

# MTA (Mark-to-Auction) Examples

10/26/2018

The MTA Credit is initially calculated on a monthly basis for each FTR path as the original purchase price minus the most recent auction clearing price

- The original purchase price is prorated by monthly class hours
- The most recent auction clearing prices are applied
  - Long Term Auction prices are pro-rated on a monthly class hour basis for the applicable year(s)
  - Annual Auction prices are pro-rated on a monthly class hour basis for the applicable year
  - Balance of Planning Period (BOPP) Auction prices are applied monthly if monthly value exists (i.e. JUL); Overlapping periods in an individual auction (i.e. SEP and Q2), subtract the known price of the sub-period from the larger period's price, and prorate the remaining price among the remaining months in that period; Quarterly periods are prorated by monthly class hours
- "Sell" and options logic are implemented the same as the path specific credit requirements are calculated currently

- If you cleared a 1MW, 24H, “Buy” Obligation FTR at \$50 in the 16/19 Long Term Auction Round 3 for 18/19 Planning Year (i.e. YR3) and the results from the JUL 2018 Auction are as follows:

| Period | Clearing Price |
|--------|----------------|
| JUL    | -\$4           |
| AUG    | -\$7           |
| SEP    | -\$5           |
| Q2-SEP | -\$10          |
| Q3     | \$15           |
| Q4     | -\$6           |



# Path Specific Example for BOPP

The individual monthly MTA credit values for this path would be as follows:

|   | Equation                              | JUL      | AUG      | SEP      | OCT      | NOV      | DEC      | JAN      | FEB      | MAR      | APR      | MAY      |
|---|---------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Period Type   |                                       | JUL      | AUG      | SEP      | Q2-SEP   |          | Q3       |          |          | Q4       |          |          |
| Class Hours (A)   |                                       | 744      | 744      | 720      | 744      | 721      | 744      | 744      | 672      | 743      | 720      | 744      |
| Proration Factor for Original Purchase Price (B)            | (A)/8760                              | 744/8760 | 744/8760 | 720/8760 | 744/8760 | 721/8760 | 744/8760 | 744/8760 | 672/8760 | 743/8760 | 720/8760 | 744/8760 |
| Prorated Original Purchase Price (C)                        | (B*50)                                | \$4.25   | \$4.25   | \$4.11   | \$4.25   | \$4.12   | \$4.25   | \$4.25   | \$3.84   | \$4.24   | \$4.11   | \$4.25   |
| Proration Factor for Most Recent Auction Clearing Price (D) | (A)/sum of class hours in period type | 744/744  | 744/744  | 720/720  | 744/1465 | 721/1465 | 744/2160 | 744/2160 | 672/2160 | 743/2207 | 720/2207 | 744/2207 |
| Most Recent Auction Clearing Price (E)                      |                                       | -\$4     | -\$7     | -\$5     | -\$10    | -\$10    | \$15     | \$15     | \$15     | -\$6     | -\$6     | -\$6     |
| Prorated Most Recent Auction Clearing Price (F)             | (D*E)                                 | -\$4.00  | -\$7.00  | -\$5.00  | -\$5.08  | -\$4.92  | \$5.17   | \$5.17   | \$4.67   | -\$2.02  | -\$1.96  | -\$2.02  |
| Mark to Auction Credit                                      | (C-F)                                 | \$8.25   | \$11.25  | \$9.11   | \$9.33   | \$9.04   | -\$0.92  | -\$0.92  | -\$0.83  | \$6.26   | \$6.07   | \$6.27   |

- The months with positive MTA credit represent that the most recent mark is moving against the portfolio, and thus has a positive credit requirement
- If this was the only FTR in a portfolio, the portfolio approach would sum all the months for a total of \$62.98 (note: positive values net with negative values). The monthly approach would look at each month individually.

- Current proposals include two different options for MTA credit integration with current requirements
  - Portfolio: Under the portfolio approach, all the FTR paths would be summed over all the months of the portfolio, whereby positive months would net with negative months. The MTA credit would then be applied to the current portfolio requirement
  - Monthly: Under the monthly approach, all the FTR paths are summed for each month and then the monthly MTA credit would be applied to the current monthly requirements.

