

November 15, 2023

**VIA CFTC PORTAL**

Commodity Futures Trading Commission  
Attention: Chris Kirkpatrick, Secretary  
Three Lafayette Centre  
1155 21<sup>st</sup> Street, NW  
Washington, DC 20581

**Re: CFTC Regulation 40.2(a) Certification: Notification of Product Offered for Trading on Nodal Exchange, LLC – ERCOT HB\_SOUTH Monthly Real Time 7x16 Power Contract**

Dear Mr. Kirkpatrick:

Nodal Exchange, LLC (“Nodal Exchange” or “Exchange”) is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that pursuant to Commission Regulation 40.2(a), the Exchange is self-certifying the listing of 23 new power futures contracts for trading on Nodal Exchange beginning on or after December 1, 2023. The contract specifications describing these new Exchange futures contracts are attached to this letter as Exhibit A, to be added to the Nodal Exchange Rulebook Appendix A – Contract Specifications. The deliverable supply analysis has been segregated as Exhibit B, for which confidential treatment is requested. The reporting levels, accountability levels, and position limits for these contracts are attached to this letter as Exhibit C, which will be added to the Nodal Exchange Rulebook Appendix C - Reporting Levels, Accountability Levels and Position Limits.

Exchange management has assessed the Exchange’s contracts’ compliance with applicable provisions of the Commodity Exchange Act (“Act”), including the Commissions Regulations thereunder and the Core Principles. Regulatory compliance of Nodal Exchange’s futures and options contracts is mostly addressed in the Nodal Exchange Rulebook, concisely explained as follows:

Core Principle 2 - Compliance with the Rules: Trading in the Exchange’s contracts will be subject to the Nodal Exchange Rulebook in Section IV, describing trading procedures, and Section VI, which establishes trading codes of conduct, sound trading practices, and identifies prohibited trading behavior and abuses. In addition, trading behavior and activity will be subject to extensive monitoring and surveillance by the Exchange’s Division of Market Administration and Surveillance. The Exchange’s Compliance Department has the authority to address disciplinary matters through investigation and enforcement procedures in accordance with Section VII of the Exchange Rulebook.

Core Principle 3 - Contracts not Readily Susceptible to Manipulation: Nodal Exchange’s new contracts settle to power prices published by PJM, CAISO and ERCOT. The PJM and CAISO markets are regulated by the Federal Energy Regulatory Commission (“FERC”) and the ERCOT markets are regulated by the Public Utility Commission of Texas (“PUCT”). The day ahead and real time markets

that generate the prices to which the Exchange contracts settle are directly related to the physical generation, and demand for, electricity as well as the physical capacity constraints of the grid. A description of the underlying cash markets and deliverable supply analysis for the Exchange's new contracts is provided in attached Exhibit B, which demonstrates compliance that the Exchange's new contracts are not readily susceptible to manipulation.

Core Principle 4 - Prevention of Market Disruption: Trading in the Exchange's contracts will be subject to the Nodal Exchange Rulebook Section VI, which prohibits disruptive trading behavior and manipulation, subject to monitoring and surveillance by the Exchange's Division of Market Administration and Surveillance.

Core Principle 5 - Position Limitations or Accountability: The spot-month speculative position limits for the Exchange's contracts are set at less than 25% of the deliverable supply in the respective underlying market. In addition, the Exchange monitors and enforces position accountability rules for individual single-month and all-months combined, which are also within 25% of deliverable supply. The new contract reporting levels, accountability levels and position limits are provided in attached Exhibit C, to be added to the Nodal Exchange Rulebook Appendix C – Reporting Levels, Position Accountability Levels and Position Limits.

Core Principle 7 - Availability of General Information: The Exchange will post general information, including the contract specifications for the new contracts, Exchange fees, and the Nodal Exchange Rulebook, on the Exchange's website: [www.nodalexchange.com](http://www.nodalexchange.com).

Core Principle 8 - Daily publication of Trading Information: The Exchange will publish daily information on settlement prices, volume, open interest and opening and closing ranges for the Exchange's actively traded contracts on its website.

