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May 15, 2023

### VIA CFTC PORTAL

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

### Re: CFTC Regulation 40.2(a) Certification: Notification of Product Offered for Trading on Nodal Exchange, LLC – Virginia Compliance Renewable Energy Certificate Vintage 2025 Future

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 27 new environmental futures contracts for trading on Nodal Exchange beginning on or after May 26, 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: <u>www.nodalexchange.com</u>.

<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

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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 <u>www.nodalexchange.com</u>.

If you have any question or need additional information regarding the above, please contact the undersigned at 703-962-9853 or <u>markotic@nodalexchange.com</u> or Anita Herrera, Chief Regulatory Officer & General Counsel at 703-962-9835 or <u>Herrera@nodalexchange.com</u>.

Sincerely, /s/ Max Markotic Managing Director

Attachments:

Exhibit A: May 26, 2023 Addition to Nodal Exchange Appendix A - Contract Specifications

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

Exhibit C: May 26, 2023 Addition to Nodal Exchange Appendix C - Reporting Levels, Accountability Levels and Position Limits

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# Exhibit A – Contract Specifications (Rulebook Appendix A)

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2023 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJG  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2024 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | ЫН   |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2025 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJI  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
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|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2026 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJJ  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
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|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2027 <u>Future</u>

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | РЈК  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

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|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
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| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2028 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJL  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

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|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2029 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJM  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2030 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJN  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2031 <u>Future</u>

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJO  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2032 <u>Future</u>

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | РЈР  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2033 <u>Future</u>

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJQ  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2034 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJR  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

### PJM Quad-Qualified Renewable Energy Certificates Class 1 Vintage 2035 Future

| ITEM                       | SPECIFICATION  |
|----------------------------|--|
| Contract Description       | Physically delivered Tier 1 and Class 1 Renewable Energy Certificates where a REC is<br>an electronic certificate issued by the PJM Environmental Information System<br>Generation Attribute Tracking System ("PJM GATS") for generation simultaneously<br>qualifying for the Virginia Renewable Portfolio Standard program, Pennsylvania and<br>Maryland Tier 1 portions of the Renewable Portfolio Standard, and New Jersey Class<br>1 portion of the Renewable Portfolio Standard programs ("Class 1 RECs").  |
| Contract Code              | PJS  |
| Settlement Method          | Physical Delivery  |
| Hours of Trading           | As defined at http://www.nodalexchange.com   |
| Unit of Trading            | 1 lot  |
| Lot Size                   | 100 MWh representing 100 Qualifying RECs   |
| Currency                   | US Dollars   |
| Minimum Tick               | \$0.01 per MWh   |
| Settlement Price Precision | \$0.01 per MWh   |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month   |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)   |
| Contract Series            | Monthly contracts beginning with August of the year prior to the vintage year,<br>through September of two years after the Vintage year. The exchange may list any<br>other calendar month contract set off the standard listing cycle for up to 10 years.   |
| Deliverable Product        | RECs eligible for delivery are those which are eligible to meet the Class 1<br>requirements in each of the states of Pennsylvania, New Jersey, Maryland, and<br>Virginia where; Pennsylvania requirements are specified in Pennsylvania Statutes<br>Title 73 Chapter 18F; the New Jersey requirements are specified in N.J.A.C. 14:8-2-3;<br>and the Maryland requirements are specified in Maryland Annotated Code, Public<br>Utility Companies Article, § 7-701 – 7-713 and in the Code of Maryland Regulations<br>as implemented through Title 20, Subtitle 61; and the Virginia requirements are<br>specified in the RPS Statute §56-585.5 of the Code of Virginia.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. Applicable to the<br>Maryland and Virginia vintage-year designation only, and only for the expiry months<br>of January through July, sellers have the option to deliver a vintage designation that<br>corresponds to the specified vintage year of the expiring contract or one that is one<br>year earlier. |
| Registry                   | PJM-EIS Generation Attribute Tracking System (PJM GATS)  |
| 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 Daily Settlement Price on the Last Trading Day   |
| Delivery                   | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of   |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
|                                    | issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

# Virginia Compliance Renewable Energy Certificate Vintage 2023 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIG   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.   |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
|                                    |   |

# Virginia Compliance Renewable Energy Certificate Vintage 2024 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIH   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.   |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
|                                    | C-LINITS_AITG_LEVEIS.FDF  |

# Virginia Compliance Renewable Energy Certificate Vintage 2025 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VII   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.   |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_  |
|                                    | C-Limits_and_Levels.PDF   |

# Virginia Compliance Renewable Energy Certificate Vintage 2026 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIJ   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.   |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_  |
|                                    | C-Limits_and_Levels.PDF   |

