

**NORTH CAROLINA
INTERCONNECTION AGREEMENT**

Fresh Air Energy IX, LLC

NC13011

5 MW

June 12, 2014

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This Interconnection Agreement ("Agreement") is made and entered into this 21st day of April 2014, by Virginia Electric and Power Company, doing business as Dominion North Carolina Power ("Utility"), and Fresh Air Energy IX, LLC. ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both, referred to collectively as the "Parties."

Utility Information

Utility: Virginia Electric and Power Company

Attention: Mike Nester

Address: 200 Vepco Street

City, State, Zip: Roanoke Rapids, North Carolina 27807

Phone: (525) 308-1077

Fax: (252) 308-1078

Interconnection Customer Information

Interconnection Customer: Fresh Air Energy IX, LLC

Attention: Erik Stuebe

Address: 650 Townsend Street, Suite 310

City, State, Zip: San Francisco, CA 94103

Phone: (415) 626-1802

Fax: (415) 449-3466

Email: eriks@ecoplexus.com AND interconnection@ecoplexus.com

Interconnection Request ID No: NC13011

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

Article 1. Scope and Limitations of Agreement

1.1 Applicability

This Agreement shall be used for all Interconnection Requests submitted under the North Carolina Interconnection Procedures except for those submitted under the 10 kW Inverter Process in Section 2 of the Interconnection Procedures.

1.2 Purpose

This Agreement governs the terms and conditions under which the Interconnection Customer's Generating Facility will interconnect with, and operate in parallel with, the Utility's System.



1.3 No Agreement to Purchase or Deliver Power or RECs

This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power or Renewable Energy Certificates (RECs). The purchase or delivery of power, RECs that might result from the operation of the Generating Facility, and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Utility.

1.4 Limitations

Nothing in this Agreement is intended to affect any other agreement between the Utility and the Interconnection Customer.

1.5 Responsibilities of the Parties

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.

1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.

1.5.3 The Utility shall construct, operate, and maintain its System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriters' Laboratories, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the System or equipment of the Utility and any Affected Systems.

1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Appendices to this Agreement. Each



Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Utility and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Utility's System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Appendices to this Agreement.

- 1.5.6 The Utility shall coordinate with all Affected Systems to support the interconnection.

1.6 Parallel Operation Obligations

Once the Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Generating Facility in the applicable control area, including, but not limited to: 1) any rules and procedures concerning the operation of generation set forth in Commission-approved tariffs or by the applicable system operator(s) for the Utility's System and; 2) the Operating Requirements set forth in Appendix 5 of this Agreement.

1.7 Metering

The Interconnection Customer shall be responsible for the Utility's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Appendices 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power

- 1.8.1 The Interconnection Customer shall design its Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Utility has established different requirements that apply to all similarly situated generators in the control area on a comparable basis. The requirements of this paragraph shall not apply to wind generators.

- 1.8.2 The Utility is required to pay the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs from the Generating Facility when the Utility requests the Interconnection Customer to operate its Generating Facility outside the range specified

in Article 1.8.1. In addition, if the Utility pays its own or affiliated generators for reactive power service within the specified range, it must also pay the Interconnection Customer.

- 1.8.3 Payments shall be in accordance with the Utility's applicable rate schedule then in effect unless the provision of such service(s) is subject to a regional transmission organization or independent system operator FERC-approved rate schedule. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the Parties agree to expeditiously file such rate schedule and agree to support any request for waiver of any prior notice requirement in order to compensate the Interconnection Customer from the time service commenced.

1.9 Capitalized Terms

Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 of the North Carolina Interconnection Procedures or the body of this Agreement.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

- 2.1.1 The Interconnection Customer shall test and inspect its Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Utility of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day, unless otherwise agreed to by the Parties. The Utility may, at its own expense, send qualified personnel to the Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Utility a written test report when such testing and inspection is completed.

- 2.1.2 The Utility shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Utility of the safety, durability, suitability, or reliability of the Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Generating Facility.



2.2 Authorization Required Prior to Parallel Operation

2.2.1 The Utility shall use Reasonable Efforts to list applicable parallel operation requirements in Appendix 5 of this Agreement. Additionally, the Utility shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Utility shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

2.2.2 The Interconnection Customer shall not operate its Generating Facility in parallel with the Utility's System without prior written authorization of the Utility. The Utility will provide such authorization once the Utility receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access

2.3.1 Upon reasonable notice, the Utility may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Utility at least five Business Days prior to conducting any on-site verification testing of the Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Utility shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3 Each Party shall be responsible for its own costs associated with following this Article.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties.



3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of fifteen (15) years from the Effective Date or such other longer period as the Interconnection Customer may request and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with Article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Utility 20 Business Days written notice and physically and permanently disconnecting the Generating Facility from the Utility's System.

3.3.2 Either Party may terminate this Agreement after Default pursuant to Article 7.6.

3.3.3 Upon termination of this Agreement, the Generating Facility will be disconnected from the Utility's System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.

3.3.4 The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 Emergency Conditions

"Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Utility, is imminently likely (as determined in a non-discriminatory manner) to



cause a material adverse effect on the security of, or damage to the Utility's System, the Utility's Interconnection Facilities or the systems of others to which the Utility's System is directly connected; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the Utility may immediately suspend interconnection service and temporarily disconnect the Generating Facility. The Utility shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Generating Facility. The Interconnection Customer shall notify the Utility promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Utility's System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Utility may interrupt interconnection service or curtail the output of the Generating Facility and temporarily disconnect the Generating Facility from the Utility's System when necessary for routine maintenance, construction, and repairs on the Utility's System. The Utility shall provide the Interconnection Customer with five Business Days notice prior to such interruption. The Utility shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages

During any forced outage, the Utility may suspend interconnection service to effect immediate repairs on the Utility's System. The Utility shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Utility shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse Operating Effects

The Utility shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Generating Facility may cause disruption or deterioration of service to



other customers served from the same electric system, or if operating the Generating Facility could cause damage to the Utility's System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Utility may disconnect the Generating Facility. The Utility shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of Article 3.4.1 apply.

3.4.5 Modification of the Generating Facility

The Interconnection Customer must receive written authorization from the Utility before making any change to the Generating Facility that may have a material impact on the safety or reliability of the Utility's System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Utility's prior written authorization, the latter shall have the right to temporarily disconnect the Generating Facility.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Generating Facility, Interconnection Facilities, and the Utility's System to their normal operating state as soon as reasonably practicable following a temporary or emergency disconnection.

Article 4. **Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Appendix 2 of this Agreement. The Utility shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Utility.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection



Facilities, and (2) operating, maintaining, repairing, and replacing the Utility's Interconnection Facilities.

4.2 Distribution Upgrades

The Utility shall design, procure, construct, install, and own the Distribution Upgrades described in Appendix 6 of this Agreement. If the Utility and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

Article 5. Cost Responsibility for Network Upgrades

5.1 Applicability

No portion of this Article 5 shall apply unless the interconnection of the Generating Facility requires Network Upgrades.

5.2 Network Upgrades

The Utility shall design, procure, construct, install, and own the Network Upgrades described in Appendix 6 of this Agreement. If the Utility and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Utility elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer.

Article 6. Billing, Payment, Milestones, and Financial Security

6.1 Billing and Payment Procedures and Final Accounting

6.1.1 The Utility shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within three months of completing the construction and installation of the Utility's Interconnection Facilities and/or Upgrades described in the Appendices to this Agreement, the Utility shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and



(2) the Interconnection Customer's previous aggregate payments to the Utility for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Utility shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Utility within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Utility shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

6.1.3 If the Interconnection Customer elects the payment procedures in Articles 6.1.1 and 6.1.2, the Utility may also bill the Interconnection Customer periodically for the costs associated with operating, maintaining, repairing and replacing the Utility's Interconnection Facilities, as set forth in Appendix 2 of this Agreement.

6.1.4 The Interconnection Customer may elect to be billed the costs in Articles 6.1.1 and 6.1.2 and for on-going operations, maintenance, repair and replacement of the Utility's Interconnection Facilities under a Utility rate schedule, tariff, rider or service regulation providing for extra facilities charges, as set forth in Appendix 2 of this Agreement, such monthly charges to continue throughout the entire life of the interconnection.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Appendix 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) request appropriate amendments to Appendix 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Utility's



Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Utility, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Utility and is consistent with the Uniform Commercial Code of North Carolina. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Utility's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Utility under this Agreement during its term. In addition:

- 6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Utility, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Utility and must specify a reasonable expiration date.
- 6.3.3 The Utility may waive the security requirements if its credit policies show that the financial risks involved are de minimus, or if the Utility's policies allow the acceptance of an alternative showing of creditworthiness from the Interconnection Customer.

Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default

7.1 Assignment

- 7.1.1 This Agreement shall not survive the transfer of ownership of the Generating Facility to a new owner. The new owner must complete a new Interconnection Request and submit it to the Utility within 20 Business Days of the transfer of ownership or the Utility's Interconnection Facilities shall be removed or disabled and the Generating Facility disconnected from the Utility's System. The Utility shall not study or inspect the Generating Facility unless the new owner's Interconnection Request indicates that a Material Modification has occurred or is proposed.
- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Utility, for collateral security purposes to aid in providing financing for the Generating Facility, provided that the Interconnection Customer will promptly notify the Utility of any such assignment. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof.



7.1.3 Any attempted assignment that violates this article is void and ineffective.

7.2 Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, incidental, consequential, or punitive damages of any kind, except as authorized by this Agreement.

7.3 Indemnity

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 7.2.

7.3.2 The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inaction of its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3.3 If an indemnified Party is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, such indemnified Party may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.3.4 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this Article, the amount owing to the indemnified Party shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.

7.3.5 Promptly after receipt by an Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply, the indemnified Party shall notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a



Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

7.4 Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue; loss of the use of equipment; cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.5 Force Majeure

7.5.1 As used in this article, a Force Majeure Event shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission



of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in Article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

- 7.6.2 If a Default is not cured as provided in this Article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

Article 8. Insurance

- 8.1 The Interconnection Customer shall obtain and retain, for as long as the Generating Facility is interconnected with the Utility's System, liability insurance which protects the Interconnection Customer from claims for bodily injury and/or property damage. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. This insurance shall be primary for all purposes. The Interconnection Customer shall provide certificates evidencing this coverage as required by the Utility. Such insurance shall be obtained from an insurance provider authorized to do business in North Carolina. The Utility reserves the right to refuse to establish or continue the interconnection of the Generating Facility with the Utility's System, if such insurance is not in effect.

- 8.1.1 For an Interconnection Customer that is a residential customer of the Utility proposing to interconnect a Generating Facility no larger than 250 kW, the required coverage shall be a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence.