Core Principle 9 - Execution of Transactions: The Exchange's new contracts will be available on the Exchange's electronic trading screen that is a central limit order book ("CLOB"). The CLOB provides the market with the ability to execute the Exchange's contracts from the interaction of multiple bids and multiple offers within a predetermined, nondiscretionary automated trade matching and execution algorithm.

Core Principle 10 - Trade Information: The CLOB will maintain all information with respect to each order and each consummated trade, as well as all other information relating to the trade environment that determines the matching and clearing of trades. As such, any order submitted to the CLOB can be tracked from the time it is entered into the system until the time that it is matched, canceled or otherwise removed.

Core Principle 11 - Financial Integrity of Transactions: The Exchange has entered into a clearing arrangement with Nodal Clear, a derivatives clearing organization subject to Part 39 of the Commission Regulations. The new contracts executed on the CLOB or as a block trade will be subject to the Exchange Rulebook provisions for submission to Nodal Clear for clearing as described in Section V.

Core Principle 12 - Protection of Markets and Market Participants: Section VI of the Nodal Exchange Rulebook protects the market and market participants from abusive, disruptive, fraudulent,

noncompetitive and unfair conduct and trade practices. The new contracts are subject to these rules that apply to all transactions in the Exchange's contracts.

Core Principle 13 - Disciplinary Procedures: Section VII of the Nodal Exchange Rulebook describes the disciplinary procedures of the Exchange that authorize the Exchange to discipline, suspend, or expel anyone on the Exchange that violates these rules.

Core Principle 14 - Dispute Resolution: Section VIII of the Nodal Exchange Rulebook establishes rules concerning alternative dispute resolution, which provide for the resolution of disputes between or among Exchange users through the NFA arbitration program. Under Section VIII, arbitration is available for all disputes, controversies or claims among all Exchange users relating to Exchange activities.

Pursuant to Section 5c(c) of the Act and the Commission's Regulation 40.2(a), the Exchange certifies that the Exchange's new futures contracts to be listed comply with the Act and the Commission's Regulations thereunder.

Nodal Exchange certifies that this submission has been concurrently posted on the Nodal Exchange website at [www.nodalexchange.com](http://www.nodalexchange.com).

If you have any question or need additional information regarding the above, please contact the undersigned at 703-962-9853 or [markotic@nodalexchange.com](mailto:markotic@nodalexchange.com) or Ken McCracken, Chief Regulatory Officer & General Counsel at 703-962-9835 or [mccracken@nodalexchange.com](mailto:mccracken@nodalexchange.com).

Sincerely,  
/s/ Max Markotic  
Managing Director

Attachments:

Exhibit A: December 1, 2023, Addition to Nodal Exchange Appendix A - Contract Specifications

**Confidential** Exhibit B: Deliverable Supply Analysis (*Confidential Treatment Requested*)

Exhibit C: December 1, 2023, Addition to Nodal Exchange Appendix C - Reporting Levels, Accountability Levels and Position Limits

