Mark-to-Market (MTM) Procedure for the Commodity Derivatives Division

April 2013 see notice A1806

FUTURES MTM METHODOLOGY

- MTM for the day, which is also referred to as the settlement price, will rely on a random sample selected any time in the last 5 minutes of trading at the discretion of the exchange.
- Based on the random snapshot selected, the MTM price is a function of referencing the last traded price unless there is a better bid or lower offer. If the closing bid is above the last traded price this will then be used MTM, alternatively if the offer is lower than the last traded price then the offer will be used as the MTM.
- Following this the spread relationship per product is determined across all expiries based on the sample set that was randomly selected.
- Then to recognize the liquid expiries within the MTM process, the most liquid expiry per product meeting the Volume Weighted Average Price (VWAP) criteria is selected as the reference from which all other expiries are adjusted by the spread difference, the following applies:
  - An expiry will be considered liquid on the trading day for the purpose of determining the MTM if 50 or more contracts trade during the last 15 minutes of a trading session.
  - Should multiple expiries per product meet this criteria, only the most liquid will be selected as the reference expiry.
  - Only on screen traded activity will be taken into account when determining the VWAP.
  - Please note the VWAP will not be taken into consideration on the day should the following occur, in which case the random snapshots will prevail:
    1. where at least one expiry of the contract series is MTM at the daily price limit,
    2. when the VWAP has resulted in the MTM for any of the expiries of the contract series to be outside of the daily price limits.
- Once the reference VWAP value is determined, it becomes the reference price from which all the other expiries are adjusted by the spread difference. This is done in order to maintain the same spread relationship amongst the contract expiries before and after the VWAP is recognized.
- In the event that no product has any expiries meeting the VWAP criteria, the random snapshot as selected will prevail without any further adjustments.

OPTIONS MTM METHODOLOGY
• Options traded over the last hour of the trading session will be considered for the m-t-m process.
• Three strike prices either side of the option at the money will be considered eg if at the money strike is 1600, then 1540, 1560, 1580 and 1620, 1640 and 1660 strikes will be considered in the process.
• **Should the Futures MTM be 1590, then an additional strike is included in the calculation process namely: 1520, 1540, 1560, 1580 and 1600, 1620, 1640, 1660**
• If 60 or more contracts have traded across all available strikes for the entire day, the contract will be considered liquid.
• The opposite applies to illiquid contracts, if less than 60 contracts across all available strikes have traded for the entire day then the contract is classified illiquid.
• If classified as liquid, then a volume weighted average of 40 or more contracts across the selected strikes will be required in the last hour of trade as the m-t-m volatility, if this quantity does not trade then the volatility will remain unchanged.
• If classified as illiquid, then a volume weighted average of 20 or more contracts across the selected strikes will be required in the last hour of trade for the m-t-m volatility, if this quantity does not trade then the volatility will remain unchanged.
• In the event that the underlying future expiry month is priced limit up or down for a majority of the period between 11h15 and 11h45, only options traded on the delta option window will be considered for m-t-m volatility purposes,
  o No options traded on price through the naked option window will be considered in this instance since the system generated volatility does not reflect the underlying futures price at which the option was matched,
  o Due to the price limits, should delta options only be considered for m-t-m volatility purposes then the same classification rules will apply regarding the use of the liquid or illiquid classification criteria, namely 40 or more contracts required for liquid months whilst 20 or more contracts for expiries meeting the illiquid month classification. If the criteria are not met the volatility will remain unchanged.
• The exchange reserves the right to make the final decision regarding the m-t-m volatility and may exercise its discretion as need be.