

1921 Gallows Road, 3rd Floor Tysons Corner, Virginia 22182 p: 703-962-9800 f: 703-962-9850 www.nodalexchange.com

June 28, 2023

VIA CFTC PORTAL

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

Re: CFTC Regulation 40.2(a) Certification: Notification of Product Offered for Trading on Nodal Exchange, LLC – ISONE .Z.SEMASS Monthly Day Ahead 2x16 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 42 new power futures contracts for trading on Nodal Exchange beginning on or after June 30, 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 is 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:

<u>Core Principle 2 - Compliance with the Rules</u>: 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.

<u>Core Principle 3 - Contracts not Readily Susceptible to Manipulation</u>: A description of the underlying cash markets and deliverable supply analysis for the Exchange's contracts was provided for the futures contracts, which demonstrates compliance that the Exchange's new contracts are not readily susceptible to manipulation.

<u>Core Principle 4 - Prevention of Market Disruption</u>: 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.

<u>Core Principle 5 - Position Limitations or Accountability</u>: 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.

<u>Core Principle 7 - Availability of General Information</u>: 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.

<u>Core Principle 8 - Daily publication of Trading Information</u>: 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.

<u>Core Principle 9 - Execution of Transactions</u>: 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.

<u>Core Principle 10 - Trade Information</u>: 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.

<u>Core Principle 11 - Financial Integrity of Transactions</u>: 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.

<u>Core Principle 12 - Protection of Markets and Market Participants</u>: 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.

<u>Core Principle 13 - Disciplinary Procedures</u>: 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.

<u>Core Principle 14 - Dispute Resolution</u>: 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 and options 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.

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

Sincerely, /s/ Max Markotic Managing Director

Attachments:

Exhibit A: June 30, 2023 Addition to Nodal Exchange Appendix A - Contract Specifications

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

Exhibit C: June 30, 2023 Addition to Nodal Exchange Appendix C - Reporting Levels, Accountability Levels and Position Limits

Exhibit A – Contract Specifications (Rulebook Appendix A)

PJM PEPCO DC Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, PJM PEPCO DC, Day Ahead
Contract Code	UAB
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	49 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These prices can be found at the following link or at successor location https://dataminer2.pjm.com/feed/da_hrl_lmps
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

PJM PEPCO MD Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, PJM PEPCO MD, Day Ahead
Contract Code	UAC
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	49 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These prices can be found at the following link or at successor location https://dataminer2.pjm.com/feed/da_hrl_Imps
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

PJM PENN POWER Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, PJM PENN POWER, Day Ahead
Contract Code	UAD
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	49 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These prices can be found at the following link or at successor location https://dataminer2.pjm.com/feed/da_hrl_lmps
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO GENESE Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, NYISO GENESE, Day Ahead
Contract Code	UAE
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO CENTRL Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, NYISO CENTRL, Day Ahead
Contract Code	UAF
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO NORTH Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, NYISO NORTH, Day Ahead
Contract Code	UAG
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO MHK VL Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, NYISO MHK VL, Day Ahead
Contract Code	UAH
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO CAPITL Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, NYISO CAPITL, Day Ahead
Contract Code	UAI
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO MILLWD Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, NYISO MILLWD, Day Ahead
Contract Code	UAJ
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO DUNWOD Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, NYISO DUNWOD, Day Ahead
Contract Code	UAK
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.CONNECTICUT Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ISONE .Z.CONNECTICUT, Day Ahead
Contract Code	UAL
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.NEMASSBOST Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ISONE .Z.NEMASSBOST, Day Ahead
Contract Code	UAM
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.NEWHAMPSHIRE Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ISONE .Z.NEWHAMPSHIRE, Day Ahead
Contract Code	UAN
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.RHODEISLAND Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ISONE .Z.RHODEISLAND, Day Ahead
Contract Code	UAO
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.SEMASS Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ISONE .Z.SEMASS, Day Ahead
Contract Code	UAP
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.WCMASS Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ISONE .Z.WCMASS, Day Ahead
Contract Code	UAQ
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.MAINE Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ISONE .Z.MAINE, Day Ahead
Contract Code	UAR
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.VERMONT Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ISONE .Z.VERMONT, Day Ahead
Contract Code	UAS
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0800 – 2300, Sunday, Saturday, and all NERC holidays, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 2x16 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