**Exhibit A – Contract Specifications**  
**(Rulebook Appendix A)**

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**PJM WESTERN HUB Monthly Real Time HE 10-17 (7x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 10-17 (7x) Power, PJM WESTERN HUB, Real Time   |
| <b>Contract Code</b>                   | XAA  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 10-17, 7x hours within the month traded. The definition of HE 10-17, 7x is Hour Ending 1000 – 1700 Monday through Sunday, EPT, including NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly LMP for all HE 10-17, 7x. These prices can be found at the following link or at successor location <a href="https://dataminer2.pjm.com/feed/rt_hrl_lm">https://dataminer2.pjm.com/feed/rt_hrl_lm</a> |
| <b>Final Settlement (Payment) Date</b> | The third business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**PJM WESTERN HUB Monthly Day Ahead HE 10-17 (7x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 10-17 (7x) Power, PJM WESTERN HUB, Day Ahead   |
| <b>Contract Code</b>                   | XAB  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 10-17, 7x hours within the month traded. The definition of HE 10-17, 7x is Hour Ending 1000 – 1700 Monday through Sunday, EPT, including NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | Last business day of the contract period   |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Day Ahead hourly LMP for all HE 10-17, 7x. These prices can be found at the following link or at successor location <a href="https://dataminer2.pjm.com/feed/da_hrl_lmgs">https://dataminer2.pjm.com/feed/da_hrl_lmgs</a> |
| <b>Final Settlement (Payment) Date</b> | The third business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB NORTH Monthly Real Time HE 10-17 (7x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>  |
|--|---|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 10-17 (7x) Power, ERCOT HB_NORTH, Real Time   |
| <b>Contract Code</b>                   | XAC   |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>   |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract  |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 10-17, 7x hours within the month traded. The definition of HE 10-17, 7x is Hour Ending 1000 – 1700 Monday through Sunday, Central Prevailing Time (CPT), including NERC Holidays.   |
| <b>Currency</b>                        | US Dollars  |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh  |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh  |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.  |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period   |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years   |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price   |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate   |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 10-17, 7x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> IERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month   |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>   |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB HOUSTON Monthly Real Time HE 10-17 (7x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 10-17 (7x) Power, ERCOT HB_HOUSTON, Real Time  |
| <b>Contract Code</b>                   | XAD  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 10-17, 7x hours within the month traded. The definition of HE 10-17, 7x is Hour Ending 1000 – 1700 Monday through Sunday, Central Prevailing Time (CPT), including NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 10-17, 7x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |



**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB WEST Monthly Real Time HE 10-17 (7x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 10-17 (7x) Power, ERCOT HB_WEST, Real Time   |
| <b>Contract Code</b>                   | XAE  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 10-17, 7x hours within the month traded. The definition of HE 10-17, 7x is Hour Ending 1000 – 1700 Monday through Sunday, Central Prevailing Time (CPT), including NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 10-17, 7x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB SOUTH Monthly Real Time HE 10-17 (7x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 10-17 (7x) Power, ERCOT HB_SOUTH, Real Time  |
| <b>Contract Code</b>                   | XAF  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 10-17, 7x hours within the month traded. The definition of HE 10-17, 7x is Hour Ending 1000 – 1700 Monday through Sunday, Central Prevailing Time (CPT), including NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 10-17, 7x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB NORTH Monthly Real Time HE 18-22 (5x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 18-22 (5x) Power, ERCOT HB_NORTH, Real Time  |
| <b>Contract Code</b>                   | XBA  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 18-22, 5x hours within the month traded. The definition of HE 18-22, 5x is Hour Ending 1800 – 2200 Monday through Friday, Central Prevailing Time (CPT), excluding NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 18-22, 5x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

