ASX Electricity Futures Contracts – Daily Settlement Price Methodology

This ASX Electricity Futures Contracts – Daily Settlement Price Methodology is published pursuant to ASX 24 Operating Rules Procedure 2500.1 – Futures Daily Settlement Price Procedures.

Terms used in this document that are not otherwise defined shall have the meaning given in the ASX 24 Operating Rules and the ASX 24 Operating Rules Procedures.

Where a Futures Market Contract has an Underlying Commodity that is Australian Electricity or New Zealand Electricity, the Daily Settlement Price shall be determined by calculating a preliminary daily settlement price for that Futures Contract in accordance with Part A (Preliminary Daily Settlement Price) and then applying the adjustment methodology set out in Part B (Adjustment Methodology).

Part A – Preliminary Daily Settlement Price

1. Where the Futures Contract has an Underlying Commodity that is Australian Electricity, the Preliminary Daily Settlement Price shall be calculated in accordance with the following:

   (a) Where one or more trades are entered into during the period two minutes prior to Trading Close ("Trade Pre-close Period"), then the Preliminary Daily Settlement Price shall be calculated in accordance with the following formula:

   $$PDSP = \frac{(\text{Trade VWAP} \times \text{Trade Volume}) + (\text{Order VWAP} \times \text{Order Volume})}{(\text{Trade Volume} + \text{Order Volume})}$$

   Where:

   Trade VWAP = volume weighted average price of all trades entered into during the Trade Pre-close Period

   Trade Volume = total volume (i.e. number of lots) of all trades entered into during the Trade Pre-close Period

   Order VWAP = volume weighted average price of all orders that were maintained during the period ten seconds prior to Trading Close ("Order Pre-close Period") and that were higher than the final bid or below the final ask

   Order Volume = total volume (i.e. number of lots) of all orders that were maintained during the Order Pre-close Period and that were higher than the final bid or below the final ask

   (b) Where no trades are entered into during the Trade Pre-close Period, then the Preliminary Daily Settlement Price shall be calculated in accordance with ASX 24 Operating Rules Procedure 2500.1(a)(ii) to (vii).

   (c) Where no orders are maintained during the Order Pre-close Period that are higher than the final bid or below the final ask, then Order VWAP and Order Volume shall be set to zero and the Preliminary Daily Settlement Price shall be an amount equal to Trade VWAP.

2. Where the Futures Contract has an Underlying Commodity that is New Zealand Electricity, the Preliminary Daily Settlement Price shall be calculated in accordance with ASX 24 Operating Rules Procedure 2500.1(a)(ii) to (vii).

3. Notwithstanding paragraphs 1 and 2 above, where there are no final quotes and no last trade on the first day of trading in the spot month or quarter (as applicable) for a Futures Contract with an Underlying Commodity that is Australian Electricity or New Zealand Electricity then the previous day's Daily Settlement Price for the nearest equivalent calendar month or calendar quarter (as applicable) shall be the Preliminary Daily Settlement Price.

Part B – Adjustment Methodology

1. The adjustment methodology set out in the table below shall be applied to the Preliminary Daily Settlement Price for each Futures Contract that has an Underlying Commodity that is Australian Electricity that has been calculated in accordance with Part A (Preliminary Daily Settlement Price) to determine the Daily Settlement Price for each of those Futures Contracts.

2. The adjustment methodology set out in the table below shall be applied to the Preliminary Daily Settlement Price for each Futures Contract that has an underlying Commodity that is New Zealand Electricity that has been calculated in accordance with Part A (Preliminary Daily Settlement Price) to determine the Daily Settlement Price for each of those Futures Contracts.