MISO ILLINOIS.HUB Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, MISO ILLINOIS.HUB, Day Ahead
Contract Code	UAT
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 – 2200, EST, Sunday, Saturday, and all NERC holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, the definition of 2x16 hours is Hour Ending (HE) 0800–2300 EST, Saturday, Sunday and all NERC Holidays.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	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.
Last Trading Day	The sixth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_lmp.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

MISO MICHIGAN.HUB Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, MISO MICHIGAN.HUB, Day Ahead
Contract Code	UAV
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 – 2200, EST, Sunday, Saturday, and all NERC holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, the definition of 2x16 hours is Hour Ending (HE) 0800–2300 EST, Saturday, Sunday and all NERC Holidays.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	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.
Last Trading Day	The sixth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

MISO MINN.HUB Monthly Day Ahead 2x16 Power Contract

Contract Code UAW Hours of Trading As defined at http://www.nodalexchange.com Unit of Trading 1 lot, based on 1 MW for each hour of the contract Unit of Trading 1 lot, based on 1 MW for each hour of the contract Lot Size Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 − 2200, EST, Sunday, Saturday, and all NERC holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, the definition of 2x16 hours is Hour Ending (HE) 0800−2300 EST, Saturday, Sunday and all NERC Holidays. Currency US Dollars Min Price Fluctuation \$0.0001 per MWh Minimum Tick \$0.0001 per MWh First Trading Day The sixth business day following the last calendar day of the month Contract Series 69 months Fixed Price The traded price or the previous day's settlement price Daily Settlement Price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate Final Settlement Price The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly	ITEM	SPECIFICATION
Hours of Trading	Contract Description	Monthly Cash Settled Financial 2x16 Power, MISO MINN.HUB, Day Ahead
Unit of Trading 1 lot, based on 1 MW for each hour of the contract Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 − 2200, EST, Sunday, Saturday, and IRKE holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, the definition of 2x16 hours is Hour Ending (HE) 0800−2300 EST, Saturday, Sunday and all NERC Holidays. Currency US Dollars Min Price Fluctuation \$0.0001 per MWh Minimum Tick \$0.0001 per MWh First Trading Day 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. Last Trading Day The sixth business day following the last calendar day of the month Contract Series 69 months Fixed Price The traded price or the previous day's settlement price Daily Settlement Price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate Final Settlement Price The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library	Contract Code	UAW
Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 – 2200, EST, Sunday, Saturday, and all NERC holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, the definition of 2x16 hours is Hour Ending (HE) 0800–2300 EST, Saturday, Sunday and all NERC Holidays. Currency US Dollars Min Price Fluctuation So.0001 per MWh Minimum Tick \$0.0001 per MWh First Trading Day 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. Last Trading Day The sixth business day following the last calendar day of the month Contract Series 69 months Fixed Price The traded price or the previous day's settlement price Daily Settlement Price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <a <a="" h<="" href="https://www.nisoenergy.org/Library/Repository/Market Reports/<th>Hours of Trading</th><th>As defined at http://www.nodalexchange.com</th>	Hours of Trading	As defined at http://www.nodalexchange.com
Lot Size multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 − 2200, EST, Sunday, Saturday, and all NERC holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, the definition of 2x16 hours is Hour Ending (HE) 0800−2300 EST, Saturday, Sunday and all NERC Holidays. Currency US Dollars Min Price Fluctuation \$0.0001 per MWh Minimum Tick \$0.0001 per MWh First Trading Day 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. Last Trading Day The sixth business day following the last calendar day of the month Contract Series 69 months Fixed Price The traded price or the previous day's settlement price Daily Settlement Price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate Final Settlement Price The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/syyyymmdd>_d_expost_Imp.csv Final Settlement (Payment) Date The first business day fo	Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Min Price Fluctuation \$0.0001 per MWh Minimum Tick \$0.0001 per MWh 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. Last Trading Day The sixth business day following the last calendar day of the month Contract Series 69 months Fixed Price The traded price or the previous day's settlement price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv Final Settlement (Payment) The first business day following the Last Trading Day https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</yyyymmdd>	Lot Size	multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 – 2200, EST, Sunday, Saturday, and all NERC holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, the definition of 2x16 hours is Hour Ending (HE) 0800–2300
