



GDS Associates, Inc.  
Engineers and Consultants

**RENEWABLE ENERGY RESOURCES ELIGIBILITY**  
**GDS TEAM RECOMMENDATION**  
**For Consideration By The**  
**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION**  
(Version 9 – October 28<sup>th</sup>, 2016)

**Date:** 9/7/2018

**Docket #:** 4813

**Application Received:** 3/14/2018

**Generation Unit Information:**

**Unit Name:** Narragansett Bay Commission Bucklin Point Biogas Engine I

**Unit Owner:** Narragansett Bay Commission

**Unit Size (nameplate MW):** 0.644 MW     **Unit Size (max. demonstrated MW):** N/A

**Location (city, state):** East Providence, RI

**Commercial Operation Date:** Anticipated Commercial Operation Date to be determined following resolution of “issues with some of the electrical equipment that was installed and emissions testing..”

**Type of Certification Requested:**

- Standard Certification
- Prospective Certification (Declaratory Judgment)

**Generation Type and Technology Information:** *(check all that apply)*

- Repowered Project     Incremental Generation     Incremental Intermittent
- Customer-Sited or Off-Grid System (or associated aggregations)
- Generation Unit Located in Control Area Adjacent to NEPOOL:
- Solar     Wind     Ocean Thermal     Geothermal     Small Hydro
- Eligible Biomass     Unlisted Biomass     Biomass (fossil co-fired/multi-fuel)     Fuel Cell (using an eligible renewable resource)

**Recommendation:**

- Approve (GIS Certification #: NON121998)     Reject     Public Hearing Needed
- Existing Renewable Energy Resource     New Renewable Energy Resource
- Capable of Producing as Both Existing & New Renewable Energy Resource

**Comments:**

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**Authorized Representative Name, Numbers and Address:**

Raymond Marshall, Executive Director  
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Email: rmarshall@narrabay.com

**Owner Name, Numbers and Address:**

Narragansett Bay Commission  
One Service Road Providence, RI 02905  
Phone: (401) 461-8848  
Fax: (401) 461-6540  
Email: rmarshall@narrabay.com

**Operator Name, Numbers and Address:**

Narragansett Bay Commission Bucklin Point Wastewater treatment facility  
102 Campbell Avenue Rumford, RI 02916  
Phone: (401) 461-8848 x190  
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**RENEWABLE ENERGY RESOURCES ELIGIBILITY DETAILED**  
**GDS TEAM APPLICATION REVIEW RESULTS**

(Template V9 – October 28<sup>th</sup>, 2016)

**Date of Final Review: 9/7/2018**

Note: Depending on the type of application (project vintage, type, location, fuel source, etc.) not all of these data items will be applicable.

**A.** Renewable Energy Resource – Vintage (*see appropriate Sections of RES Regulations, Application Sections 3.1-3.9 and Appendix C*):

**A.1** Generation Unit meets the definition of an Existing Renewable Energy Resource noted in RES Regulations Section 3.10 (first entering commercial operation before 12/31/1997).

Yes  No  N/A

**Comments:**

**A.2** Generation from the Unit meets one of the definitions of New Renewable Energy Resource in RES Regulations Section 3.23.

Yes  No  N/A

**Comments:**

**A.2.1** If Generation Unit is at a new site, adequate documentation is provided to ensure that it first entered commercial operation after December 31, 1997.

Yes  No  N/A

**Comments:** Anticipated Commercial Operation Date to be determined following resolution of “issues with some of the electrical equipment that was installed and emissions testing..”

**A.2.2** If Generation Unit is at the site of an Existing Renewable Energy Resource, adequate documentation is provided to ensure that it first entered commercial operation after December 31, 1997 and that the Existing Renewable Energy Resource has been retired and replaced with such new Generation Unit.

Yes  No  N/A

**Comments:**

**A.2.3** If a Repowered Generation Unit (as defined in Section 3.29 of the RES Regulations – complete replacement of Prime Mover, material increase in efficiency or material decrease in air emissions, and demonstration that at least 80% of resulting tax basis of the entire Generation Unit’s plant and equipment is derived from capital expenditures made after December 31, 1997), adequate documentation is provided to ensure that the entire output of said unit first entered commercial operation after December 31, 1997 at the site of existing Generation Unit.

