



**Verified Carbon
Standard**

MONITORING REPORT #2023-1 FOR THE GREATER NEW BEDFORD LFG UTILIZATION PROJECT, DARTMOUTH, MA

CommonWealth
Resource Management Corporation

Document Prepared By: CommonWealth Resource Management Corporation
For its wholly owned subsidiary
CommonWealth New Bedford Energy, LLC

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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The Project is a landfill methane (a.k.a., “landfill gas” or “LFG”) capture and utilization project located at a solid waste landfill (the “Landfill”) in Dartmouth, Massachusetts. The Landfill is owned by the Greater New Bedford Regional Refuse Management District (the “District”). The owner of the Project is Commonwealth New Bedford Energy, LLC (“CNBE”), a wholly-owned subsidiary of Commonwealth Resource Management Corporation (“CRMC”), a Massachusetts corporation based in Boston, Massachusetts, U.S.A. CNBE also owns the exclusive rights to all of the LFG at the Landfill, and all of the environmental attributes associated with the collection, destruction and use of all of the LFG at the Landfill.

The Project voluntarily captures and destroys LFG methane from the Crapo Hill Landfill located in Dartmouth, Massachusetts (latitude and longitude are 41° 43’ 28.12” N and 70° 59’ 04.82” W, respectively). The Project captures LFG from the expanded active collection system and destroys it either via four Caterpillar 3516 engine-generator sets or a back-up open flare. The Project achieves emissions reductions through the destruction of LFG that would otherwise have been released to the atmosphere. The back-up flare did not operate for any significant period during the current verification period; therefore, emission reductions are not claimed from flaring.

The Project was implemented according to the description provided in the revalidated PD. The Project became operational in January 2002 with the expansion of an existing active LFG collection and destruction system. Emission reductions from the current verification period were claimed for LFG collected from the expanded active LFG collection system and destroyed in the Caterpillar 3516 engine-generator sets. The back-up flare had limited operation during the current verification period and no emission reductions are claimed from flaring. CRMC claims GHG emission reductions eligible under VCS program of 98,230 metric tons of CO₂e for the verification period January 1 through September 30, 2023.

Audit Type	Period	Program	VVB Name	Number of years
Validation	Validation 29-March-2016 to 28-March-2026	Energy industries (renewable/non-renewable sources)	GHD Limited	Validation for 10 years: 29-March-2016 to 28-March-2026
Verification	29-March-2016 to 30-June-2016	Energy industries (renewable/non-renewable sources)	Ruby Canyon Engineering	0.25 years

Audit Type	Period	Program	VVB Name	Number of years
Verification	1-July-2016 to 31-December-2016 and 1-January-2017 to 30-April-2017	Energy industries (renewable/non-renewable sources)	Ruby Canyon Engineering	0.75-year
Verification	1-May-2017 to 31-December-2017	Energy industries (renewable/non-renewable sources)	Ruby Canyon Engineering	1.0 year
Verification	1-January-2018 to 31-December-2018	Energy industries (renewable/non-renewable sources)	GHD Limited	1.0 year
Verification	1-January-2019 to 30-September-2019	Energy industries (renewable/non-renewable sources)	GHD Limited	0.75-year
Verification	1-October-2019 to 31-December 31-2019 1-January-2020 to 30-June-2020	Energy industries (renewable/non-renewable sources)	GHD Services, Inc.	0.75-year
Verification	1-July-2020 to 31-December-2021 1-January-2021 to 31-March-2021	Energy industries (renewable/non-renewable sources)	GHD Services, Inc.	0.75-year
Verification	1-April-2021 to 31-December-2021	Energy industries (renewable/non-renewable sources)	GHD Services, Inc.	0.75-year
Verification	1-January-2022 to 30-June-2022	Energy industries (renewable/non-renewable sources)	GHD Services, Inc	0.5 years

Audit Type	Period	Program	VVB Name	Number of years
Verification	1-July-2022 to 31-December-2022	Energy industries (renewable/non-renewable sources)	GHD Services, Inc.	0.5 years
Verification	1-Jan-2023 to -30-Sept-2023	Energy industries (renewable/non-renewable sources)	GHD Services, Inc.	0.75 years
Total	29-March-2016 to 30-Sept-2023	Energy industries (renewable/non-renewable sources)		7.75 years

1.2 Sectoral Scope and Project Type

The sectoral scope is renewable energy industry. The Project is not a grouped project.

1.3 Project Proponent

Organization name	CommonWealth Resource Management Corporation For its wholly-owned subsidiary CommonWealth New Bedford Energy, LLC
Contact person	Thomas Yeransian
Title	Principal of CRMC
Address	One Bornheimer Place, Scarborough, Maine 04074
Telephone	508-339-3074
Email	tyeransian@crmcx.com

1.4 Other Entities Involved in the Project

None.

1.5 Project Start Date

01-January-2002

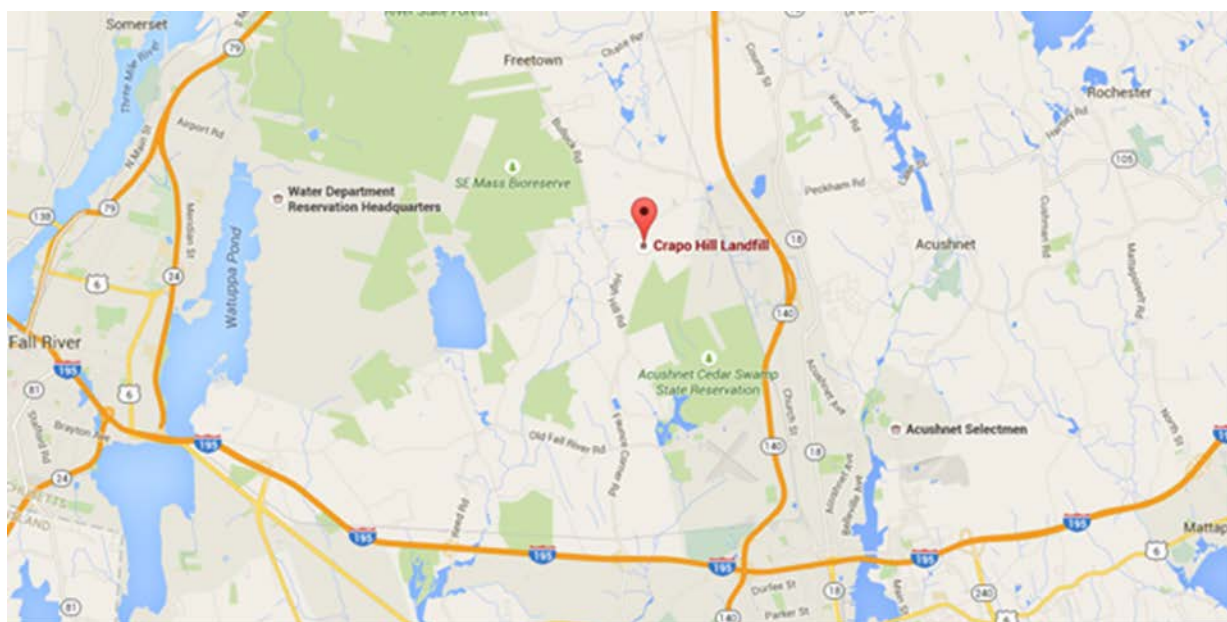
1.6 Project Crediting Period

The first Project Credit Period was a 10-year period starting 28-March-2006 and ending 28-March-2016.

The second Project Credit Period is a 10-year period starting 29-March-2016 and ending 28-March-2026.

1.7 Project Location

The Project is at the Crapo Hill Landfill located west of Samuel Barnett Boulevard in the northeast portion of the Town of Dartmouth, Massachusetts (latitude and longitude are 41° 43' 28.12" N and 70° 59' 04.82").



1.8 Title and Reference of Methodology

As outlined in the Project Description document, the VCS methodology applied to the Project was the approved consolidated baseline methodology UNFCCC's ACM0001, Version 16, "Large-scale Consolidated Methodology – Flaring or use of landfill gas".

1.9 Participation under other GHG Programs

The Project is registered at the American Carbon Registry – Project ID of ACR 113. The emission reductions verified for this monitoring period will not be claimed under or registered on the ACR or any other registry. The last year that credits from this Project

were registered under the ACR were for the full year of 2008 vintage. See both “Exhibit 7 Attestation Statement” and separately submitted to VERRA “Issuance Deed of Representation”, which attest that carbon credits verified hereunder will be registered on the VERRA Registry only.

1.10 Other Forms of Credit and Supply Chain (Scope 3) Emissions

- Emission Trading Programs and Other Binding Limits: The Project does not participate in emission trading programs and does not have other binding limits.
- Renewable Energy Portfolio Programs: The Project is qualified under the Massachusetts, Connecticut, Maine, and New Hampshire Renewable Energy Portfolio Programs to produce Class 1 Renewable Energy Credits in Massachusetts, Connecticut, Rhode Island and Maine; and Class III Renewable Energy Credits in New Hampshire. These programs and the resulting Renewable Energy Credits do not include the GHG emission reduction attributes associated with the destruction of methane.
- Supply Chain (Scope 3) Emissions: Not applicable.

1.11 Sustainable Development Contributions

The Project is a renewable energy project that supports sustainable development in the United States. The Project continues to add collection equipment to new areas of the active landfill to collect newly generated landfill gas. The Project continues to add automated monitoring and collection equipment to well heads to monitor and record real time data from new wellheads and control the flow of landfill gas through the wellheads to optimize the efficiency of the collection system to collect the maximum quantity of landfill gas.

The Project supports the United States Environmental Protection Agency Landfill Methane Outreach Program (LMOP), which is a voluntary program that works cooperatively with industry stakeholders and waste officials to reduce or avoid methane emissions from landfills. LMOP encourages the recovery and beneficial use of biogas generated from organic municipal solid waste. CRMC has been a member of LMOP since 1995. The project is listed on LMOP and CRMC reports performance of the project annually. The project helps LMOP to achieve its stated goals to reduce greenhouse gas emissions, reduction of air pollution by offsetting the use of non-renewable resources, create health and safety benefits, and benefit the community and economy.

The Project supports several of the United Nations Sustainable Development Goals. The specific support of these goals is described in the table below.

Table 1: Sustainable Development Contributions

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
1)	7.0	Ensure access to Affordable, Reliable, Sustainable and Modern Energy	Implemented activities to increase production of reliable, low cost, base-load renewable energy to four local municipal utilities.	During first three quarters of 2023, increased production of renewable electricity by 26% over first three quarters of 2021.	The project has increased affordable, reliable, base-load renewable electricity in Massachusetts by 371,556 Megawatt hours since 2005.
2)	9.0	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Implemented activities to increase the collection of landfill gas.	Installed additional landfill collectors and automated monitoring and control of landfill wells using Loci Controls technology. Collected an addition 550 metric tons of methane during monitoring period.	The project increased collection of landfill gas by expanding collection and increased the efficiency of the collection by adding automated collection and control system. Collected approximately 4.7 trillion Btus of landfill gas (methane) since 2005. The landfill gas was destroyed but first converted to renewable energy.
3)	13.0	Tonnes of greenhouse gas emissions avoided or removed	Implemented project activities to collect and destroy methane gas that would otherwise be emitted to the atmosphere.	By collecting and destroying landfill gas, the Project has reduced or avoided methane emissions of 98,230 metric tons of CO2 equivalents during the first 3 quarters of 2023.	Reduced 1.8 million metric tons of CO2 equivalents since 2005.

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2 SAFEGUARDS

2.1 No Net Harm

None. The Project is an environmental control project that is designed and operated to (1) collect and control landfill gas emissions from a landfill that may otherwise be uncollected and uncontrolled and (2) utilize an energy resource that may be otherwise wasted.

Review of the EPA Enforcement and Compliance History Online (ECHO) shows that during this reporting period, no unresolved notice of non-compliance is associated with the Project or site of the Project.

2.2 Local Stakeholder Consultation

Provide tours of the facility to interested parties including school groups, college students, environmental advocacy groups, political leaders, etc. The project has been typically used as an example by the State of Massachusetts Clean Energy Council and Department of Environmental Protection as an important environmental project that helps to achieve the environmental, renewable energy, GHG reduction and sustainability goals of Massachusetts. The Project was awarded the Silver Metal for Excellence in 2010 for landfill gas and biogas projects by the Solid Waste Association of North America (SWANA). Criteria used for this national award for excellence included Site Design & Construction, Environmental Controls, Regulatory Compliance, Planning, Operations & Financial Management, Utilization of Equipment/Systems and Technologies, Public Acceptance, Appearance and Aesthetics, and Innovation and Creativity.

The mechanisms for ongoing communication with stakeholders include

1. Providing all stakeholders and the general public with detailed descriptions of the Project through both the Commonwealth Resource Management Corporation (CRMC) website (www.crmcx.com) and the Greater New Bedford Regional Refuse Management District website (<https://gnbrmdistrict.org>).
2. Direct outreach from CNBE by providing presentations to industry groups, by responding to inquiries from the public and organizing public tours of the facility and providing annual data to the Massachusetts Department of Environmental Protection and other regulatory agencies.
3. Direct outreach from the Executive Director of the Greater New Bedford Regional Refuse Management District who responds to all stakeholder inquiries regarding all activities at the landfill including the Project. Stakeholder inquiries of the Project are typically relayed to CNBE and CNBE communicates with the interested stakeholders.
4. Members of the public have access to CNBE's owners and operators through direct email and telephone contact information listed on the CRMC website.

2.3 AFOLU-Specific Safeguards

The Project is not an Agriculture, Forestry and Other Land Use (AFOLU) project.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The Project Activity is in service.

The Project Activity operated normally during the monitoring period subject to this verification. The four engines destroyed landfill gas during the period. The back-up flare had limited operation during the current verification period and no emission reductions are claimed from flaring.

3.2 Deviations

3.2.1 Methodology Deviations

The following methodology deviations were previously validated and approved for the Project during the initial crediting period and again during the revalidation assessment in 2016:

- The SCADA system was programmed to calculate the methane gas flow in units of million British thermal units (MMBtu) using standardized gas flow (at 68°F and one atmosphere of pressure), methane concentration, the gross heat content (higher heating value) of methane, and the actual temperature and pressure. CNBE determined the volume of methane destroyed by converting the MMBtu values to total methane gas flow in standard cubic feet. This deviation from the monitoring methodology was previously approved by independent verifiers and had a conservative impact on the quantification of GHG emissions reductions during the verification period.
- The Project reference conditions are 20 degrees Centigrade and 1 atmosphere rather than ACM0001 reference conditions of 0 degrees Centigrade and 1 atmosphere.

The following methodology deviations were previously approved during the re-validation assessment in 2016.

1. A separate LFG meter is not present on each of the four combustion engines. A single meter is used immediately before the piping splits to each engine. This meter is continuously recording data. Operating data is tracked for each engine, so it is possible to calculate the flow destroyed by each engine and to ensure that LFG is destroyed. Flow controls are in place to ensure no LFG is sent to an engine that is not operating. This does not affect the conservativeness of the emissions reductions claimed.
2. Ex-ante emissions reductions calculations use historic Project specific data as the basis for projecting future emissions rather than the required CDM estimation tools. Using real data allows the estimations to be more accurate and reflect actual Project operating conditions. This does not affect the conservativeness of the emissions reductions claimed but increases the accuracy of the ex-ante projections ensuring the project is forecasting obtainable, appropriate emissions reductions.
3. There is no flow meter installed on the collection pipe from the District Initial System to separately monitor the contribution of the original baseline system. Given the collection system design and meter requirements, installing a meter at this location would not produce reliable, meaningful results. Instead, well-head flow measurements are collected manually. These results are used to calculate the relative contribution of the District Initial System to the overall flow of LFG destroyed by the engines. This portion of the total flow represents FCH₄,BL,y and will be calculated on a monthly basis and subtracted from the total flow to account for the amount of methane destroyed in the baseline scenario. This approach represents an accurate measurement of the flow because (a) the portion of the landfill that includes the District Initial System (Phase 1) is capped so no landfill gas can be passively emitted to the atmosphere, and (b) the remaining active wells from the District Initial System are located in such a way as to enable capture of all LFG generated within the sphere of influence of the District Initial System. This deviation decreases the conservativeness of the emissions reductions claimed but significantly increases the accuracy of the calculations as is allowable under VCS Standard v4.1, Section 3.17.1 and 2.
4. The Project uses the eGrid electricity emissions factor rather than the default emissions factor provided in the CDM tool as explained in the project emissions section. This deviation decreases the conservativeness of the emissions reductions claimed but significantly increases the accuracy of the calculations as is allowable under VCS Standard v4.1, Section 3.17.1 and 2.

These deviations only apply to the monitoring and measurement portions of the Project.

3.2.2 Project Description Deviations

No project description deviations applied during this monitoring period.

3.3 Grouped Projects

The Project is not a grouped project.

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	OXtop_layer
Data unit	Dimensionless
Description	Fraction of methane that would be oxidized in the top layer of the SWDS in the baseline
Source of data	Consistent with how oxidation is accounted for in the methodological tool "Emissions from solid waste disposal"
Value applied:	0.1
Justification of choice of data or description of measurement methods and procedures applied	In accordance with requirements of ACM0001
Purpose of Data	Calculation of baseline emissions
Comments	No comments

Data / Parameter	GWpch4
Data unit	T CO ₂ e / t CH ₄
Description	Global warming potential of methane
Source of data	IPCC – Fifth Assessment Report
Value applied:	28
Justification of choice of data or description of measurement methods and procedures applied	Updated from 25 to 28 pursuant to (1) the re-validation report dated May 16, 2016, and (2) the VCS approval (in its VCS Standard v.4.1 issued April 22, 2021 and VCS Standard v4.2 issued January 20, 2022) of updated global warming potentials provided in the IPCC's Fifth Assessment Report (Table 8.A.1) (2013). The Verified Carbon Standard Version 4.5 October 4, 2023, v4.5 states the GWP for methane at 28 (Table 2, Page 37).
Purpose of Data	Calculation of baseline emissions
Comments	No comments

Data / Parameter	Regulatory requirements
Data unit	Not applicable
Description	Regulatory requirements applicable to the Project Activity
Source of data	Publicly available information on local, regional and national regulations
Value applied:	Not applicable
Justification of choice of data or description of measurement methods and procedures applied	Not applicable
Purpose of Data	To ensure continued compliance and regulatory additionality
Comments	This information is summarized in the PDD and will be monitored during the crediting period for any applicable changes.

Data / Parameter	Methane oxidation efficiency for electricity generation
Data unit	Percent
Description	Quantity of methane oxidized during combustion for electricity generation
Source of data	CDM Methodologies and Tools
Value applied:	100
Purpose of the data	Calculation of baseline and emissions reductions
Comments	None

Data Unit / Parameter:	Methane oxidation efficiency for flare
Data unit:	Percent
Description:	Quantity of methane oxidized during combustion using flare
Source of data:	40 CFR § 63.670 Requirements for flare control devices
Value applied:	98
Purpose of the data:	Baseline and emissions reductions
Any comment:	None

Data / Parameter	Fuel Use by the Emergency Generator
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Data unit	Gallons/hour
Description	Average consumption of a 150kW generator operating at ¾ load to be used to calculate fuel consumed annually
Source of data	Diesel Service and Supply Company
Value applied:	8.4 gallons/hour
Justification of choice of data or description of measurement methods and procedures applied	Conservative for this piece of equipment given output needed vs total capacity
Purpose of the data	Calculation of project emissions
Comments	None

4.2 Data and Parameters Monitored

Data Unit / Parameter:	Methane content of gas (LFG and biogas)
Data unit:	Percent methane content of gas (LFG and biogas)
Description:	Methane content of gas (LFG and biogas)
Source of data:	SCADA System at Facility
Description of measurement methods and procedures to be applied:	Non-dispersive infrared
Frequency of monitoring/recording:	Continuous, hourly, daily
Value monitored:	Methane concentration, % Value varies. During the monitoring period methane value averaged 53% with range of 50% to 56%.
Monitoring equipment:	California Analytical 602P, Serial # S07002
QA/QC procedures to be applied:	Field calibrated once per week. A zero check and value check is performed by comparison with standard certified gas.