## NODAL EXCHANGE CONTRACT SPECIFICATIONS

### ERCOT HB HOUSTON Monthly Real Time HE 18-22 (5x) Power Contract

| ITEM                                   | SPECIFICATION  |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 18-22 (5x) Power, ERCOT HB_HOUSTON, Real Time  |
| <b>Contract Code</b>                   | XBB  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 18-22, 5x hours within the month traded. The definition of HE 18-22, 5x is Hour Ending 1800 – 2200 Monday through Friday, Central Prevailing Time (CPT), excluding NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 18-22, 5x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB WEST Monthly Real Time HE 18-22 (5x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 18-22 (5x) Power, ERCOT HB_WEST, Real Time   |
| <b>Contract Code</b>                   | XBC  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 18-22, 5x hours within the month traded. The definition of HE 18-22, 5x is Hour Ending 1800 – 2200 Monday through Friday, Central Prevailing Time (CPT), excluding NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 18-22, 5x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB SOUTH Monthly Real Time HE 18-22 (5x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 18-22 (5x) Power, ERCOT HB_SOUTH, Real Time  |
| <b>Contract Code</b>                   | XBD  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 18-22, 5x hours within the month traded. The definition of HE 18-22, 5x is Hour Ending 1800 – 2200 Monday through Friday, Central Prevailing Time (CPT), excluding NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 18-22, 5x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB NORTH Monthly Real Time HE 7-11 (5x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 7-11 (5x) Power, ERCOT HB_NORTH, Real Time   |
| <b>Contract Code</b>                   | XBE  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 07-11, 5x hours within the month traded. The definition of HE 07-11, 5x is Hour Ending 0700 – 1100 Monday through Friday, Central Prevailing Time (CPT), excluding NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all HE 07-11, 5x. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**CAISO TH NP15 GEN-APND Monthly Day Ahead HE 7-8 and 17-22 (6x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 7 - 8 and 17 - 22 (6x) Power, CAISO TH_NP15_GEN-APND, Day Ahead  |
| <b>Contract Code</b>                   | XCA  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 7-8 and 17-22, 6x hours within the month traded. The definition of HE 7-8 and 17-22, 6x is Hour Ending 0700 – 0800 and 1700 - 2200 Monday through Saturday, Pacific Prevailing Time (PPT), excluding NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | Last business day of the contract period   |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Day Ahead hourly LMP for all HE 7-8 and 17-22, 6x. These price files can be found at the following link or at successor location. <a href="http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;">http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;</a> |
| <b>Final Settlement (Payment) Date</b> | The fourth business day following the last calendar day of the month   |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |



**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**CAISO TH SP15 GEN-APND Monthly Day Ahead HE 7-8 and 17-22 (6x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 7 - 8 and 17 - 22 (6x) Power, CAISO TH_SP15_GEN-APND, Day Ahead  |
| <b>Contract Code</b>                   | XCB  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 7-8 and 17-22, 6x hours within the month traded. The definition of HE 7-8 and 17-22, 6x is Hour Ending 0700 – 0800 and 1700 - 2200 Monday through Saturday, Pacific Prevailing Time (PPT), excluding NERC Holidays.  |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | Last business day of the contract period   |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Day Ahead hourly LMP for all HE 7-8 and 17-22, 6x. These price files can be found at the following link or at successor location. <a href="http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;">http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;</a> |
| <b>Final Settlement (Payment) Date</b> | The fourth business day following the last calendar day of the month   |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**CAISO TH NP15 GEN-APND Monthly Day Ahead HE 9-16 (7x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>  |
|--|---|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 9 - 16 (7x) Power, CAISO TH_NP15_GEN-APND, Day Ahead  |
| <b>Contract Code</b>                   | XCD   |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>   |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract  |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 9-16, 7x hours within the month traded. The definition of HE 9-16, 7x is Hour Ending 0900 – 1600 Monday through Sunday, Pacific Prevailing Time (PPT), including NERC Holidays.   |
| <b>Currency</b>                        | US Dollars  |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh  |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh  |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.  |
| <b>Last Trading Day</b>                | Last business day of the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years   |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price   |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate   |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Day Ahead hourly LMP for all HE 9-16, 7x. These price files can be found at the following link or at successor location. <a href="http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;">http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;</a> |
| <b>Final Settlement (Payment) Date</b> | The fourth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>   |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**CAISO TH SP15 GEN-APND Monthly Day Ahead HE 9-16 (7x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>  |
|--|---|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 9 - 16 (7x) Power, CAISO TH_SP15_GEN-APND, Day Ahead  |
| <b>Contract Code</b>                   | XCE   |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>   |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract  |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 9-16, 7x hours within the month traded. The definition of HE 9-16, 7x is Hour Ending 0900 – 1600 Monday through Sunday, Pacific Prevailing Time (PPT), including NERC Holidays.   |
| <b>Currency</b>                        | US Dollars  |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh  |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh  |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.  |
| <b>Last Trading Day</b>                | Last business day of the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years   |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price   |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate   |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Day Ahead hourly LMP for all HE 9-16, 7x. These price files can be found at the following link or at successor location. <a href="http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;">http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;</a> |
| <b>Final Settlement (Payment) Date</b> | The fourth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>   |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**CAISO TH NP15 GEN-APND Monthly Day Ahead HE 9-16 (6x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>  |
|--|---|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 9 - 16 (6x) Power, CAISO TH_NP15_GEN-APND, Day Ahead  |
| <b>Contract Code</b>                   | XCF   |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>   |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract  |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 9-16, 6x hours within the month traded. The definition of HE 9-16, 6x is Hour Ending 0900 – 1600 Monday through Saturday, Pacific Prevailing Time (PPT), excluding NERC Holidays.   |
| <b>Currency</b>                        | US Dollars  |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh  |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh  |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.  |
| <b>Last Trading Day</b>                | Last business day of the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years   |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price   |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate   |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Day Ahead hourly LMP for all HE 9-16, 6x. These price files can be found at the following link or at successor location. <a href="http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;">http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;</a> |
| <b>Final Settlement (Payment) Date</b> | The fourth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>   |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**CAISO TH SP15 GEN-APND Monthly Day Ahead HE 9-16 (6x) Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>  |
|--|---|
| <b>Contract Description</b>            | Monthly Cash Settled Financial HE 9 - 16 (6x) Power, CAISO TH_SP15_GEN-APND, Day Ahead  |
| <b>Contract Code</b>                   | XCG   |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>   |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract  |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of HE 9-16, 6x hours within the month traded. The definition of HE 9-16, 6x is Hour Ending 0900 – 1600 Monday through Saturday, Pacific Prevailing Time (PPT), excluding NERC Holidays.   |
| <b>Currency</b>                        | US Dollars  |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh  |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh  |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.  |
| <b>Last Trading Day</b>                | Last business day of the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years   |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price   |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate   |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Day Ahead hourly LMP for all HE 9-16, 6x. These price files can be found at the following link or at successor location. <a href="http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;">http://oasis.caiso.com/mrtu-oasis/SingleZip?resultformat=6&amp;queryname=PRC_LMP&amp;market_run_id=DA M&amp;grp_type=ALL&amp;startdate=&lt;yyyymmdd&gt;&amp;enddate=&lt;yyyymmdd&gt;</a> |
| <b>Final Settlement (Payment) Date</b> | The fourth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>   |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**PJM WESTERN HUB Monthly Real Time 7x16 Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial 7x16 Power, PJM WESTERN HUB, Real Time  |
| <b>Contract Code</b>                   | XDA  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x16 hours within the month traded. The definition of 7x16 hours is Hour Ending (HE) 0800 – 2300 Monday through Sunday, EPT, including NERC Holidays.   |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly LMP for all 7x16 hours. These prices can be found at the following link or at successor location <a href="https://dataminer2.pjm.com/feed/rt_hrl_lmps">https://dataminer2.pjm.com/feed/rt_hrl_lmps</a> |
| <b>Final Settlement (Payment) Date</b> | The third business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**PJM WESTERN HUB Monthly Day Ahead 7x16 Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial 7x16 Power, PJM WESTERN HUB, Day Ahead  |
| <b>Contract Code</b>                   | XDB  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x16 hours within the month traded. The definition of 7x16 hours is Hour Ending (HE) 0800 – 2300 Monday through Sunday, EPT, including NERC Holidays.   |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | Last business day of the contract period   |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Day Ahead hourly LMP for all 7x16 hours. These prices can be found at the following link or at successor location <a href="https://dataminer2.pjm.com/feed/da_hrl_lmgs">https://dataminer2.pjm.com/feed/da_hrl_lmgs</a> |
| <b>Final Settlement (Payment) Date</b> | The third business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB NORTH Monthly Real Time 7x16 Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial 7x16 Power, ERCOT HB_NORTH, Real Time   |
| <b>Contract Code</b>                   | XDC  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x16 hours within the month traded. The definition of 7x16 hours is Hour Ending (HE) 0700 – 2200 Monday through Sunday, Central Prevailing Time (CPT), including NERC Holidays.   |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all 7x16 hours. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |



## NODAL EXCHANGE CONTRACT SPECIFICATIONS

### ERCOT HB HOUSTON Monthly Real Time 7x16 Power Contract

| ITEM                                   | SPECIFICATION  |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial 7x16 Power, ERCOT HB_HOUSTON, Real Time   |
| <b>Contract Code</b>                   | XDD  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x16 hours within the month traded. The definition of 7x16 hours is Hour Ending (HE) 0700 – 2200 Monday through Sunday, Central Prevailing Time (CPT), including NERC Holidays.   |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all 7x16 hours. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB WEST Monthly Real Time 7x16 Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>  |
|--|---|
| <b>Contract Description</b>            | Monthly Cash Settled Financial 7x16 Power, ERCOT HB_WEST, Real Time   |
| <b>Contract Code</b>                   | XDE   |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>   |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract  |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x16 hours within the month traded. The definition of 7x16 hours is Hour Ending (HE) 0700 – 2200 Monday through Sunday, Central Prevailing Time (CPT), including NERC Holidays.  |
| <b>Currency</b>                        | US Dollars  |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh  |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh  |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.  |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period   |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years   |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price   |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate   |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all 7x16 hours. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> IERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month   |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>   |

**NODAL EXCHANGE CONTRACT SPECIFICATIONS**

**ERCOT HB SOUTH Monthly Real Time 7x16 Power Contract**

| <b>ITEM</b>                            | <b>SPECIFICATION</b>   |
|--|--|
| <b>Contract Description</b>            | Monthly Cash Settled Financial 7x16 Power, ERCOT HB_SOUTH, Real Time   |
| <b>Contract Code</b>                   | XDF  |
| <b>Hours of Trading</b>                | As defined at <a href="http://www.nodalexchange.com">http://www.nodalexchange.com</a>  |
| <b>Unit of Trading</b>                 | 1 lot, based on 1 MW for each hour of the contract   |
| <b>Lot Size</b>                        | Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x16 hours within the month traded. The definition of 7x16 hours is Hour Ending (HE) 0700 – 2200 Monday through Sunday, Central Prevailing Time (CPT), including NERC Holidays.   |
| <b>Currency</b>                        | US Dollars   |
| <b>Min Price Fluctuation</b>           | \$0.0001 per MWh   |
| <b>Minimum Tick</b>                    | \$0.0001 per MWh   |
| <b>First Trading Day</b>               | One additional year of expiries will be available each January on the first business day after the last trading day of the expiring December contract.   |
| <b>Last Trading Day</b>                | The first business day of the month following the contract period  |
| <b>Contract Series</b>                 | Current calendar year plus up to 12 full calendar years  |
| <b>Fixed Price</b>                     | The traded price or the previous day's settlement price  |
| <b>Daily Settlement Price</b>          | Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate  |
| <b>Final Settlement Price</b>          | The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Final Settlement Date. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all 7x16 hours. These price files can be found at the following link or at successor location.<br><a href="https://www.ercot.com/content/cdr/html/real_time_spp.html">https://www.ercot.com/content/cdr/html/real_time_spp.html</a> ERCOT correction prices are found at a different location, and are currently posted at:<br><a href="https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M">https://www.ercot.com/mp/data-products/data-product-details?id=NP4-197-M</a> |
| <b>Final Settlement (Payment) Date</b> | The sixth business day following the last calendar day of the month  |
| <b>Position Limit</b>                  | <a href="https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF">https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</a>  |