Yes  No  N/A

**Comments:**

**A.2.4** If a multi-fuel facility, adequate documentation is provided to ensure

that the renewable energy fraction of output from a Generation Unit in which an Eligible Biomass Fuel is first co-fired with fossil fuels after December 31, 1997.

Yes  No  N/A

**Comments:**

**A.2.5** If Incremental Output from a non-Intermittent Existing Renewable Energy Resource, adequate documentation is provided to ensure that such output is attributable to capital investments for efficiency improvements or additions of capacity that were demonstrably completed after December 31, 1997 and that are sufficient to, were intended to, and can be demonstrated to increase annual electricity output in excess of ten percent (10%) over a Historical Generation Baseline as determined per Section 3.23.v of the RES Regulations.

Yes  No  N/A

**Comments:**

**A.2.6** If Incremental Output from an Intermittent Existing Renewable Energy Resource, adequate documentation is provided to ensure that such output is attributable to capital investments for efficiency improvements or additions of capacity that were demonstrably completed after December 31, 1997 and that are sufficient to, were intended to, and can be demonstrated to increase annual electricity output in excess of ten percent (10%) over a Historical Generation Baseline as determined per Section 3.23.v of the RES Regulations.

Yes  No  N/A

**Comments:**

**B. Eligible Customer-Sited/Off-Grid Generation Facility:**

*(see appropriate Sections of RES Regulations, Application Section 5 and Appendix D)*

Yes  No  N/A

**B.1** Adequate documentation provided to ensure that NEPOOL GIS Certificates are created by way of an aggregation of Generation Units, physically located in the State of Rhode Island, using the same generation technology (see RES Regulations Section 6.8.i).

Yes  No  N/A

**Comments:** Aggregation of one single biomass (fossil co-fired/multi-fuel) facility

**B.2** Proposed Aggregation Agreement (as specified in Section 6.8.iii of the RES Regulations) is reasonable and complete.

Yes  No  N/A

**Comments:** Supplemental information provided May 24, 2018, specifying Daymark Energy Advisors' role as the independent verifier.

**B.2.1** Aggregation Agreement includes name and contact information of the aggregator owner. (per Application Appendix D.2.a)

Yes  No  N/A

**Comments:**

**B.2.2** Aggregation Agreement includes name and contact information and adequate evidence of qualifications of the Verifier to ensure that the Verifier will accurately and efficiently carry out its duties. (per Appendix D.2.b)

Yes  No  N/A

**Comments:** Daymark Energy Advisors does not have “stock or equity interests in the Bucklin Point Wastewater Treatment Facility... NBC has no ownership or equity interest in Daymark”

**B.2.2.1** Additional evidence of Verifier qualifications requested and provided. (per Appendix D.2.b)

Yes  No  N/A

**Comments:**

**B.2.3** Aggregation Agreement includes a declaration of any and all business or financial relations between aggregator and Verifier sufficient to ensure the independence of the Verifier in accordance with Section 6.8.iii.c of the RES Regulations (10% or more ownership in voting stock, or family officer/etc.). (per Appendix D.2.c)

Yes  No  N/A

**Comments:**

**B.2.3.1** Aggregation Agreement includes statement indicating under what circumstances the Verifier would not be considered sufficiently independent of the individual Generation Unit, and that Generation Units not meeting this independence test would not be allowed to participate in the aggregation. (per Appendix D.2.c.1)

Yes  No  N/A

**Comments:**

**B.2.4** Aggregation Agreement identifies the type of technology that will be included in the aggregation and provides a statement that the aggregation will include only individual Generation Units that meet all the requirements of the RES Regulations (physical location, vintage, etc.). (per Appendix D.2.d)

Yes  No  N/A

**Comments:** One biomass facility at a single aggregation site

**B.2.5** Aggregation Agreement provides an adequate description of proposed operating procedures for the aggregation, by which the Verifier shall ensure that individual Generation Units in the aggregation comply with all eligibility requirements and that the NEPOOL GIS Certificates created accurately represent generation (see Section 6.8.iii.e of the RES Regulations). (per Appendix D.2.e)