Data Unit / Parameter:	Methane content of gas (LFG and biogas)
Purpose of the data	Calculate baseline and emissions reductions.
Calculation method:	Used in calculation to obtain heat value of gas (LFG and biogas) in Btu per scf of gas (LFG and biogas)
Any comment:	CO2 and O2 are also continuously monitored using the same instrument.

Data Unit / Parameter:	Volume of gas (LFG and biogas) to engines
Data unit:	Actual cubic feet per minute
Description:	Quantity of gas (LFG and biogas) used to fuel engines
Source of data:	SCADA System at Facility
Description of measurement methods and procedures to be applied:	Differential pressure measured across orifice plate
Frequency of monitoring/recording:	Continuous, hourly, daily
Value monitored:	Differential pressure Value varies. During monitoring period differential pressure value ranged between 7 to 9 inches water gauge that is used to calculate actual cubic feet per minute flow average.
Monitoring equipment:	Oripac Model 4150, Serial #30154
QA/QC procedures to be applied:	Field calibrated once per month.
Purpose of the data	Calculate baseline and emissions reductions.
Calculation method:	Fluid flow equation (Bernoulli) calculates actual cubic feet per minute of gas (LFG and biogas).
Any comment:	None

Data Unit / Parameter:	Temperature of gas (LFG and biogas) to engines
Data unit:	Degrees Fahrenheit
Description:	Temperature of gas (LFG and biogas)
Source of data:	SCADA System at Facility
Description of measurement methods and procedures to be applied:	Thermocouple
Frequency of monitoring/recording:	Continuous
Value monitored:	Temperature Value varies. Typical range of temperatures is 109 to 137 degrees F.
Monitoring equipment:	Thermocouple, Omega or equivalent
QA/QC procedures to be applied:	Field calibrated using thermometer.
Purpose of the data	Calculate baseline and emissions reductions.
Calculation method:	Used in fluid flow equation (Bernoulli) to calculate standard cubic feet per minute from actual cubic feet per minute of gas (LFG and biogas).
Any comment:	None

Data Unit / Parameter:	Pressure of gas (LFG and biogas) to engines
Data unit:	PSIG
Description:	Pressure of gas (LFG and biogas)
Source of data:	SCADA System at Facility
Description of measurement methods and procedures to be applied:	Pressure transducer
Frequency of monitoring/recording:	Continuous
Value monitored:	Static pressure Value varies. The typical range of static pressure is 2.1 to 2.4 psig.
Monitoring equipment:	Pressure transducer, Omega or equivalent
QA/QC procedures to be applied:	Field calibrated using pressure gauge.
Purpose of the data	Calculate baseline and emissions reductions.
Calculation method:	Used in fluid flow equation (Bernoulli) to calculate standard cubic feet per minute from

	actual cubic feet per minute of gas (LFG and biogas).
Any comment:	None

Data Unit / Parameter:	Methane content of biogas
Data unit:	Percent methane content of biogas
Description:	Methane content of biogas
Source of data:	CRMC Bioenergy Facility (anaerobic digester system) tied to SCADA System at Facility
Description of measurement methods and procedures to be applied:	Non-dispersive infrared
Frequency of monitoring/recording:	Continuous and a totalization of biogas volume
Value monitored:	Methane concentration, % Value varies. During the monitoring period methane value ranged from 0% to 70%.
Monitoring equipment:	Hitech Model: IR600 Infra-Red Gas Analyzer, Serial #1-09916
QA/QC procedures to be applied:	Field calibrated periodically. A value check is performed by comparison with standard certified gas.
Purpose of the data	Calculate emissions reductions.
Calculation method:	Used in calculation to obtain heat value of biogas in Btu per scf of biogas
Any comment:	The operation of CRMC Bioenergy Facility was discontinued July 1, 2023.

Data Unit / Parameter:	Volume of biogas
Data unit:	Standard cubic feet per minute
Description:	Quantity of biogas added to LFG, both used to fuel engines
Source of data:	CRMC Bioenergy Facility (anaerobic digester system) tied to SCADA System at Facility

Description of measurement methods and procedures to be applied:	Differential pressure measured across a pitot tube
Frequency of monitoring/recording:	Continuous and at totalization of biogas volume
Value monitored:	Differential pressure Value varies. During monitoring period differential pressure value ranged between 0 to 0.16 inches water gauge that is used to calculate actual cubic feet per minute flow average.
Monitoring equipment:	Dwyer Series DS-300 Flow Sensor, which is an averaging pitot tube
QA/QC procedures to be applied:	Field calibrated once per month.
Purpose of the data	Calculate emissions reductions.
Calculation method:	Fluid flow equation (Bernoulli) calculates actual cubic feet per minute of gas.
Any comment:	The operation of CRMC Bioenergy Facility was discontinued July 1, 2023.

Data Unit / Parameter:	Temperature of biogas
Data unit:	Degrees Fahrenheit
Description:	Temperature of gas
Source of data:	CRMC Bioenergy Facility (anaerobic digester system) tied to SCADA System at Facility
Description of measurement methods and procedures to be applied:	Thermocouple
Frequency of monitoring/recording:	Continuous monitoring
Value monitored:	Temperature Value varies slightly. Average value of 85 degrees F.
Monitoring equipment:	Thermocouple, Omega or equivalent
QA/QC procedures to be applied:	Field calibrated using thermometer.

Data Unit / Parameter:	Temperature of biogas
Purpose of the data	Calculate emissions reductions.
Calculation method:	Used in fluid flow equation (Bernoulli) to calculate standard cubic feet per minute from actual cubic feet per minute of gas.
Any comment:	The operation of CRMC Bioenergy Facility was discontinued July 1, 2023.

Data Unit / Parameter:	Pressure of biogas
Data unit:	PSIG
Description:	Pressure of gas
Source of data:	SCADA System at Facility
Description of measurement methods and procedures to be applied:	Pressure transducer Value of 6 inches water gauge maintained continuously.
Frequency of monitoring/recording:	Continuous
Value monitored:	Static pressure
Monitoring equipment:	Pressure transducer, Omega or equivalent
QA/QC procedures to be applied:	Field calibrated using pressure gauge.
Purpose of the data	Calculate baseline and emissions reductions.
Calculation method:	Used in fluid flow equation (Bernoulli) to calculate standard cubic feet per minute from actual cubic feet per minute of gas.
Any comment:	The operation of CRMC Bioenergy Facility was discontinued July 1, 2023.

Data Unit / Parameter:	Volume of LFG to the flare
Data unit:	Standard cubic feet per minute
Description:	Quantity of landfill gas combusted in flare

Data Unit / Parameter:	Volume of LFG to the flare
Source of data:	Flare station
Description of measurement methods and procedures to be applied:	Differential pressure measured across orifice plate
Frequency of monitoring/recording:	Continuous, hourly, daily
Value monitored:	Standard cubic feet per minute Varies periodically. Typically, 0 scfm. Few times that flare operates varies between 300 to 800 scfm.
Monitoring equipment:	Omega PDF65 sqrt, Serial #57493
QA/QC procedures to be applied:	Field calibrated as required when operating.
Purpose of the data	Calculate baseline and emissions reductions.
Calculation method:	Fluid flow equation (Bernoulli) calculates standard cubic feet per minute of LFG.
Any comment:	None

Data / Parameter	Fraction of total LFG collected attributable to District Initial System
Data unit	Percentage
Description	Amount of LFG collected from the District Initial System that would have been destroyed in the baseline scenario
Source of data	Well-head measurements
Description of measurement methods and procedures to be applied	Measurements at each well-head using a hand-held instrument
Frequency of monitoring/recording	Once per month
Value applied:	4.3% was used in the ex-ante calculation based on data January 1, 2023 through September 30, 2023. See Exhibit 4.
Monitoring equipment	Elkin Earthworks Model 1104M64-06

QA/QC procedures to be applied	Calibrations are conducted prior to each set of measurements and documented.
Purpose of data	Calculation of the baseline emissions
Calculation method	LFG flows from District Initial System/Total LFG flow from all wells
Comments	None

Data Unit / Parameter	EF EL,Grid,y
Data unit	tonnes CO2/MWh
Description	Emission factor for electricity generation in year y
Source of data	US EPA eGRID data
Description of measurement methods and procedures to be applied	This value converted from the pounds CO2/MWh provided by the US EPA.
Frequency of monitoring/recording	The eGRID data will be reviewed each year to ensure that the most current value is used. See Exhibit 4
Value applied	0.24 tonnes CO2/MWh
Monitoring equipment	None
QA/QC procedures to be applied	None
Purpose of data	Calculation of project emissions
Calculation method	528.238 lbs CO2/MWh*0.454545455 kg/lbs*0.001 tonnes/kg = 0.24 tonnes CO2/MWh
Any comment:	None

Data Unit / Parameter	TDL Grid,y
Data unit	--
Description	Average technical transmission and distribution losses for grid in year y

Data Unit / Parameter	TDL Grid,y
Source of data	Energy Information Administration (EIA) Department of Energy (DOE) Annual Energy Review 2011: Chapter 2 Energy Consumption by Sector. P. 66
Description of measurement methods and procedures to be applied	None
Frequency of monitoring/recording	This data will be reviewed each year to ensure that the most current value is used.
Value applied	0.07
Monitoring equipment	None
QA/QC procedures to be applied	None
Purpose of data	Calculation of project emissions
Calculation method	None
Any comment	None

Data Unit / Parameter	EC Grid,y
Data unit	MWh
Description	Amount of grid electricity consumed by the project
Source of data	Bills as shown in Exhibit 5
Description of measurement methods and procedures to be applied	CNBE staff will compile the data.
Frequency of monitoring/recording	Data will be compiled annually.
Value applied	Ex Ante Calculation: 2.1 MWh/year based on January 1 through September 30, 2023 usage
Monitoring equipment	None
QA/QC procedures to be applied	None
Purpose of data	Calculation of project emissions
Calculation method	None

Any comment	None.
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Data Unit / Parameter:	FCDiesel,y
Data unit:	Gallons/year
Description:	Amount of diesel consumed by the emergency generator
Source of data:	Run time log as shown in Exhibit 5
Description of measurement methods and procedures to be applied:	Plant operator will log the run time of the engine each time it is used
Frequency of monitoring/recording:	Data will be compiled annually.
Value applied:	Ex Ante Calculation: Based on January 1 – September 30, 2023 usage, the engine ran for 121 hours. Using a conservative assumption that the engine operated at $\frac{3}{4}$ load, it was assumed that the engine uses 8.4 gallons of diesel per hour run. (Technical specifications provided to validator. See Parameter in Section 5.1 of PD)
Monitoring equipment:	None
QA/QC procedures to be applied:	None
Purpose of data:	Calculation of project emissions
Calculation method:	The total run time will be multiplied by 8.4 gallons/hour to determine the total amount of diesel consumed in the year.
Any comment:	None.

Data Unit / Parameter:	NCVdiesel
Data unit:	MMBtu/ gallon
Description:	Energy content of the diesel
Source of data:	Draft 2011 US Greenhouse Gas Inventory Report

Data Unit / Parameter:	NCVdiesel
Description of measurement methods and procedures to be applied:	This was converted from the MMBtu/barrel data provided by the USEPA. 5.809 MMBtu/barrel
Frequency of monitoring/recording:	Annual
Value applied:	0.13831 MMBtu/gallon See ExAnteEstimate or Annual Calculation Workbooks for conversion
Monitoring equipment:	None
QA/QC procedures to be applied:	None
Purpose of data:	Calculation of project emissions
Calculation method:	None
Any comment:	Values provided by the EPA will be reviewed annually to ensure this value is the most up to date value available. This value is higher than the range provided by the IPCC in its 2006 Guidelines for National Greenhouse Gas Inventories and is therefore conservative.

Data Unit / Parameter:	EF CO ₂ ,Diesel,y
Data unit:	t CO ₂ /MMBtu
Description:	CO ₂ emissions factor for diesel
Source of data:	Draft 2011 US Greenhouse Gas Inventory Report
Description of measurement methods and procedures to be applied:	This was converted from the Tg C/Qbtu data provided by the US EPA. See ExAnteEstimate or Annual Calculation Workbooks for conversion
Frequency of monitoring/recording:	Annual
Value applied:	0.073957 t CO ₂ /MMBtu
Monitoring equipment:	N/A
QA/QC procedures to be applied:	N/A
Purpose of data	Calculation of project emissions

Data Unit / Parameter:	EF CO ₂ ,Diesel,y
Calculation method:	N/A
Any comment:	Values provided by the EPA will be reviewed annually to ensure this value is the most up to date value available.

4.3 Monitoring Plan

Critical for the accuracy and transparency of the calculation is that:

1. Measurements of gas flows are undertaken with reliable equipment that is regularly calibrated;
2. Sampling of Methane concentration in gas is undertaken with reliable equipment that is regularly calibrated;
3. Sampling of Methane concentration in gas takes place with a frequency that is sufficient to calculate average concentration factors that are statistically unbiased (i.e. they reflect the actual methane concentration of the gas);
4. Measurements of gas flows are undertaken at least on a monthly basis and are as frequent as necessary to apply statistically valid methane concentration factors (as described in (3), above);
5. Measurement and calibration equipment and processes and changes thereof are clearly described as part of the GHG emissions reporting process.

Unless otherwise specified through the GHG emissions reporting process, the following system is assumed to be in place.

4.3.1 Data Collection

At the Facility, the Supervisory Control and Data Acquisition (SCADA) system measures and records methane content and gas (LFG and biogas) volume to the engines and flare once per minute, and then calculates methane quantities each minute. The results are then accumulated to provide hourly and daily totals in units of million British thermal units on a higher heating value basis [MMBtu (HHV)] and thousand standard cubic feet (KSCF) of LFG. This data point provides information regarding the mixed landfill gas and biogas from the CRMC Bioenergy Facility (anaerobic digester system).

The same calculation is made using data from the biogas feed pipe. The difference between the total Btus entering the engines and the total Btus received from the biogas facility is the quantity attributed to the LFG collected and is used in the calculations described previously in the PDD.

Because the calculations for this project are based on the use of Btus rather than metric tonnes of methane as discussed in the deviation section, the value obtained by this approach is not skewed by the mixing of the gases prior to the measurement of the gas entering the engines.

Flow Measurements

The flow meters are located directly upstream of the destruction devices. One flow meter serves as the unit for flow meter measurements to the four engines, one unit for flow measurement of the biogas, and one unit for flow meter measurements to the flare. Each flow meter is equipped with a totalizer that indicates the cumulative actual cubic feet of gas that have passed through that flow meter.

The Project uses an orifice plate flow meter purchased directly from its manufacturer, Lambda Square Inc for the engine measurements. The orifice plate flow meter is an Oripac® Model 5300 that determines flow based on pressure differentials measured across a 5-inch diameter bore pressure differential plate installed in the Project's 8-inch diameter LFG pipe. The design data for the instrument specifies an accuracy of ± 0.6 percent of full scale and the capability of measuring flows from 0 to 1,600 actual cubic feet per minute. The performance of the instrument in the field is assured by the manufacturer based on bench scale testing in accordance with applicable design and methodologies prescribed by the International Standards Organization (ISO) and the American Society of Mechanical Engineers (ASME).

The Project uses an Omega PDF65 flow meter for measuring flow to the flare and a Dwyer Series DS-300 Flow Sensor, which is an averaging pitot tube, for measuring flow of the biogas.

Methane Measurements

The methane content of the gas (LFG and biogas), on a percent volume basis, is measured at a sampling port in the main header pipe near the flow meter with the use of a California Analytical Instrument Non-dispersive infrared (NDIR) analyzer. The readings are also logged by the SCADA system once per minute.

The methane content of the biogas is measured using a Hitech Model: IR600 Infra-Red Gas Analyzer.

Wellfield Measurements

The landfill gas collection system is balance in two ways including (1) high quantity LFG producing wells incorporate automated landfill gas collection technology and (2) low quantity LFG producing wells incorporate manual landfill gas collection technology.

The automated landfill gas collection was installed and is operated by Loci Controls Inc. The Loci system allows for near continuous gas collection well measurements and valve adjustments using

cellular connections to cloud based computing and data storage systems to improve gas collection system efficiency. These automated systems deploy collection well mounted hardware that provides continuous gas collection system measurement, data storage, control, and optimization. Algorithms are used to automate the valve adjustments to maximize collection efficiency, and reduce GHG emissions, based on individual collection well measurements and operating thresholds, along with aggregate gas composition thresholds for the entire collection system. The Loci automated technology transforms the high quantity LFG collection wells from periodic manual to continuous automated operation that increases landfill gas collection efficiency beyond regulatory requirements.

The manual technology requires a technician to monitor the landfill gas at each wellhead with a handheld gas analyzer and based on the data the technician adjusts a mechanical valve located on the wellhead above ground. The data is recorded by the technician and then moves on to the next wellheads to perform this same task repeatedly until all collection wells are monitored and adjusted. The technician measures LFG pressures, LFG flow rate, methane, carbon dioxide, oxygen and balance gas content of the LFG and based on these measurements adjusts the mechanical valve to control vacuum and flow from the collection well. Opening of the manual valve will increase the vacuum applied to the collection well. Closing the valve, will reduce the vacuum applied to the collection well. These results are logged in an electronic file to document system performance as well as to determine the percent contribution of LFG from the District Initial System.

Meter Calibrations

On installation, CNBE performed initial calibrations of the instruments, under actual field conditions using the USEPA Protocols described below. As a back-up to the flowmeter measurements, actual quantities of LFG destroyed in the Project engine-generators can be accurately calculated based on (a) the known engine heat rate (the number of British Thermal Units (Btus) required to produce a kilowatt hour electric power, (b) the measured heat content of the LFG fuel, and the metered electric power output of the Project.

CNBE performs calibration of the orifice plate flow meter at least quarterly and often monthly. CNBE follows the USEPA-promulgated test methods (USEPA Protocols) for determining flow rates of gas through pipes at 40 CFR 60 Appendix A, including (a) Method 1a - sample and velocity traverses for stationary sources with small stacks or ducts, and (b) Method 2c - determination of gas velocity and volumetric flow rate in small stacks or ducts (standard pitot tube). The USEPA Protocols were established by the USEPA to accurately determine the volumetric flow rates of gases through pipes at industrial facilities to determine compliance with permit limitations on process and exhaust gases.

The calibration is performed by measuring the flow at a point near the orifice flow meters. A pitot tube attached to a manometer measures the flow. The pitot tube is inserted into the pipe and several points are measured across the full diameter of the pipe. The measurements taken by the

pitot tube and manometer include velocity pressure and static pressure. Other measurements taken during calibration include gas temperature and barometric pressure.

Each week or more frequently as necessary, CNBE calibrates methane concentration measured on an automated basis by a California Instruments NDIR Analyzer installed at the Project, and any hand-held instrument that may be used in addition to the NDIR Analyzer is calibrated prior to its use. CNBE has found that weekly calibrations are sufficient to provide accurate measurements because of the reliable performance of the instrument, and the stringent dependence of engine operations on the accuracy of the methane measurements. CNBE typically experiences a weekly variance in the accuracy of methane content readings of one percent or less, which readings are measured by the California Instruments NDIR Analyzer and compared to readings from a certified standard gas containing a known methane concentration.

Another performance measure that is a further check and balance of methane content is the calculation of efficiency of the operating engine-generator sets, which is calculated daily and does not vary by more than approximately five percent during normal operations.

Biogas meters are calibrated as outlined in the relevant parameters.

4.3.2 Organizational structure, responsibilities, and competencies

CNBE owns and manages the operations of the Facility and is responsible for oversight of operations and data collection, calculating emissions reductions and ensuring proper Project documentation. CNBE personnel have extensive experience in these areas. They have successfully implemented the Project over many years and have had no employee turnover.

CNBE contracts an operating company to conduct the operations and maintenance of the Facility. The operating company employs a full-time operator to conduct operations, maintenance, inspections, calibrations, monitoring and record-keeping at the facility. The operator receives training on the necessary tasks and has a task reminder calendar to ensure duties are performed at the appropriate time.

4.3.3 Recordkeeping

The SCADA system creates a Microsoft Excel file that contains the hourly and daily totals of landfill gas flow, landfill gas heat value, landfill gas methane content, operating hours of each engine, gross power output of each engine, gross and net power output of the facility. This file is created each day at mid-night for the prior 24-hour period. The file is automatically stored on the SCADA system computer. This file can be accessed remotely or at the facility. The file is manually

copied from in its entirety and pasted into the monthly quantification excel spreadsheet. No individual pieces of data are manually entered. The files are backed up at the Facility and off-site.