Minimum Tick \$0.0001 per MWh 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. Last Trading Day The sixth business day following the last calendar day of the month Contract Series 69 months Fixed Price The traded price or the previous day's settlement price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv Final Settlement (Payment) Date The first business day following the Last Trading Day https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</yyyymmdd>	Currency	US Dollars
First Trading Day 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. Last Trading Day The sixth business day following the last calendar day of the month Contract Series 69 months Fixed Price The traded price or the previous day's settlement price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv Final Settlement (Payment) Date The first business day following the Last Trading Day https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</yyyymmdd>	Min Price Fluctuation	\$0.0001 per MWh
day after the last trading day of the expiring December contract. Last Trading Day The sixth business day following the last calendar day of the month Contract Series 69 months Fixed Price The traded price or the previous day's settlement price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv Final Settlement (Payment) Date The first business day following the Last Trading Day https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</yyyymmdd>	Minimum Tick	\$0.0001 per MWh
Contract Series 69 months The traded price or the previous day's settlement price Daily Settlement Price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv Final Settlement (Payment) The first business day following the Last Trading Day Position Limit https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</yyyymmdd>	First Trading Day	· · · · · · · · · · · · · · · · · · ·
Fixed Price The traded price or the previous day's settlement price Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv The first business day following the Last Trading Day Position Limit https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</yyyymmdd>	Last Trading Day	The sixth business day following the last calendar day of the month
Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv Final Settlement (Payment) The first business day following the Last Trading Day Position Limit https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_C-Limits_and_Levels.PDF</yyyymmdd>	Contract Series	69 months
Position Limit The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv Final Settlement (Payment) Date Position Limit https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF</yyyymmdd>	Fixed Price	The traded price or the previous day's settlement price
Final Settlement Price EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_Imp.csv The first business day following the Last Trading Day https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF</yyyymmdd>	Daily Settlement Price	
Position Limit The first business day following the Last Trading Day https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF	Final Settlement Price	EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 2x16 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market
Position Limit C-Limits_and_Levels.PDF	1	The first business day following the Last Trading Day
Margin Unit US Dollars	Position Limit	
	Margin Unit	US Dollars

PJM PEPCO DC Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, PJM PEPCO DC, Day Ahead
Contract Code	UAX
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	49 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These prices can be found at the following link or at successor location https://dataminer2.pjm.com/feed/da_hrl_lmps
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

PJM PEPCO MD Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, PJM PEPCO MD, Day Ahead
Contract Code	UAY
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	49 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These prices can be found at the following link or at successor location https://dataminer2.pjm.com/feed/da_hrl_lmps
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

PJM PENN POWER Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, PJM PENN POWER, Day Ahead
Contract Code	UAZ
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	49 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These prices can be found at the following link or at successor location https://dataminer2.pjm.com/feed/da_hrl_lmps
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO GENESE Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, NYISO GENESE, Day Ahead
Contract Code	UBA
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO CENTRL Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, NYISO CENTRL, Day Ahead
Contract Code	UBC
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO NORTH Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, NYISO NORTH, Day Ahead
Contract Code	UBD
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO MHK VL Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, NYISO MHK VL, Day Ahead
Contract Code	UBE
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO CAPITL Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, NYISO CAPITL, Day Ahead
Contract Code	UBF
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO MILLWD Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, NYISO MILLWD, Day Ahead
Contract Code	UBG
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