- 8.1.2 For an Interconnection Customer that is a non-residential customer of the Utility proposing to interconnect a Generating Facility no larger than 250 kW, the required coverage shall be comprehensive general

liability insurance with coverage in the amount of at least \$300,000 per occurrence.

- 8.1.3 An Interconnection Customer of sufficient credit-worthiness may propose to provide this insurance via a self-insurance program if it has a self-insurance program established in accordance with commercially acceptable risk management practices, and such a proposal shall not be unreasonably rejected.
- 8.2 The Utility agrees to maintain general liability insurance or self-insurance consistent with the Utility's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Utility's liabilities undertaken pursuant to this Agreement.
- 8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

Article 9. Confidentiality

- 9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.
- 9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.
- 9.1.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.
- 9.1.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.



- 9.3 If information is requested by the Commission from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to the Commission within the time provided for in the request for information. In providing the information to the Commission, the Party may request that the information be treated as confidential and non-public in accordance with North Carolina law and that the information be withheld from public disclosure.

Article 10. Disputes

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this Article.
- 10.2 In the event of a dispute, either Party shall provide the other Party with a written notice of dispute. Such notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the notice, either Party may contact the Public Staff for assistance in informally resolving the dispute. If the Parties are unable to informally resolve the dispute, either Party may then file a formal complaint with the Commission.
- 10.4 Each Party agrees to conduct all negotiations in good faith.

Article 11. Taxes

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with North Carolina and federal policy and revenue requirements.
- 11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Utility's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

Article 12. Miscellaneous

12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of North Carolina, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.



12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties, or under Article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Utility. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Appendices, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.



12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All Utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.



12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Utility be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12. Reservation of Rights

The Utility shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, or classifications of service, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties except to the extent that the Parties otherwise agree as provided herein.

Article 13. Notices

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement (Notice) shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

Interconnection Customer: Fresh Air Energy IX, LLC

Attention: Erik Stuebe

Address: 650 Townsend Street, Suite 310

City, State, Zip: San Francisco, CA 94103

Phone (415) 626-1802

Fax (415) 449-3466

Email: eriks@ecoplexus.com AND interconnection@ecoplexus.com



If to the Utility:

Utility: Virginia Electric and Power Company

Attention: Mike Nester

Address: 200 Vepco Street

City, State, Zip: Roanoke Rapids, North Carolina 27870

Phone: (252) 308-1077 Fax: (252) 308-1078

13.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: Fresh Air Energy IX, LLC

Attention: Erik Stuebe

Address: 650 Townsend Street, Suite 310

City, State, Zip: San Francisco, CA 94103

Phone: (415) 626-1802 Fax: (415) 449-3466

Email: interconnection@ecoplexus.com AND kgaminill@ecoplexus.com

If to the Utility:

Utility: Virginia Electric and Power Company

Attention: Remittance Processing Services

Address: P.O. Box 26543

City, State, Zip: Richmond, Virginia 23290

13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: Fresh Air Energy IX, LLC

Attention: Erik Stuebe

Address: 650 Townsend Street, Suite 310

City, State, Zip: San Francisco, CA 94103

Phone: (415) 626-1802 Fax: (415) 449-3466



If to the Utility:

Utility: Virginia Electric and Power Company

Attention: Mike Nester

Address: 200 Vepco Street

City, State, Zip: Roanoke Rapids, North Carolina 27870

Phone: (252) 308-1077

Fax: (252) 308-1077

13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: Fresh Air Energy IX, LLC

Attention: Halsey Kendrick

Address: 650 Townsend Street, Suite 310

City, State, Zip: San Francisco, CA 94103

Phone: (415) 626-1802

Fax: (415) 449-3466

Email: hkendrick@ecoplexus.com AND/OR jpundyk@ecoplexus.com

Utility's Operating Representative:

Utility: Virginia Electric and Power Company

Attention: ROC Shift Supervisor

Address: 2700 Cromwell Rd.

City, State, Zip: Norfolk, Virginia 23509

Phone: (757) 857-6702

Fax: (757) 857-2633

13.5 Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice prior to the effective date of the change.



IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Utility

Name: [Signature]

Title: VP - Cust. Sols.

Date: 8-12-14

For the Interconnection Customer

Name: [Signature], ERIK STUERBE

Title: President

Date: 7/2/14

Glossary of Terms

See Glossary of Terms, Attachment 1 to the North Carolina Interconnection Procedures.

Description and Costs of the Generating Facility, Interconnection Facilities, and Metering Equipment

Generating Facility

Generating facility will be 5 MW of ground mounted solar arrays.

Interconnection Customer Interconnection Facilities

Interconnection Customer will be responsible for all associated solar panels, inverters, transformers and underground line built to Point of Interconnection with Utility. Interconnection Customer will also provide terminations for the underground cable if necessary and all items listed below. The resulting Interconnection Facilities are as follows and based on the technical requirements in Appendix 5:

- Installation of all conductors between the generating facility and POI.
- Installation of pad mounted transformers
- Installation of a three phase interruption device
- Installation of all generator breakers and associated equipment
- Communication lines for all metering
- Communication between Interconnection Customer breaker and Utility recloser if required
- If and when the aggregate generation interconnected to this circuit is greater than 10 MW, the Interconnection Customer must provide generator status and generator instantaneous MW output to PJM per Manual 14A of the PJM OATT via communication links installed, owned, and maintained by the Interconnection Customer.

Interconnection Facilities and Metering

The Interconnection Facilities required to be provided by the Utility will include:

1. Installation of ABB Electronic Recloser that is to be installed on tap serving Interconnection Customer.
2. Installation of pole mounted bi-directional metering.
3. Install 4 - three phase poles.
4. Installation of terminal pole.
5. Installation of approximately 250 feet of a three phase overhead line (477 Al.)
6. Installation of 1 Line Tension Disconnect Switches.

The estimated cost for the installation of new attachment facilities to provide the interconnection, at this location, is \$130,882.90.

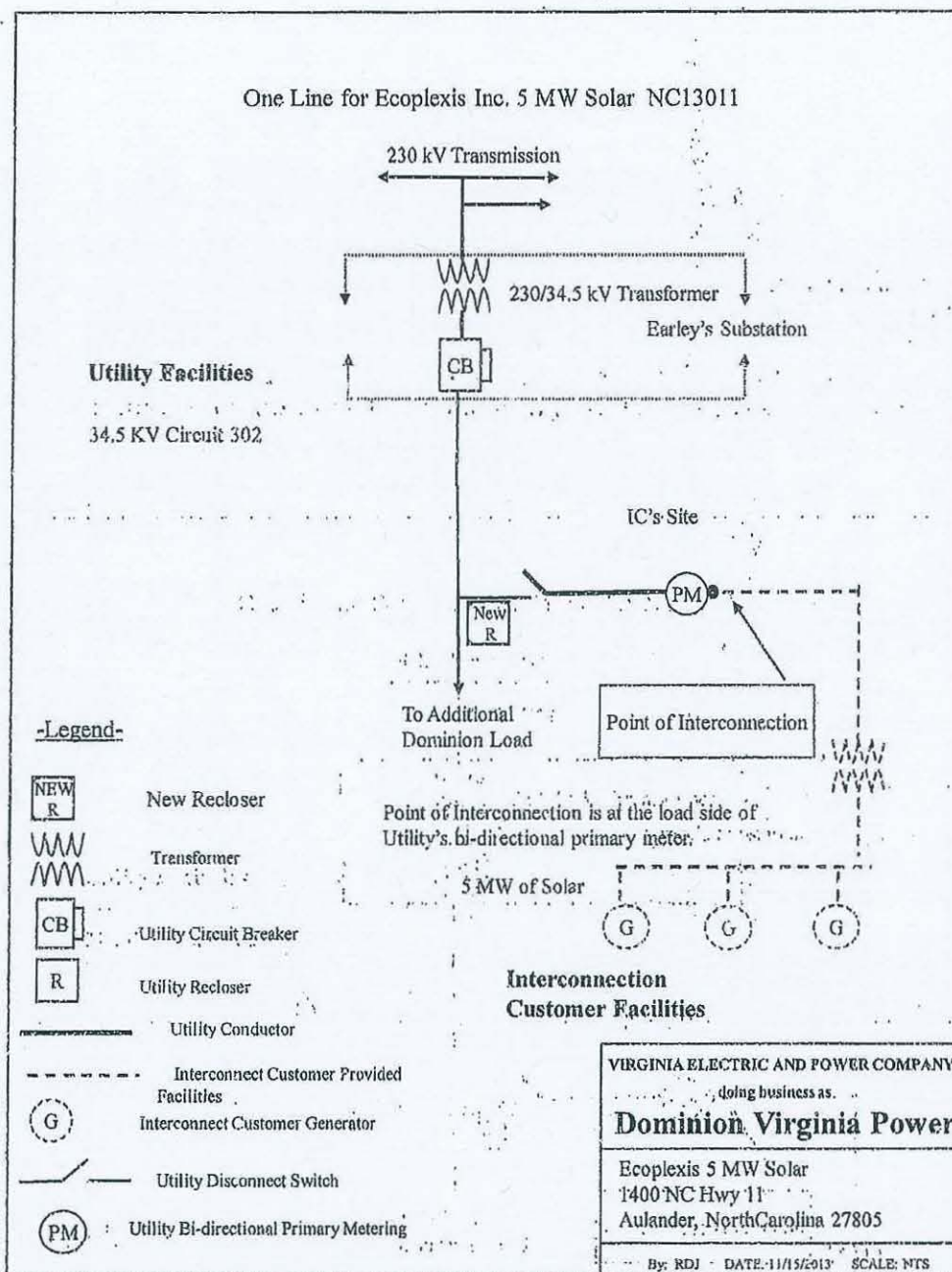
The Interconnection Customer will be also be responsible for an ongoing monthly operation and maintenance cost of %0.44 percent of the estimated cost of the



new facilities of \$130,882.90. The calculation will be; $\$130,882.90 \times \%.44 =$
\$575.88 a month.