# Virginia Compliance Renewable Energy Certificate Vintage 2027 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIK   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with<br>information identifying the Participants with delivery obligations for the purpose of<br>issuing Tender and invoice notices in accordance with Section IX (Physical Delivery<br>and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_  |
|                                    | C-Limits_and_Levels.PDF   |

# Virginia Compliance Renewable Energy Certificate Vintage 2028 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIL   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.   |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_  |
|                                    | C-Limits_and_Levels.PDF   |

# Virginia Compliance Renewable Energy Certificate Vintage 2029 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIM   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.   |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
|                                    |   |

# Virginia Compliance Renewable Energy Certificate Vintage 2030 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIN   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with<br>information identifying the Participants with delivery obligations for the purpose of<br>issuing Tender and invoice notices in accordance with Section IX (Physical Delivery<br>and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| <b>.</b>                           | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_  |
| Position Limit                     | C-Limits_and_Levels.PDF   |

# Virginia Compliance Renewable Energy Certificate Vintage 2031 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIO   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with<br>information identifying the Participants with delivery obligations for the purpose of<br>issuing Tender and invoice notices in accordance with Section IX (Physical Delivery<br>and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_  |
|                                    | C-Limits_and_Levels.PDF   |

# Virginia Compliance Renewable Energy Certificate Vintage 2032 Future

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where a REC is an electronic certificate issued by the PJM Environmental Information System Generation Attribute Tracking System (PJM GATS) for qualifying generation.   |
| Contract Code                      | VIP   |
| Settlement Method                  | Physical Delivery   |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |
| Unit of Trading                    | 1 lot   |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |
| Currency                           | US Dollars  |
| Minimum Tick                       | \$0.01 per MWh  |
| Settlement Price Precision         | \$0.01 per MWh  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |
| Deliverable Product                | <ul> <li>Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br/>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br/>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br/>Corporation Commission and the Division of Public Utility Regulation.</li> <li>RECs acceptable for delivery are those having a vintage year designation that<br/>corresponds to the specified vintage year of the expiring contract.</li> </ul> |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |
| 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 Daily Settlement Price on the Last Trading Day  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.   |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day)   |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
|                                    |   |

# Virginia Compliance Renewable Energy Certificate Vintage 2033 Future

| ITEM                               | SPECIFICATION   |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where<br>REC is an electronic certificate issued by the PJM Environmental Information Syste<br>Generation Attribute Tracking System (PJM GATS) for qualifying generation.  |  |  |  |  |  |
| Contract Code                      | VIQ   |  |  |  |  |  |
| Settlement Method                  | Physical Delivery   |  |  |  |  |  |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |  |  |  |  |  |
| Unit of Trading                    | 1 lot   |  |  |  |  |  |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |  |  |  |  |  |
| Currency                           | US Dollars  |  |  |  |  |  |
| Minimum Tick                       | \$0.01 per MWh  |  |  |  |  |  |
| Settlement Price Precision         | \$0.01 per MWh  |  |  |  |  |  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |  |  |  |  |  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |  |  |  |  |  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September of five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.  |  |  |  |  |  |
| Deliverable Product                | Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br>Corporation Commission and the Division of Public Utility Regulation.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. |  |  |  |  |  |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |  |  |  |  |  |
| 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 Daily Settlement Price on the Last Trading Day  |  |  |  |  |  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with information identifying the Participants with delivery obligations for the purpose of issuing Tender and invoice notices in accordance with Section IX (Physical Delivery and Settlement) of the Nodal Clear Rulebook.   |  |  |  |  |  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery o<br>the underlying instruments (if the delivery confirmation is available by 11:30am or<br>the third Business Day after the Last Trading Day, the payment will be made on the<br>same day during the Midday Margin Cycle; if it is available after 11:30am, the<br>payment will be made on the next Margin Cycle which will be the next Business Da  |  |  |  |  |  |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |  |  |  |  |  |
| Margin Unit                        | US Dollars  |  |  |  |  |  |