NYISO DUNWOD Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, NYISO DUNWOD, Day Ahead
Contract Code	UBH
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The fourth business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LBMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.nyiso.com/public/csv/damlbmp/ <yyyymmdd>damlbmp_zone.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.CONNECTICUT Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, ISONE .Z.CONNECTICUT, Day Ahead
Contract Code	UBI
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.NEMASSBOST Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, ISONE .Z.NEMASSBOST, Day Ahead
Contract Code	UBJ
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.NEWHAMPSHIRE Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, ISONE .Z.NEWHAMPSHIRE, Day Ahead
Contract Code	UBK
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.RHODEISLAND Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, ISONE .Z.RHODEISLAND, Day Ahead
Contract Code	UBL
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.SEMASS Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, ISONE .Z.SEMASS, Day Ahead
Contract Code	UBM
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The first business day after the last trading day of the current expiring contract
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	69 months
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF
Margin Unit	US Dollars

ISONE .Z.WCMASS Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION			
Contract Description	Monthly Cash Settled Financial 7x8 Power, ISONE .Z.WCMASS, Day Ahead			
Contract Code	UBN			
Hours of Trading	ding As defined at http://www.nodalexchange.com			
Unit of Trading	1 lot, based on 1 MW for each hour of the contract			
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.			
Currency	US Dollars			
Min Price Fluctuation	\$0.0001 per MWh			
Minimum Tick	\$0.0001 per MWh			
First Trading Day	The first business day after the last trading day of the current expiring contract			
Last Trading Day	The third business day following the last calendar day of the month			
Contract Series	69 months			
Fixed Price	The traded price or the previous day's settlement price			
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate			
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pr EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>			
Final Settlement (Payment) Date	The first business day following the Last Trading Day			
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF			
Margin Unit	US Dollars			

ISONE .Z.MAINE Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION			
Contract Description	Monthly Cash Settled Financial 7x8 Power, ISONE .Z.MAINE, Day Ahead			
Contract Code	UBO			
Hours of Trading	As defined at http://www.nodalexchange.com			
Unit of Trading	1 lot, based on 1 MW for each hour of the contract			
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.			
Currency	US Dollars			
Min Price Fluctuation	\$0.0001 per MWh			
Minimum Tick	\$0.0001 per MWh			
First Trading Day	The first business day after the last trading day of the current expiring contract			
Last Trading Day	The third business day following the last calendar day of the month			
Contract Series	69 months			
Fixed Price	The traded price or the previous day's settlement price			
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate			
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 price EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>			
Final Settlement (Payment) Date	The first business day following the Last Trading Day			
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF			
Margin Unit	US Dollars			

ISONE .Z.VERMONT Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION			
Contract Description	Monthly Cash Settled Financial 7x8 Power, ISONE .Z.VERMONT, Day Ahead			
Contract Code	UBP			
Hours of Trading	As defined at http://www.nodalexchange.com			
Unit of Trading	1 lot, based on 1 MW for each hour of the contract			
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month wit 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0700 and HE 2400, Sunday through Saturday, EPT.			
Currency	US Dollars			
Min Price Fluctuation	\$0.0001 per MWh			
Minimum Tick	\$0.0001 per MWh			
First Trading Day	The first business day after the last trading day of the current expiring contract			
Last Trading Day	The third business day following the last calendar day of the month			
Contract Series	69 months			
Fixed Price	The traded price or the previous day's settlement price			
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate			
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 p EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly LMP for all 7x8 hours. These price files can be found at the following link or at successor location. http://www.iso-ne.com/histRpts/da-lmp/WW_DALMP_ISO_ <yyyymmdd>.csv</yyyymmdd>			
Final Settlement (Payment) Date	The first business day following the Last Trading Day			
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF			
Margin Unit	US Dollars			