	Step	Calculation
1.	**Monthly Futures Contacts (MF) – Preliminary Daily Settlement Price**	Preliminary Daily Settlement Price (PDSP) for each Monthly Futures Contract shall be calculated in accordance with Part A (Preliminary Daily Settlement Price) above.
2.	**Quarterly Futures Contracts (QF) – Preliminary Daily Settlement Price**	An adjusted Preliminary Daily Settlement Price (PDSP) for each Quarterly Futures Contract shall be calculated in accordance with paragraphs (a) and (b) below: (a) Preliminary Daily Settlement Price (PDSP) for the Quarterly Futures Contract shall be calculated in accordance with Part A (Preliminary Daily Settlement Price) above. (b) PDSP for that Quarterly Futures Contract shall then be adjusted to an amount equal to the sum of the PDSP for the three corresponding Monthly Futures Contracts calculated in accordance with Step 1 above.
3.	**Half Year Futures (HYF) - Preliminary Daily Settlement Price**	Preliminary Daily Settlement Price (PDSP) for each Half Year Futures, which shall comprise the two corresponding Quarterly Futures Contracts, shall be calculated in accordance with paragraphs (a) to (c) below.[1] (a) PDSP of each Half Year Futures that comprises the relevant financial year and calendar year ($HYF_{AB;}$ HYF_{CD}) shall be calculated in accordance with the following formulas:

1 Preliminary Daily Settlement Price for Half Year Futures shall be calculated for the purposes of this adjustment methodology only. Half Year Futures Contracts are not listed for trading on the ASX 24 market.

		PDSP $HYF_{AB} = WAv(QF_A + QF_B)$ PDSP $HYF_{CD} = WAv(QF_C + QF_D)$ Where: WAv = MWh[2] weighted average of the adjusted Preliminary Daily Settlement Price (PDSP) for each of the two corresponding Quarterly Futures Contracts (QF) calculated in accordance with Step 2 above. (b) PDSP of each Half Year Futures is then adjusted on a face value-weighted basis to equate on a $/MWh basis to the two Half Year Futures that correspond to the relevant Financial Year Strip (FYF). This is shown in the formula below: PDSP $HYF_{AB} + HYF_{CD} = FYF_{ABCD}$ (c) PDSP of each Half Year Futures is then adjusted on a face value-weighted basis to equate on a $/MWh basis to the two Half Year Futures that correspond to the relevant Calendar Year Strip (CYF). This is shown in the formula below: PDSP $HYF_{AB} + HYF_{CD} = CYF_{ABCD}$
4.	**Financial Year Strip (FYF) and Calendar Year Strip (CYF) – Daily Settlement Price**	Daily Settlement Price (DSP) for each Financial Year Strip and Calendar Year Strip shall be calculated in accordance with the following formulas: DSP $FYF_{AB} = AvHr(HYF_A + HYF_B)$ DSP $CYF_{AB} = AvHr(HYF_A + HYF_B)$ Where: AvHr = combined average hourly price of the PDSP of the two corresponding Half Year Futures (HYF) calculated in accordance with Step 3 above.
5.	**Quarterly Futures Contracts (QF) – Daily Settlement Price**	Daily Settlement Price (DSP) for each Quarterly Futures Contract shall be calculated in accordance with paragraphs (a) and (b) below: (a) DSP for the Quarterly Futures Contract shall be calculated as a sum equal to the adjusted Preliminary Daily Settlement Price (PDSP) for that Quarterly Futures Contract calculated in accordance with Step 2 above. (b) DSP for that Quarterly Futures Contract and the other Quarterly Futures Contract corresponding to the relevant Half Year Futures shall be adjusted on a face value-weighted basis to equate on a $/MWh basis to the PDSP of the Half Year

[2] MWh = Mega Watt Hour and is the unit of measurement for ASX Electricity Futures Contracts.

		Futures (HYF) calculated in accordance with Step 3 above. This is shown in the formula below: DSP QF_A + DSP QF_B = PDSP HYF_{AB}
6.	**Monthly Futures Contracts (MF) – Daily Settlement Price**	Daily Settlement Price (DSP) for each Monthly Futures Contract shall be calculated in accordance with paragraphs (a) and (b) below: (a) DSP for the Monthly Futures Contract shall be calculated as a sum equal to the Preliminary Daily Settlement Price (PDSP) for that Monthly Futures Contract calculated in accordance with Step 1 above. (b) DSP for that Monthly Futures Contract, and any of the other Monthly Futures Contracts corresponding to the relevant Quarterly Futures Contract that have not settled, shall then be adjusted on a face value-weighted basis so that the DSP of the three corresponding Monthly Futures Contracts equate on a $/MWh basis to the DSP of the Quarterly Future (QF) calculated in accordance with Step 5 above. This is shown in the formula below: DSP MF_A + DSP MF_B + DSP MF_C = DSP QF_{ABC}

Date of publication: [1 November 2022]