# Virginia Compliance Renewable Energy Certificate Vintage 2034 Future

| ITEM                               | SPECIFICATION   |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where<br>REC is an electronic certificate issued by the PJM Environmental Information Syste<br>Generation Attribute Tracking System (PJM GATS) for qualifying generation.  |  |  |  |  |  |
| Contract Code                      | VIR   |  |  |  |  |  |
| Settlement Method                  | Physical Delivery   |  |  |  |  |  |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |  |  |  |  |  |
| Unit of Trading                    | 1 lot   |  |  |  |  |  |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |  |  |  |  |  |
| Currency                           | US Dollars  |  |  |  |  |  |
| Minimum Tick                       | \$0.01 per MWh  |  |  |  |  |  |
| Settlement Price Precision         | \$0.01 per MWh  |  |  |  |  |  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |  |  |  |  |  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |  |  |  |  |  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.   |  |  |  |  |  |
| Deliverable Product                | Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br>Corporation Commission and the Division of Public Utility Regulation.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. |  |  |  |  |  |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |  |  |  |  |  |
| 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 Daily Settlement Price on the Last Trading Day  |  |  |  |  |  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with<br>information identifying the Participants with delivery obligations for the purpose of<br>issuing Tender and invoice notices in accordance with Section IX (Physical Delivery<br>and Settlement) of the Nodal Clear Rulebook.  |  |  |  |  |  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of<br>the underlying instruments (if the delivery confirmation is available by 11:30am of<br>the third Business Day after the Last Trading Day, the payment will be made on the<br>same day during the Midday Margin Cycle; if it is available after 11:30am, the<br>payment will be made on the next Margin Cycle which will be the next Business D  |  |  |  |  |  |
|                                    | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |  |  |  |  |  |
| Position Limit                     | C-Limits_and_Levels.PDF   |  |  |  |  |  |

# Virginia Compliance Renewable Energy Certificate Vintage 2035 Future

| ITEM                               | SPECIFICATION   |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|
| Contract Description               | Physically delivered Virginia Renewable Energy Certificates ("Virginia REC") where<br>REC is an electronic certificate issued by the PJM Environmental Information Syste<br>Generation Attribute Tracking System (PJM GATS) for qualifying generation.  |  |  |  |  |  |
| Contract Code                      | VIS   |  |  |  |  |  |
| Settlement Method                  | Physical Delivery   |  |  |  |  |  |
| Hours of Trading                   | As defined at http://www.nodalexchange.com  |  |  |  |  |  |
| Unit of Trading                    | 1 lot   |  |  |  |  |  |
| Lot Size                           | 100 MWh representing 100 Virginia RECs  |  |  |  |  |  |
| Currency                           | US Dollars  |  |  |  |  |  |
| Minimum Tick                       | \$0.01 per MWh  |  |  |  |  |  |
| Settlement Price Precision         | \$0.01 per MWh  |  |  |  |  |  |
| Last Trading Day                   | Three Business Days prior to the last Business Day of the delivery month  |  |  |  |  |  |
| Delivery Day                       | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |  |  |  |  |  |
| Contract Series                    | Monthly contracts beginning with January of the vintage year, through September five years after the Vintage year. The exchange may list any other calendar month contract set off the standard listing cycle for up to 10 years.   |  |  |  |  |  |
| Deliverable Product                | Virginia RECs eligible for delivery are those which are eligible to meet the Renewable<br>Energy requirements specified in the Renewable Portfolio Standard Statute §56-<br>585.5 under the Code of Virginia, verified and qualified by the Virginia State<br>Corporation Commission and the Division of Public Utility Regulation.<br>RECs acceptable for delivery are those having a vintage year designation that<br>corresponds to the specified vintage year of the expiring contract. |  |  |  |  |  |
| Registry                           | PJM-EIS Generation Attribute Tracking System (PJM GATS)   |  |  |  |  |  |
| 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 Daily Settlement Price on the Last Trading Day  |  |  |  |  |  |
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with<br>information identifying the Participants with delivery obligations for the purpose of<br>issuing Tender and invoice notices in accordance with Section IX (Physical Delivery<br>and Settlement) of the Nodal Clear Rulebook.  |  |  |  |  |  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of<br>the underlying instruments (if the delivery confirmation is available by 11:30am of<br>the third Business Day after the Last Trading Day, the payment will be made on the<br>same day during the Midday Margin Cycle; if it is available after 11:30am, the<br>payment will be made on the next Margin Cycle which will be the next Business D  |  |  |  |  |  |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |  |  |  |  |  |
|                                    |   |  |  |  |  |  |