MISO ILLINOIS.HUB Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION			
Contract Description	Monthly Cash Settled Financial 7x8 Power, MISO ILLINOIS.HUB, Day Ahead			
Contract Code	UBQ			
Hours of Trading	As defined at http://www.nodalexchange.com			
Unit of Trading	1 lot, based on 1 MW for each hour of the contract			
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month wit 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0600 and 2300-2400, EST, Sunday through Saturday, and all NE Holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, 7x8 hours include 0100–0700 and 2400 EST, Sunday through Saturday and all NERC Holidays.			
Currency	US Dollars			
Min Price Fluctuation	\$0.0001 per MWh			
Minimum Tick	\$0.0001 per MWh			
First Trading Day	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.			
Last Trading Day	The sixth business day following the last calendar day of the month			
Contract Series	69 months			
Fixed Price	The traded price or the previous day's settlement price			
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate			
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 7x8 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_lmp.csv</yyyymmdd>			
Final Settlement (Payment) Date	The first business day following the Last Trading Day			
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF			
Margin Unit	US Dollars			

MISO MICHIGAN.HUB Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION			
Contract Description	Monthly Cash Settled Financial 7x8 Power, MISO MICHIGAN.HUB, Day Ahead			
Contract Code	UBR			
Hours of Trading	As defined at http://www.nodalexchange.com			
Unit of Trading	1 lot, based on 1 MW for each hour of the contract			
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month wit 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0600 and 2300-2400, EST, Sunday through Saturday, and all NE Holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, 7x8 hours include 0100–0700 and 2400 EST, Sunday through Saturday and all NERC Holidays.			
Currency	US Dollars			
Min Price Fluctuation	\$0.0001 per MWh			
Minimum Tick	\$0.0001 per MWh			
First Trading Day	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.			
Last Trading Day	The sixth business day following the last calendar day of the month			
Contract Series	69 months			
Fixed Price	The traded price or the previous day's settlement price			
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate			
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 7x8 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_lmp.csv</yyyymmdd>			
Final Settlement (Payment) Date	The first business day following the Last Trading Day			
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF			
Margin Unit	US Dollars			

MISO MINN.HUB Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION			
Contract Description	Monthly Cash Settled Financial 7x8 Power, MISO MINN.HUB, Day Ahead			
Contract Code	UBS			
Hours of Trading	As defined at http://www.nodalexchange.com			
Unit of Trading	1 lot, based on 1 MW for each hour of the contract			
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month wit 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0600 and 2300-2400, EST, Sunday through Saturday, and all NE Holidays during Daylight Saving Time. No hours will be added or subtracted due to DST adjustments. For the rest of the year, 7x8 hours include 0100–0700 and 2400 EST, Sunday through Saturday and all NERC Holidays.			
Currency	US Dollars			
Min Price Fluctuation	\$0.0001 per MWh			
Minimum Tick	\$0.0001 per MWh			
First Trading Day	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.			
Last Trading Day	The sixth business day following the last calendar day of the month			
Contract Series	69 months			
Fixed Price	The traded price or the previous day's settlement price			
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate			
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Ex Post LMP for all 7x8 hours. These price files can be found at the following link or at successor location. https://www.misoenergy.org/Library/Repository/Market Reports/ <yyyymmdd>_da_expost_lmp.csv</yyyymmdd>			
Final Settlement (Payment) Date	The first business day following the Last Trading Day			
Position Limit	https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_ C-Limits_and_Levels.PDF			
Margin Unit	US Dollars			