One-line Diagram Depicting the Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades



Milestones

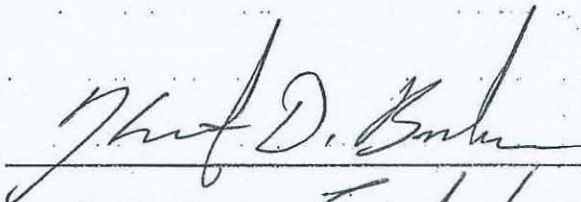
In-Service Date: June 1, 2015

Critical milestones and responsibility as agreed to by the Parties:

	Milestone/Date	Responsible Party
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____
(10)	_____	_____

Agreed to by:

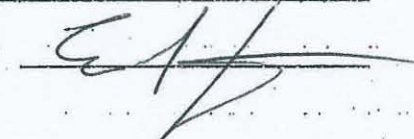
For the Utility



Date

8-12-14

For the Interconnection Customer



Date

7/2/14



Additional Operating Requirements for the Utility's System and Affected Systems Needed to Support the Interconnection Customer's Needs

The Utility has reviewed the Fresh Air Energy IX, LLC (NC13011) request for interconnection of 7.5 MW DC of Solar-Photovoltaic (PV) Generation units located 1400 NC Hwy 11, Aulander, North Carolina 27805. The Interconnection Customer desires to export power into the Dominion North Carolina Power (DNCP) utility source and site generation power. The technical requirements listed below were completed based on the Interconnection Customer installing (10) Advanced Energy AE 500NX-HE inverters units rated 500 kW and operating at 480 V. The inverter system that was studied was two (2) blocks of three (3) 500 kW inverters connected to a three (3) phase 1,500 kVA pad mounted transformer and one (1) block of four (4) 500 kW inverters connected to a three (3) phase 2,000 kVA pad mounted transformer for a total of three (3) PV Inverter-Transformer systems. All transformers will be rated 277/480V - 34.5/19.9 kV with a wye-ground / wye-ground winding configuration. At the 480 V level, each inverter is tied to a main switchboard and protected by a three phase, 800 A rated breaker. All construction costs associated with this agreement were based on this technical data.

The Interconnection Customer has agreed to two (2) blocks of two (2) 850 kW inverters connected to a three (3) phase 1,660 kVA pad mounted transformer and one (1) block of two (2) 800 kW inverters connected to a three (3) phase 1,660 kVA pad mounted transformer for a total of three (3) PV Inverter-Transformer systems with a wye-grounded (primary)/delta (secondary) configuration. In each transformer provisions should be made for external resistance grounding of the primary with the level of resistance to be determined by the Utility. This change will require the Utility to restudy the new data and issue updated technical requirements within a few weeks. Although it is not likely, Interconnection Customer will be responsible for any additional construction costs and/or additional technical requirements that may be determined from this restudy and will be amended later and become part of this agreement.

The resulting protection requirements are based on the following information:

- No more than 7.5 MWdc of total generation will be in parallel with the DNCP system at any one time.
- The Interconnection Customer's generation facility will be paralleled with the DNCP system by the following connections:
 - The Interconnection Customer generation facility will be connected to the Earleys Distribution Circuit 302 via a new installed Automatic Line Recloser (ALR) 302.RXXX. Circuit 302 is sourced by Earleys Transformer # 1 and Line 54.
- There may come a time the aggregate generation interconnected to this substation bus is greater than 10MW. If and when this happens, the Interconnection Customer must provide generator status and generator instantaneous MW output to PJM per Manual 14A of the PJM OATT via communication links installed, owned, and maintained by the Interconnection Customer.



- Earleys Circuit 302 feeder breaker has reclosing times at 10 seconds and 45 seconds after the first trip.
- Transmission Line 54 has both time delayed and Instantaneous reclosing applied on its Terminal Breakers.
- The load data for the pertinent sectionalizing devices are as follows:
 - Earleys Circuit 302 (30222) has a typical "light" loading of 1.37 MVA
 - Earleys Transformer # 1 has a typical "light" loading of 3.08 MVA
 - Line 54 has a typical "light" loading of 8.51 MVA
- Interconnection Customer parallel operation will not be limited to any particular time or utility circuit-loading condition (daylight is required for generation to be available).
- The Interconnection Customer will be contracted to export power into the DNCP distribution system.

Based on the minimum loads given for the utility sectionalizing devices and the aggregated generation on the Earleys Circuit 302, the following minimum "Local Load to Customer Generation Capacity" ratios will apply for this installation:

Utility Device	Minimum Ratio
CB 30222	0.099
Transformer #1	0.223
Line 54	0.616

The minimum ratios applicable for this installation would normally require the Interconnection Customer to have **Direct Pilot Wire Tripping** (or Transfer Trip) function installed from the Transmission Line #54, Substation Transformer #1, utility device CB 30222 to the generation site's main breaker (main breaker trip coil and lockout) or potentially a new ALR 302 RXXX. Such direct tripping functions should sectionalize the Interconnection Customer generation for any opening of the respective device. The direct trip control feature is meant to ensure that a "prolonged" (or "permanent") islanding condition (with the Interconnection Customer generation supplying utility load in the absence of the utility source) will not be set-up.

However, based on the size and location of the Interconnection Customer generation, the applicable DNCP and Industry Standards (i.e. UL-1741, IEEE-1547) and the Interconnection Customer's equipment individually meeting this specification, DNCP will require the installation of a Dominion owned Automatic Line Recloser (ALR) at the point of common coupling with all required relaying (described in the table below) as well as the addition of Bus Potential Earleys Substation Bus #2 and an upgrade to the existing circuits 302 and 303 relays to provide directionality (i.e. Earleys circuit 303 is used as an alternate circuit configuration by DNCP's

operation center) at the Interconnection Customer expense. Such ALR should provide another isolation point by taking the Interconnection Customer off line during hot line work.

Additionally, in order to coordinate with the ALR's relay (i.e. see settings outlined in Table 2) while maintaining adequate backup protection, the Interconnection Customer will be required to apply the trip settings described in Table 1 on all of its AE 500NX-HE inverters. If the Interconnection Customer is unable or unwilling to apply those functions and settings, Direct Pilot Wire (or Transfer Trip) will be required at the Interconnection Customer expense.

Table 1:

	Function	Set Point	Duration to Generation Cleared (seconds / cycles)
27	Under-voltage (Voltage phase low)	75 % (or more) of nominal operating voltage	0.0833 / 5.0
59	Over-voltage (Voltage phase high)	110. % (or less) of nominal operating voltage	0.0833 / 5.0
81U	Under-frequency (line frequency low)	59.5 Hz	0.0833 / 5.0
81O	Over-frequency (line frequency high)	60.5 Hz	0.0833 / 5.0
	Overall Anti-Islanding	Set for ≤ 5.0 Cycle disconnection / cleared or shut-down of inverter	0.0833 / 5.0

The required relay functions, (each sectionalizing all of the Interconnection Customer's generation and enabled all the time on the ALR regardless of the operating condition) and the corresponding setting ranges, applying for the designated utility feed, are listed in the following table:

Table 2:

Function		Set Point	Duration to Disconnection (seconds)
27	Undervoltage	75 % of nominal operating voltage	2.0
59	Overvoltage	110% of nominal operating voltage	2.0
81U	Underfrequency	59.5 Hz	2.0
81O	Overfrequency	60.5	2.0
51	Phase Time-delay Overcurrent	Set for minimum, with adequate load allowance	Maintain proper coordination with customer high side fuse

Harmonics (voltage and current) if not controlled can be a source of problems on the DNCP network. Though it is definitive that small scale PV systems (i.e. about 5 kW or less) have little to no significant Harmonics effects on the system provided their associated converter meet the IEEE standard 519 (Guideline for Harmonic Control and Reactive Compensation of Static Power Converter), the impacts of larger scale PV systems is far less certain. It is a general consensus that a concentration of small sources of harmonic or demand distortion - as little as they could be - can have a significant effect on the overall utility network's power quality, as the effect of harmonics are cumulative thus making it imperative not to ignore the Harmonics in this particular 6.48 MW DC interconnection request.

In Summary, **Power Quality baseline readings** will be required at the point of common coupling (PCC) before and after the interconnection is completed in order to monitor the Harmonic effects of the Generation unit and will be obtained at the Interconnection Customer's expense. Also, if there is evidence that the Total Harmonic Distortion (THD) or Total Demand Distortion (TDD) is greater than or equal to 5% harmonic distortion for any single harmonic is greater than or equal to 3%, the Interconnection Customer would be required to add a filtering system to its installation to meet the requirements of IEEE 519.

In addition, in the advent of changes in IEEE guidelines for interconnection of Distributed Generation (DG) system and/or changes in system condition (i.e. penetration level of DG on that part of the system), DNCP reserves the right to re-evaluate the protection application and require upgrade(s) as it deems necessary at the DNCP and/or the Interconnection Customer end. Any upgrades necessary will be assigned according to how the changes impact the Interconnection Customers' generation and interconnection to the grid.

Moreover since the relay upgrade and the installation of the new ALR, the addition of Bus Potential and the Earleys Circuits 302 and 303 relay upgrade are provided at the Interconnection Customer's expense and have associated engineering, equipment acquisition and installation



lead-time, we would need to work out all of those details to coordinate with the planned interconnection. Please note that the Interconnection Customer will not be allowed to interconnect until the recloser and all the appropriate relaying is installed, tested and fully functional.

Finally, please send us details concerning the Interconnection Customer's actual interface transformer specifications (i.e. impedance, load losses, etc.) as well as the high side fuse make, model and rating information as soon as possible for the ALR settings/coordination purpose.

Utility's Description of its Upgrades

Distribution and Network Upgrades for 5 MW of Generation

- Install three (3), 34.5kV, 175/300:1 Potential Transformers
- Install three (3), 34.4kV, SMD-20 fuses and three (3), 22kV, 12A current limiting fuses.
- All conductor, conduit, control cable, foundations and grounding material as per engineering standards
- One (1), 3 Phase Potential MU Box
- One (1), Single SEL 351S Circuit Panel
- Retire old panel

Total cost for all distribution upgrades equals \$ 126,946.00.

Total cost for all construction work equals \$ 257,828.90.

All construction work could take up to 12 months for completion after agreement executed and monies paid.



Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

I. APPLICABILITY AND AVAILABILITY

This schedule is applicable to any qualifying Cogenerator or Small Power Producer (Qualifying Facility) which desires to deliver all of its net electrical output to the Company, has either (1) generating facilities designated as new capacity as defined by 18 C.F.R. § 292.304(b)(1), or (2) hydroelectric generating facilities that meet the criteria of being owned or operated by a small power producer as defined in G.S. 62-3(27a), and enters into an agreement for the sale of net electrical output to the Company (Agreement).

Unless otherwise provided by a Commission order setting forth different availability dates, this schedule is available to any Qualifying Facility (otherwise eligible pursuant to the terms hereof) that by November 1, 2014 or the date upon which proposed rates are filed in Docket No. E-100 Sub 140, if later than November 1, 2014, (a) has obtained a certificate of public convenience and necessity for its facility from the Commission or filed a report of proposed construction with the Commission pursuant to Commission Rule 8-65, and (b) has indicated to the Company in writing that it is committed to selling the output of the facility to the Company pursuant to the terms of this schedule.