# California Carbon Offset 0 with Direct Environmental Benefits (DEBS) Future

| ITEM                       | SPECIFICATION   |  |  |  |
|----------------------------|---|--|--|--|
| Contract Description       | Physically delivered greenhouse gas emissions credits where each is a certificate issued by the California Air Resources Board ("CARB") or linked program ("California Carbon Offset," or "CCO") representing one metric ton equivalent of greenhouse gas ("GHG") reduction or avoidance emissions of any air pollutant with Direct Environmental Benefit ("DEBS") to the State of California (the "State") or the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state achieved under California Assembly Bill 398 (Chapter 135, Statutes of 2017) and its associated regulations, rules and amendments, all together known as the "California Cap and Trade Program".   |  |  |  |
| Contract Code              | WTD   |  |  |  |
| Settlement Method          | Physical Delivery   |  |  |  |
| Hours of Trading           | As defined at http://www.nodalexchange.com  |  |  |  |
| Unit of Trading            | 1 lot   |  |  |  |
| Lot Size                   | 1,000 California Carbon Offsets   |  |  |  |
| Currency                   | US Dollars  |  |  |  |
| Minimum Tick               | \$0.01 per California Carbon Offset   |  |  |  |
| Settlement Price Precision | \$0.01 per California Carbon Offset   |  |  |  |
| Last Trading Day           | Three Business Days prior to the last Business Day of the delivery month  |  |  |  |
| Delivery Day               | Three Business Days after the Last Trading Day (Last Business Day of the delivery month)  |  |  |  |
| Contract Series            | Monthly expirations for the current year, and the following two years. Annual December contracts for an additional 10 years. The exchange may list any other calendar month contract set off the standard listing cycle.  |  |  |  |
| Deliverable Product        | The deliverable instruments are California Carbon Offsets with Direct Environmental<br>Benefits to the State of California (DEBS) equal to the contract size delivered through<br>the California Compliance Instrument Tracking System Services (CITSS).<br>CCOs with DEBS acceptable for delivery are those issued by the California Air<br>Resources Board representing one metric ton equivalent of greenhouse gas<br>reduction or avoidance emissions enhancement achieved under California Assembly<br>Bill 398 "Chapter 135, Statutes of 2017" and its associated regulations, rules and<br>amendments, all together known as the "California Cap and Trade Program". Any<br>individual offset or series of offsets acceptable for delivery are those that are beyond<br>the risk of invalidation, specifically where the Last Delivery Date of the futures<br>contract is greater than the Invalidation Timeframe added to the Start of Invalidation<br>Period (i.e.: Last Delivery Date > Invalidation Timeframe + Start of Invalidation<br>Timeframe) as stated on the CARB's website at the time of delivery. |  |  |  |
| Registry                   | Compliance Instrument Tracking System Services (CITSS)  |  |  |  |
| 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 Daily Settlement Price on the Last Trading Day  |  |  |  |

| ITEM                               | SPECIFICATION   |
|------------------------------------|---|
| Delivery                           | On the Last Trading Day, the Exchange will provide the Clearing House with<br>information identifying the Participants with delivery obligations for the purpose of<br>issuing Tender and invoice notices in accordance with Section IX (Physical Delivery<br>and Settlement) of the Nodal Clear Rulebook.  |
| Final Settlement (Payment)<br>Date | Three or four Business Days after the Last Trading Day on the successful delivery of the underlying instruments (if the delivery confirmation is available by 11:30am on the third Business Day after the Last Trading Day, the payment will be made on the same day during the Midday Margin Cycle; if it is available after 11:30am, the payment will be made on the next Margin Cycle which will be the next Business Day) |
| Position Limit                     | https://www.nodalexchange.com/files/autogenerated/Nodal_Rulebook_Appendix_<br>C-Limits_and_Levels.PDF   |
| Margin Unit                        | US Dollars  |

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

| Physical<br>Commodity Code | Contract Name                        | Reporting Level | Spot Month<br>Position Limit (lots) | Single Month<br>Accountability Level<br>(lots) | All Month<br>Accountability Level<br>(lots) | Aggregation<br>Group* | CFTC Referenced<br>Contract |
|----------------------------|--------------------------------------|-----------------|-------------------------------------|--|---|-----------------------|-----------------------------|
| PJG                        | PJM Quad-Qual REC Class 1 V23 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJH                        | PJM Quad-Qual REC Class 1 V24 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJI                        | PJM Quad-Qual REC Class 1 V25 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJJ                        | PJM Quad-Qual REC Class 1 V26 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| РЈК                        | PJM Quad-Qual REC Class 1 V27 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJL                        | PJM Quad-Qual REC Class 1 V28 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJM                        | PJM Quad-Qual REC Class 1 V29 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJN                        | PJM Quad-Qual REC Class 1 V30 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJO                        | PJM Quad-Qual REC Class 1 V31 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJP                        | PJM Quad-Qual REC Class 1 V32 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJQ                        | PJM Quad-Qual REC Class 1 V33 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJR                        | PJM Quad-Qual REC Class 1 V34 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| PJS                        | PJM Quad-Qual REC Class 1 V35 Future | 25              | 42500                               | 42500  | 42500                                       |                       | 0                           |
| VIG                        | VA REC V23 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIH                        | VA REC V24 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VII                        | VA REC V25 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIJ                        | VA REC V26 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIK                        | VA REC V27 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIL                        | VA REC V28 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIM                        | VA REC V29 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIN                        | VA REC V30 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIO                        | VA REC V31 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIP                        | VA REC V32 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIQ                        | VA REC V33 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIR                        | VA REC V34 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| VIS                        | VA REC V35 Future                    | 25              | 45000                               | 45000  | 45000                                       |                       | 0                           |
| WTD                        | CA Carbon Offset 0 DEBS Future       | 25              | 2000                                | 2000   | 2000  |                       | 0                           |