Yes  No  N/A

**Comments:**

**B.2.5.1** At a minimum the proposed operating procedures include reasonable and sufficient details for:

- Determining that the Generation Unit exists and is in compliance with RES Regulations and Commission-approved Aggregation Agreement.  Yes  No  N/A
- Meter reading procedure that allows the Verifier to verify these readings (manual or remote, via the aggregators own system or an independent system) in a manner fully compliant with NEPOOL GIS Operating Rules regarding metering.  Yes  No  N/A
- Specifying how generation data will be entered into NEPOOL GIS to create Certificates.  Yes  No  N/A
- Documenting a procedure to verify independently that the GIS Certificates created for the aggregation are consistent with the meter readings.  Yes  No  N/A
- Correcting discrepancies in NEPOOL GIS Certificate generation identified by the Verifier.  Yes  No  N/A

**Comments:**

**B.2.6** Aggregation Agreement provides an adequate description of how the Verifier will be compensated for its services by the aggregator (in no instance is the Verifier is compensated in a manner linked to the number of NEPOOL GIS Certificates created by the aggregation). (per Appendix D.2.f)

Yes  No  N/A

**Comments:**

**B.2.7** Aggregation Agreement provides an adequate confirmation and a description of how, no less frequently than quarterly, the Verifier will directly energy into the NEPOOL GIS the quantity of energy production in the applicable time period from each Generation Unit in the aggregation. The entry of generation data by the Verifier must be through an interface designated for this purpose by the NEPOOL GIS and in accordance with NEPOOL GIS Operating Rules applicable to Third-Party Meter Readers, and to which the Aggregation Owner shall not have access. (per Appendix D.2.g)

Yes  No  N/A

**Comments:**

**C. Generation Unit Location** (see appropriate Sections of RES Regulations, Application Section 5 and Appendix E):

**C.1** Generation Unit is located in NEPOOL Control Area.

Yes  No

**Coordinate Location:**

Longitude/Latitude: 41° 51' 4.13" N / 71° 21' 58.63" W

**C.1.1** Generation Unit is located in Rhode Island.

Yes  No

**Facility Address:** 102 Campbell Avenue East Providence, RI 02916

**C.2** Generation Unit is located in a control area adjacent to NEPOOL and, in accordance with Section 5.1.ii of the RES Regulations, will apply the associated Generation Attributes to the RES only to the extent that the energy produced by the Generation Unit is actually delivered into NEPOOL for consumption by New England customers.

Yes  No

**Comments:**

**C.2.1** Applicant acknowledges that satisfactory documentation (i.e., a report from neighboring Generation Attribute accounting system or an affidavit) must be provided to verify that Generation Attributes from a Generation Unit located in a control area adjacent to NEPOOL have not otherwise been, nor will be, sold, retired, claimed or represented as part of electrical energy output or sales, or used to satisfy obligations in jurisdictions other than Rhode Island (such assurances may consist of a report from a neighboring Generation Attribute accounting system or an affidavit from the Generation Unit).

Yes  No  N/A

**Comments:**

**C.2.2** Applicant acknowledges that energy delivered from such Generation Unit into NEPOOL will be verified by the following:

- A unit-specific bilateral contract for the sale and delivery of such energy into NEPOOL
- Confirmation from ISO that the energy was actually settled in the ISO Market Settlement System, and
- Confirmation through the North American Reliability Council tagging system that the import of the energy into NEPOOL actually occurred, or such other requirements as the Commission deems appropriate

Yes  No  N/A

**Comments:**

- D. Eligible Fuel Source – Solar, Wind, Ocean Thermal, Geothermal, or Fuel Cell** (using an eligible renewable resource) (see appropriate Sections of RES Regulations and Application Section 2.4):

Yes  No

**Fuel Source:**

- E. Eligible Fuel Source – Small Hydro Facilities** (see appropriate Sections of RES Regulations and Application Sections 2.5-2.6):

Yes  No

**E.1** Aggregate capacity does not exceed 30 MW.

Yes  No  N/A

**Comments:**

**E.2** If “New Renewable Energy Resource”, applicant acknowledges that facility does not involve any new impoundment or diversion of water with an average salinity of 20 parts per thousand or less.