### Nodal Exchange, LLC Rulebook Appendix C: Reporting Levels, Accountability Levels and Position Limits

| Physical Commodity Code | Contract Name  | Reporting Level | Spot Month Position Limit (lots) | Single Month Accountability Level (lots) | All Month Accountability Level (lots) | Aggregation Group* | CFTC Referenced Contract |
|-------------------------|--|-----------------|----------------------------------|--|---------------------------------------|--------------------|--------------------------|
| XAA                     | PJM.WESTERN HUB_month_7x HE 10-17_rtp                | 25              | 9517                             | 9517                                     | 114204                                | 390                | 0                        |
| XAB                     | PJM.WESTERN HUB_month_7x HE 10 17_dap                | 25              | 9517                             | 9517                                     | 114204                                | 233                | 0                        |
| XAC                     | ERCOT.HB_NORTH_month_7x HE 10-17_rtp                 | 25              | 7143                             | 7143                                     | 85716                                 | 393                | 0                        |
| XAD                     | ERCOT.HB_HOUSTON_month_7x HE 10-17_rtp               | 25              | 5197                             | 5197                                     | 62364                                 | 394                | 0                        |
| XAE                     | ERCOT.HB_WEST_month_7x HE 10-17_rtp                  | 25              | 2058                             | 2058                                     | 24696                                 | 391                | 0                        |
| XAF                     | ERCOT.HB_SOUTH_month_7x HE 10-17_rtp                 | 25              | 2694                             | 2694                                     | 32328                                 | 392                | 0                        |
| XBA                     | ERCOT.HB_NORTH_month_5x HE 18-22_rtp                 | 25              | 7143                             | 7143                                     | 85716                                 | 393                | 0                        |
| XBB                     | ERCOT.HB_HOUSTON_month_5x HE 18-22_rtp               | 25              | 5197                             | 5197                                     | 62364                                 | 394                | 0                        |
| XBC                     | ERCOT.HB_WEST_month_5x HE 18-22_rtp                  | 25              | 2058                             | 2058                                     | 24696                                 | 391                | 0                        |
| XBD                     | ERCOT.HB_SOUTH_month_5x HE 18-22_rtp                 | 25              | 2694                             | 2694                                     | 32328                                 | 392                | 0                        |
| XBE                     | ERCOT.HB_NORTH_month_5x HE 07-11_rtp                 | 25              | 7143                             | 7143                                     | 85716                                 | 393                | 0                        |
| XCA                     | CAISO.TH_NP15_GEN-APND_month_6x HE 07-08 & 17-22_dap | 25              | 4762                             | 4762                                     | 57144                                 | 215                | 0                        |
| XCB                     | CAISO.TH_SP15_GEN-APND_month_6x HE 07-08 & 17-22_dap | 25              | 7301                             | 7301                                     | 87612                                 | 217                | 0                        |
| XCD                     | CAISO.TH_NP15_GEN-APND_month_7x HE 09-16_dap         | 25              | 4762                             | 4762                                     | 57144                                 | 215                | 0                        |
| XCE                     | CAISO.TH_SP15_GEN-APND_month_7x HE 09-16_dap         | 25              | 7301                             | 7301                                     | 87612                                 | 217                | 0                        |
| XCF                     | CAISO.TH_NP15_GEN-APND_month_6x HE 09-16_dap         | 25              | 4762                             | 4762                                     | 57144                                 | 215                | 0                        |
| XCG                     | CAISO.TH_SP15_GEN-APND_month_6x HE 09-16_dap         | 25              | 7301                             | 7301                                     | 87612                                 | 217                | 0                        |
| XDA                     | PJM.WESTERN HUB_month_7x16_rtp                       | 25              | 9517                             | 9517                                     | 114204                                | 390                | 0                        |
| XDB                     | PJM.WESTERN HUB_month_7x16_dap                       | 25              | 9517                             | 9517                                     | 114204                                | 233                | 0                        |
| XDC                     | ERCOT.HB_NORTH_month_7x16_rtp                        | 25              | 7143                             | 7143                                     | 85716                                 | 393                | 0                        |
| XDD                     | ERCOT.HB_HOUSTON_month_7x16_rtp                      | 25              | 5197                             | 5197                                     | 62364                                 | 394                | 0                        |
| XDE                     | ERCOT.HB_WEST_month_7x16_rtp                         | 25              | 2058                             | 2058                                     | 24696                                 | 391                | 0                        |
| XDF                     | ERCOT.HB_SOUTH_month_7x16_rtp                        | 25              | 2694                             | 2694                                     | 32328                                 | 392                | 0                        |