The SCADA systems also records all biogas data which is also transferred in its entirety and used in calculating the landfill gas values for determining Project emissions reductions.

Operator records including the Facility operation logs, maintenance logs and manually recorded data logs are maintained at the Facility. Operator records also include the log noting the run time of the emergency generator.

4.3.4 Internal Review

The Project uses several layers of review to ensure proper operations, data collection and quantification of emissions reductions.

The monthly quantification spreadsheet calculates several key performance parameters each day that are compared a few times per week to the expected performance range of each parameter. If the calculations show a significant deviation, corrective actions are taken. Corrective actions involve repairing equipment that is performing outside its normal range or correcting data that may have been reported in error. Equipment problems and corrective actions are noted in the “Service Section” of the monthly reports. CNBE includes notes to fully explain the problem and corrective action to the extent necessary. This information also identifies any deviations from this monitoring plan which can then be recorded in the verified Monitoring Report.

CNBE has established monthly operations meetings at the Facility between CNBE’s contract operator and the owners of CNBE. During each monthly meeting CNBE and the operator review the prior month operations performance including the production reports, work order list, unscheduled repairs and maintenance, and routine maintenance; the current month’s additions to the work orders that would prevent and correct deficiencies discovered and make overall improvements in performance of the Facility; review reports including monthly outage report, methane calibration logs, exhaust gas oxygen logs, lubricating oil logs, spare parts inventory report and others that may be relevant. In addition, CNBE meets with the District and Loci Control Inc. to review the status of the LFG collection system performance and work required to prevent and correct deficiencies discovered and make overall improvements in performance of the system.

CNBE annually calculates the project emissions from electricity use and emergency generator use as outlined in the PD.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

For Section 5.1 through 5.4 below and in accordance with the process for Periodic VCU Issuance described in section 4.5 of the document entitled "Registration and Issuance Process, v4.3" (issued 17 January 2023), Commonwealth Resource Management Corporation (the Project Proponent) will submit to Verra via the Registry's on-line document upload mechanism the an electronic Microsoft Excel spreadsheet file the contains all of the equations used in the Monitoring Report's ERR calculations. This spreadsheet, which is also submitted to GHD for verification, provides the Exhibits 1 through 4 that are included in the Appendix.

5.1 Baseline Emissions

To quantify Baseline Emissions for the Project, the following methodology was used:

- UNFCCC CDM "Large scale Consolidated Methodology – Flaring or use of landfill gas", ACM0001, Version 16.0 dated 16 October 2015.

The calculation methodology was applied to the calculation of emissions from methane contained within LFG which is generated from the decomposition of solid waste from within the landfill and combusted during electricity generation or in a flare.

For this Project Activity the baseline emissions consist of those associated with the volume of LFG that is destroyed in the flare and the engines to generate electricity. Further, the emissions associated with the fraction of LFG related to the District Initial System, need to be subtracted as this system was installed voluntarily as part of the baseline of the Project Activity. This subtraction of emissions is understood to occur in the baseline of the Project Activity.

The Baseline Emissions also include quantification of the fraction of methane in the LFG that would be oxidized in the top layer of the landfill in the baseline. This is a dimensionless value (0.1) that was available at validation and is therefore defined in the VCS PD. The Baseline Emissions calculations are presented in Exhibits 1 and 2 and the equation is shown below: Baseline emissions of methane from the Project Activity in year y are found as follows:

$$BE_{CH_4,y} = ((1 - OX_{top_layer}) \times F_{CH_4,PJ,y} - F_{CH_4,PJ,y}) \times GWP_{CH_4} \text{ (Eq. 2)}$$

Where:

$BE_{CH_4,y}$ = Baseline emissions of methane from the SWDS in year y (tCO₂e/yr)

OX_{top_layer} = Fraction of methane in the LFG that would be oxidized in the top layer of the SWDS in the baseline (dimensionless)

$F_{CH_4,PJ,y}$ = Amount of methane in the LFG which is flared and/or used in the project activity in year y (tCH₄/yr)

$F_{CH_4,BL,y}$ = Amount of methane in the LFG that would be flared in the baseline in year y (tCH₄/yr)

GWP_{CH_4} = Global warming potential of CH₄ (tCO_{2e} / tCH₄)

For this Project, $F_{CH_4,PJ,y}$ is the sum of the quantities of methane flared and used in power generation during the year. This term is calculated as follows according to Equation 3 from the methodology, modified to remove the heat generation and natural gas distribution terms, which are not applicable to this Project.

$$F_{CH_4,PJ,y} = F_{CH_4,flared,y} + F_{CH_4,EL,y} \text{ (modified Eq. 3)}$$

Where:

$F_{CH_4,PJ,y}$ = Amount of methane in the LFG which is flared and/or used in the project activity in year y (tCH₄/yr)

$F_{CH_4,flared,y}$ = Amount of methane in the LFG which is destroyed by flaring in year y (tCH₄/yr)

$F_{CH_4,EL,y}$ = Amount of methane in the LFG which is used for electricity generation in year y (tCH₄/yr)

5.2 Project Emissions

The following methodology and tool were used to quantify Project Emissions:

- UNFCCC CDM "Large scale Consolidated Methodology – Flaring or use of landfill gas", ACM0001, Version 16.0 dated 16 October 2015.
- UNFCCC CDM "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" (Version 01) 16 March 2008.

Project emissions are defined by the following equation:

$$PE_y = PE_{EC,y} + PE_{FC,j,y} = 0.54 + 10.40 = 10.94 \text{ t CO}_2/\text{yr}$$

Where:

$PE_{EC,y}$ = Emissions from consumption of electricity due to the Project activity, in year y (t CO₂/yr)

$PE_{FC,j,y}$ = Emissions from consumption of fossil fuels due to the Project activity, for purpose other than electricity generation, in year y (t CO₂/yr)

Note that emissions reductions from methane destruction from the flare are not included in this monitoring report.

The calculation methodology for the project emissions was applied to the calculation of emissions from the following sources:

- Fossil Fuel Emissions – CO₂ – Generated from the combustion of fossil fuels (diesel) in an emergency generator. The equations and calculations are presented in "Exhibit 4" under Supporting Information. The equations and calculations are repeated herein below.

Supporting Information for Exhibit 4			
Fossil Fuel Project Emissions			
Emergency Generator - Diesel Use			
Gallons of Diesel Consumed (January 1 - September 30, 2023)			
1,016.4	gallons	FC_{Diesel}	= Number of hours run * Gallons used/hour
$COEF_{\text{Diesel},2015} = NCV_{\text{Diesel},2015} * EF_{\text{CO}_2,\text{Diesel},2015}$			
$COEF_{\text{Diesel},2015}$	0.010229	See inputs on USEPA Data Conversions Tab	
tonnes CO2/gallon diesel			
$PE_{\text{FC},2015} = FC_{\text{Diesel},2015} * COEF_{\text{Diesel},2015}$			
PEFC, 2010	10.40	tonnes CO2	
Assumptions Used			
Generator runs at 3/4 load during testing and operation			
(This is conservative as the plant requires 75-90kW/hr to operate and the generator can produce up to 150kW/hr)			
The generator requires 8.4 gallons/hour running at 3/4 Load (see estimate fuel consumption)			
Run time from January 1 - September 30, 2023			
121 hours* 8.4 gallons/hour			
1016.4 gallons			

- Electricity Consumption Emissions – CO₂ – Generated from the grid consumption of electricity within the Project Boundary. The equations and calculations are presented in “Exhibit 4” under Supporting Information. The equations and calculations are repeated herein below.

Supporting Information for Exhibit 4			
Electricity Consumption Project Emissions			
$PE_{EC,y} = EC_{PJ,Grid,y} * FE_{EL,Grid,y} * (1 + TDL_{Grid,y})$			
	0.54	tonnes CO2	
Variable	Value	Units	Data Source
ECPJ,Grid, y	2.1	MWhr	See Eversource bill
FEEL,Grid,y	0.24	tonnes CO2/MWh	USEPA Conversions tableGrid data
TDLGrid,y	0.07	None	EIA Annual Energy Report 2011

5.3 Leakage

As per the applied methodology (ACM0001): “No leakage effects are accounted for under this methodology.”

5.4 Net GHG Emission Reductions and Removals

For non-AFOLU projects, use the following table:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
Year 2023 <u>(01-January-2023-30-September-2023)</u>	98,241	11	0	98,230
Total	98,241	11	0	98,230

The net GHG emission reductions are simply calculated by subtracting the project emissions and leakage emissions from the baseline emissions. The equation is as follows:

Net GHG emissions reduction = Baseline emissions - Project emissions – Leakage emissions.

Ex-ante emissions reductions calculations used historic Project specific data as the basis for projecting future emissions. Using real data allows the estimations to reflect actual Project operating conditions. This does not affect the conservativeness of the emissions reductions claimed but increases the accuracy of the ex-ante projections ensuring the project is forecasting obtainable, appropriate emissions reductions.

<u>Ex-ante emissions reductions /removals</u>	<u>Achieved emissions reductions /removals</u>	<u>Percent difference</u>	<u>Justification for the difference</u>
79,000	98,230	24%	VERRA Standard updated the 100-year global warming potential (GWP) of methane from the IPCC Second Assessment value of 21 to IPCC Fifth Assessment Report value of 28, which represents a 33% increase. Validation allowed GWP of methane to change in accordance with changes in VERRA Standard.

APPENDIX:

SUPPORTING DOCUMENTAON

- Exhibit 1: The emission reductions credits in CO2 equivalent tons in accordance with Project Methodology from January 1, 2023 through September 30, 2023.
- Exhibit 2: Gas totalizer readings, and methane content readings for the period January 1, 2023 through September 30, 2023 and calculations using the verification protocols under the VCS to obtain emission reductions from methane oxidation during energy generation.
- Exhibit 3: LFG totalizer readings, and methane content readings for the periods from January 1, 2023 through September 30, 2023, and calculations using the verification protocols under the VCS to obtain emission reductions from methane oxidation during flaring.
- Exhibit 4: The key factors, equations, and calculation of VCU in accordance with the approved consolidated baseline methodology ACM0001, Version 16.0 Large-scale Consolidated Methodology – Flaring or use of landfill gas" dated 16 October 2015 as promulgated by the United Nations Framework Convention of Climate Change (UNFCCC) under the Clean Development Mechanism (CDM).
- Exhibit 5: Compilation of the field data logs recording the total gas volumes and methane content readings for the identified reporting period. Comment section includes information on Planned and Unplanned Outages. Emergency Generator Operating Hours during period. Eversource Meter Photo and Data
- Exhibit 6: Calibration of the LFG and biogas flow rates, composition meters, other instrumentation for the periods.
- Exhibit 7: Attestation Statement
- Exhibit 8: Permits and Other Regulatory Documentation
1. Amended Final Air Quality Operation Permit (Renewal) Issued August 3, 2022.
 2. NMOC Emission Rate Report, September 7, 2023. The NMOC Emission Report demonstrates that the NMOCs emissions continue to be below the NSPS applicability threshold and therefore the Crapo Hill Landfill is not subject to the requirements of NSPS.
- Exhibit 9: RECs Agreements

Exhibit 1:

The emission reductions credits in CO2 equivalent tons in accordance with Project Methodology from January 1, 2023 through September 30, 2023.

EXHIBIT 1

CommonWealth New Bedford Energy LLC

Greater New Bedford LFG Utilization Project

Dartmouth, Massachusetts

Calculation of Verified Emission Reduction Credits in CO2 equivalent tons
in accordance with the Project Methodology

Key parameters used in calculations

Parameter	VCS
Methane oxidation efficiency electricity generation	100.0%
Methane oxidation efficiency LFG flaring	98.0%
Methane, molecular weight	16.04
Pounds per metric ton	2,204.62
Gas constant (scf per lb-mole)	385.32
Global Warming Potential (GWP) methane	28

Summary results

	Unit	
Electricity generation		
Start date		1-Jan-23
End date		30-Sep-23
Methane delivered	scf	206,629,288
Emission Reductions	metric tons CO2e	109,261
Flaring		
Start date		1-Jan-23
End date		30-Sep-23
Methane delivered	scf	-
Emission Reductions	metric tons CO2e	-
Subtotal		
Methane delivered	scf	206,629,288
Emission Reductions	metric tons CO2e	109,261
Deductions		
Oxidation potential	metric tons CO2e	10,926
District Initial System	metric tons CO2e	94
Electricity use utility and diesel backup	metric tons CO2e	11
Total		
Emission Reductions eligible under VCS program	metric tons CO2e	98,230

Exhibit 2:

Gas totalizer readings, and methane content readings for the period January 1, 2023 through September 30, 2023 and calculations using the verification protocols under the VCS to obtain emission reductions from methane oxidation during energy generation.

EXHIBIT 2
CommonWealth New Bedford Energy LLC
Emission Reductions from methane oxidation during energy generation

Physical constants:	
Methane, molecular weight (lb per lb-mole)	16.04
Pounds to metric ton	2,204.62
Gas constant, scf per lb-mole	385.32

Calculation of Verified Emission Reduction in CO2 equivalent tons per the following:					
Verification Process: UNFCCC's CDM methodology ACM0001 (Version 16)					
Standard of Verification: Verified Carbon Standard Version 4.5 October 4, 2023, v4.5					

Begin period - date	End period - date	Totalizer reading end period	Totalizer reading start period	Total in period	Methane delivered to engines	Methane delivered cumulative	Methane delivered in the period	Methane delivered in the period cumulative	Methane oxidation efficiency	MD electricity, Mass methane destroyed in the period	MD electricity, Mass methane destroyed cumulative	Global warming potential methane	Emission reduction	Emission reduction cumulative
mm/dd/yy	mm/dd/yy	MMBtu HHV	MMBtu HHV	MMBtu HHV	scf	scf	metric tons	metric tons	%	metric tons	metric tons	tons CO2 equivalent per ton methane	CO2 equivalent metric tons	CO2 equivalent metric tons
	1-Jan-23													
1-Jan-23	31-Jan-23	25,224	-	25,224	24,924,998	24,924,998	471	471	100.0%	471	471	28	13,180	13,180
1-Feb-23	28-Feb-23	46,519	25,224	21,295	21,042,722	45,967,719	397	868	100.0%	397	868	28	11,127	24,307
1-Mar-23	31-Mar-23	70,918	46,519	24,399	24,109,370	70,077,090	455	1,323	100.0%	455	1,323	28	12,748	37,055
1-Apr-23	30-Apr-23	94,338	70,918	23,420	23,142,593	93,219,683	437	1,760	100.0%	437	1,760	28	12,237	49,292
1-May-23	31-May-23	116,208	94,338	21,869	21,610,149	114,829,832	408	2,169	100.0%	408	2,169	28	11,427	60,719
1-Jun-23	30-Jun-23	139,814	116,208	23,606	23,326,030	138,155,861	441	2,609	100.0%	441	2,609	28	12,334	73,054
1-Jul-23	31-Jul-23	163,282	139,814	23,469	23,190,361	161,346,223	438	3,047	100.0%	438	3,047	28	12,263	85,316
1-Aug-23	31-Aug-23	186,311	163,282	23,029	22,755,595	184,101,818	430	3,477	100.0%	430	3,477	28	12,033	97,349
1-Sep-23	30-Sep-23	209,109	186,311	22,798	22,527,470	206,629,288	425	3,902	100.0%	425	3,902	28	11,912	109,261

546.30

Exhibit 3:

LFG totalizer readings, and methane content readings for the periods from January 1, 2023 through September 30, 2023, and calculations using the verification protocols under the VCS to obtain emission reductions from methane oxidation during flaring.

EXHIBIT 3
CommonWealth New Bedford Energy LLC
Calculation of Verified Emission Reduction in CO2 equivalent tons per the Project Methodology
Emission Reductions from methane oxidation from **LFG flaring**

Physical constants:		
Methane, molecular weight (lb per lb-mole)		16.04
Pounds to metric ton		2,204.62
Gas constant, scf per lb-mole		385.32

									Calculation of Verified Emission Reduction in CO2 equivalent tons per the following: Verification Process: UNFCCC's CDM methodology ACM0001 (Version 16) Standard of Verification: Verified Carbon Standard Version 4.5 October 4, 2023, v4.5							
Begin period - date	End period - date	Totalizer reading end period	Totalizer reading start period	Total in period	Methane delivered to flare	Methane delivered cumulative	Methane delivered in the period	Methane delivered cumulative	Methane oxidation efficiency	MD flare, Mass methane destroyed in the period	MD flare, Mass methane destroyed cumulative	Global warming potential methane	Emission reduction	Emission reduction cumulative	PE flare, Project emissions (uncontrolled emissions to atmosphere from flare)	PE flare, Project emissions cumulative (uncontrolled emissions to atmosphere from flare)
mm/dd/yy	mm/dd/yy	MMBtu HHV	MMBtu HHV	MMBtu HHV	scf	scf	metric tons	metric tons	%	metric tons	metric tons	tons CO2 equivalent per ton methane	CO2 equivalent metric tons	CO2 equivalent metric tons	CO2 equivalent metric tons	CO2 equivalent metric tons
1-Jan-23	1-Jan-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
1-Feb-23	31-Jan-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
1-Mar-23	28-Feb-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
1-Apr-23	31-Mar-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
1-May-23	30-Apr-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
1-Jun-23	31-May-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
1-Jul-23	30-Jun-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
1-Aug-23	31-Jul-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
1-Sep-23	31-Aug-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-
	30-Sep-23	-	-	-	-	-	0	0	98%	-	-	28	-	-	-	-

Exhibit 4:

The key factors, equations, and calculation of VCUs in accordance with the approved consolidated baseline methodology ACM0001, Version 16.0 Large-scale Consolidated Methodology – Flaring or use of landfill gas" dated 16 October 2015 as promulgated by the United Nations Framework Convention of Climate Change under the Clean Development Mechanism

EXHIBIT 4

EX Ante Estimates of Annual Emissions Reductions

	Formula variables	Value used	Units	Source if appropriate
$ER_y = BE_y - PE_y$				
98,230	BE_y PE_y	see below 10.94	tCO2e/period tCO2e/period	See Electricity Tab + Emergency Generator Tab
$BE_y = BE_{CH4,y}$				
98,241	$BE_{CH4,y}$	see below	tCO2e/period	
$BE_{CH4,y} = ((1 - OX_{top_layer}) \times F_{CH4,PJ,y} - F_{CH,BL,y}) \times GWP_{CH4}$				
98,241	OX_{top_layer} GWP_{CH4} $F_{CH4,PJ,y}$ $F_{CH,BL,y}$	0.1 28 see below see below	 tCO2e / tCH4 t CH4/period t CH4/period	ACM001 Methodology value IPCC Value - 5th assessment report (2013)
$F_{CH4,PJ,y} = F_{CH4,flared,y} + F_{CH4,EL,y}$				
3,902	$F_{CH4,flared,y}$ $F_{CH4,EL,y}$	0 3,902	t CH4/period t CH4/period	See Exhibit 3 tab See Exhibit 2 tab
$F_{CH4,BL,y} = F_{CH4,BL,sys,y}$				
$F_{CH4,BL,sys,y} = \%DistrictInitialSystem \times F_{CH4,PJ,y}$				
3.3	$\%DistrictInitialSystem$ $F_{CH4,PJ,y}$	4.29 see above 98%	 t CH4/period Methane oxidation efficiency for flare	See DistrictInitialSystemTab

Supporting Information for Exhibit 4

Electricity Consumption Project Emissions

$PE_{EC,y} = EC_{PJ,Grid,y} * FE_{EL,Grid,y} * (1 + TDL_{Grid,y})$

0.54 tonnes CO2

Variable	Value	Units	Data Source
ECPJ,Grid, y	2.1	MWhr	See Eversource bill
FEEL,Grid,y	0.24	tonnes CO2/MWh	USEPA Conversions tableGrid data
TDLGrid,y	0.07	None	EIA Annual Energy Report 2011

Supporting Information for Exhibit 4

Fossil Fuel Project Emissions

Emergency Generator - Diesel Use

Gallons of Diesel Consumed (January 1 - September 30, 2023)

$$1,016.4 \text{ gallons} \quad FC_{\text{Diesel}} = \text{Number of hours run} * \text{Gallons used/hour}$$

$$COEF_{\text{Diesel},2015} = NCV_{\text{Diesel},2015} * EF_{\text{CO}_2,\text{Diesel},2015}$$

$COEF_{\text{Diesel},2015}$ 0.010229 See inputs on USEPA Data Conversions Tab
tonnes CO₂/gallon diesel

$$PE_{\text{FC},2015} = FC_{\text{Diesel},2015} * COEF_{\text{Diesel},2015}$$

PEFC, 2010 10.40 tonnes CO₂

Assumptions Used

Generator runs at 3/4 load during testing and operation

(This is conservative as the plant requires 75-90kW/hr to operate
and the generator can produce up to 150kW/hr)

The generator requires 8.4 gallons/hour running at 3/4 Load (see estimate fuel consumption)

Run time from January 1 - September 30, 2023

121 hours* 8.4 gallons/hour

1016.4 gallons

Supporting Information for Exhibit 4

Gas extraction from District Initial System versus Phase 1 Area and District Total System

Month	Days	LFG flow rate from District Initial System contained in Phase 1 area		LFG flow rate from District Total System,		District Initial System/Total
		cfm @50% methane	cfm @50% methane	cfm @50% methane	cfm @50% methane	
Jan-23	31	45		1,117		4.0%
Feb-23	28	45		1,044		4.3%
Mar-23	31	45		1,080		4.2%
Apr-23	30	45		1,071		4.2%
May-23	31	45		968		4.6%
Jun-23	30	45		1,080		4.2%
Jul-23	31	45		1,039		4.3%
Aug-23	31	45		1,020		4.4%
Sep-23	30	45		1,043		4.3%
Weighted Average based on days						4.3%
Weighted Average based on LFG flow						4.3%
Average		45		1,043		4.3%

Note: During January 1, 2023 through September 30, 2023, the Initial District System consists of 9 remaining active wells measuring less than 5 cfm lower detection limit of each well.