Where the Qualifying Facility (QF) elects to be compensated for firm deliveries in accordance with this schedule, the amount of capacity under contract and the initial term of contract shall be limited as follows:

- A. Where the QF operates hydroelectric generating facilities that meet the criteria of being owned or operated by a small power producer as defined in G.S. 62-3(27a), or where the QF operates non-hydroelectric QFs fueled by trash or methane derived from landfills, hog waste, poultry waste, solar, wind, and non-animal forms of biomass, the amount of capacity subject to compensation shall be no greater than 5,000 kW, and the amount of energy purchased during a given hour at rates applicable to firm deliveries shall be no greater than 5,000 kWh. The initial term of contract for such a QF shall be for a period of 5, 10, or 15 years, at the option of the QF.
- B. Where the QF is not defined under Paragraph I.A., the amount of capacity subject to compensation shall be no greater than 3,000 kW, and the amount of energy purchased during a given hour at rates applicable to firm deliveries shall be no greater than 3,000 kWh. The initial term of contract for such a QF shall be for a period of 5 years.

(Continued)

Filed 10-30-14
Electric-North Carolina

Amending Filing Effective For Usage On and After
03-28-14. This Filing Effective For Usage On and
After 03-28-14.

Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

I. APPLICABILITY AND AVAILABILITY (Continued)

Where the QF elects to be compensated for firm or non-firm deliveries in accordance with this schedule, the QF must begin deliveries to the Company within thirty months of February 21, 2014 to retain eligibility for the rates contained in this schedule; provided, however, a QF may be allowed additional time to begin deliveries of power to the Company if the QF facilities in question are nearly complete at the end of such thirty month period and the QF is able to demonstrate that it is making a good faith effort to complete its project in a timely manner. Where the QF elects an initial contract term of 10 or more years, such contract may be renewed for subsequent term(s), at the Company's option, based on substantially the same terms and provisions and at a rate either (1) mutually agreed upon by the parties negotiating in good faith and taking into consideration the Company's then avoided cost rates and other relevant factors or (2) set by arbitration.

This schedule is not applicable to a QF owned by a developer, or affiliate of a developer, who sells power to the Company from another facility located within one-half mile unless: (1) each facility provides thermal energy to different, unaffiliated hosts; (2) each facility provides thermal energy to the same host, and the host has multiple operations with distinctly different or separate thermal needs; or (3) each facility utilizes a renewable resource which may be subject to geographic siting limitations, such as hydroelectric, solar, or wind power facilities.

II. MONTHLY BILLING TO THE QF

All sales to the QF will be in accordance with any applicable filed rate schedule. In addition, where the QF contracts for sales to the Company, the QF will be billed a monthly charge equal to one of the following to cover the cost of meter reading and processing:

(Continued)

Filed 10-30-14
Electric-North Carolina

Amending Filing Effective For Usage On and After
03-28-14. This Filing Effective For Usage On and
After 03-28-14.

Docket No. E-100, Sub 136

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Mar 03 2015

Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

II. MONTHLY BILLING TO THE QF (Continued)

<u>Metering required</u>	<u>Charge</u>
One non-time-differentiated meter	\$17.24
One time-differentiated meter	\$35.55
Two time-differentiated meters	\$41.16

III. DEFINITION OF ON- AND OFF-PEAK HOURS

A. For Option A Rates the On-Peak Hours are:

Summer

- (i) For the periods beginning at 12:00 midnight March 31 and ending at 12:00 midnight September 30:

The on-peak hours are defined as the hours between 10:00 am and 10:00 pm., Monday through Friday, excluding holidays considered as off-peak.

Non-Summer

- (ii) For the periods beginning at 12:00 midnight September 30 and ending at 12:00 midnight March 31:

The on-peak hours are defined as those hours between 6:00 am and 1:00 pm., plus 4:00 p.m. through 9:00 p.m., Monday through Friday, excluding holidays considered as off-peak.

(Continued)

Filed 10-30-14
Electric-North Carolina

Amending Filing Effective For Usage On and After
03-28-14. This Filing Effective For Usage On and
After 03-28-14.

Docket No. E-100, Sub 136

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Mar 03 2015

Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

III. DEFINITION OF ON- AND OFF-PEAK HOURS (Continued)

B. For Option B Rates the On-Peak Hours are:

Summer

- (i) For the periods beginning at 12:00 midnight May 31 and ending at 12:00 midnight September 30:

The on-peak hours are defined as the hours between 1:00 pm and 9:00 pm., Monday through Friday, excluding holidays considered as off-peak.

Non-Summer

- (ii) For the periods beginning at 12:00 midnight September 30 and ending at 12:00 midnight May 31:

The on-peak hours are defined as those hours between 6:00 am and 1:00 pm. Monday through Friday, excluding holidays considered as off-peak.

C. Off-Peak Hours:

The off-peak hours in any month are defined as all hours not specified above as on-peak hours. All hours for the following holidays will be considered as off-peak: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the day after Thanksgiving, and Christmas Day. When one of the above holidays falls on a Saturday, the Friday before the holiday will be considered off-peak; when the holiday falls on a Sunday, the following Monday will be considered off-peak.

(Continued)

Filed 10-30-14
Electric-North Carolina

Amending Filing Effective For Usage On and After
03-28-14. This Filing Effective For Usage On and
After 03-28-14.

Docket No. E-100, Sub 136

OFFICIAL COPY

Mar 03 2015

Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

IV. CONTRACT OPTIONS FOR DESIGNATING MODE OF OPERATION

The QF shall designate under contract its Mode of Operation from the following options, each of which determines the Company's method of payment.

- A. The QF may contract for the delivery of energy to the Company without reimbursement, designated as the Non-reimbursement Mode of Operation; or,
- B. The QF may contract for the delivery of non-firm energy to the Company (no payment for capacity). This option includes QFs that elect to contract to deliver non-firm energy to the Company on an as-available basis. Where the QF's generation facilities have an aggregate nameplate rating of 100 kW or less the QF may designate the Non-firm, Non-time-differentiated Mode of Operation. Regardless of nameplate rating the QF may designate the Non-firm, Time-differentiated Mode of Operation.
- C. The QF may contract for the delivery of firm energy and capacity to the Company. The level of capacity which the QF contracts to sell to the Company shall not exceed 5,000 kW, where the QF is defined under Paragraph I.A., or 3,000 kW otherwise. This capacity level, in kW, shall be referred to as the Contracted Capacity. When the QF elects to sell firm energy and capacity, the QF shall designate the Firm Mode of Operation.

V. PAYMENT FOR COMPANY PURCHASES OF NON-FIRM ENERGY

The QF may contract to receive payment for energy at rates to be determined with each revision of this schedule. These rates will be based upon the QF's Mode of Operation as described below. There are no capacity payments for the QFs that contract for non-firm energy.

(Continued)

Filed 10-30-14
Electric-North Carolina

Amending Filing Effective For Usage On and After
03-28-14. This Filing Effective For Usage On and
After 03-28-14.

Docket No. E-100, Sub 136

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Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

V. PAYMENT FOR COMPANY PURCHASES OF NON-FIRM ENERGY
(Continued)

- A. Non-reimbursement Mode of Operation. Where the QF designates the Non-Reimbursement Mode of Operation, no payment will be made for energy delivered.
- B. Non-time-differentiated Mode of Operation. Where the QF's generation facilities have an aggregate nameplate rating of 100 kW or less and the QF designates the Non-Firm, Non-time-differentiated Mode of Operation, the following rates in cents per kWh are applicable:

3.843

- C. Time-differentiated Mode of Operation. Where the QF designates the Time-differentiated Mode of Operation, the following On- and Off-peak rates in cents per kWh are applicable:

On-peak	4.541
Off-peak	3.455

All energy purchase rates will be further increased by 3.0% to account for line losses avoided by the Company, except that upon the effective date of any Schedule 19 that is subsequently amended and approved by the Commission, the line loss percentage applied shall be the percentage stated in the then-current Schedule 19. In lieu of 3.0% or the line loss percentage stated in the then-current Schedule 19, the QF may request that a site specific line loss percentage be determined with the QF bearing the cost of the study required.

(Continued)

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Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

VI. PAYMENT FOR COMPANY PURCHASES OF FIRM ENERGY

QFs designating the Firm Mode of Operation will be eligible to receive purchase payments for the delivery of firm energy by the QF to the Company. The QF may contract to receive payments for firm energy based on A or B, below. Contract terms for 10 or 15 years are available only where the QF is defined under Paragraph I.A.

The QF may contract to receive payment for firm time-differentiated energy at rates to be determined with each revision of this schedule (Variable Rate). These rates in cents per kWh, which reflect the Company's estimated avoided energy cost for delivery of firm energy during 2013 or 2014, are as shown in the price tables below:

- A. Option A: The QF may contract to receive energy purchase payments for the delivery of firm energy based upon fixed prices, as shown below in cents per kWh:

	<u>Fixed Long-Term Rate</u>			
	<u>Variable Rate</u>	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>
On-Peak (¢/kWh)	4.541	5.055	5.526	5.813
Off-Peak (¢/kWh)	3.455	3.964	4.388	4.661

- B. Option B: The QF may contract to receive energy purchase payments for the delivery of firm energy based upon fixed prices, as shown below in cents per kWh:

(Continued)

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After 03-28-14.

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Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

VI. PAYMENT FOR COMPANY PURCHASES OF FIRM ENERGY (Continued)

		<u>Fixed Long-Term Rate</u>		
	<u>Variable Rate</u>	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>
On-Peak (¢/kWh)	4.663	5.194	5.675	5.962
Off-Peak (¢/kWh)	3.614	4.119	4.549	4.824

Any energy delivered above 100% up to 105% of QF's Contracted Capacity in any hour will be purchased at the then applicable non-firm energy rates under Schedule 19-FP. There will be no reimbursement for any energy delivered above 105% of QF's Contracted Capacity.

All energy purchase rates will be further increased by 3.0% to account for line losses avoided by the Company, except upon the effective date of any Schedule 19 that is subsequently amended and approved by the Commission, the line loss percentage applied shall be the percentage stated in the then-current Schedule 19. In lieu of 3.0% or the line loss percentage stated in the then-current Schedule 19, the QF may request that a site specific line loss percentage be determined with the QF bearing the cost of the study required.

VII. PAYMENT FOR COMPANY PURCHASES OF CAPACITY

Company purchases of capacity are applicable only where the QF elects the Firm Mode of Operation. Capacity payments are applicable during on-peak hours only. Such QFs shall receive capacity purchase payments based on the applicable levelized capacity purchase price below, in cents per kWh, corresponding to the contract length in years. Contract terms for 10 or 15 years are available only where the QF is defined under Paragraph I.A.