- Package A would take the higher of the monthly MTA credit and the current monthly credit requirement
- Package D1/D1' would take the higher of the portfolio MTA credit and the current credit requirement
- Package G1/G2 would add the portfolio MTA credit to the current credit requirement
- Package H/H' would take the higher of the (portfolio MTA credit plus an MTA Adder<sup>1</sup> ) and the current credit requirement
- Package I/I' would take the higher of Package G1/G2 and Package H/H'

<sup>1</sup>MTA Adder: 20% of MTA for FTRs awarded in BOPP or Annual; 50% MTA loss for Long-Term FTRs (LT adder would be for LT FTRs until they become the annual auction period)



# Example 1: Application of each of the Packages

Assuming a portfolio consisted of positions for the current planning year (18/19) and one long term (19/20), and the monthly values for the current credit requirement and the MTA credit are as shown in the table to the right:

- Package A would have a credit requirement equal to the sum of column (C) = \$14,125
- Package D1/D1' would have a credit requirement equal to the higher of [(A) and (B)] = \$13,950
- Package G1/G2 would have a credit requirement equal to [(A)+(B)] = \$19,850
- Package H/H' would have a credit requirement equal to higher of [(A) and (B)+0.2\*(D)+0.5\*(E)]= higher of [\$13,950 and \$7,103]=\$13,950
- Package I/I' would be the max of Package G1/G2 and Package H/H' = \$19,850

NOTE: Under all packages, if (B) was negative (i.e. a positive mark) then it would not be used to reduce credit requirements.

|                 | Month     | Year | Current Credit Requirement | MTA Credit | Monthly "Higher of" |
|-----------------|-----------|------|----------------------------|------------|---------------------|
| Annual          | JUL       | 2018 | 800                        | -100       | 800                 |
|                 | AUG       | 2018 | 850                        | 300        | 850                 |
|                 | SEP       | 2018 | 700                        | 200        | 700                 |
|                 | OCT       | 2018 | 650                        | 450        | 650                 |
|                 | NOV       | 2018 | 650                        | 500        | 650                 |
|                 | DEC       | 2018 | 675                        | 700        | 700                 |
|                 | JAN       | 2019 | 700                        | 750        | 750                 |
|                 | FEB       | 2019 | 625                        | 700        | 700                 |
|                 | MAR       | 2019 | 725                        | 750        | 750                 |
|                 | APR       | 2019 | 800                        | 775        | 800                 |
|                 | MAY       | 2019 | 850                        | 800        | 850                 |
|                 | Long Term | JUN  | 2019                       | 500        | 100                 |
| JUL             |           | 2019 | 650                        | 50         | 650                 |
| AUG             |           | 2019 | 550                        | 25         | 550                 |
| SEP             |           | 2019 | 450                        | -25        | 450                 |
| OCT             |           | 2019 | 475                        | -25        | 475                 |
| NOV             |           | 2019 | 450                        | -50        | 450                 |
| DEC             |           | 2019 | 500                        | -75        | 500                 |
| JAN             |           | 2020 | 575                        | -25        | 575                 |
| FEB             |           | 2020 | 400                        | -50        | 400                 |
| MAR             |           | 2020 | 450                        | 50         | 450                 |
| APR             |           | 2020 | 475                        | 50         | 475                 |
| MAY             |           | 2020 | 450                        | 50         | 450                 |
| Portfolio Total |           |      | 13,950                     | 5,900      | 14,125              |

(A) (B) (C)

## Additional Calculations for Package H/H':

The Annual MTA is the sum of MTA from JUL 2018 through May 2019. It is equal to \$5,825 (D)

The Long Term MTA is the sum of MTA from JUN 2019 through MAY 2020. It is equal to \$75 (E)



# Example 2: Application of each of the Packages

Assuming a portfolio consisted of positions for the current planning year (18/19) and one long term (19/20), and the monthly values for the current credit requirement and the MTA credit are as shown in the table to the right:

- Package A would have a credit requirement equal to the sum of column (C) = \$21,838
- Package D1/D1' would have a credit requirement equal to the higher of [(A) and (B)] = \$14,750
- Package G1/G2 would have a credit requirement equal to [(A)+(B)] = \$28,700
- Package H/H' would have a credit requirement equal to higher of [(A) and (B)+0.2\*(D)+0.5\*(E)] = higher of [\$13,950 and \$17,756] = \$ 17,756
- Package I/I' would be the max of Package G1/G2 and Package H/H' = \$28,700