Fossil Fuel Consumption

NCV Conversion							NCV Comparison to IPCC Values									
5.809	42	0.1383095					0.13831	1,000,000	1.05506E-06	0.001	0.26417	1.176471	1,000,000	=	45.35	
mmBtu/barrel	gallons/barrel	mmBtu/gallon					MMBtu/gallon	Btu/MMBtu	GJ/Btu	TJ/GJ	gallons/liter	liter/kg	kg/Gg		TJ/Gg	
Emissions Factor															IPCC Values state 41.4-43.3 TJ/Gg	
															This value is higher and therefore conservative.	
20.17	1E-15	1000000	3.666667	1E+12	0.000001	0.073957										
Tg C/Qbtu	Qbtu/btu	btu/Mmbtu	g CO2/g C	g/Tg	Tonnes/g	Tonnes CO2/Mmbtu										
Data obtained from the Draft 2011 US Greenhouse Gas Report: US EPA Inventory of US Greenhouse Gas Emissions and Sinks to provide a national factor. Results were compared to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories																

Electricity Consumption

eGRID Emissions Factor				eGRID Factor taken from NEWE region of eGRID2020 data
528.238	0.454545455	0.001	0.24	
lbs CO2/MWh	kg/lbs	tonnes/kg	tonnes CO2/MWh	

Exhibit 5:

Compilation of the field data logs recording the total gas volumes and methane content readings for the identified reporting period. Comment section includes information on Planned and Unplanned Outages. Emergency Generator Operating Hours during period. Eversource Meter Photo and Data

JANUARY 2023																		
			Sunday 1/1/2023	Monday 1/2/2023	Tuesday 1/3/2023	Wednesday 1/4/2023	Thursday 1/5/2023	Friday 1/6/2023	Saturday 1/7/2023	Sunday 1/8/2023	Monday 1/9/2023	Tuesday 1/10/2023	Wednesday 1/11/2023	Thursday 1/12/2023	Friday 1/13/2023	Saturday 1/14/2023	Sunday 1/15/2023	Monday 1/16/2023
LFG and Biogas Flow to the Engines (KSCF)			1,461	1,498	1,491	1,472	1,496	1,496	1,499	1,510	1,514	1,110	1,496	1,519	1,482	1,502	1,530	1,496
LFG and Biogas Flow to the Engines (MMBTU HHV)			827	827	827	827	834	830	825	820	840	610	815	836	836	832	843	831
LFG and Biogas Flow to the Flare (KSCF)			-	-	-	-	-	-	-	-	-	286	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)			-	-	-	-	-	-	-	-	-	158	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)			1,461	1,498	1,491	1,472	1,496	1,496	1,499	1,510	1,514	1,396	1,496	1,519	1,482	1,502	1,530	1,496
LFG and Biogas Total Flow (MMBTU HHV)			827	827	827	827	834	830	825	820	840	768	815	836	836	832	843	831
Average Methane Content (%)			55.9	54.5	54.8	55.5	55.1	54.8	54.4	53.7	54.8	54.4	53.8	54.4	55.8	54.8	54.4	54.9
Engine 1 Hours			24	24	24	24	24	24	24	24	24	19	24	24	24	24	24	24
Engine 2 Hours			24	24	24	24	24	24	24	24	24	18	24	24	24	24	24	24
Engine 3 Hours			24	24	24	24	24	24	24	24	24	18	24	24	24	24	24	24
Engine 4 Hours			24	24	24	24	24	24	24	24	24	19	24	24	24	24	24	24
Generator 1 Power Output (kWhr)			14,408	14,420	14,420	14,420	14,420	14,420	14,424	14,416	14,420	10,724	13,800	14,292	15,228	15,600	15,596	15,504
Generator 2 Power Output (kWhr)			14,408	14,420	14,428	14,424	14,424	14,420	14,428	14,424	14,428	10,688	14,428	14,428	14,428	14,432	14,432	14,364
Generator 3 Power Output (kWhr)			14,360	14,380	15,080	15,104	15,560	15,568	15,572	15,064	15,572	11,460	14,384	14,772	15,560	14,896	14,380	14,620
Generator 4 Power Output (kWhr)			15,540	15,564	15,560	15,120	15,572	15,580	15,300	14,416	15,328	11,008	14,400	14,484	15,556	14,592	14,392	14,144
Gross Power Output (kWhr)			58,796	58,855	59,552	59,120	60,037	60,043	59,798	58,395	59,830	43,958	57,084	58,084	60,875	59,628	58,908	58,700
Net Power Output (kWhr)			56,958	56,980	57,710	57,328	58,194	58,198	57,894	56,504	57,972	42,498	55,160	56,192	58,950	57,720	57,010	56,766
Power Sold as metered by NStar, (kWhr)			56,858	56,831	57,567	57,192	58,073	58,070	57,766	56,383	57,843	42,398	55,012	56,043	58,809	57,568	56,866	56,618
Offgrid RECs (kWhr)			1,838	1,875	1,842	1,792	1,843	1,845	1,904	1,891	1,858	1,460	1,924	1,892	1,925	1,908	1,898	1,934
Calculated Performance Results																		
Daily																		
Power output (kW average when running)																		
	Generator 1		600	601	601	601	601	601	601	601	601	564	575	596	635	650	650	646
	Generator 2		600	601	601	601	601	601	601	601	601	594	601	601	601	601	601	599
	Generator 3		598	599	628	629	648	649	649	628	649	637	599	616	648	621	599	609
	Generator 4		648	649	648	630	649	649	638	601	639	579	600	604	648	608	600	589
Power output (kW average over 24-hrs)																		
	Facility Gross		2,450	2,452	2,481	2,463	2,502	2,502	2,492	2,433	2,493	1,832	2,379	2,420	2,536	2,485	2,455	2,446
	Facility Net		2,373	2,374	2,405	2,389	2,425	2,425	2,412	2,354	2,416	1,771	2,298	2,341	2,456	2,405	2,375	2,365
	In-plant load		77	78	77	75	77	77	79	79	77	61	80	79	80	80	79	81
Daily availability factor																		
	Facility		100%	100%	100%	100%	100%	100%	100%	100%	100%	77%	100%	100%	100%	100%	100%	100%
	Engine 1		100%	100%	100%	100%	100%	100%	100%	100%	100%	79%	100%	100%	100%	100%	100%	100%
	Engine 2		100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	100%	100%	100%	100%	100%	100%
	Engine 3		100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	100%	100%	100%	100%	100%	100%
	Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	79%	100%	100%	100%	100%	100%	100%
Daily capacity factor																		
	Facility		74%	74%	75%	75%	76%	76%	76%	74%	76%	56%	72%	73%	77%	75%	74%	74%
	Engine 1		73%	73%	73%	73%	73%	73%	73%	73%	73%	68%	70%	72%	77%	79%	79%	78%
	Engine 2		73%	73%	73%	73%	73%	73%	73%	73%	73%	72%	73%	73%	73%	73%	73%	73%
	Engine 3		73%	73%	76%	76%	79%	79%	79%	76%	79%	77%	73%	75%	79%	75%	73%	74%
	Engine 4		78%	79%	79%	76%	79%	79%	77%	73%	77%	70%	73%	73%	79%	74%	73%	71%
Cumulative by engine																		
Engine operating run hours in the month																		
	Max Cumulative Available, hours		24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
	Engine 1		24	48	72	96	120	144	168	192	216	235	259	283	307	331	355	379
	Engine 2		24	48	72	96	120	144	168	192	216	234	258	282	306	330	354	378
	Engine 3		24	48	72	96	120	144	168	192	216	234	258	282	306	330	354	378
	Engine 4		24	48	72	96	120	144	168	192	216	235	259	283	307	331	355	379
Engine operating run hours total from 0 hours																		
	Engine 1	130,197	130,221	130,245	130,269	130,293	130,317	130,341	130,365	130,389	130,413	130,432	130,456	130,480	130,504	130,528	130,552	130,576
	Engine 2	119,351	119,375	119,399	119,423	119,447	119,471	119,495	119,519	119,543	119,567	119,585	119,609	119,633	119,657	119,681	119,705	119,729
	Engine 3	129,505	129,529	129,553	129,577	129,601	129,625	129,649	129,673	129,697	129,721	129,739	129,763	129,787	129,811	129,835	129,859	129,883
	Engine 4	125,044	125,068	125,092	125,116	125,140	125,164	125,188	125,212	125,236	125,260	125,279	125,303	125,327	125,351	125,375	125,399	125,423
Cumulative availability, %			January 1, 2023 @ 00:00 hours															
	Engine 1		100%	100%	100%	100%	100%	100%	100%	100%	100%	98%	98%	98%	98%	99%	99%	99%
	Engine 2		100%	100%	100%	100%	100%	100%	100%	100%	100%	98%	98%	98%	98%	98%	98%	98%
	Engine 3		100%	100%	100%	100%	100%	100%	100%	100%	100%	98%	98%	98%	98%	98%	98%	98%
	Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	98%	98%	98%	98%	99%	99%	99%
Engine cumulative gross output, kWhr																		
	Max cumulative capacity one engine		825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200
	Engine 1		600	1,201	1,802	2,403	3,004	3,605	4,206	4,806	5,407	5,971	6,546	7,142	7,776	8,426	9,076	9,722
	Engine 2		600	1,201	1,802	2,403	3,004	3,605	4,206	4,807	5,409	6,002	6,603	7,205	7,806	8,407	9,008	9,607
	Engine 3		598	1,198	1,826	2,455	3,104	3,752	4,401	5,029	5,678	6,314	6,914	7,529	8,177	8,798	9,397	10,006
	Engine 4		648	1,296	1,944	2,574	3,223	3,872	4,510	5,111	5,749	6,329	6,929	7,532	8,180	8,788	9,388	9,977
Cumulative capacity factor, %																		
	Engine 1		73%	73%	73%	73%	73%	73%	73%	73%	73%	72%	72%	72%	73%	73%	73%	74%
	Engine 2		73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%
	Engine 3		73%	73%	74%	74%	75%	76%	76%	76%	76%	77%	76%	76%	76%	76%	76%	76%
	Engine 4		78%	79%	79%	78%	78%	78%	78%	77%	77%	77%	76%	76%	76%	76%	76%	76%

		Sunday 1/1/2023	Monday 1/2/2023	Tuesday 1/3/2023	Wednesday 1/4/2023	Thursday 1/5/2023	Friday 1/6/2023	Saturday 1/7/2023	Sunday 1/8/2023	Monday 1/9/2023	Tuesday 1/10/2023	Wednesday 1/11/2023	Thursday 1/12/2023	Friday 1/13/2023	Saturday 1/14/2023	Sunday 1/15/2023	Monday 1/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	96	192	288	384	480	576	672	768	864	938	1,034	1,130	1,226	1,322	1,418	1,514
	Cumulative Availability, %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	97.7%	97.9%	98.1%	98.2%	98.4%	98.5%	98.6%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	58,796	117,651	177,203	236,323	296,360	356,403	416,201	474,596	534,426	578,384	635,468	693,552	754,427	814,055	872,963	931,663
	Cumulative Capacity Factor	74.2%	74.3%	74.6%	74.6%	74.8%	74.5%	74.6%	74.5%	74.6%	72.7%	72.7%	72.7%	73.0%	73.2%	73.3%	73.3%
	Cumulative fuel input, MMBtu HHV	826.9	1,654	2,481	3,308	4,142	4,971	5,796	6,617	7,456	8,066	8,882	9,718	10,554	11,386	12,229	13,060
	Cumulative gross output, kWhr	58796	117,651	177,203	236,323	296,360	356,403	416,201	474,596	534,426	578,384	635,468	693,552	754,427	814,055	872,963	931,663
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	12,660	12,648	12,500	12,591	12,504	12,438	12,421	12,647	12,631	12,500	12,855	12,963	12,368	12,561	12,876	12,745
	Daily heat rate, Btu/kWe gross HHV	14,064	14,050	13,885	13,987	13,890	13,817	13,798	14,049	14,031	13,886	14,281	14,400	13,740	13,953	14,304	14,158
	Cumulative heat rate, Btu/kWe gross LHV	12,660	12,654	12,602	12,599	12,580	12,556	12,537	12,550	12,559	12,555	12,582	12,614	12,594	12,591	12,611	12,619
	Cumulative heat rate, Btu/kWe gross HHV	14,064	14,057	13,999	13,996	13,975	13,948	13,926	13,942	13,952	13,947	13,977	14,012	13,990	13,987	14,009	14,018
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	96	192	288	384	480	576	672	768	864	938	1,034	1,130	1,226	1,322	1,418	1,514
	Cumulative Availability, %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	97.7%	97.9%	98.1%	98.2%	98.4%	98.5%	98.6%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	58,796	117,651	177,203	236,323	296,360	356,403	416,201	474,596	534,426	578,384	635,468	693,552	754,427	814,055	872,963	931,663
	Cumulative Capacity Factor	74.2%	74.3%	74.6%	74.6%	74.8%	74.5%	74.6%	74.5%	74.6%	72.7%	72.7%	72.7%	73.0%	73.2%	73.3%	73.3%
	Cumulative fuel input, MMBtu HHV	827	1,654	2,481	3,308	4,142	4,971	5,796	6,617	7,456	8,066	8,882	9,718	10,554	11,386	12,229	13,060
	Cumulative gross output, kWhr	58,796	117,651	177,203	236,323	296,360	356,403	416,201	474,596	534,426	578,384	635,468	693,552	754,427	814,055	872,963	931,663
	Cumulative heat rate, Btu/kWe gross LHV	12,660	12,654	12,602	12,599	12,580	12,556	12,537	12,550	12,559	12,555	12,582	12,614	12,594	12,591	12,611	12,619
	Cumulative heat rate, Btu/kWe gross HHV	14,064	14,057	13,999	13,996	13,975	13,948	13,926	13,942	13,952	13,947	13,977	14,012	13,990	13,987	14,009	14,018
Service											Planned outage						
	Engine 1										Inspect step-down						
	Engine 2										transformer						
	Engine 3										Transformer oil Isamples						
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
	Date	1/1/2023	1/2/2023	1/3/2023	1/4/2023	1/5/2023	1/6/2023	1/7/2023	1/8/2023	1/9/2023	1/10/2023	1/11/2023	1/12/2023	1/13/2023	1/14/2023	1/15/2023	1/16/2023
	Hour																
	1	2,370	2,369	2,366	2,418	2,420	2,419	2,419	2,369	2,372	2,370	2,318	2,273	2,420	2,458	2,363	2,369
	2	2,369	2,366	2,365	2,419	2,419	2,420	2,417	2,367	2,373	2,372	2,316	2,272	2,418	2,466	2,365	2,368
	3	2,370	2,368	2,364	2,419	2,420	2,420	2,419	2,367	2,371	2,370	2,291	2,290	2,419	2,466	2,369	2,370
	4	2,370	2,365	2,365	2,419	2,422	2,420	2,419	2,369	2,414	2,369	2,270	2,321	2,418	2,464	2,369	2,369
	5	2,371	2,368	2,367	2,420	2,420	2,419	2,418	2,367	2,420	2,371	2,269	2,321	2,418	2,420	2,370	2,371
	6	2,370	2,366	2,367	2,420	2,419	2,419	2,417	2,367	2,418	2,371	2,271	2,323	2,419	2,415	2,368	2,369
	7	2,371	2,368	2,368	2,412	2,419	2,420	2,418	2,326	2,421	2,369	2,268	2,321	2,419	2,418	2,371	2,371
	8	2,369	2,367	2,368	2,414	2,419	2,418	2,419	2,320	2,418	2,363	2,293	2,316	2,438	2,418	2,369	2,367
	9	2,366	2,369	2,369	2,394	2,418	2,417	2,418	2,322	2,417	226	2,314	2,315	2,458	2,417	2,370	2,366
	10	2,369	2,368	2,387	2,002	2,421	2,426	2,419	2,318	2,424	-	2,311	2,316	2,457	2,418	2,369	2,085
	11	2,369	2,371	2,425	2,404	2,420	2,426	2,421	2,322	2,427	-	2,311	2,318	2,462	2,393	2,372	2,388
	12	2,368	2,371	2,424	2,012	2,420	2,424	2,419	2,323	2,427	-	2,313	2,318	2,462	2,371	2,372	2,459
	13	2,370	2,371	2,424	2,426	2,421	2,423	2,418	2,321	2,427	-	2,314	2,320	2,462	2,372	2,372	2,437
	14	2,369	2,371	2,423	2,426	2,423	2,426	2,419	2,324	2,427	-	2,318	2,319	2,462	2,371	2,369	2,411
	15	2,369	2,371	2,423	2,425	2,425	2,423	2,422	2,324	2,428	1,741	2,318	2,319	2,462	2,371	2,371	2,333
	16	2,370	2,371	2,414	2,416	2,420	2,413	2,422	2,325	2,422	2,419	2,317	2,323	2,466	2,369	2,371	2,278
	17	2,372	2,371	2,418	2,420	2,419	2,418	2,416	2,358	2,422	2,411	2,301	2,367	2,469	2,371	2,369	2,343
	18	2,364	2,364	2,419	2,420	2,421	2,419	2,420	2,372	2,414	2,415	2,272	2,366	2,470	2,372	2,370	2,367
	19	2,369	2,366	2,419	2,419	2,412	2,417	2,378	2,371	2,419	2,415	2,271	2,374	2,469	2,371	2,371	2,366
	20	2,369	2,368	2,418	2,419	2,419	2,417	2,372	2,370	2,417	2,415	2,271	2,371	2,468	2,369	2,368	2,367
	21	2,370	2,366	2,419	2,411	2,420	2,417	2,369	2,371	2,417	2,392	2,271	2,371	2,468	2,371	2,369	2,366
	22	2,368	2,365	2,419	2,418	2,419	2,416	2,370	2,370	2,408	2,366	2,271	2,374	2,468	2,370	2,370	2,368
	23	2,368	2,366	2,418	2,421	2,418	2,415	2,368	2,371	2,370	2,326	2,272	2,414	2,468	2,368	2,368	2,366
	24	2,368	2,365	2,418	2,418	2,419	2,418	2,369	2,369	2,370	2,317	2,271	2,421	2,469	2,369	2,371	2,364
	TOTAL	56,858	56,831	57,567	57,192	58,073	58,070	57,766	56,383	57,843	42,398	55,012	56,043	58,809	57,568	56,866	56,618
	Cumulative Output Sold, kWhr	56,858	113,689	171,256	228,448	286,521	344,591	402,357	458,740	516,583	558,981	613,993	670,036	728,845	786,413	843,279	899,897
	Transformer and line efficiency	99.8%	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.8%	99.7%	99.7%	99.7%
	Hourly average	2,369	2,368	2,399	2,383	2,420	2,420	2,407	2,349	2,410	1,767	2,292	2,335	2,450	2,399	2,369	2,359