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Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

VII. PAYMENT FOR COMPANY PURCHASES OF CAPACITY (Continued)

Option A:

For hydroelectric facilities with no storage capability and no other type of generation:

	Capacity Price		
	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>
On-Peak (¢/kWh) Summer	5.895	6.095	6.263
On-Peak (¢/kWh) Non-summer	3.930	4.063	4.175

For all other facilities:

	Capacity Price		
	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>
On-Peak (¢/kWh) Summer	3.537	3.657	3.758
On-Peak (¢/kWh) Non-summer	2.358	2.438	2.505

Option B:

For hydroelectric facilities with no storage capability and no other type of generation:

	Capacity Price		
	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>
On-Peak (¢/kWh) Summer	13.524	13.982	14.368
On-Peak (¢/kWh) Non-summer	5.214	5.390	5.539

For all other facilities:

	Capacity Price		
	<u>5-Year</u>	<u>10-Year</u>	<u>15-Year</u>
On-Peak (¢/kWh) Summer	8.115	8.389	8.621
On-Peak (¢/kWh) Non-summer	3.128	3.234	3.323

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Virginia Electric and Power Company

Schedule 19 - FP
POWER PURCHASES FROM
COGENERATION AND SMALL POWER PRODUCTION
QUALIFYING FACILITIES

(Continued)

VII. PAYMENT FOR COMPANY PURCHASES OF CAPACITY (Continued)

Payments will be made to the QF by applying the appropriate levelized capacity purchase price above to all kWh delivered to the Company during each on-peak hour, up to the 100% of the Contracted Capacity in such hour. There will be no compensation for capacity in excess of the QF's Contracted Capacity in an hour. This capacity price will be in accordance with the length of rate term for capacity sales so established in the contract.

VIII. PROVISIONS FOR COMPANY PURCHASE OF THE QF GENERATION

- A. The QF shall own and be fully responsible for the costs and performance of the QF's:
 - 1. Generating facility in accordance with all applicable laws and governmental agencies having jurisdiction;
 - 2. Control and protective devices as required by the Company on the QF's side of the meter.
- B. The sale of power to the Company by a QF at avoided cost rates pursuant to this Schedule 19-FP does not convey ownership to the Company of the renewable energy credits or green tags associated with the QF facility.
- C. Upon request by the Company, the Cogenerator or Small Power Producer must demonstrate that the facility is a Qualifying Facility as defined by PURPA.
- D. Interconnection procedures for the QF's generation interconnection are provided through the Internet at the Company's website;
<http://www.dom.com/dominion-north-carolina-power/customer-service/rates-and-tariffs/pdf/term24.pdf>.

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(Continued)

IX. MODIFICATION OF RATES AND OTHER PROVISIONS HEREUNDER

The provisions of this schedule, including the rates for purchase of energy and Contracted Capacity by the Company, are subject to modification at any time in the manner prescribed by law, and when so modified, shall supersede the rates and provisions hereof. However, payments to QFs with contracts for a specified term at payments established at the time the obligation is incurred shall remain at the payment levels established in their contract with the exception of the line loss percentage applied which shall be the percentage stated in the then-current Schedule 19.

If the QF terminates its contract to provide Contracted Capacity and energy to the Company prior to the expiration of the contract term, the QF shall, in addition to other liabilities, be liable to the Company for excess capacity and energy payments.

Such excess payments will be calculated by taking the difference between (1) the total capacity and energy payments already made by the Company to the QF and (2) capacity and energy payments calculated based on the levelized capacity and energy purchase price found in Paragraph VI and VII corresponding to the highest term option completed by the QF. These excess payments shall also include interest, from the time such excess payments were made, compounded annually at the rate equal to the Company's most current issue of long-term debt at the time of the contract's effective date.

X. TERM OF CONTRACT

The term of contract shall be such as may be mutually agreed upon but for not less than one year.

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FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC

EXHIBIT E

OMB Control # 1902-0075
Expiration 05/31/2016

Form 556

Certification of Qualifying Facility (QF) Status for a Small Power
Production or Cogeneration Facility


General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. See 18 C.F.R. § 292.203.

How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button () for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filing.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget. Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Officer, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426 (DataClearance@ferc.gov); and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oir_submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.

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Electronic Filing (eFiling)

To electronically file your Form 556, visit the Commission's QF website at www.ferc.gov/QF and click the eFiling link.

If you are eFiling your first document, you will need to register with your name, email address, mailing address, and phone number. If you are registering on behalf of an employer, then you will also need to provide the employer name, alternate contact name, alternate contact phone number and alternate contact email.

Once you are registered, log in to eFiling with your registered email address and the password that you created at registration. Follow the instructions. When prompted, select one of the following QF-related filing types, as appropriate, from the Electric or General filing category.

Filing category	Filing Type as listed in eFiling	Description
Electric	(Fee) Application for Commission Cert. as Cogeneration QF	Use to submit an application for Commission certification or Commission recertification of a cogeneration facility as a QF.
	(Fee) Application for Commission Cert. as Small Power QF	Use to submit an application for Commission certification or Commission recertification of a small power production facility as a QF.
	Self-Certification Notice (QF, EG, FC)	Use to submit a notice of self-certification of your facility (cogeneration or small power production) as a QF.
	Self-Recertification of Qualifying Facility (QF)	Use to submit a notice of self-recertification of your facility (cogeneration or small power production) as a QF.
	Supplemental Information or Request	Use to correct or supplement a Form 556 that was submitted with errors or omissions, or for which Commission staff has requested additional information. Do <i>not</i> use this filing type to report new changes to a facility or its ownership; rather, use a self-recertification or Commission recertification to report such changes.
General	(Fee) Petition for Declaratory Order (not under FPA Part 1)	Use to submit a petition for declaratory order granting a waiver of Commission QF regulations pursuant to 18 C.F.R. §§ 292.204(a) (3) and/or 292.205(c). A Form 556 is not required for a petition for declaratory order unless Commission recertification is being requested as part of the petition.

You will be prompted to submit your filing fee, if applicable, during the electronic submission process. Filing fees can be paid via electronic bank account debit or credit card.

During the eFiling process, you will be prompted to select your file(s) for upload from your computer.

Filing Fee

No filing fee is required if you are submitting a self-certification or self-recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(a).

A filing fee is required if you are filing either of the following:

- (1) an application for Commission certification or recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(b), or
- (2) a petition for declaratory order granting waiver pursuant to 18 C.F.R. §§ 292.204(a)(3) and/or 292.205(c).

The current fees for applications for Commission certifications and petitions for declaratory order can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Fee Schedule link.

You will be prompted to submit your filing fee, if applicable, during the electronic filing process described on page 2.

Required Notice to Utilities and State Regulatory Authorities

Pursuant to 18 C.F.R. § 292.207(a)(ii), you must provide a copy of your self-certification or request for Commission certification to the utilities with which the facility will interconnect and/or transact, as well as to the State regulatory authorities of the states in which your facility and those utilities reside. Links to information about the regulatory authorities in various states can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Notice Requirements link.

What to Expect From the Commission After You File

An applicant filing a Form 556 electronically will receive an email message acknowledging receipt of the filing and showing the docket number assigned to the filing. Such email is typically sent within one business day, but may be delayed pending confirmation by the Secretary of the Commission of the contents of the filing.

An applicant submitting a self-certification of QF status should expect to receive no documents from the Commission, other than the electronic acknowledgement of receipt described above. Consistent with its name, a self-certification is a certification *by the applicant itself* that the facility meets the relevant requirements for QF status, and does not involve a determination by the Commission as to the status of the facility. An acknowledgement of receipt of a self-certification, in particular, does not represent a determination by the Commission with regard to the QF status of the facility. An applicant self-certifying may, however, receive a rejection, revocation or deficiency letter if its application is found, during periodic compliance reviews, not to comply with the relevant requirements.

An applicant submitting a request for Commission certification will receive an order either granting or denying certification of QF status, or a letter requesting additional information or rejecting the application. Pursuant to 18 C.F.R. § 292.207(b)(3), the Commission must act on an application for Commission certification within 90 days of the later of the filing date of the application or the filing date of a supplement, amendment or other change to the application.

Waiver Requests

18 C.F.R. § 292.204(a)(3) allows an applicant to request a waiver to modify the method of calculation pursuant to 18 C.F.R. § 292.204(a)(2) to determine if two facilities are considered to be located at the same site, for good cause. 18 C.F.R. § 292.205(c) allows an applicant to request waiver of the requirements of 18 C.F.R. §§ 292.205(a) and (b) for operating and efficiency upon a showing that the facility will produce significant energy savings. A request for waiver of these requirements must be submitted as a petition for declaratory order, with the appropriate filing fee for a petition for declaratory order. Applicants requesting Commission recertification as part of a request for waiver of one of these requirements should electronically submit their completed Form 556 along with their petition for declaratory order, rather than filing their Form 556 as a separate request for Commission recertification. Only the filing fee for the petition for declaratory order must be paid to cover both the waiver request and the request for recertification *if such requests are made simultaneously*.

18 C.F.R. § 292.203(d)(2) allows an applicant to request a waiver of the Form 556 filing requirements, for good cause. Applicants filing a petition for declaratory order requesting a waiver under 18 C.F.R. § 292.203(d)(2) do not need to complete or submit a Form 556 with their petition.

Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at <http://earth.google.com>), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-guide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

<input type="checkbox"/> Non-Public: Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.
<input type="checkbox"/> Public (redacted): Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicant's Form 556 contains all data <u>except</u> for data from the lines indicated below, which has been redacted.
Privileged: Indicate below which lines of your form contain data for which you are seeking privileged treatment
Critical Energy Infrastructure Information (CEII): Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC

EXHIBIT E

OMB Control # 1902-0075
Expiration 5/31/2013

Form 556

Certification of Qualifying Facility (QF) Status for a Small Power
Production or Cogeneration Facility

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Mar 03 2015

Application Information

1a Full name of applicant (legal entity on whose behalf qualifying facility status is sought for this facility) Fresh Air Energy IX, LLC			
1b Applicant street address 650 Townsend St., Suite 310			
1c City San Francisco		1d State/province CA	
1e Postal code 94103	1f Country (if not United States)		1g Telephone number 415-626-1802
1h Has the instant facility ever previously been certified as a QF? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
1i If yes, provide the docket number of the last known QF filing pertaining to this facility: QF <u>14</u> - <u>372</u> - <u>000</u>			
1j Under which certification process is the applicant making this filing? <input checked="" type="checkbox"/> Notice of self-certification (see note below) <input type="checkbox"/> Application for Commission certification (requires filing fee; see "Filing Fee" section on page 3) Note: a notice of self-certification is a notice by the applicant itself that its facility complies with the requirements for QF status. A notice of self-certification does not establish a proceeding, and the Commission does not review a notice of self-certification to verify compliance. See the "What to Expect From the Commission After You File" section on page 3 for more information.			
1k What type(s) of QF status is the applicant seeking for its facility? (check all that apply) <input checked="" type="checkbox"/> Qualifying small power production facility status <input type="checkbox"/> Qualifying cogeneration facility status			
1l What is the purpose and expected effective date(s) of this filing? <input type="checkbox"/> Original certification; facility expected to be installed by _____ and to begin operation on _____ <input checked="" type="checkbox"/> Change(s) to a previously certified facility to be effective on <u>10/30/14</u> (identify type(s) of change(s) below, and describe change(s) in the Miscellaneous section starting on page 19) <input checked="" type="checkbox"/> Name change and/or other administrative change(s) <input checked="" type="checkbox"/> Change in ownership <input type="checkbox"/> Change(s) affecting plant equipment, fuel use, power production capacity and/or cogeneration thermal output <input type="checkbox"/> Supplement or correction to a previous filing submitted on _____ (describe the supplement or correction in the Miscellaneous section starting on page 19)			
1m If any of the following three statements is true, check the box(es) that describe your situation and complete the form to the extent possible, explaining any special circumstances in the Miscellaneous section starting on page 19. <input type="checkbox"/> The instant facility complies with the Commission's QF requirements by virtue of a waiver of certain regulations previously granted by the Commission in an order dated _____ (specify any other relevant waiver orders in the Miscellaneous section starting on page 19) <input type="checkbox"/> The instant facility would comply with the Commission's QF requirements if a petition for waiver submitted concurrently with this application is granted <input type="checkbox"/> The instant facility complies with the Commission's regulations, but has special circumstances, such as the employment of unique or innovative technologies not contemplated by the structure of this form, that make the demonstration of compliance via this form difficult or impossible (describe in Misc. section starting on p. 19)			

Contact Information	2a Name of contact person Erik Stuebe		2b Telephone number 415-626-1802	
	2c Which of the following describes the contact person's relationship to the applicant? (check one) <input type="checkbox"/> Applicant (self) <input checked="" type="checkbox"/> Employee, owner or partner of applicant authorized to represent the applicant <input type="checkbox"/> Employee of a company affiliated with the applicant authorized to represent the applicant on this matter <input type="checkbox"/> Lawyer, consultant, or other representative authorized to represent the applicant on this matter			
	2d Company or organization name (if applicant is an individual, check here and skip to line 2e) <input type="checkbox"/> Fresh Air Energy IX, LLC.			
	2e Street address (if same as Applicant, check here and skip to line 3a) <input checked="" type="checkbox"/>			
	2f City		2g State/province	
	2h Postal code		2i Country (if not United States)	
Facility Identification and Location	3a Facility name Bradley PV1			
	3b Street address (if a street address does not exist for the facility, check here and skip to line 3c) <input type="checkbox"/> 117 Hollowell Rd			
	3c Geographic coordinates: If you indicated that no street address exists for your facility by checking the box in line 3b, then you must specify the latitude and longitude coordinates of the facility in degrees (to three decimal places). Use the following formula to convert to decimal degrees from degrees, minutes and seconds: decimal degrees = degrees + (minutes/60) + (seconds/3600). See the "Geographic Coordinates" section on page 4 for help. If you provided a street address for your facility in line 3b, then specifying the geographic coordinates below is optional. Longitude <input type="checkbox"/> East (+) _____ 77.076 degrees Latitude <input checked="" type="checkbox"/> North (+) _____ 36.260 degrees <input checked="" type="checkbox"/> West (-) _____ <input type="checkbox"/> South (-) _____			
	3d City (if unincorporated, check here and enter nearest city) <input type="checkbox"/> Aulander		3e State/province NC	
	3f County (or check here for independent city) <input type="checkbox"/> Hertford		3g Country (if not United States)	
	Identify the electric utilities that are contemplated to transact with the facility.			
Transacting Utilities	4a Identify utility interconnecting with the facility Dominion North Carolina Power			
	4b Identify utilities providing wheeling service or check here if none <input checked="" type="checkbox"/>			
	4c Identify utilities purchasing the useful electric power output or check here if none <input type="checkbox"/> Dominion North Carolina Power			
	4d Identify utilities providing supplementary power, backup power, maintenance power, and/or interruptible power service or check here if none <input checked="" type="checkbox"/>			

Ownership and Operation

5a Direct ownership as of effective date or operation date: Identify all direct owners of the facility holding at least 10 percent equity interest. For each identified owner, also (1) indicate whether that owner is an electric utility, as defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or a holding company, as defined in section 1262(8) of the Public Utility Holding Company Act of 2005 (42 U.S.C. 16451(8)), and (2) for owners which are electric utilities or holding companies, provide the percentage of equity interest in the facility held by that owner. If no direct owners hold at least 10 percent equity interest in the facility, then provide the required information for the two direct owners with the largest equity interest in the facility.

Full legal names of direct owners	Electric utility or holding company		If Yes, % equity interest
1) Fresh Air Energy IX, LLC.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	0%
2)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%
3)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%
4)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%
5)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%
6)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%
7)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%
8)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%
9)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%
10)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	0%

☐ Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

5b Upstream (i.e., indirect) ownership as of effective date or operation date: Identify all upstream (i.e., indirect) owners of the facility that both (1) hold at least 10 percent equity interest in the facility, and (2) are electric utilities, as defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22)), or holding companies, as defined in section 1262(8) of the Public Utility Holding Company Act of 2005 (42 U.S.C. 16451(8)). Also provide the percentage of equity interest in the facility held by such owners. (Note that, because upstream owners may be subsidiaries of one another, total percent equity interest reported may exceed 100 percent.)

Check here if no such upstream owners exist. ☒

Full legal names of electric utility or holding company upstream owners	% equity interest
1)	0%
2)	0%
3)	0%
4)	0%
5)	0%
6)	0%
7)	0%
8)	0%
9)	0%
10)	0%

☐ Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

5c Identify the facility operator

Fresh Air Energy IX, LLC.

Energy Input

6a Describe the primary energy input: (check one main category and, if applicable, one subcategory)

- ☐ Biomass (specify)
☐ Landfill gas
☐ Manure digester gas
☐ Municipal solid waste
☐ Sewage digester gas
☐ Wood
☐ Other biomass (describe on page 19)
☐ Waste (specify type below in line 6b)
- ☒ Renewable resources (specify)
☐ Hydro power - river
☐ Hydro power - tidal
☐ Hydro power - wave
☒ Solar - photovoltaic
☐ Solar - thermal
☐ Wind
☐ Other renewable resource (describe on page 19)
- ☐ Geothermal
☐ Fossil fuel (specify)
☐ Coal (not waste)
☐ Fuel oil/diesel
☐ Natural gas (not waste)
☐ Other fossil fuel (describe on page 19)
☐ Other (describe on page 19)

6b If you specified "waste" as the primary energy input in line 6a, indicate the type of waste fuel used: (check one)

- ☐ Waste fuel listed in 18 C.F.R. § 292.202(b) (specify one of the following)
- ☐ Anthracite culm produced prior to July 23, 1985
 - ☐ Anthracite refuse that has an average heat content of 6,000 Btu or less per pound and has an average ash content of 45 percent or more
 - ☐ Bituminous coal refuse that has an average heat content of 9,500 Btu per pound or less and has an average ash content of 25 percent or more
 - ☐ Top or bottom subbituminous coal produced on Federal lands or on Indian lands that has been determined to be waste by the United States Department of the Interior's Bureau of Land Management (BLM) or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction, provided that the applicant shows that the latter coal is an extension of that determined by BLM to be waste
 - ☐ Coal refuse produced on Federal lands or on Indian lands that has been determined to be waste by the BLM or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction, provided that applicant shows that the latter is an extension of that determined by BLM to be waste
 - ☐ Lignite produced in association with the production of montan wax and lignite that becomes exposed as a result of such a mining operation
 - ☐ Gaseous fuels (except natural gas and synthetic gas from coal) (describe on page 19)
 - ☐ Waste natural gas from gas or oil wells (describe on page 19 how the gas meets the requirements of 18 C.F.R. § 2.400 for waste natural gas; include with your filing any materials necessary to demonstrate compliance with 18 C.F.R. § 2.400)
 - ☐ Materials that a government agency has certified for disposal by combustion (describe on page 19)
 - ☐ Heat from exothermic reactions (describe on page 19)
 - ☐ Residual heat (describe on page 19)
 - ☐ Used rubber tires
 - ☐ Plastic materials
 - ☐ Refinery off-gas
 - ☐ Petroleum coke
- ☐ Other waste energy input that has little or no commercial value and exists in the absence of the qualifying facility industry (describe in the Miscellaneous section starting on page 19; include a discussion of the fuel's lack of commercial value and existence in the absence of the qualifying facility industry)

6c Provide the average energy input, calculated on a calendar year basis, in terms of Btu/h for the following fossil fuel energy inputs, and provide the related percentage of the total average annual energy input to the facility (18 C.F.R. § 292.202(j)). For any oil or natural gas fuel, use lower heating value (18 C.F.R. § 292.202(m)).

Fuel	Annual average energy input for specified fuel	Percentage of total annual energy input
Natural gas	0 Btu/h	0 %
Oil-based fuels	0 Btu/h	0 %
Coal	0 Btu/h	0 %

Technical Facility Information

Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

7a The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions	5,000 kW
7b Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your reported parasitic station power.	0 kW
7c Electrical losses in interconnection transformers	100 kW
7d Electrical losses in AC/DC conversion equipment, if any	50 kW
7e Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection with the utility	100 kW
7f Total deductions from gross power production capacity = 7b + 7c + 7d + 7e	250.0 kW
7g Maximum net power production capacity = 7a - 7f	4,750.0 kW

7h Description of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 19.

The facility will consist of (21,600) 300W solar photovoltaic modules; (10) 500kW inverters; (3) 277/480V, 2500A main service boards; (1) 2500A main AC disconnect/breaker; (3) 480V - 34.5kV GSU transformers; (1) line recloser and (1) pole mounted utility disconnect. The solar photovoltaic modules connect to the inverters. The inverter outputs are collected at a main service board. The main service board outputs to a transformer. (3) Transformers are connected in a "loop" configuration and sent to the utility system. After stepping up to 34.5kV, the facility connects to the Utility lines via the line recloser and utility disconnect.

Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you must respond to the items on this page. Otherwise, skip page 10.