Yes  No  N/A

**Comments:**

- F. Eligible Fuel Source – Biomass Facilities** (see appropriate Sections of RES Regulations, Application Sections 2.7 and Appendix F):

Yes  No

**F.1** Generation Unit uses a biomass fuel source listed in RES Regulations Section 3.7.

Yes  No  N/A

**Comments:** Anaerobic digestion biogas

**F.2** If source is other than RES Regulations Section 3.7-listed, said source has been designated as “clean wood.”

Yes  No  N/A

**Comments:**

**F.3** Fuel Source Plan can reasonably be expected to ensure that only Eligible Biomass Fuels will be used, and in the case of co-firing ensure that only that proportion of generation attributable to an Eligible Biomass Fuel be eligible.

Yes  No  N/A

**Comments:**

**F.3.1** Fuel Source Plan specifies the type of Eligible Biomass Fuel to be used.

Yes  No  N/A

**Comments:** Narragansett Bay Commission Fuel Source Plan specifies that the source will be from the anaerobic digester from the wastewater treatment facility.

**F.3.2** If proposed fuel is “clean wood”, Fuel Source Plan provides adequate substantiation as to why the fuel source should be considered a



clean wood.

Yes  No  N/A

**Comments:**

**F.3.3** In the case of co-firing with a fossil fuel, Fuel Source Plan includes an adequate description of how such co-firing will occur and how the relative amounts of Eligible Biomass Fuel and fossil fuel will be measured, and how the eligible portion of generation output will be calculated (with such calculations based on the energy content of the proposed fuels used).

Yes  No  N/A

**Comments:** Co-firing will occur when based on measured pressures to continue operation at full design capacity. The biogas and natural gas are separately piped and metered into a gas blender. The Fuel Source Plan states how they will determine the eligible portion of the generation. “The portion of the energy fed to the engine that came from eligible fuel will be calculated for each month. The calculation will be based on the flow and energy content of eligible and ineligible fuels used by the engine. The portion of the engine’s output energy that is eligible will be considered equal to the portion of the engine’s input that is eligible.”

**F.3.4** Fuel Source Plan includes an adequate description of what measures will be taken to ensure that only the Eligible Biomass Fuel is used (e.g., standard operating protocols or procedures that will be implemented at the Generating Unit, contracts with fuel suppliers, testing or sampling regimes).

Yes  No  N/A

**Comments:** The amount of biogas and natural gas fuel used, as measured by flow rate, will be continuously tracked with revenue grade meters, and is stated both in the Fuel Source Plan and the Minor Source Permit from the Rhode Island Department of Environmental Management, Office of Air Resources included as part of the application. Narragansett Bay Commission also stated that the energy content of the biogas will be determined through direct measurements on a regular basis.

**F.3.5** Fuel Source Plan includes adequate assurance that the fuels stored at or brought to the Generation Unit will only be Eligible Biomass Fuels or fossil fuels used for co-firing.

Yes  No  N/A

**Comments:** The amount of biogas and natural gas fuel used, as measured by flow rate, will be continuously tracked with revenue grade meters, and is stated both in the Fuel Source Plan and the Minor Source Permit from the Rhode Island Department of Environmental Management, Office of Air Resources included as part of the application.

**F.3.6** If proposed fuel includes recycled wood waste, Fuel Source Plan provides adequate documentation to ensure that such fuel meets the definition of Eligible Biomass Fuel and also meets material separation, storage, or handling standards acceptable to the Commission and furthermore consistent with the RES Regulations.

Yes  No  N/A

**Comments:**

**F.3.7** Applicant certifies that it will file all reports and other information necessary to enable the Commission to verify the on- going eligibility of the renewable energy generators pursuant to Section 6.3 of the RES Regulations.

Yes  No  N/A

**Comments:**

**F.3.8** A copy of the Generation Unit's Valid Air Permit or equivalent authorization has been attached and the effective date and issuing state or jurisdiction has been identified.

Yes  No  N/A

**Comments:** Air Permit is issued by the State of Rhode Island, dated December 12, 2016

- G. Other Comments/Observations:** Corporate certification provided as an affidavit from the Narragansett Bay Commission's Chief Legal Counsel affirming signatory authority for the Authorized Representative