JANUARY 2023																				
			Tuesday 1/17/2023	Wednesday 1/18/2023	Thursday 1/19/2023	Friday 1/20/2023	Saturday 1/21/2023	Sunday 1/22/2023	Monday 1/23/2023	Tuesday 1/24/2023	Wednesday 1/25/2023	Thursday 1/26/2023	Friday 1/27/2023	Saturday 1/28/2023	Sunday 1/29/2023	Monday 1/30/2023	Tuesday 1/31/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			1,496	1,489	1,520	1,491	1,522	1,507	1,448	1,550	1,521	1,497	1,517	1,489	1,489	1,483	1,457	46,045	218	45,827
LFG and Biogas Flow to the Engine			831	824	837	834	826	810	799	836	822	845	815	811	811	816	798	25,375	151	25,224
LFG and Biogas Flow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	286		
LFG and BiogasFlow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	158		
LFG and Biogas Total Flow (KSCF)			1,496	1,489	1,520	1,491	1,522	1,507	1,448	1,550	1,521	1,497	1,517	1,489	1,489	1,483	1,457	46,331		
LFG and Biogas Total Flow (MMBTU)			831	824	837	834	826	810	799	836	822	845	815	811	811	816	798	25,533		
Average Methane Content (%)			54.9	54.7	54.4	55.2	53.6	53.1	54.5	53.3	53.4	55.8	53.1	53.8	53.8	54.4	54.1	54.5		
Engine 1 Hours			24	24	24	24	24	24	24	24	24	20	24	24	24	24	24	735		
Engine 2 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	10	-	700		
Engine 3 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	738		
Engine 4 Hours			24	24	24	24	24	24	24	24	24	24	24	22	24	24	24	737		
Generator 1 Power Output (kWhr)			15,196	14,496	14,420	13,988	13,856	14,156	14,892	14,460	14,140	12,004	14,440	14,420	14,412	17,436	19,728	452,556		
Generator 2 Power Output (kWhr)			13,388	14,392	14,428	14,436	14,432	14,436	14,900	14,816	14,356	15,264	14,648	14,432	14,424	5,816	-	421,172		
Generator 3 Power Output (kWhr)			14,712	14,380	14,384	15,132	14,676	14,624	15,496	14,380	14,824	15,320	14,592	13,464	13,820	17,432	19,736	463,304		
Generator 4 Power Output (kWhr)			14,620	14,392	14,396	15,136	14,396	14,396	15,328	14,392	14,552	15,264	13,080	13,236	13,736	17,212	19,700	460,392		
Gross Power Output (kWhr)			57,971	57,727	57,699	58,741	57,429	57,673	60,653	58,123	57,926	57,903	56,809	55,624	56,473	57,944	59,196	1,799,554		
Net Power Output (kWhr)			56,054	55,814	55,802	56,876	55,748	55,566	58,640	56,176	56,054	56,126	54,858	53,794	54,648	56,138	57,370	1,741,698		
Power Sold as metered by NStar, (MWhr)			55,909	55,679	55,656	56,722	55,616	55,449	58,483	56,033	55,904	55,989	54,725	53,682	54,542	56,010	57,248	1,737,544	CRMCB inplant	
Offgrid RECs (kWhr)			1,917	1,913	1,897	1,865	1,681	2,107	2,013	1,947	1,872	1,777	1,951	1,830	1,825	1,806	1,826	57,856	17,287	
Calculated Performance Results																			30%	
Daily																			of total in-plant power	
		Power output (kW average when operating)																		
		Generator 1	633	604	601	583	577	590	621	603	589	600	602	601	601	727	822			
		Generator 2	558	600	601	602	601	602	621	617	598	636	610	601	601	582	-			
		Generator 3	613	599	599	631	612	609	646	599	618	638	608	561	576	726	822			
		Generator 4	609	600	600	631	600	600	639	600	606	636	545	602	572	717	821			
		Power output (kW average over 24 hours)																		
		Facility Gross	2,415	2,405	2,404	2,448	2,393	2,403	2,527	2,422	2,414	2,413	2,367	2,318	2,353	2,414	2,467			
		Facility Net	2,336	2,326	2,325	2,370	2,323	2,315	2,443	2,341	2,336	2,339	2,286	2,241	2,277	2,339	2,390			
		In-plant load	80	80	79	78	70	88	84	81	78	74	81	76	76	75	76			
		Daily availability factor																		
		Facility	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%	100%	98%	100%	85%	75%			
		Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	83%	100%	100%	100%	100%	100%			
		Engine 2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	42%	0%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	92%	100%	100%	100%			
		Daily capacity factor																		
		Facility	73%	73%	73%	74%	73%	73%	77%	73%	73%	73%	72%	70%	71%	73%	75%			
		Engine 1	77%	73%	73%	71%	70%	71%	75%	73%	71%	73%	73%	73%	73%	88%	100%			
		Engine 2	68%	73%	73%	73%	73%	73%	75%	73%	75%	77%	74%	73%	73%	70%	0%			
		Engine 3	74%	73%	73%	76%	74%	74%	78%	73%	75%	77%	74%	68%	70%	88%	100%			
		Engine 4	74%	73%	73%	76%	73%	73%	77%	73%	73%	77%	66%	73%	69%	87%	99%			
Cumulative by engine																				
		Engine operating run hours in the month																		
		Max Cumulative Available, (hours)	408	432	456	480	504	528	552	576	600	624	648	672	696	720	744			
		Engine 1	403	427	451	475	499	523	547	571	595	615	639	663	687	711	735			
		Engine 2	402	426	450	474	498	522	546	570	594	618	642	666	690	700	700			
		Engine 3	402	426	450	474	498	522	546	570	594	618	642	666	690	714	738			
		Engine 4	403	427	451	475	499	523	547	571	595	619	643	665	689	713	737			
		Engine operating run hours total																		
		Engine 1	130,600	130,624	130,648	130,672	130,696	130,720	130,744	130,768	130,792	130,812	130,836	130,860	130,884	130,908	130,932			
		Engine 2	119,753	119,777	119,801	119,825	119,849	119,873	119,897	119,921	119,945	119,969	119,993	120,017	120,041	120,051	120,051			
		Engine 3	129,907	129,931	129,955	129,979	130,003	130,027	130,051	130,075	130,099	130,123	130,147	130,171	130,195	130,219	130,243			
		Engine 4	125,447	125,471	125,495	125,519	125,543	125,567	125,591	125,615	125,639	125,663	125,687	125,709	125,733	125,757	125,781			
		Cumulative availability, %																		
		Engine 1	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%			
		Engine 2	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	97%	94%			
		Engine 3	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%			
		Engine 4	99%	99%	99%	99%	99%	99%	999											

		Tuesday 1/17/2023	Wednesday 1/18/2023	Thursday 1/19/2023	Friday 1/20/2023	Saturday 1/21/2023	Sunday 1/22/2023	Monday 1/23/2023	Tuesday 1/24/2023	Wednesday 1/25/2023	Thursday 1/26/2023	Friday 1/27/2023	Saturday 1/28/2023	Sunday 1/29/2023	Monday 1/30/2023	Tuesday 1/31/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																			
	Max cumulative available engine run time, hours	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688	2,784	2,880	2,976			
	Actual cumulative engine run time, hours	1,610	1,706	1,802	1,898	1,994	2,090	2,186	2,282	2,378	2,470	2,566	2,660	2,756	2,838	2,910			
	Cumulative Availability, %	98.7%	98.7%	98.8%	98.9%	98.9%	99.0%	99.0%	99.0%	99.1%	99.0%	99.0%	99.0%	99.0%	98.5%	97.8%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300	2,458,500			
	Actual cumulative gross output, kWh	989,634	1,047,361	1,105,060	1,163,801	1,221,230	1,278,903	1,339,556	1,397,679	1,455,605	1,513,508	1,570,317	1,625,941	1,682,414	1,740,358	1,799,554			
	Cumulative Capacity Factor	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.4%	73.4%	73.4%	73.4%	73.3%	73.2%	73.1%	73.1%	73.2%			
	Cumulative fuel input, MMBtu	13,891	14,715	15,552	16,386	17,211	18,022	18,820	19,657	20,479	21,324	22,140	22,951	23,761	24,578	25,375			
	Cumulative gross output, kWh	989,634	1,047,361	1,105,060	1,163,801	1,221,230	1,278,903	1,339,556	1,397,679	1,455,605	1,513,508	1,570,317	1,625,941	1,682,414	1,740,358	1,799,554			
Heat Rate																			
	Daily heat rate, Btu/kWe gross	12,906	12,845	13,060	12,776	12,943	12,649	11,851	12,954	12,779	13,142	12,921	13,122	12,924	12,682	12,128			
	Daily heat rate, Btu/kWe gross	14,336	14,269	14,508	14,193	14,378	14,052	13,165	14,390	14,196	14,599	14,353	14,576	14,357	14,088	13,472			
	Cumulative heat rate, Btu/kWe	12,636	12,647	12,669	12,674	12,687	12,685	12,648	12,660	12,665	12,683	12,692	12,707	12,714	12,713	12,694			
	Cumulative heat rate, Btu/kWe	14,037	14,050	14,074	14,080	14,094	14,092	14,050	14,064	14,069	14,089	14,099	14,115	14,123	14,122	14,101			
Cumulative by Facility starting C																			
	Max cumulative available engine run time, hours	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688	2,784	2,880	2,976			
	Actual cumulative engine run time, hours	1,610	1,706	1,802	1,898	1,994	2,090	2,186	2,282	2,378	2,470	2,566	2,660	2,756	2,838	2,910			
	Cumulative Availability, %	98.7%	98.7%	98.8%	98.9%	98.9%	99.0%	99.0%	99.0%	99.1%	99.0%	99.0%	99.0%	99.0%	98.5%	97.8%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300	2,458,500			
	Actual cumulative gross output, kWh	989,634	1,047,361	1,105,060	1,163,801	1,221,230	1,278,903	1,339,556	1,397,679	1,455,605	1,513,508	1,570,317	1,625,941	1,682,414	1,740,358	1,799,554			
	Cumulative Capacity Factor	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.4%	73.4%	73.4%	73.4%	73.3%	73.2%	73.1%	73.1%	73.2%			
	Cumulative fuel input, MMBtu	13,891	14,715	15,552	16,386	17,211	18,022	18,820	19,657	20,479	21,324	22,140	22,951	23,761	24,578	25,375			
	Cumulative gross output, kWh	989,634	1,047,361	1,105,060	1,163,801	1,221,230	1,278,903	1,339,556	1,397,679	1,455,605	1,513,508	1,570,317	1,625,941	1,682,414	1,740,358	1,799,554			
	Cumulative heat rate, Btu/kWe	12,636	12,647	12,669	12,674	12,687	12,685	12,648	12,660	12,665	12,683	12,692	12,707	12,714	12,713	12,694			
	Cumulative heat rate, Btu/kWe	14,037	14,050	14,074	14,080	14,094	14,092	14,050	14,064	14,069	14,089	14,099	14,115	14,123	14,122	14,101			
Service																			
	Engine 1									Turbo replacement									
	Engine 2																		
	Engine 3																		
	Engine 4																		
Oil - oil and filter change																			
Service - plugs, air filter, valve inspection																			
	Precipitation																		
	NSTAR Power Reports	Tuesday 1/17/2023	Wednesday 1/18/2023	Thursday 1/19/2023	Friday 1/20/2023	Saturday 1/21/2023	Sunday 1/22/2023	Monday 1/23/2023	Tuesday 1/24/2023	Wednesday 1/25/2023	Thursday 1/26/2023	Friday 1/27/2023	Saturday 1/28/2023	Sunday 1/29/2023	Monday 1/30/2023	Tuesday 1/31/2023	TOTAL		
	Date	1/17/2023	1/18/2023	1/19/2023	1/20/2023	1/21/2023	1/22/2023	1/23/2023	1/24/2023	1/25/2023	1/26/2023	1/27/2023	1/28/2023	1/29/2023	1/30/2023	1/31/2023			
	Hour																		
	1	2,361	2,367	2,319	2,324	2,364	2,270	2,419	2,407	2,311	2,422	2,365	2,225	2,226	2,320	2,379			
	2	2,329	2,346	2,313	2,322	2,364	2,268	2,416	2,363	2,316	2,421	2,365	2,224	2,226	2,321	2,384			
	3	2,318	2,317	2,317	2,324	2,362	2,271	2,418	2,367	2,315	2,421	2,347	2,225	2,226	2,319	2,385			
	4	2,318	2,321	2,318	2,325	2,365	2,268	2,418	2,367	2,316	2,421	2,316	2,222	2,225	2,321	2,384			
	5	2,318	2,321	2,319	2,325	2,364	2,270	2,419	2,368	2,316	2,420	2,315	2,225	2,227	2,322	2,384			
	6	2,319	2,319	2,320	2,325	2,317	2,269	2,419	2,368	2,316	2,421	2,314	2,223	2,225	2,299	2,385			
	7	2,319	2,321	2,319	2,325	2,318	2,270	2,420	2,364	2,316	2,428	2,314	2,226	2,227	2,274	2,384			
	8	2,316	2,311	2,321	2,323	2,320	2,272	2,419	2,358	2,273	2,319	2,318	2,226	2,225	2,270	2,383			
	9	2,315	2,291	2,319	2,340	2,319	2,271	2,420	2,321	2,217	1,879	2,216	2,227	2,228	2,274	2,385			
	10	2,055	2,312	2,316	2,417	2,320	2,273	2,418	2,312	2,299	1,884	1,872	2,227	2,227	2,246	2,387			
	11	1,875	2,315	2,317	1,984	2,321	2,274	2,412	2,314	2,326	1,883	2,050	2,229	2,227	2,321	2,391			
	12	2,352	2,316	2,319	2,414	2,321	2,310	2,415	2,316	2,288	1,884	2,409	2,235	2,258	2,317	2,393			
	13	2,463	2,316	2,319	2,412	2,321	2,325	2,411	2,319	2,280	2,154	2,414	2,277	2,277	2,318	2,392			
	14	2,461	2,314	2,318	2,414	2,322	2,322	2,410	2,317	2,280	2,517	2,397	2,276	2,289	2,319	2,393			
	15	2,420	2,314	2,319	2,415	2,320	2,324	2,414	2,319	2,271	2,513	2,338	2,276	2,324	2,320	2,393			
	16	2,413	2,315	2,322	2,418	2,318	2,322	2,511	2,324	2,362	2,513	2,276	2,277	2,324	2,381	2,393			
	17	2,375	2,319	2,315	2,415	2,318	2,323	2,511	2,315	2,370	2,517	2,287	2,277	2,324	2,388	2,383			
	18	2,372	2,325	2,318	2,417	2,317	2,323	2,514	2,320	2,362	2,516	2,265	2,226	2,324	2,388	2,382			
	19	2,369	2,315	2,317	2,417	2,301	2,370	2,504	2,318	2,368	2,464	2,269	2,227	2,324	2,382	2,386			
	20	2,365	2,324	2,318	2,414	2,268	2,370	2,465	2,318	2,369	2,414	2,269	2,226	2,324	2,382	2,382			
	21	2,372	2,320	2,323	2,415	2,269	2,371	2,464	2,315	2,377	2,413	2,269	2,226	2,323	2,383	2,380			
	22	2,366	2,321	2,322	2,414	2,270	2,369	2,434	2,316	2,417	2,416	2,264	2,228	2,323	2,384	2,378			
	23	2,371	2,320	2,324	2,413	2,268	2,371	2,416	2,316	2,417	2,381	2,255	2,225	2,316	2,382	2,378			
	24	2,367	2,319	2,324	2,410	2,269	2,373	2,416	2,311	2,422	2,368	2,221	2,227	2,323	2,379	2,384			
	TOTAL	55,909	55,679	55,656	56,722	55,616	55,449	58,483	56,033	55,904	55,989	54,725	53,682	54,542	56,010	57,248			
	Cumulative Output Sold, kWh	955,806	1,011,485	1,067,141	1,123,863	1,179,479	1,234,928	1,293,411	1,349,444	1,405,348	1,461,337	1,516,062	1,569,744	1,624,286	1,680,296	1,737,544			
	Transformer and line efficiency, %	99.7%	99.8%	99.7%	99.7%	99.8%	99.8%	99.7%	99.7%	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%			
	Hourly average	2,330	2,320	2,319	2,363	2,317	2,310	2,437	2,335	2,329	2,333	2,280	2,237	2,273	2,334	2,385			