Certification of Compliance with Size Limitations	<p>Pursuant to 18 C.F.R. § 292.204(a), the power production capacity of any small power production facility, together with the power production capacity of any other small power production facilities that use the same energy resource, are owned by the same person(s) or its affiliates, and are located at the same site, may not exceed 80 megawatts. To demonstrate compliance with this size limitation, or to demonstrate that your facility is exempt from this size limitation under the Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Pub. L. 101-575, 104 Stat. 2834 (1990) <i>as amended by</i> Pub. L. 102-46, 105 Stat. 249 (1991)), respond to lines 8a through 8e below (as applicable).</p>			
	<p>8a Identify any facilities with electrical generating equipment located within 1 mile of the electrical generating equipment of the instant facility, and for which any of the entities identified in lines 5a or 5b, or their affiliates, holds at least a 5 percent equity interest.</p> <p>Check here if no such facilities exist. <input checked="" type="checkbox"/></p>			
	Facility location (city or county, state)	Root docket # (if any)	Common owner(s)	Maximum net power production capacity
	1) _____	QF - _____	_____	_____ kW
	2) _____	QF - _____	_____	_____ kW
	3) _____	QF - _____	_____	_____ kW
<p><input type="checkbox"/> Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed</p>				
<p>8b The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Incentives Act) provides exemption from the size limitations in 18 C.F.R. § 292.204(a) for certain facilities that were certified prior to 1995. Are you seeking exemption from the size limitations in 18 C.F.R. § 292.204(a) by virtue of the Incentives Act?</p> <p><input type="checkbox"/> Yes (continue at line 8c below) <input checked="" type="checkbox"/> No (skip lines 8c through 8e)</p>				
<p>8c Was the original notice of self-certification or application for Commission certification of the facility filed on or before December 31, 1994? Yes <input type="checkbox"/> No <input type="checkbox"/></p>				
<p>8d Did construction of the facility commence on or before December 31, 1999? Yes <input type="checkbox"/> No <input type="checkbox"/></p>				
<p>8e If you answered No in line 8d, indicate whether reasonable diligence was exercised toward the completion of the facility, taking into account all factors relevant to construction? Yes <input type="checkbox"/> No <input type="checkbox"/> If you answered Yes, provide a brief narrative explanation in the Miscellaneous section starting on page 19 of the construction timeline (in particular, describe why construction started so long after the facility was certified) and the diligence exercised toward completion of the facility.</p>				
Certification of Compliance with Fuel Use Requirements	<p>Pursuant to 18 C.F.R. § 292.204(b), qualifying small power production facilities may use fossil fuels, in minimal amounts, for only the following purposes: ignition; start-up; testing; flame stabilization; control use; alleviation or prevention of unanticipated equipment outages; and alleviation or prevention of emergencies, directly affecting the public health, safety, or welfare, which would result from electric power outages. The amount of fossil fuels used for these purposes may not exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter.</p>			
	<p>9a Certification of compliance with 18 C.F.R. § 292.204(b) with respect to uses of fossil fuel:</p> <p><input checked="" type="checkbox"/> Applicant certifies that the facility will use fossil fuels <i>exclusively</i> for the purposes listed above.</p>			
	<p>9b Certification of compliance with 18 C.F.R. § 292.204(b) with respect to amount of fossil fuel used annually:</p> <p>Applicant certifies that the amount of fossil fuel used at the facility will not, in aggregate, exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter.</p> <p><input checked="" type="checkbox"/></p>			

Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 11 through 13. Otherwise, skip pages 11 through 13.

Pursuant to 18 C.F.R. § 292.202(c), a cogeneration facility produces electric energy and forms of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes, through the sequential use of energy. Pursuant to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a topping-cycle cogeneration facility, the use of reject heat from a power production process in sufficient amounts in a thermal application or process to conform to the requirements of the operating standard contained in 18 C.F.R. § 292.205(a); or (2) for a bottoming-cycle cogeneration facility, the use of at least some reject heat from a thermal application or process for power production.

10a What type(s) of cogeneration technology does the facility represent? (check all that apply)

☐ Topping-cycle cogeneration

☐ Bottoming-cycle cogeneration

10b To help demonstrate the sequential operation of the cogeneration process, and to support compliance with other requirements such as the operating and efficiency standards, include with your filing a mass and heat balance diagram depicting average annual operating conditions. This diagram must include certain items and meet certain requirements, as described below. You must check next to the description of each requirement below to certify that you have complied with these requirements.

Check to certify
compliance with
indicated requirement

Requirement

☐

Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process.

☐

Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation.

☐

Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values.

☐

Diagram must specify average gross electric output in kW or MW for each generator.

☐

Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output.

☐

At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or kJ/kg). Exception: For systems where the working fluid is *liquid only* (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 19, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/(lb*°R) or 4.195 kJ/(kg*K).

☐

Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine.

☐

Diagram must specify working fluid flow conditions at delivery to and return from each thermal application.

☐

Diagram must specify working fluid flow conditions at make-up water inputs.

General Cogeneration
Information

OFFICIAL COPY

Mar 03 2015

EPAAct 2005 Requirements for Fundamental Use
of Energy Output from Cogeneration Facilities

EPAAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAAct 2005) established a new section 210(n) of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for any qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and (2) was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by the Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonstrate whether these additional requirements apply to your cogeneration facility and, if so, whether your facility complies with such requirements.

11a Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes ☐ No ☐

11b Was the initial filing seeking certification of your facility (whether a notice of self-certification or an application for Commission certification) filed on or before February 1, 2006? Yes ☐ No ☐

If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both lines 11a and 11b are No, skip to line 11e below.

11c With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006?

☐ Yes (continue at line 11d below)

☐ No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may be subject to these requirements in the future if changes are made to the facility. At such time, the applicant would need to recertify the facility to determine eligibility. Skip lines 11d through 11j.

11d Does the applicant contend that the changes identified in line 11c are not so significant as to make the facility a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements?

☐ Yes. Provide in the Miscellaneous section starting on page 19 a description of any relevant changes made to the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j.

☐ No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining the applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that were initiated on or after February 2, 2006. Continue below at line 11e.

11e Will electric energy from the facility be sold pursuant to section 210 of PURPA?

☐ Yes. The facility is an EPAAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.R. § 292.205(d)(2) by continuing at line 11f below.

☐ No. Applicant certifies that energy will *not* be sold pursuant to section 210 of PURPA. Applicant also certifies its understanding that it must recertify its facility in order to determine compliance with the requirements of 18 C.F.R. § 292.205(d) *before* selling energy pursuant to section 210 of PURPA in the future. Skip lines 11f through 11j.

11f Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than or equal to 5,000 kW?

☐ Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provides a rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,000 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Skip lines 11g through 11j.

☐ No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on the next page at line 11g.

EPA 2005 Requirements for Fundamental Use of Energy Output from Cogeneration Facilities (continued)

Lines 11g through 11k below guide the applicant through the process of demonstrating compliance with the requirements for "fundamental use" of the facility's energy output. 18 C.F.R. § 292.205(d)(2). Only respond to the lines on this page if the instructions on the previous page direct you to do so. Otherwise, skip this page.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPA 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPA 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPA 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j *even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2)*.

11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal generation plant losses and parasitic loads) expected to be used annually for industrial, commercial, residential or institutional purposes and not sold to an electric utility	MWh
11h Total amount of electrical, thermal, chemical and mechanical energy expected to be sold to an electric utility	MWh
11i Percentage of total annual energy output expected to be used for industrial, commercial, residential or institutional purposes and not sold to a utility = $100 * 11g / (11g + 11h)$	0 %

11j Is the response in line 11i greater than or equal to 50 percent?

Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 19 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPA 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. See Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the relevant annual standard, taking into account expected variations in production conditions.

Information Required for Topping-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 14 and 15. Otherwise, skip pages 14 and 15.

Usefulness of Topping-Cycle Thermal Output	<p>The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial or commercial process or used in a heating or cooling application. Pursuant to sections 292.202(c), (d) and (h) of the Commission's regulations (18 C.F.R. §§ 292.202(c), (d) and (h)), the thermal energy output of a qualifying topping-cycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the topping-cycle cogeneration facility by responding to lines 12a and 12b below.</p>		
	<p>12a Identify and describe each thermal host, and specify the annual average rate of thermal output made available to each host for each use. For hosts with multiple uses of thermal output, provide the data for each use <i>in separate rows</i>.</p>		
	<p>Name of entity (thermal host) taking thermal output</p>		<p>Average annual rate of thermal output attributable to use (net of heat contained in process return or make-up water)</p>
	<p>Thermal host's relationship to facility; Thermal host's use of thermal output</p>		
	1)	<p>Select thermal host's relationship to facility</p> <p>Select thermal host's use of thermal output</p>	Btu/h
	2)	<p>Select thermal host's relationship to facility</p> <p>Select thermal host's use of thermal output</p>	Btu/h
	3)	<p>Select thermal host's relationship to facility</p> <p>Select thermal host's use of thermal output</p>	Btu/h
	4)	<p>Select thermal host's relationship to facility</p> <p>Select thermal host's use of thermal output</p>	Btu/h
	5)	<p>Select thermal host's relationship to facility</p> <p>Select thermal host's use of thermal output</p>	Btu/h
	6)	<p>Select thermal host's relationship to facility</p> <p>Select thermal host's use of thermal output</p>	Btu/h
<p><input type="checkbox"/> Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed</p>			
<p>12b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each use of the thermal output identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's use of thermal output is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific use of thermal output related to the instant facility, then you need only provide a brief description of that use and a reference by date and docket number to the order certifying your facility with the indicated use. Such exemption may not be used if any change creates a material deviation from the previously authorized use.) If additional space is needed, continue in the Miscellaneous section starting on page 19.</p>			

Topping-Cycle Operating and
Efficiency Value Calculation

Applicants for facilities representing topping-cycle technology must demonstrate compliance with the topping-cycle operating standard and, if applicable, efficiency standard. Section 292.205(a)(1) of the Commission's regulations (18 C.F.R. § 292.205(a)(1)) establishes the operating standard for topping-cycle cogeneration facilities: the useful thermal energy output must be no less than 5 percent of the total energy output. Section 292.205(a)(2) (18 C.F.R. § 292.205(a)(2)) establishes the efficiency standard for topping-cycle cogeneration facilities for which installation commenced on or after March 13, 1980: the useful power output of the facility plus one-half the useful thermal energy output must (A) be no less than 42.5 percent of the total energy input of natural gas and oil to the facility; and (B) if the useful thermal energy output is less than 15 percent of the total energy output of the facility, be no less than 45 percent of the total energy input of natural gas and oil to the facility. To demonstrate compliance with the topping-cycle operating and/or efficiency standards, or to demonstrate that your facility is exempt from the efficiency standard based on the date that installation commenced, respond to lines 13a through 13l below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 13a through 13l below considering only the energy inputs and outputs attributable to the topping-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion (topping or bottoming) of the cogeneration system.

