked Bid which is a Trade Tagged Bid or (as the case may be) Ranked Offer which is a Trade Tagged Offer,

then:

(i) all such Ranked Bids $QAPB^{n'_r}{}_{ij}$ or Ranked Offers $QAPO^{n'_r}{}_{ij}$ (whether or not Trade Tagged Bids or Trade Tagged Offers on the basis of the initial calculation) which have the same price are "threshold Bids" or "threshold Offers";

(ii) no threshold Bid or threshold Offer shall be defined as a Trade Tagged Bid or Trade Tagged Offer pursuant to the relevant provision, but instead the fraction ä of each threshold Bid $QAPB^{n'_r}{}_{ij}$ or threshold Offer $QAPO^{n'_r}{}_{ij}$ which satisfies the following shall be defined as a Trade Tagged Bid or (as the case may be) Trade Tagged Offer:

$$d * \sum^{n'_r} QAPB^{n'_r}{}_{ij} = \sum^{n'_{r'}} QAPB^{n'_{r'}}{}_{ij}$$

or (as the case may be)

$$d * \sum^{n'_r} QAPO^{n'_r}{}_{ij} = \sum^{n'_{r'}} QAPO^{n'_{r'}}{}_{ij}$$

where

$\sum^{n'_r}$ is the sum over all threshold Bids or (as the case may be) threshold Offers, and

$\sum^{n'_{r'}}$ is the sum over all threshold Bids or (as the case may be) threshold Offers (including a fraction ã or φ thereof) which, on the basis of the initial calculation would have been defined as Trade Tagged Bids or Trade Tagged Offers.