FEBRUARY 2023																			
				Wednesday 2/1/2023	Thursday 2/2/2023	Friday 2/3/2023	Saturday 2/4/2023	Sunday 2/5/2023	Monday 2/6/2023	Tuesday 2/7/2023	Wednesday 2/8/2023	Thursday 2/9/2023	Friday 2/10/2023	Saturday 2/11/2023	Sunday 2/12/2023	Monday 2/13/2023	Tuesday 2/14/2023	Wednesday 2/15/2023	Thursday 2/16/2023
LFG and Biogas Flow to the Engines (KSCF)				1,452	1,433	1,332	828	1,464	1,423	856	1,079	1,460	1,454	1,479	1,456	1,456	1,467	1,467	1,464
LFG and Biogas Flow to the Engines (MMBTU HHV)				802	802	742	478	824	794	466	603	807	813	804	820	820	796	804	813
LFG and Biogas Flow to the Flare (KSCF)				-	-	121	497	-	-	428	284	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)				-	-	67	287	-	-	233	159	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)				1,452	1,433	1,453	1,325	1,464	1,423	1,284	1,363	1,460	1,454	1,479	1,456	1,456	1,467	1,467	1,464
LFG and Biogas Total Flow (MMBTU HHV)				802	802	809	765	824	794	699	762	807	813	804	820	820	796	804	813
Average Methane Content (%)				54.6	55.3	55.0	57.0	55.6	55.1	53.8	55.2	54.6	55.3	53.7	55.7	55.7	53.6	54.2	54.9
Engine 1 Hours				24	24	24	16	24	24	15	19	24	24	24	24	24	24	24	24
Engine 2 Hours				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3 Hours				24	24	24	16	24	24	15	19	24	24	24	24	24	24	24	24
Engine 4 Hours				24	24	24	16	24	24	15	20	24	24	24	24	24	24	24	24
Generator 1 Power Output (kWhr)				19,728	19,732	17,584	12,060	19,144	18,624	11,780	14,904	19,152	19,376	19,496	19,496	19,496	19,352	19,152	18,820
Generator 2 Power Output (kWhr)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)				19,740	18,280	18,864	12,056	19,152	18,620	11,780	14,808	19,144	19,380	19,496	19,496	19,496	19,348	19,148	19,356
Generator 4 Power Output (kWhr)				19,704	19,704	18,068	12,028	19,092	18,564	11,748	14,848	19,072	19,304	19,448	19,436	19,436	19,288	19,076	19,296
Gross Power Output (kWhr)				59,196	57,738	54,633	37,099	57,441	55,887	35,391	44,689	57,507	58,168	58,554	58,567	58,567	58,113	57,506	57,614
Net Power Output (kWhr)				57,376	55,964	52,774	35,096	55,652	54,056	34,212	43,260	55,740	56,434	56,704	56,766	56,766	56,264	55,668	55,810
Power Sold as metered by NStar, (kWhr)				57,261	55,864	52,682	35,044	55,564	53,943	34,152	43,141	55,578	56,282	56,580	56,614	56,613	56,113	55,520	55,652
Offgrid RECs (kWhr)				1,820	1,774	1,859	2,003	1,789	1,831	1,179	1,429	1,767	1,734	1,850	1,801	1,801	1,849	1,838	1,804
Calculated Performance Results																			
Daily																			
Power output (kW average when running)																			
Generator 1				822	822	733	754	798	776	785	784	798	807	812	812	812	806	798	784
Generator 2				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3				823	762	786	754	798	776	785	779	798	808	812	812	812	806	798	807
Generator 4				821	821	753	752	796	774	783	742	795	804	810	810	810	804	795	804
Power output (kW average over 24-hrs)																			
Facility Gross				2,467	2,406	2,276	1,546	2,393	2,329	1,475	1,862	2,396	2,424	2,440	2,440	2,440	2,421	2,396	2,401
Facility Net				2,391	2,332	2,199	1,462	2,319	2,252	1,426	1,803	2,323	2,351	2,363	2,365	2,365	2,344	2,320	2,325
In-plant load				76	74	77	83	75	76	49	60	74	72	77	75	75	77	77	75
Daily availability factor																			
Facility				75%	75%	75%	50%	75%	75%	47%	60%	75%	75%	75%	75%	75%	75%	75%	75%
Engine 1				100%	100%	100%	67%	100%	100%	63%	79%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 2				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3				100%	100%	100%	67%	100%	100%	63%	79%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 4				100%	100%	100%	67%	100%	100%	63%	83%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																			
Facility				75%	73%	69%	47%	73%	71%	45%	56%	73%	73%	74%	74%	74%	73%	73%	73%
Engine 1				100%	100%	89%	91%	97%	94%	95%	95%	97%	98%	98%	98%	98%	98%	97%	95%
Engine 2				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3				100%	92%	95%	91%	97%	94%	95%	94%	97%	98%	98%	98%	98%	98%	97%	98%
Engine 4				100%	100%	91%	91%	96%	94%	95%	90%	96%	97%	98%	98%	98%	97%	96%	97%
Cumulative by engine																			
Engine operating run hours in the month																			
Max Cumulative Available, hours				24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
Engine 1				24	48	72	88	112	136	151	170	194	218	242	266	290	314	338	362
Engine 2				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine 3				24	48	72	88	112	136	151	170	194	218	242	266	290	314	338	362
Engine 4				24	48	72	88	112	136	151	171	195	219	243	267	291	315	339	363
Engine operating run hours total from 0 hours																			
Engine 1				130,932	130,956	130,980	131,004	131,020	131,044	131,068	131,083	131,102	131,126	131,150	131,174	131,198	131,222	131,246	131,270
Engine 2				120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051
Engine 3				130,243	130,267	130,291	130,315	130,331	130,355	130,379	130,394	130,413	130,437	130,461	130,485	130,509	130,533	130,557	130,581
Engine 4				125,781	125,805	125,829	125,853	125,869	125,893	125,917	125,932	125,952	125,976	126,000	126,024	126,048	126,072	126,096	126,120
Cumulative availability, %				February 1, 2023 @ 00:00 hours															
Engine 1				100%	100%	100%	92%	93%	94%	90%	89%	90%	91%	92%	92%	93%	93%	94%	94%
Engine 2				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3				100%	100%	100%	92%	93%	94%	90%	89%	90%	91%	92%	92%	93%	93%	94%	94%
Engine 4				100%	100%	100%	92%	93%	94%	90%	89%	90%	91%	92%	93%	93%	94%	94%	95%
Engine cumulative gross output, kWhr																			
Max cumulative capacity one engine				825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200
Engine 1				822	1,644	2,377	3,131	3,928	4,704	5,490	6,274	7,072	7,879	8,692	9,504	10,316	11,123	11,921	12,705
Engine 2				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3				823	1,584	2,370	3,124	3,922	4,698	5,483	6,262	7,060	7,867	8,680	9,492	10,304	11,111	11,908	12,715
Engine 4				821	1,642	2,395	3,147	3,942	4,716	5,499	6,241	7,036	7,840	8,651	9,460	10,270	11,074	11,869	12,673
Cumulative capacity factor, %																			
Engine 1				100%	100%	96%	95%	95%	95%	95%	95%	95%	96%	96%	96%	96%	96%	96%	96%
Engine 2				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3				100%	96%	96%	95%	95%	95%	95%	95%	95%	95%	96%	96%	96%	96%	96%	96%
Engine 4				100%	100%	97%	95%	96%	95%	95%	95%	95%	95%	95%	96%	96%	96%	96%	96%

		Wednesday 2/1/2023	Thursday 2/2/2023	Friday 2/3/2023	Saturday 2/4/2023	Sunday 2/5/2023	Monday 2/6/2023	Tuesday 2/7/2023	Wednesday 2/8/2023	Thursday 2/9/2023	Friday 2/10/2023	Saturday 2/11/2023	Sunday 2/12/2023	Monday 2/13/2023	Tuesday 2/14/2023	Wednesday 2/15/2023	Thursday 2/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	72	144	216	264	336	408	453	511	583	655	727	799	871	943	1,015	1,087
	Cumulative Availability, %	75.0%	75.0%	75.0%	68.8%	70.0%	70.8%	67.4%	66.5%	67.5%	68.2%	68.8%	69.4%	69.8%	70.2%	70.5%	70.8%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	59,196	116,934	171,567	208,666	266,107	321,994	357,385	402,074	459,581	517,749	576,303	634,870	693,437	751,550	809,056	866,670
	Cumulative Capacity Factor	74.7%	73.8%	72.2%	65.9%	67.2%	67.3%	64.1%	63.1%	64.2%	65.1%	65.9%	66.6%	67.1%	67.6%	67.9%	68.2%
	Cumulative fuel input, MMBtu HHV	802.4	1,605	2,346	2,824	3,648	4,442	4,908	5,511	6,318	7,131	7,935	8,755	9,576	10,371	11,176	11,988
	Cumulative gross output, kWhr	59196	116,934	171,567	208,666	266,107	321,994	357,385	402,074	459,581	517,749	576,303	634,870	693,437	751,550	809,056	866,670
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	12,202	12,510	12,221	11,596	12,910	12,789	11,855	12,150	12,625	12,583	12,361	12,610	12,610	12,326	12,587	12,701
	Daily heat rate, Btu/kWe gross HHV	13,555	13,897	13,576	12,881	14,342	14,207	13,169	13,497	14,024	13,978	13,731	14,008	14,008	13,692	13,983	14,109
	Cumulative heat rate, Btu/kWe gross LHV	12,202	12,354	12,312	12,184	12,341	12,419	12,363	12,339	12,375	12,398	12,395	12,414	12,431	12,423	12,435	12,452
	Cumulative heat rate, Btu/kWe gross HHV	13,555	13,724	13,677	13,535	13,709	13,796	13,734	13,707	13,747	13,773	13,769	13,791	13,809	13,800	13,813	13,833
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	3,072	3,168	3,264	3,360	3,456	3,552	3,648	3,744	3,840	3,936	4,032	4,128	4,224	4,320	4,416	4,512
	Actual cumulative engine run hours	2,982	3,054	3,126	3,174	3,246	3,318	3,363	3,421	3,493	3,565	3,637	3,709	3,781	3,853	3,925	3,997
	Cumulative Availability, %	97.1%	96.4%	95.8%	94.5%	93.9%	93.4%	92.2%	91.4%	91.0%	90.6%	90.2%	89.8%	89.5%	89.2%	88.9%	88.6%
	Max cumulative gross output, kWhr	2,537,700	2,616,900	2,696,100	2,775,300	2,854,500	2,937,000	3,016,200	3,095,400	3,174,600	3,253,800	3,333,000	3,412,200	3,491,400	3,570,600	3,649,800	3,729,000
	Actual cumulative gross output, kWhr	1,858,750	1,916,488	1,971,121	2,008,220	2,065,661	2,121,548	2,156,939	2,201,628	2,259,135	2,317,303	2,375,857	2,434,424	2,492,991	2,551,104	2,608,610	2,666,224
	Cumulative Capacity Factor	73.2%	73.2%	73.1%	72.4%	72.4%	72.2%	71.5%	71.1%	71.2%	71.2%	71.3%	71.3%	71.4%	71.4%	71.5%	71.5%
	Cumulative fuel input, MMBtu HHV	26,178	26,980	27,722	28,200	29,023	29,817	30,283	30,887	31,693	32,506	33,310	34,131	34,951	35,747	36,551	37,364
	Cumulative gross output, kWhr	1,858,750	1,916,488	1,971,121	2,008,220	2,065,661	2,121,548	2,156,939	2,201,628	2,259,135	2,317,303	2,375,857	2,434,424	2,492,991	2,551,104	2,608,610	2,666,224
	Cumulative heat rate, Btu/kWe gross LHV	12,678	12,673	12,660	12,641	12,648	12,652	12,639	12,629	12,629	12,628	12,621	12,621	12,620	12,614	12,613	12,615
	Cumulative heat rate, Btu/kWe gross HHV	14,083	14,078	14,064	14,042	14,050	14,055	14,040	14,029	14,029	14,028	14,020	14,020	14,020	14,012	14,012	14,014
Service																	
	Engine 1			District wellfield distrupction			Eversource										
	Engine 2			due to very cold and windy weather.			Utility Trip	Eversource Planned Outage									
	Engine 3																
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Wednesday 2/1/2023	Thursday 2/2/2023	Friday 2/3/2023	Saturday 2/4/2023	Sunday 2/5/2023	Monday 2/6/2023	Tuesday 2/7/2023	Wednesday 2/8/2023	Thursday 2/9/2023	Friday 2/10/2023	Saturday 2/11/2023	Sunday 2/12/2023	Monday 2/13/2023	Tuesday 2/14/2023	Wednesday 2/15/2023	Thursday 2/16/2023
	Date	2/1/2023	2/2/2023	2/3/2023	2/4/2023	2/5/2023	2/6/2023	2/7/2023	2/8/2023	2/9/2023	2/10/2023	2/11/2023	2/12/2023	2/13/2023	2/14/2023	2/15/2023	2/16/2023
	Hour																
	1	2,385	2,386	2,386	-	2,318	2,312	2,306	-	2,313	2,318	2,357	2,360	2,360	2,358	2,316	2,315
	2	2,388	2,386	2,387	-	2,318	2,312	2,313	-	2,313	2,318	2,361	2,359	2,360	2,357	2,315	2,311
	3	2,387	2,386	2,389	-	2,317	2,311	2,312	-	2,315	2,318	2,360	2,357	2,360	2,356	2,315	2,309
	4	2,386	2,386	2,388	-	2,318	2,311	2,316	-	2,313	2,315	2,361	2,356	2,360	2,354	2,315	2,312
	5	2,388	2,381	2,386	-	2,318	2,313	2,318	-	2,316	2,313	2,358	2,360	2,359	2,356	2,314	2,315
	6	2,386	2,380	2,388	-	2,318	2,312	2,316	1,462	2,314	2,318	2,360	2,361	2,360	2,357	2,311	2,312
	7	2,388	2,383	2,384	-	2,319	2,312	2,314	2,310	2,314	2,319	2,360	2,358	2,359	2,357	2,313	2,308
	8	2,387	2,387	2,383	-	2,316	2,311	2,313	2,308	2,311	2,317	2,356	2,361	2,355	2,353	2,309	2,316
	9	2,383	2,387	2,382	243	2,312	2,305	2,305	2,308	2,310	2,357	2,360	2,361	2,360	2,349	2,303	2,317
	10	2,376	1,967	2,380	2,311	2,314	2,305	2,303	2,315	2,322	2,364	2,359	2,361	2,366	2,359	2,312	2,333
	11	2,389	1,585	2,378	2,321	2,315	2,316	2,312	2,322	2,321	2,360	2,358	2,358	2,366	2,362	2,315	1,837
	12	2,391	2,197	2,382	2,323	2,314	2,318	2,312	2,322	2,320	2,355	2,357	2,359	2,360	2,361	2,309	2,364
	13	2,390	2,393	2,375	2,324	2,317	2,315	2,313	2,321	2,312	2,362	2,358	2,359	2,355	2,361	2,308	2,362
	14	2,384	2,382	2,380	2,323	2,315	2,162	2,316	2,322	2,313	2,361	2,357	2,359	2,355	2,354	2,316	2,359
	15	2,381	2,385	2,380	2,320	2,316	924	1,783	2,317	2,313	2,361	2,357	2,359	2,355	2,318	2,317	2,357
	16	2,386	2,386	2,380	2,323	2,315	2,312	-	2,314	2,314	2,353	2,357	2,360	2,355	2,318	2,310	2,353
	17	2,384	2,388	2,012	2,322	2,316	2,312	-	2,319	2,319	2,360	2,357	2,361	2,361	2,314	2,316	2,359
	18	2,387	2,388	2,362	2,322	2,314	2,311	-	2,319	2,320	2,360	2,355	2,357	2,359	2,314	2,317	2,360
	19	2,386	2,389	2,362	2,322	2,313	2,313	-	2,319	2,319	2,360	2,354	2,358	2,359	2,313	2,317	2,360
	20	2,387	2,389	2,368	2,317	2,313	2,313	-	2,311	2,314	2,359	2,353	2,357	2,359	2,303	2,317	2,359
	21	2,385	2,390	2,368	2,318	2,312	2,311	-	2,315	2,318	2,359	2,355	2,358	2,357	2,311	2,316	2,360
	22	2,384	2,388	2,367	2,319	2,311	2,313	-	2,315	2,318	2,359	2,354	2,356	2,357	2,305	2,316	2,360
	23	2,387	2,388	715	2,317	2,313	2,311	-	2,313	2,318	2,361	2,357	2,359	2,358	2,310	2,308	2,359
	24	2,386	2,387	-	2,319	2,312	2,308	-	2,309	2,318	2,355	2,359	2,360	2,358	2,313	2,315	2,355
	TOTAL	57,261	55,864	52,682	35,044	55,564	53,943	34,152	43,141	55,578	56,282	56,580	56,614	56,613	56,113	55,520	55,652
	Cumulative Output Sold, kWhr	57,261	113,125	165,807	200,851	256,415	310,358	344,510	387,651	443,229	499,511	556,091	612,705	669,318	725,431	780,951	836,603
	Transformer and line efficiency	99.8%	99.8%	99.8%	99.9%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.8%	99.7%	99.7%	99.7%	99.7%	99.7%
	Hourly average	2,386	2,328	2,195	1,460	2,315	2,248	1,423	1,798	2,316	2,345	2,358	2,359	2,359	2,338	2,313	2,319

FEBRUARY 2023																	
			Friday 2/17/2023	Saturday 2/18/2023	Sunday 2/19/2023	Monday 2/20/2023	Tuesday 2/21/2023	Wednesday 2/22/2023	Thursday 2/23/2023	Friday 2/24/2023	Saturday 2/25/2023	Sunday 2/26/2023	Monday 2/27/2023	Tuesday 2/28/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			1,478	1,482	1,491	1,472	1,459	1,442	1,456	1,477	1,483	1,465	1,421	1,539	39,234	463	38,772
LFG and Biogas Flow to the Engine			828	788	803	815	802	785	803	799	787	805	762	844	21,607	312	21,295
LFG and Biogas Flow to the Flare (t)			-	-	-	-	-	-	-	-	-	-	-	-	1,330		
LFG and BiogasFlow to the Flare (t)			-	-	-	-	-	-	-	-	-	-	-	-	746		
LFG and Biogas Total Flow (KSCF)			1,478	1,482	1,491	1,472	1,459	1,442	1,456	1,477	1,483	1,465	1,421	1,539	40,564		
LFG and Biogas Total Flow (MMBTU)			828	788	803	815	802	785	803	799	787	805	762	844	22,353		
Average Methane Content (%)			55.3	52.6	53.2	54.7	54.3	53.8	54.5	53.5	52.4	54.3	53.0	54.2	54.5		
Engine 1 Hours			24	24	24	24	24	24	24	24	24	24	24	24	650		
Engine 2 Hours			-	-	-	-	-	-	-	-	-	-	-	-	-		
Engine 3 Hours			24	24	24	24	24	24	24	24	24	24	24	24	650		
Engine 4 Hours			24	24	24	24	24	24	24	24	24	24	24	24	651		
Generator 1 Power Output (kWhr)			19,496	19,500	19,492	19,496	19,488	18,928	19,384	19,492	19,492	19,488	19,492	19,492	521,136		
Generator 2 Power Output (kWhr)			-	-	-	-	-	-	-	-	-	-	-	-	-		
Generator 3 Power Output (kWhr)			19,492	19,500	19,496	19,492	19,496	18,752	19,392	19,500	19,504	19,496	19,504	19,500	521,288		
Generator 4 Power Output (kWhr)			19,444	18,264	18,588	19,448	19,432	18,512	19,328	19,136	18,860	19,444	19,440	19,436	517,444		
Gross Power Output (kWhr)			58,590	57,416	57,781	58,626	58,619	56,311	58,173	58,207	57,929	58,511	58,520	58,520	1,563,873		
Net Power Output (kWhr)			56,748	55,468	55,842	56,696	56,628	54,506	56,324	56,312	56,068	56,680	56,640	56,614	1,513,068		
Power Sold as metered by NStar, (kWhr)			56,607	55,356	55,713	56,555	56,486	54,379	56,190	56,169	55,958	56,560	56,490	56,461	1,509,527	CRMCB inplant	
Offgrid RECs (kWhr)			1,842	1,948	1,939	1,930	1,991	1,805	1,849	1,895	1,861	1,831	1,880	1,906	50,805	15,490	
Calculated Performance Results																30%	
Daily																of total in-plant power	
		Power output (kW average when operating)															
		Generator 1	812	813	812	812	812	789	808	812	812	812	812	812			
		Generator 2	-	-	-	-	-	-	-	-	-	-	-	-			
		Generator 3	812	813	812	812	812	781	808	813	813	812	813	813			
		Generator 4	810	761	775	810	810	771	805	797	786	810	810	810			
		Power output (kW average over 24 hours)															
		Facility Gross	2,441	2,392	2,408	2,443	2,442	2,346	2,424	2,425	2,414	2,438	2,438	2,438			
		Facility Net	2,365	2,311	2,327	2,362	2,360	2,271	2,347	2,346	2,336	2,362	2,360	2,359			
		In-plant load	77	81	81	80	83	75	77	79	78	76	78	79			
		Daily availability factor															
		Facility	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
		Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Daily capacity factor															
		Facility	74%	72%	73%	74%	74%	71%	73%	73%	73%	74%	74%	74%			
		Engine 1	98%	98%	98%	98%	98%	96%	98%	98%	98%	98%	98%	98%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	98%	98%	98%	98%	98%	95%	98%	98%	99%	98%	99%	98%			
		Engine 4	98%	92%	94%	98%	98%	93%	98%	97%	95%	98%	98%	98%			
Cumulative by engine																	
		Engine operating run hours in the month															
		Max Cumulative Available, hours	408	432	456	480	504	528	552	576	600	624	648	672			
		Engine 1	386	410	434	458	482	506	530	554	578	602	626	650			
		Engine 2	0	0	0	0	0	0	0	0	0	0	0	0			
		Engine 3	386	410	434	458	482	506	530	554	578	602	626	650			
		Engine 4	387	411	435	459	483	507	531	555	579	603	627	651			
		Engine operating run hours total															
		Engine 1	131,318	131,342	131,366	131,390	131,414	131,438	131,462	131,486	131,510	131,534	131,558	131,582			
		Engine 2	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,051			
		Engine 3	130,629	130,653	130,677	130,701	130,725	130,749	130,773	130,797	130,821	130,845	130,869	130,893			
		Engine 4	126,168	126,192	126,216	126,240	126,264	126,288	126,312	126,336	126,360	126,384	126,408	126,432			
		Cumulative availability, %															
		Engine 1	95%	95%	95%	95%	96%	96%	96%	96%	96%	96%	97%	97%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	95%	95%	95%	95%	96%	96%	96%	96%	96%	96%	97%	97%			
		Engine 4	95%	95%	95%	96%	96%	96%	96%	96%	97%	97%	97%	97%			
		Engine cumulative gross output															
		Max cumulative capacity of engines	14,025	14,850	15,675	16,500	17,325	18,150	18,975	19,800	20,625	21,450	22,275	23,100			
		Engine 1	13,517	14,330	15,142	15,954	16,766	17,555	18,363	19,175	19,987	20,799	21,611	22,423			
		Engine 2	-	-	-	-	-	-	-	-	-	-	-	-			
		Engine 3	13,527	14,340	15,152	15,964	16,776	17,558	18,366	19,178	19,991	20,803	21,616	22,428			
		Engine 4	13,483	14,244	15,018	15,829	16,638	17,410	18,215	19,012	19,798	20,608	21,418	22,228			
		Cumulative capacity factor, %															
		Engine 1	96%	96%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	96%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%			
		Engine 4	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%			