13a Indicate the annual average rate of useful thermal energy output made available to the host(s), net of any heat contained in condensate return or make-up water	Btu/h
13b Indicate the annual average rate of net electrical energy output	kW
13c Multiply line 13b by 3,412 to convert from kW to Btu/h	0 Btu/h
13d Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero)	hp
13e Multiply line 13d by 2,544 to convert from hp to Btu/h	0 Btu/h
13f Indicate the annual average rate of energy input from natural gas and oil	Btu/h
13g Topping-cycle operating value = $100 * 13a / (13a + 13c + 13e)$	0 %
13h Topping-cycle efficiency value = $100 * (0.5 * 13a + 13c + 13e) / 13f$	0 %
13i Compliance with operating standard: Is the operating value shown in line 13g greater than or equal to 5%? <input type="checkbox"/> Yes (complies with operating standard) <input type="checkbox"/> No (does not comply with operating standard)	
13j Did installation of the facility in its current form commence on or after March 13, 1980? <input type="checkbox"/> Yes. Your facility is subject to the efficiency requirements of 18 C.F.R. § 292.205(a)(2). Demonstrate compliance with the efficiency requirement by responding to line 13k or 13l, as applicable, below. <input type="checkbox"/> No. Your facility is exempt from the efficiency standard. Skip lines 13k and 13l.	
13k Compliance with efficiency standard (for low operating value): If the operating value shown in line 13g is less than 15%, then indicate below whether the efficiency value shown in line 13h greater than or equal to 45%: <input type="checkbox"/> Yes (complies with efficiency standard) <input type="checkbox"/> No (does not comply with efficiency standard)	
13l Compliance with efficiency standard (for high operating value): If the operating value shown in line 13g is greater than or equal to 15%, then indicate below whether the efficiency value shown in line 13h is greater than or equal to 42.5%: <input type="checkbox"/> Yes (complies with efficiency standard) <input type="checkbox"/> No (does not comply with efficiency standard)	

Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 16 and 17. Otherwise, skip pages 16 and 17.

Usefulness of Bottoming-Cycle Thermal Output	<p>The thermal energy output of a bottoming-cycle cogeneration facility is the energy related to the process(es) from which at least some of the reject heat is then used for power production. Pursuant to sections 292.202(c) and (e) of the Commission's regulations (18 C.F.R. § 292.202(c) and (e)), the thermal energy output of a qualifying bottoming-cycle cogeneration facility must be useful. In connection with this requirement, describe the process(es) from which at least some of the reject heat is used for power production by responding to lines 14a and 14b below.</p>			
	<p>14a Identify and describe each thermal host and each bottoming-cycle cogeneration process engaged in by each host. For hosts with multiple bottoming-cycle cogeneration processes, provide the data for each process <i>in separate rows</i>.</p>			
	Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production		Thermal host's relationship to facility; Thermal host's process type	Has the energy input to the thermal host been augmented for purposes of increasing power production capacity? (if Yes, describe on p. 19)
	1)		Select thermal host's relationship to facility	Yes <input type="checkbox"/> No <input type="checkbox"/>
		Select thermal host's process type		
	2)		Select thermal host's relationship to facility	Yes <input type="checkbox"/> No <input type="checkbox"/>
		Select thermal host's process type		
	3)		Select thermal host's relationship to facility	Yes <input type="checkbox"/> No <input type="checkbox"/>
		Select thermal host's process type		
	<p><input type="checkbox"/> Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed</p>			
<p>14b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each process identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's process is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific bottoming-cycle process related to the instant facility, then you need only provide a brief description of that process and a reference by date and docket number to the order certifying your facility with the indicated process. Such exemption may not be used if any material changes to the process have been made.) If additional space is needed, continue in the Miscellaneous section starting on page 19.</p>				

Bottoming-Cycle Operating and
Efficiency Value Calculation

Applicants for facilities representing bottoming-cycle technology and for which installation commenced on or after March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency standards. Section 292.205(b) of the Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standard for bottoming-cycle cogeneration facilities: the useful power output of the facility must be no less than 45 percent of the energy input of natural gas and oil for supplementary firing. To demonstrate compliance with the bottoming-cycle efficiency standard (if applicable), or to demonstrate that your facility is exempt from this standard based on the date that installation of the facility began, respond to lines 15a through 15h below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 15a through 15h below considering only the energy inputs and outputs attributable to the bottoming-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion of the cogeneration system (topping or bottoming).

15a Did installation of the facility in its current form commence on or after March 13, 1980?

- ☐ Yes. Your facility is subject to the efficiency requirement of 18 C.F.R. § 292.205(b). Demonstrate compliance with the efficiency requirement by responding to lines 15b through 15h below.
- ☐ No. Your facility is exempt from the efficiency standard. Skip the rest of page 17.

15b Indicate the annual average rate of net electrical energy output

kW

15c Multiply line 15b by 3,412 to convert from kW to Btu/h

0 Btu/h

15d Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero)

hp

15e Multiply line 15d by 2,544 to convert from hp to Btu/h

0 Btu/h

15f Indicate the annual average rate of supplementary energy input from natural gas or oil

Btu/h

15g Bottoming-cycle efficiency value = $100 * (15c + 15e) / 15f$

0 %

15h Compliance with efficiency standard: Indicate below whether the efficiency value shown in line 15g is greater than or equal to 45%:

- ☐ Yes (complies with efficiency standard) ☐ No (does not comply with efficiency standard)



Certificate of Completeness, Accuracy and Authority

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

Signer identified below certifies the following: (check all items and applicable subitems)

- ☒ He or she has read the filing, including any information contained in any attached documents, such as cogeneration mass and heat balance diagrams, and any information contained in the Miscellaneous section starting on page 19, and knows its contents.
- ☒ He or she has provided all of the required information for certification, and the provided information is true as stated, to the best of his or her knowledge and belief.
- ☒ He or she possess full power and authority to sign the filing; as required by Rule 2005(a)(3) of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2005(a)(3)), he or she is one of the following: (check one)
- ☐ The person on whose behalf the filing is made
 - ☐ An officer of the corporation, trust, association, or other organized group on behalf of which the filing is made
 - ☒ An officer, agent, or employee of the governmental authority, agency, or instrumentality on behalf of which the filing is made
 - ☐ A representative qualified to practice before the Commission under Rule 2101 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2101) and who possesses authority to sign
- ☒ He or she has reviewed all automatic calculations and agrees with their results, unless otherwise noted in the Miscellaneous section starting on page 19.
- ☒ He or she has provided a copy of this Form 556 and all attachments to the utilities with which the facility will interconnect and transact (see lines 4a through 4d), as well as to the regulatory authorities of the states in which the facility and those utilities reside. See the Required Notice to Public Utilities and State Regulatory Authorities section on page 3 for more information.

Provide your signature, address and signature date below. Rule 2005(c) of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2005(c)) provides that persons filing their documents electronically may use typed characters representing his or her name to sign the filed documents. A person filing this document electronically should sign (by typing his or her name) in the space provided below.

Your Signature

Jacob Pundyk

Your address

650 Townsend St., Ste. 310
San Francisco, CA 94103

Date

6/9/2014

Audit Notes

Commission Staff Use Only:



Miscellaneous

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information *clearly identify the line number that the information belongs to*. You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

Updating address and ownership information.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-2665, SUB 2

DOCKET NO. SP-3556, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. SP-2665, SUB 2

In the Matter of
Application of Fresh Air Energy II, LLC, for a)
Certificate of Public Convenience and)
Necessity to Construct a 5-MW Solar Facility)
in Hertford County, North Carolina)

DOCKET NO. SP-3556, SUB 0)

In the Matter of)
Application of Fresh Air Energy IX, LLC, for)
Transfer of a Certificate of Public)
Convenience and Necessity to Construct)
a 5-MW Solar Facility in Hertford County,)
North Carolina)

ORDER TRANSFERRING
CERTIFICATE OF PUBLIC
CONVENIENCE AND NECESSITY
AND REGISTRATION

BY THE CHAIRMAN: On September 17, 2013, in Docket No. SP-2665, Sub 2, the Commission issued a certificate of public convenience and necessity (CPCN), to Fresh Air Energy II, LLC (FAE II), for construction of a 5-MW solar photovoltaic electric generating facility to be located at 1400 NC Highway 11 South in Aulander, Hertford County, North Carolina. In addition, the Commission accepted the registration statement of the facility as a new renewable energy facility.

On April 15, 2014, FAE II and Fresh Air Energy IX, LLC (FAE IX), filed a statement with the Commission in Docket Nos. SP- 2665, Sub 2 and SP-3556, Sub 0 requesting that the Commission transfer the CPCN and registration for the facility from FAE II to FAE IX.

Based on the foregoing and the record in these dockets, the Chairman finds good cause to transfer the CPCN and registration for the facility from FAE II to FAE IX, cancel the CPCN issued to FAE II, issue a new CPCN to FAE IX and close Docket No. SP-2665, Sub 2.

IT IS, THEREFORE, ORDERED as follows:

1. That the application filed by Fresh Air Energy II, LLC, and Fresh Air Energy IX, LLC, to transfer the certificate of public convenience and necessity for construction of

a 5-MW photovoltaic electric generating facility to be located at 1400 NC Highway 11 South in Aulander, Hertford County, North Carolina, and registration to Fresh Air Energy IX, LLC shall be, and is hereby, approved.

2. That Appendix A shall constitute the amended certificate of public convenience and necessity reflecting the transfer of the certificate to Fresh Air Energy IX, LLC.

3. That the certificate of public convenience and necessity issued to Fresh Air Energy II, LLC in Docket No. SP-2665, Sub 2 for this solar photovoltaic facility shall be, and is hereby, cancelled.

4. That the Chief Clerk shall close Docket No. SP-2665, Sub 2.

ISSUED BY ORDER OF THE COMMISSION.

This the 22nd day of April, 2014.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount

Gail L. Mount, Chief Clerk

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-3556, SUB 0

Fresh Air Energy IX, LLC
650 Townsend Street, Suite 310
San Francisco, California 94103

is hereby issued this

**CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
PURSUANT TO G.S. 62-110.1**

for a 5-MW_{AC} solar photovoltaic electric generating facility

located at

1400 NC Highway 11 South in Aulander, Hertford County, North Carolina,

subject to all orders, rules, regulations and conditions
as are now or may hereafter be lawfully made
by the North Carolina Utilities Commission.

ISSUED BY ORDER OF THE COMMISSION.

This the 22nd day of April, 2014.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount

Gail L. Mount, Chief Clerk