NOTE: Under all packages, if (B) was negative (i.e. a positive mark) then it would not be used to reduce credit requirements.

|                 | Month | Year | Current Credit Requirement | MTA Credit | Monthly "Higher of" |
|-----------------|-------|------|----------------------------|------------|---------------------|
| Annual          | JUL   | 2018 | 800                        | (250)      | 800                 |
|                 | AUG   | 2018 | 850                        | 750        | 850                 |
|                 | SEP   | 2018 | 700                        | 500        | 700                 |
|                 | OCT   | 2018 | 650                        | 1,125      | 1,125               |
|                 | NOV   | 2018 | 650                        | 1,250      | 1,250               |
|                 | DEC   | 2018 | 675                        | 1,750      | 1,750               |
|                 | JAN   | 2019 | 700                        | 1,875      | 1,875               |
|                 | FEB   | 2019 | 625                        | 1,750      | 1,750               |
|                 | MAR   | 2019 | 725                        | 1,875      | 1,875               |
|                 | APR   | 2019 | 800                        | 1,938      | 1,938               |
| Long Term       | MAY   | 2019 | 850                        | 2,000      | 2,000               |
|                 | JUN   | 2019 | 500                        | 250        | 500                 |
|                 | JUL   | 2019 | 650                        | 125        | 650                 |
|                 | AUG   | 2019 | 550                        | 63         | 550                 |
|                 | SEP   | 2019 | 450                        | (63)       | 450                 |
|                 | OCT   | 2019 | 475                        | (63)       | 475                 |
|                 | NOV   | 2019 | 450                        | (125)      | 450                 |
|                 | DEC   | 2019 | 500                        | (187)      | 500                 |
|                 | JAN   | 2020 | 575                        | (63)       | 575                 |
|                 | FEB   | 2020 | 400                        | (125)      | 400                 |
| MAR             | 2020  | 450  | 125                        | 450        |                     |
| APR             | 2020  | 475  | 125                        | 475        |                     |
| MAY             | 2020  | 450  | 125                        | 450        |                     |
| Portfolio Total |       |      | 13,950                     | 14,750     | 21,838              |
|                 |       |      | (A)                        | (B)        | (C)                 |

## Additional Calculations for Package H/H':

The Annual MTA is the sum of MTA from JUL 2018 through May 2019. It is equal to \$14,563 (D)

The Long Term MTA is the sum of MTA from JUN 2019 through MAY 2020. It is equal to \$187 (E)



# Mark to Auction Proposals

|  | Package A     | Package D1    | Package D1'                                      | Package G1 - PJM Proposal | Package G2                                       | Package H   | Package H'                                       | Package I                            | Package I'                                       |
|--|---------------|---------------|--|---------------------------|--|---|--|--------------------------------------|--|
| Comparison Timeframe                   | Monthly       | Portfolio     | Portfolio  | Portfolio                 | Portfolio  | Portfolio   | Portfolio  | Portfolio                            | Portfolio  |
| Integration with existing requirements | "Higher of"   | "Higher of"   | "Higher of"                                      | Additive                  | Additive   | Higher of [Existing, (MTA plus MTA Adder)]<br>MTA Adder: <ul style="list-style-type: none"> <li>• 20% of MTA for FTRs awarded in BOPP or Annual</li> <li>• 50% MTA loss for Long-Term FTRs<sup>2</sup></li> </ul> |  | Higher of [Package G1 and Package H] | Higher of [Package G2 and Package H']            |
| Intra-Auction or Post-Auction          | Intra-Auction | Intra-Auction | Intra-Auction with \$100k Threshold <sup>1</sup> | Intra-Auction             | Intra-Auction with \$100k Threshold <sup>1</sup> | Intra-Auction   | Intra-Auction with \$100k Threshold <sup>1</sup> | Intra-Auction                        | Intra-Auction with \$100k Threshold <sup>1</sup> |

<sup>1</sup>Threshold to be applied Intra-Auction only; collateral calls for amounts under the threshold will be issued Post-Auction

<sup>2</sup>LT adder would be for LT FTRs until they become the annual auction period

Initial Posting: 10/23/2018 after Credit Subcommittee Meeting

- 10/26/2018 11AM: Original Posting
- 10/26/2018 4:30 PM: Added an additional example – slide 8