		Friday 2/17/2023	Saturday 2/18/2023	Sunday 2/19/2023	Monday 2/20/2023	Tuesday 2/21/2023	Wednesday 2/22/2023	Thursday 2/23/2023	Friday 2/24/2023	Saturday 2/25/2023	Sunday 2/26/2023	Monday 2/27/2023	Tuesday 2/28/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																
	Max cumulative available engine	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688			
	Actual cumulative engine run time	1,159	1,231	1,303	1,375	1,447	1,519	1,591	1,663	1,735	1,807	1,879	1,951			
	Cumulative Availability, %	71.0%	71.2%	71.4%	71.6%	71.8%	71.9%	72.1%	72.2%	72.3%	72.4%	72.5%	72.6%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900			
	Actual cumulative gross output, kWh	925,260	982,676	1,040,457	1,099,083	1,157,702	1,214,013	1,272,186	1,330,393	1,388,322	1,446,833	1,505,353	1,563,873			
	Cumulative Capacity Factor	68.6%	68.8%	69.0%	69.2%	69.5%	69.5%	69.7%	69.9%	70.0%	70.1%	70.3%	70.4%			
	Cumulative fuel input, MMBtu	12,816	13,604	14,407	15,222	16,024	16,808	17,611	18,410	19,197	20,001	20,763	21,607			
	Cumulative gross output, kWh	925,260	982,676	1,040,457	1,099,083	1,157,702	1,214,013	1,272,186	1,330,393	1,388,322	1,446,833	1,505,353	1,563,873			
Heat Rate																
	Daily heat rate, Btu/kWe gross	12,719	12,353	12,503	12,519	12,316	12,541	12,421	12,357	12,224	12,377	11,722	12,980			
	Daily heat rate, Btu/kWe gross	14,129	13,723	13,889	13,907	13,682	13,932	13,798	13,727	13,579	13,750	13,021	14,419			
	Cumulative heat rate, Btu/kWe	12,469	12,462	12,465	12,467	12,460	12,464	12,462	12,457	12,447	12,444	12,416	12,437			
	Cumulative heat rate, Btu/kWe	13,852	13,844	13,846	13,850	13,841	13,845	13,843	13,838	13,827	13,824	13,793	13,816			
Cumulative by Facility starting 2/17/2023																
	Max cumulative available engine	4,608	4,704	4,800	4,896	4,992	5,088	5,184	5,280	5,376	5,472	5,568	5,664			
	Actual cumulative engine run time	4,069	4,141	4,213	4,285	4,357	4,429	4,501	4,573	4,645	4,717	4,789	4,861			
	Cumulative Availability, %	88.3%	88.0%	87.8%	87.5%	87.3%	87.0%	86.8%	86.6%	86.4%	86.2%	86.0%	85.8%			
	Max cumulative gross output, kWh	3,808,200	3,887,400	3,966,600	4,045,800	4,125,000	4,204,200	4,283,400	4,362,600	4,441,800	4,521,000	4,600,200	4,679,400			
	Actual cumulative gross output, kWh	2,724,814	2,782,230	2,840,011	2,898,637	2,957,256	3,013,567	3,071,740	3,129,947	3,187,876	3,246,387	3,304,907	3,363,427			
	Cumulative Capacity Factor	71.6%	71.6%	71.6%	71.6%	71.7%	71.7%	71.7%	71.7%	71.8%	71.8%	71.8%	71.9%			
	Cumulative fuel input, MMBtu	38,191	38,979	39,782	40,597	41,399	42,184	42,986	43,785	44,572	45,376	46,138	46,982			
	Cumulative gross output, kWh	2,724,814	2,782,230	2,840,011	2,898,637	2,957,256	3,013,567	3,071,740	3,129,947	3,187,876	3,246,387	3,304,907	3,363,427			
	Cumulative heat rate, Btu/kWe	12,617	12,612	12,610	12,608	12,602	12,601	12,597	12,593	12,586	12,583	12,567	12,574			
	Cumulative heat rate, Btu/kWe	14,016	14,010	14,008	14,006	13,999	13,998	13,994	13,989	13,982	13,978	13,961	13,969			
Service																
	Engine 1															
	Engine 2						H-75 Loci 3 " install									
	Engine 3															
	Engine 4															
Oil - oil and filter change																
Service - plugs, air filter, valve inspection																
	Precipitation															
	NSTAR Power Reports	Friday 2/17/2023	Saturday 2/18/2023	Sunday 2/19/2023	Monday 2/20/2023	Tuesday 2/21/2023	Wednesday 2/22/2023	Thursday 2/23/2023	Friday 2/24/2023	Saturday 2/25/2023	Sunday 2/26/2023	Monday 2/27/2023	Tuesday 2/28/2023	TOTAL		
	Date															
	Hour															
	1	2,354	2,366	2,302	2,357	2,352	2,352	2,312	2,354	2,294	2,357	2,356	2,354			
	2	2,358	2,361	2,297	2,357	2,352	2,355	2,307	2,357	2,293	2,360	2,355	2,356			
	3	2,359	2,362	2,300	2,358	2,354	2,356	2,311	2,358	2,292	2,358	2,355	2,355			
	4	2,360	2,360	2,297	2,356	2,352	2,359	2,309	2,355	2,292	2,359	2,353	2,357			
	5	2,360	2,359	2,300	2,358	2,352	2,357	2,316	2,358	2,293	2,356	2,354	2,354			
	6	2,360	2,312	2,297	2,357	2,354	2,357	2,313	2,356	2,295	2,358	2,353	2,355			
	7	2,361	2,297	2,300	2,356	2,354	2,354	2,314	2,353	2,294	2,358	2,354	2,354			
	8	2,359	2,294	2,295	2,356	2,351	2,305	2,334	2,353	2,293	2,358	2,351	2,354			
	9	2,361	2,285	2,289	2,356	2,344	2,297	2,352	2,352	2,294	2,356	2,350	2,349			
	10	2,366	2,290	2,293	2,358	2,343	2,300	2,355	2,352	2,333	2,357	2,356	2,350			
	11	2,366	2,290	2,292	2,360	2,349	1,801	2,357	2,352	2,354	2,358	2,356	2,351			
	12	2,365	2,293	2,294	2,360	2,349	1,808	2,356	2,351	2,354	2,358	2,356	2,351			
	13	2,366	2,289	2,293	2,360	2,350	2,321	2,358	2,349	2,357	2,358	2,356	2,349			
	14	2,361	2,291	2,319	2,360	2,351	2,172	2,352	2,347	2,356	2,355	2,357	2,348			
	15	2,356	2,291	2,357	2,360	2,351	2,125	2,350	2,351	2,355	2,356	2,353	2,349			
	16	2,357	2,291	2,354	2,360	2,357	2,268	2,351	2,348	2,358	2,357	2,353	2,350			
	17	2,362	2,290	2,355	2,357	2,363	2,312	2,355	2,352	2,355	2,358	2,351	2,355			
	18	2,360	2,290	2,354	2,350	2,362	2,312	2,353	2,354	2,356	2,355	2,351	2,354			
	19	2,350	2,288	2,354	2,356	2,355	2,312	2,355	2,351	2,357	2,355	2,353	2,352			
	20	2,355	2,290	2,353	2,354	2,361	2,312	2,355	2,304	2,354	2,354	2,354	2,353			
	21	2,350	2,290	2,355	2,353	2,358	2,309	2,353	2,289	2,356	2,354	2,353	2,350			
	22	2,350	2,290	2,354	2,353	2,356	2,311	2,355	2,290	2,355	2,355	2,353	2,353			
	23	2,351	2,290	2,354	2,351	2,356	2,311	2,359	2,291	2,360	2,354	2,354	2,352			
	24	2,360	2,297	2,355	2,352	2,360	2,313	2,358	2,292	2,358	2,356	2,353	2,356			
	TOTAL	56,607	55,356	55,713	56,555	56,486	54,379	56,190	56,169	55,958	56,560	56,490	56,461			
	Cumulative Output Sold, kWh	893,210	948,566	1,004,279	1,060,834	1,117,320	1,171,699	1,227,889	1,284,058	1,340,016	1,396,576	1,453,066	1,509,527			
	Transformer and line efficiency	99.8%	99.8%	99.8%	99.8%	99.7%	99.8%	99.8%	99.7%	99.8%	99.8%	99.7%	99.7%			
	Hourly average	2,359	2,307	2,321	2,356	2,354	2,266	2,341	2,340	2,332	2,357	2,354	2,353			

MARCH 2023																		
			Wednesday 3/1/2023	Thursday 3/2/2023	Friday 3/3/2023	Saturday 3/4/2023	Sunday 3/5/2023	Monday 3/6/2023	Tuesday 3/7/2023	Wednesday 3/8/2023	Thursday 3/9/2023	Friday 3/10/2023	Saturday 3/11/2023	DLST Sunday 3/12/2023	Monday 3/13/2023	Tuesday 3/14/2023	Wednesday 3/15/2023	Thursday 3/16/2023
LFG and Biogas Flow to the Engines (KSCF)			1,476	1,465	1,506	1,465	1,444	1,549	1,487	1,482	1,503	1,475	1,407	1,431	1,488	1,461	1,484	1,490
LFG and Biogas Flow to the Engines (MMBTU HHV)			789	809	798	803	764	835	805	795	803	807	767	765	804	822	796	790
LFG and Biogas Flow to the Flare (KSCF)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)			1,476	1,465	1,506	1,465	1,444	1,549	1,487	1,482	1,503	1,475	1,407	1,431	1,488	1,461	1,484	1,490
LFG and Biogas Total Flow (MMBTU HHV)			789	809	798	803	764	835	805	795	803	807	767	765	804	822	796	790
Average Methane Content (%)			52.8	54.6	52.4	54.2	52.3	53.3	53.5	53.0	52.8	54.1	53.9	52.8	53.4	55.6	53.0	52.4
Engine 1 Hours			24	24	24	24	24	24	24	24	24	24	24	23	24	24	24	24
Engine 2 Hours			-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-
Engine 3 Hours			24	24	24	24	24	24	24	24	24	24	24	23	24	24	24	24
Engine 4 Hours			24	24	24	24	24	24	24	19	24	24	24	23	24	24	24	24
Generator 1 Power Output (kWhr)			19,492	19,492	19,496	19,492	19,488	19,496	19,492	19,496	19,496	19,492	18,676	18,676	19,492	19,492	19,496	17,976
Generator 2 Power Output (kWhr)			-	-	-	-	-	-	-	3,296	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)			19,500	19,500	19,504	19,500	19,496	19,504	19,504	19,496	19,504	19,504	18,684	18,684	19,504	19,500	19,504	19,272
Generator 4 Power Output (kWhr)			19,116	19,440	18,792	19,308	18,668	19,216	19,256	14,112	18,908	19,448	18,640	18,640	19,444	19,436	18,988	18,212
Gross Power Output (kWhr)			58,183	58,506	57,859	58,375	57,727	58,309	58,372	56,464	57,952	58,490	56,036	56,036	58,490	58,481	58,052	55,513
Net Power Output (kWhr)			56,258	56,624	55,988	56,508	55,842	56,426	56,480	54,602	56,076	56,700	54,238	54,238	56,608	56,654	56,108	53,690
Power Sold as metered by NStar, (kWhr)			56,120	56,491	55,855	56,389	55,727	56,281	56,335	54,452	55,927	56,555	56,505	54,143	56,450	56,506	55,959	53,559
Offgrid RECs (kWhr)			1,925	1,882	1,871	1,867	1,885	1,883	1,892	1,862	1,876	1,790	1,798	1,798	1,882	1,827	1,944	1,823
Calculated Performance Results																		
Daily																		
	Power output (kW average when running)																	
	Generator 1		812	812	812	812	812	812	812	812	812	812	778	812	812	812	812	749
	Generator 2		-	-	-	-	-	-	-	659	-	-	-	-	-	-	-	-
	Generator 3		813	813	813	813	812	813	813	812	813	813	779	812	813	813	813	803
	Generator 4		797	810	783	805	778	801	802	743	788	810	777	810	810	810	791	759
	Power output (kW average over 24-hrs)																	
	Facility Gross		2,424	2,438	2,411	2,432	2,405	2,430	2,432	2,353	2,415	2,437	2,335	2,436	2,437	2,437	2,419	2,313
	Facility Net		2,344	2,359	2,333	2,355	2,327	2,351	2,353	2,275	2,337	2,363	2,260	2,358	2,359	2,361	2,338	2,237
	In-plant load		80	78	78	78	79	78	79	78	78	75	75	78	78	76	81	76
	Daily availability factor																	
	Facility		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	72%	75%	75%	75%	75%
	Engine 1		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 2		0%	0%	0%	0%	0%	0%	0%	21%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 4		100%	100%	100%	100%	100%	100%	100%	79%	100%	100%	100%	100%	100%	100%	100%	100%
	Daily capacity factor																	
	Facility		73%	74%	73%	74%	73%	74%	74%	71%	73%	74%	71%	74%	74%	74%	73%	70%
	Engine 1		98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	94%	98%	98%	98%	98%	91%
	Engine 2		0%	0%	0%	0%	0%	0%	0%	80%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3		98%	98%	99%	98%	98%	99%	99%	98%	99%	99%	94%	98%	99%	98%	99%	97%
	Engine 4		97%	98%	95%	98%	94%	97%	97%	90%	95%	98%	94%	98%	98%	98%	96%	92%
Cumulative by engine																		
	Engine operating run hours in the month																	
	Max Cumulative Available, hours		24	48	72	96	120	144	168	192	216	240	264	287	311	335	359	383
	Engine 1		24	48	72	96	120	144	168	192	216	240	264	287	311	335	359	383
	Engine 2		0	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5
	Engine 3		24	48	72	96	120	144	168	192	216	240	264	287	311	335	359	383
	Engine 4		24	48	72	96	120	144	168	187	211	235	259	282	306	330	354	378
	Engine operating run hours total from 0 hours																	
	Engine 1		131,582	131,606	131,630	131,654	131,678	131,702	131,726	131,774	131,798	131,822	131,846	131,869	131,893	131,917	131,941	131,965
	Engine 2		120,051	120,051	120,051	120,051	120,051	120,051	120,051	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056
	Engine 3		130,893	130,917	130,941	130,965	130,989	131,013	131,037	131,061	131,085	131,109	131,133	131,157	131,180	131,204	131,228	131,276
	Engine 4		126,432	126,456	126,480	126,504	126,528	126,552	126,576	126,600	126,619	126,643	126,667	126,691	126,714	126,738	126,762	126,810
	Cumulative availability, %	March 1, 2023 @ 00:00 hours																
	Engine 1		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 2		0%	0%	0%	0%	0%	0%	0%	3%	2%	2%	2%	2%	2%	1%	1%	1%
	Engine 3		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 4		100%	100%	100%	100%	100%	100%	100%	97%	98%	98%	98%	98%	98%	99%	99%	99%
	Engine cumulative gross output, kWhr																	
	Max cumulative capacity one engine		825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200
	Engine 1		812	1,624	2,437	3,249	4,061	4,873	5,685	6,498	7,310	8,122	8,900	9,712	10,525	11,337	12,149	12,898
	Engine 2		-	-	-	-	-	-	-	659	659	659	659	659	659	659	659	659
	Engine 3		813	1,625	2,438	3,250	4,063	4,875	5,688	6,500	7,313	8,126	8,904	9,716	10,529	11,342	12,154	12,957
	Engine 4		797	1,607	2,390	3,194	3,972	4,773	5,575	6,318	7,105	7,916	8,692	9,503	10,313	11,123	11,914	12,673
	Cumulative capacity factor, %																	
	Engine 1		98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
	Engine 2		0%	0%	0%	0%	0%	0%	0%	10%	9%	8%	7%	7%	6%	6%	5%	5%
	Engine 3		98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
	Engine 4		97%	97%	97%	97%	96%	96%	97%	96%	96%	96%	96%	96%	96%	96%	96%	96%