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
UAB	PJM.PEPCO DC_month_2x16_dap	25	1020	1020	12240	188	0
UAC	PJM.PEPCO MD_month_2x16_dap	25	1903	1903	22836	188	0
UAD	PJM.PENN POWER_month_2x16_dap	25	573	573	6876	42	0
UAE	NYISO.GENESE_month_2x16_dap	25	1210	1210	14520	99	0
UAF	NYISO.CENTRL_month_2x16_dap	25	3626	3626	43512	54	0
UAG	NYISO.NORTH_month_2x16_dap	25	1087	1087	13044	172	0
UAH	NYISO.MHK VL_month_2x16_dap	25	930	930	11160	152	0
UAI	NYISO.CAPITL_month_2x16_dap	25	1634	1634	19608	50	0
UAJ	NYISO.MILLWD_month_2x16_dap	25	1360	1360	16320	158	0
UAK	NYISO.DUNWOD_month_2x16_dap	25	726	726	8712	89	0
UAL	ISONEZ.CONNECTICUT_month_2x16_dap	25	5151	5151	61812	3	0
UAM	ISONEZ.NEMASSBOST_month_2x16_dap	25	2911	2911	34932	7	0
UAN	ISONEZ.NEWHAMPSHIRE_month_2x16_dap	25	2229	2229	26748	9	0
UAO	ISONEZ.RHODEISLAND_month_2x16_dap	25	1070	1070	12840	11	0
UAP	ISONEZ.SEMASS_month_2x16_dap	25	1735	1735	20820	13	0
UAQ	ISONEZ.WCMASS_month_2x16_dap	25	1984	1984	23808	17	0
UAR	ISONEZ.MAINE_month_2x16_dap	25	1440	1440	17280	5	0
UAS	ISONEZ.VERMONT_month_2x16_dap	25	600	600	7200	15	0
UAT	MISO.ILLINOIS.HUB_month_2x16_dap	25	8733	8733	104796	115	0
UAV	MISO.MICHIGAN.HUB_month_2x16_dap	25	18409	18409	220908	156	0
UAW	MISO.MINN.HUB_month_2x16_dap	25	11380	11380	136560	160	0
UAX	PJM.PEPCO DC_month_7x8_dap	25	855	855	10260	188	0
UAY	PJM.PEPCO MD_month_7x8_dap	25	1596	1596	19152	188	0
UAZ	PJM.PENN POWER_month_7x8_dap	25	478	478	5736	42	0
UBA	NYISO.GENESE_month_7x8_dap	25	1016	1016	12192	99	0
UBC	NYISO.CENTRL_month_7x8_dap	25	3132	3132	37584	54	0
UBD	NYISO.NORTH_month_7x8_dap	25	1036	1036	12432	172	0
UBE	NYISO.MHK VL_month_7x8_dap	25	796	796	9552	152	0
UBF	NYISO.CAPITL_month_7x8_dap	25	1416	1416	16992	50	0
UBG	NYISO.MILLWD_month_7x8_dap	25	1123	1123	13476	158	0
UBH	NYISO.DUNWOD_month_7x8_dap	25	596	596	7152	89	0
UBI	ISONEZ.CONNECTICUT_month_7x8_dap	25	4206	4206	50472	3	0
UBJ	ISONEZ.NEMASSBOST_month_7x8_dap	25	2406	2406	28872	7	0
UBK	ISONEZ.NEWHAMPSHIRE_month_7x8_dap	25	1797	1797	21564	9	0
UBL	ISONEZ.RHODEISLAND_month_7x8_dap	25	875	875	10500	11	0
UBM	ISONEZ.SEMASS_month_7x8_dap	25	1437	1437	17244	13	0
UBN	ISONEZ.WCMASS_month_7x8_dap	25	1651	1651	19812	17	0
UBO	ISONEZ.MAINE_month_7x8_dap	25	1204	1204	14448	5	0
UBP	ISONEZ.VERMONT_month_7x8_dap	25	539	539	6468	15	0
UBQ	MISO.ILLINOIS.HUB_month_7x8_dap	25	7546	7546	90552	115	0
UBR	MISO.MICHIGAN.HUB_month_7x8_dap	25	15908	15908	190896	156	0
UBS	MISO.MINN.HUB_month_7x8_dap	25	9834	9834	118008	160	0