		Wednesday 3/1/2023	Thursday 3/2/2023	Friday 3/3/2023	Saturday 3/4/2023	Sunday 3/5/2023	Monday 3/6/2023	Tuesday 3/7/2023	Wednesday 3/8/2023	Thursday 3/9/2023	Friday 3/10/2023	Saturday 3/11/2023	Sunday 3/12/2023	Monday 3/13/2023	Tuesday 3/14/2023	Wednesday 3/15/2023	Thursday 3/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,148	1,244	1,340	1,436	1,532
	Actual cumulative engine run hours	72	144	216	288	360	432	504	576	648	720	792	861	933	1,005	1,077	1,149
	Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	58,183	116,689	174,548	232,923	290,650	348,959	407,331	463,795	521,747	580,237	636,273	692,309	750,799	809,280	867,332	922,845
	Cumulative Capacity Factor	73.5%	73.7%	73.5%	73.5%	73.4%	72.9%	73.0%	72.8%	72.9%	73.0%	72.8%	72.6%	72.7%	72.8%	72.8%	72.6%
	Cumulative fuel input, MMBtu HHV	788.9	1,598	2,396	3,199	3,963	4,798	5,603	6,399	7,202	8,009	8,776	9,541	10,345	11,166	11,962	12,752
	Cumulative gross output, kWhr	58183	116,689	174,548	232,923	290,650	348,959	407,331	463,795	521,747	580,237	636,273	692,309	750,799	809,280	867,332	922,845
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	12,206	12,443	12,420	12,388	11,914	12,893	12,414	12,679	12,477	12,425	12,322	12,289	12,366	12,650	12,336	12,811
	Daily heat rate, Btu/kWe gross HHV	13,559	13,823	13,797	13,761	13,235	14,322	13,791	14,085	13,860	13,802	13,688	13,652	13,737	14,052	13,703	14,231
	Cumulative heat rate, Btu/kWe gross LHV	12,206	12,325	12,356	12,364	12,275	12,378	12,383	12,419	12,426	12,426	12,416	12,406	12,403	12,421	12,415	12,439
	Cumulative heat rate, Btu/kWe gross HHV	13,559	13,691	13,726	13,735	13,636	13,750	13,756	13,796	13,803	13,803	13,793	13,782	13,778	13,798	13,792	13,818
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	5,760	5,856	5,952	6,048	6,144	6,240	6,336	6,432	6,528	6,624	6,720	6,812	6,908	7,004	7,100	7,196
	Actual cumulative engine run hours	4,933	5,005	5,077	5,149	5,221	5,293	5,365	5,437	5,509	5,581	5,653	5,722	5,794	5,866	5,938	6,010
	Cumulative Availability, %	85.6%	85.5%	85.3%	85.1%	85.0%	84.8%	84.7%	84.5%	84.4%	84.3%	84.1%	84.0%	83.9%	83.8%	83.6%	83.5%
	Max cumulative gross output, kWhr	4,758,600	4,837,800	4,917,000	4,996,200	5,075,400	5,157,900	5,237,100	5,316,300	5,395,500	5,474,700	5,553,900	5,633,100	5,712,300	5,791,500	5,870,700	5,949,900
	Actual cumulative gross output, kWhr	3,421,610	3,480,116	3,537,975	3,596,350	3,654,077	3,712,386	3,770,758	3,827,222	3,885,174	3,943,664	3,999,700	4,055,736	4,114,226	4,172,707	4,230,759	4,286,272
	Cumulative Capacity Factor	71.9%	71.9%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.1%	72.0%
	Cumulative fuel input, MMBtu HHV	47,771	48,580	49,378	50,181	50,945	51,781	52,586	53,381	54,184	54,991	55,758	56,523	57,327	58,149	58,944	59,734
	Cumulative gross output, kWhr	3,421,610	3,480,116	3,537,975	3,596,350	3,654,077	3,712,386	3,770,758	3,827,222	3,885,174	3,943,664	3,999,700	4,055,736	4,114,226	4,172,707	4,230,759	4,286,272
	Cumulative heat rate, Btu/kWe gross LHV	12,568	12,566	12,564	12,561	12,551	12,556	12,554	12,556	12,554	12,553	12,549	12,546	12,543	12,545	12,542	12,545
	Cumulative heat rate, Btu/kWe gross HHV	13,962	13,959	13,957	13,953	13,942	13,948	13,946	13,948	13,946	13,944	13,941	13,937	13,934	13,935	13,932	13,936
Service																	
	Engine 1																
	Engine 2																
	Engine 3																
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Wednesday 3/1/2023	Thursday 3/2/2023	Friday 3/3/2023	Saturday 3/4/2023	Sunday 3/5/2023	Monday 3/6/2023	Tuesday 3/7/2023	Wednesday 3/8/2023	Thursday 3/9/2023	Friday 3/10/2023	Saturday 3/11/2023	Sunday 3/12/2023	Monday 3/13/2023	Tuesday 3/14/2023	Wednesday 3/15/2023	Thursday 3/16/2023
	Date	3/1/2023	3/2/2023	3/3/2023	3/4/2023	3/5/2023	3/6/2023	3/7/2023	3/8/2023	3/9/2023	3/10/2023	3/11/2023	3/12/2023	3/13/2023	3/14/2023	3/15/2023	3/16/2023
	Hour																
	1	2,356	2,355	2,356	2,357	2,292	2,353	2,358	2,290	2,283	2,356	2,357	2,356	2,349	2,354	2,357	2,287
	2	2,355	2,356	2,354	2,356	2,292	2,352	2,357	2,292	2,286	2,355	2,357	2,356	2,352	2,354	2,353	2,285
	3	2,356	2,357	2,355	2,356	2,292	2,350	2,358	2,290	2,286	2,355	2,357	2,355	2,352	2,354	2,355	2,287
	4	2,353	2,357	2,354	2,358	2,291	2,352	2,356	2,294	2,288	2,356	2,357	2,355	2,350	2,355	2,352	2,287
	5	2,350	2,354	2,353	2,359	2,292	2,352	2,356	2,290	2,289	2,357	2,357	2,357	2,353	2,354	2,354	2,286
	6	2,352	2,353	2,351	2,357	2,291	2,350	2,354	2,292	2,286	2,354	2,356	2,356	2,351	2,355	2,352	2,274
	7	2,351	2,356	2,351	2,356	2,291	2,350	2,355	2,243	2,290	2,353	2,357	2,357	2,354	2,356	2,354	2,227
	8	2,319	2,353	2,288	2,357	2,293	2,324	2,351	2,103	2,290	2,350	2,355	2,355	2,351	2,355	2,348	2,225
	9	2,287	2,351	2,291	2,358	2,292	2,287	2,343	2,188	2,317	2,356	2,355	2,357	2,348	2,353	2,348	2,222
	10	2,292	2,351	2,297	2,357	2,293	2,292	2,354	2,194	2,351	2,361	2,355	2,359	2,346	2,350	2,349	1,751
	11	2,296	2,354	2,297	2,360	2,293	2,298	2,360	2,203	2,360	2,361	2,353	2,355	2,352	2,351	2,350	1,561
	12	2,295	2,354	2,297	2,359	2,294	2,357	2,364	2,202	2,359	2,362	2,354	2,355	2,355	2,354	2,350	2,222
	13	2,303	2,353	2,297	2,358	2,341	2,360	2,362	2,071	2,359	2,359	2,355	2,355	2,351	2,353	2,349	2,363
	14	2,348	2,354	2,297	2,358	2,356	2,360	2,362	2,212	2,359	2,362	2,355	2,354	2,360	2,354	2,348	2,362
	15	2,348	2,354	2,295	2,357	2,356	2,355	2,357	2,351	2,350	2,354	2,354	2,354	2,350	2,354	2,348	2,359
	16	2,353	2,353	2,287	2,357	2,356	2,352	2,357	2,350	2,354	2,352	2,354	2,354	2,347	2,358	2,348	2,339
	17	2,356	2,360	2,294	2,356	2,354	2,359	2,358	2,355	2,360	2,357	2,354	2,348	2,354	2,356	2,343	1,854
	18	2,354	2,359	2,333	2,353	2,351	2,359	2,357	2,355	2,357	2,357	2,354	2,354	2,354	2,357	2,292	2,331
	19	2,343	2,353	2,350	2,353	2,351	2,354	2,349	2,347	2,350	2,357	2,351	2,350	2,355	2,355	2,285	2,343
	20	2,346	2,351	2,347	2,349	2,349	2,346	2,351	2,352	2,343	2,357	2,353	2,351	2,353	2,357	2,289	2,342
	21	2,347	2,350	2,350	2,344	2,351	2,355	2,350	2,322	2,352	2,351	2,353	2,351	2,353	2,354	2,288	2,341
	22	2,351	2,347	2,351	2,337	2,349	2,353	2,286	2,288	2,352	2,359	2,351	2,348	2,353	2,356	2,283	2,340
	23	2,353	2,350	2,353	2,288	2,353	2,355	2,290	2,285	2,354	2,357	2,352	2,351	2,353	2,354	2,280	2,333
	24	2,356	2,356	2,357	2,289	2,354	2,356	2,290	2,283	2,352	2,357	2,349	-	2,354	2,353	2,284	2,338
	TOTAL	56,120	56,491	55,855	56,389	55,727	56,281	56,335	54,452	55,927	56,555	56,505	54,143	56,450	56,506	55,959	53,559
	Cumulative Output Sold, kWhr	56,120	112,611	168,466	224,855	280,582	336,863	393,198	447,650	503,577	560,132	616,637	670,780	727,230	783,736	839,695	893,254
	Transformer and line efficiency	99.8%	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.7%	99.7%	104.2%	99.8%	99.7%	99.7%	99.7%	99.8%
	Hourly average	2,338	2,354	2,327	2,350	2,322	2,345	2,347	2,269	2,330	2,356	2,354	2,256	2,352	2,354	2,332	2,232

MARCH 2023																				
			Friday 3/17/2023	Saturday 3/18/2023	Sunday 3/19/2023	Monday 3/20/2023	Tuesday 3/21/2023	Wednesday 3/22/2023	Thursday 3/23/2023	Friday 3/24/2023	Saturday 3/25/2023	Sunday 3/26/2023	Monday 3/27/2023	Tuesday 3/28/2023	Wednesday 3/29/2023	Thursday 3/30/2023	Friday 3/31/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			1,497	1,490	1,490	1,493	1,484	1,491	1,475	1,399	1,507	1,502	1,493	1,493	1,484	1,496	1,496	45,901	219	45,683
LFG and Biogas Flow to the Engine			790	803	790	783	783	794	807	745	784	784	775	791	786	780	799	24,546	148	24,399
LFG and Biogas Flow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and BiogasFlow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF)			1,497	1,490	1,490	1,493	1,484	1,491	1,475	1,399	1,507	1,502	1,493	1,493	1,484	1,496	1,496	45,901		
LFG and Biogas Total Flow (MMBTU)			790	803	790	783	783	794	807	745	784	784	775	791	786	780	799	24,546		
Average Methane Content (%)			52.2	53.3	52.4	51.8	52.2	52.6	54.0	52.6	51.4	51.6	51.3	52.3	52.3	51.5	52.8	52.8		
Engine 1 Hours			22	24	24	24	24	24	24	24	24	24	24	24	24	24	24	741		
Engine 2 Hours			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5		
Engine 3 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	743		
Engine 4 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	738		
Generator 1 Power Output (kWhr)			19,492	19,488	19,492	19,348	18,952	18,728	19,384	18,580	19,132	18,964	17,968	18,776	19,140	19,144	19,144	594,472		
Generator 2 Power Output (kWhr)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,296		
Generator 3 Power Output (kWhr)			19,500	19,500	19,492	19,124	18,568	18,704	19,376	18,564	19,132	18,716	17,952	18,764	17,764	19,144	18,524	592,984		
Generator 4 Power Output (kWhr)			19,084	19,092	18,912	18,376	18,152	18,404	19,136	18,348	18,616	18,464	17,784	18,716	18,992	18,316	18,280	578,296		
Gross Power Output (kWhr)			58,110	58,118	57,939	56,932	55,720	55,853	57,934	55,578	56,952	56,250	53,775	56,337	55,981	56,705	56,052	1,771,081		
Net Power Output (kWhr)			56,262	56,288	56,042	55,082	53,936	54,072	56,180	53,812	55,038	54,406	51,982	54,480	54,186	54,818	54,258	1,713,882		
Power Sold as metered by NStar, (MWhr)			56,128	56,174	55,905	54,938	53,793	53,920	56,018	53,669	54,917	54,248	51,824	54,327	54,048	54,687	54,111	1,711,961	CRMCB inplant	
Offgrid RECs (kWhr)			1,848	1,830	1,897	1,850	1,784	1,781	1,754	1,766	1,914	1,844	1,793	1,857	1,795	1,887	1,794	57,199	16,793	
Calculated Performance Results																			29%	
Daily																			of total in-plant power	
		Power output (kW average when operating)																		
		Generator 1	886	812	812	806	790	780	808	774	797	790	749	782	798	798	798			
		Generator 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Generator 3	813	813	812	797	774	779	807	774	797	780	748	782	740	798	772			
		Generator 4	795	796	788	766	756	767	797	765	776	769	741	780	791	763	762			
		Power output (kW average over 24 hours)																		
		Facility Gross	2,421	2,422	2,414	2,372	2,322	2,327	2,414	2,316	2,373	2,344	2,241	2,347	2,333	2,363	2,336			
		Facility Net	2,344	2,345	2,335	2,295	2,247	2,253	2,341	2,242	2,293	2,267	2,166	2,270	2,258	2,284	2,261			
		In-plant load	77	76	79	77	74	74	73	74	80	77	75	77	75	79	75			
		Daily availability factor																		
		Facility	73%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
		Engine 1	92%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Daily capacity factor																		
		Facility	73%	73%	73%	72%	70%	71%	73%	70%	72%	71%	68%	71%	71%	72%	71%			
		Engine 1	107%	98%	98%	98%	96%	95%	98%	94%	97%	96%	91%	95%	97%	97%	97%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	98%	98%	98%	97%	94%	94%	98%	94%	97%	95%	91%	95%	90%	97%	94%			
		Engine 4	96%	96%	96%	93%	92%	93%	97%	93%	94%	93%	90%	95%	96%	93%	92%			
Cumulative by engine																				
		Engine operating run hours in the month																		
		Max Cumulative Available, (hours)	407	431	455	479	503	527	551	575	599	623	647	671	695	719	743			
		Engine 1	405	429	453	477	501	525	549	573	597	621	645	669	693	717	741			
		Engine 2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
		Engine 3	407	431	455	479	503	527	551	575	599	623	647	671	695	719	743			
		Engine 4	402	426	450	474	498	522	546	570	594	618	642	666	690	714	738			
		Engine operating run hours total																		
		Engine 1	131,987	132,011	132,035	132,059	132,083	132,107	132,131	132,155	132,179	132,203	132,227	132,251	132,275	132,299	132,323			
		Engine 2	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056	120,056			
		Engine 3	131,300	131,324	131,348	131,372	131,396	131,420	131,444	131,468	131,492	131,516	131,540	131,564	131,588	131,612	131,636			
		Engine 4	126,834	126,858	126,882	126,906	126,930	126,954	126,978	127,002	127,026	127,050	127,074	127,098	127,122	127,146	127,170			
		Cumulative availability, %																		
		Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 2	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%			
		Engine cumulative gross output																		
		Max cumulative capacity of engines, (MWhr)	14,025	14,850	15,675	16,500	17,325	18,150	18,975	19,800	20,625	21,450	22,275	23,100	23,925	24,750	25,575			
		Engine 1	13,784	14,596	15,408	16,214	17,004	17,784	18,592	19,366	20,163	20,954	21,702	22,485	23,23					

		Friday 3/17/2023	Saturday 3/18/2023	Sunday 3/19/2023	Monday 3/20/2023	Tuesday 3/21/2023	Wednesday 3/22/2023	Thursday 3/23/2023	Friday 3/24/2023	Saturday 3/25/2023	Sunday 3/26/2023	Monday 3/27/2023	Tuesday 3/28/2023	Wednesday 3/29/2023	Thursday 3/30/2023	Friday 3/31/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																			
	Max cumulative available engine	1,628	1,724	1,820	1,916	2,012	2,108	2,204	2,300	2,396	2,492	2,588	2,684	2,780	2,876	2,972			
	Actual cumulative engine run time	1,219	1,291	1,363	1,435	1,507	1,579	1,651	1,723	1,795	1,867	1,939	2,011	2,083	2,155	2,227			
	Cumulative Availability, %	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300	2,458,500			
	Actual cumulative gross output, kWh	980,955	1,039,073	1,097,012	1,153,944	1,209,664	1,265,517	1,323,451	1,379,029	1,435,981	1,492,231	1,546,006	1,602,343	1,658,324	1,715,029	1,771,081			
	Cumulative Capacity Factor	72.7%	72.7%	72.7%	72.7%	72.6%	72.5%	72.5%	72.4%	72.4%	72.4%	72.2%	72.1%	72.1%	72.1%	72.0%			
	Cumulative fuel input, MMBtu	13,542	14,345	15,135	15,919	16,702	17,496	18,302	19,047	19,831	20,616	21,390	22,181	22,967	23,747	24,546			
	Cumulative gross output, kWh	980,955	1,039,073	1,097,012	1,153,944	1,209,664	1,265,517	1,323,451	1,379,029	1,435,981	1,492,231	1,546,006	1,602,343	1,658,324	1,715,029	1,771,081			
Heat Rate																			
	Daily heat rate, Btu/kWe gross	12,238	12,438	12,280	12,384	12,653	12,795	12,533	12,065	12,395	12,550	12,969	12,641	12,631	12,387	12,834			
	Daily heat rate, Btu/kWe gross	13,595	13,817	13,642	13,757	14,056	14,214	13,923	13,403	13,769	13,941	14,406	14,042	14,032	13,761	14,256			
	Cumulative heat rate, Btu/kWe	12,427	12,428	12,420	12,418	12,429	12,445	12,449	12,433	12,432	12,436	12,455	12,461	12,467	12,465	12,476			
	Cumulative heat rate, Btu/kWe	13,805	13,805	13,797	13,795	13,807	13,825	13,829	13,812	13,810	13,815	13,836	13,843	13,849	13,846	13,859			
Cumulative by Facility starting 3/1/2023																			
	Max cumulative available engine	7,292	7,388	7,484	7,580	7,676	7,772	7,868	7,964	8,060	8,156	8,252	8,348	8,444	8,540	8,636			
	Actual cumulative engine run time	6,080	6,152	6,224	6,296	6,368	6,440	6,512	6,584	6,656	6,728	6,800	6,872	6,944	7,016	7,088			
	Cumulative Availability, %	83.4%	83.3%	83.2%	83.1%	83.0%	82.9%	82.8%	82.7%	82.6%	82.5%	82.4%	82.3%	82.2%	82.2%	82.1%			
	Max cumulative gross output, kWh	6,029,100	6,108,300	6,187,500	6,266,700	6,345,900	6,425,100	6,504,300	6,583,500	6,662,700	6,741,900	6,821,100	6,900,300	6,979,500	7,058,700	7,137,900			
	Actual cumulative gross output, kWh	4,344,382	4,402,500	4,460,439	4,517,371	4,573,091	4,628,944	4,686,878	4,742,456	4,799,408	4,855,658	4,909,433	4,965,770	5,021,751	5,078,456	5,134,508			
	Cumulative Capacity Factor	72.1%	72.1%	72.1%	72.1%	72.1%	72.0%	72.1%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	71.9%	71.9%			
	Cumulative fuel input, MMBtu	60,524	61,327	62,118	62,901	63,684	64,478	65,284	66,029	66,814	67,598	68,372	69,164	69,949	70,729	71,528			
	Cumulative gross output, kWh	4,344,382	4,402,500	4,460,439	4,517,371	4,573,091	4,628,944	4,686,878	4,742,456	4,799,408	4,855,658	4,909,433	4,965,770	5,021,751	5,078,456	5,134,508			
	Cumulative heat rate, Btu/kWe	12,541	12,540	12,536	12,535	12,536	12,539	12,539	12,533	12,532	12,532	12,537	12,538	12,539	12,537	12,541			
	Cumulative heat rate, Btu/kWe	13,932	13,930	13,926	13,924	13,926	13,929	13,929	13,923	13,921	13,921	13,927	13,928	13,929	13,927	13,931			
Service																			
	Engine 1																		
	Engine 2																		
	Engine 3																		
	Engine 4																		
Oil - oil and filter change																			
Service - plugs, air filter, valve inspection																			
	Precipitation																		
	NSTAR Power Reports	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday			
	Date	3/17/2023	3/18/2023	3/19/2023	3/20/2023	3/21/2023	3/22/2023	3/23/2023	3/24/2023	3/25/2023	3/26/2023	3/27/2023	3/28/2023	3/29/2023	3/30/2023	3/31/2023	TOTAL		
	Hour																		
	1	2,334	2,331	2,339	2,292	2,310	2,315	2,311	2,342	2,302	2,311	2,165	2,165	2,304	2,311	2,234			
	2	2,335	2,340	2,337	2,293	2,312	2,316	2,311	2,342	2,300	2,311	2,164	2,166	2,305	2,312	2,216			
	3	2,335	2,340	2,336	2,263	2,310	2,318	2,311	2,342	2,305	2,314	2,164	2,166	2,309	2,314	2,218			
	4	2,332	2,340	2,334	2,232	2,311	2,320	2,307	2,335	2,307	2,311	2,162	2,166	2,309	2,311	2,217			
	5	2,334	2,342	2,338	2,230	2,309	2,322	2,312	2,341	2,307	2,314	2,160	2,165	2,307	2,311	2,218			
	6	2,333	2,343	2,337	2,227	2,306	2,318	2,312	2,335	2,309	2,311	2,160	2,161	2,304	2,305	2,215			
	7	2,333	2,342	2,336	2,282	2,307	2,320	2,312	2,334	2,299	2,311	2,160	2,162	2,305	2,303	2,211			
	8	2,333	2,340	2,339	2,286	2,305	2,317	2,319	2,331	2,258	2,314	2,160	2,236	2,302	2,301	2,211			
	9	2,334	2,336	2,338	2,287	2,262	2,263	2,350	2,338	2,258	2,311	2,163	2,308	2,215	2,274	2,211			
	10	2,344	2,342	2,339	2,294	1,664	2,262	2,356	2,341	2,258	2,313	2,168	2,314	1,922	2,265	2,217			
	11	2,342	2,342	2,336	2,295	1,268	1,007	2,353	2,237	2,258	2,310	2,168	2,313	1,539	2,265	2,217			
	12	2,340	2,343	2,336	2,295	2,218	2,086	2,357	312	2,257	2,280	2,138	2,313	2,158	2,265	2,218			
	13	2,344	2,343	2,336	2,295	2,331	2,316	2,349	2,314	2,260	2,260	2,119	2,318	2,317	2,266	2,226			
	14	2,343	2,343	2,336	2,287	2,329	2,314	2,347	2,317	2,258	2,259	2,121	2,308	2,315	2,264	2,268			
	15	2,340	2,342	2,336	2,278	2,326	2,314	2,342	2,315	2,258	2,260	2,160	2,308	2,309	2,256	2,265			
	16	2,336	2,342	2,336	2,308	2,324	2,311	2,336	2,317	2,262	2,236	2,168	2,308	2,309	2,256	2,262			
	17	2,342	2,342	2,336	2,313	2,325	2,312	2,342	2,312	2,306	2,211	2,164	2,313	2,314	2,265	2,288			
	18	2,342	2,344	2,339	2,316	2,326	2,316	2,340	2,312	2,306	2,212	2,165	2,311	2,317	2,266	2,314			
	19	2,342	2,344	2,331	2,314	2,326	2,313	2,338	2,312	2,306	2,212	2,166	2,309	2,316	2,267	2,314			
	20	2,342	2,343	2,337	2,310	2,326	2,313	2,343	2,311	2,305	2,212	2,165	2,308	2,316	2,268	2,315			
	21	2,342	2,336	2,308	2,308	2,325	2,312	2,343	2,309	2,305	2,186	2,166	2,301	2,315	2,263	2,314			
	22	2,342	2,339	2,286	2,312	2,324	2,312	2,343	2,309	2,308	2,163	2,166	2,306	2,315	2,262	2,314			
	23	2,342	2,339	2,290	2,312	2,324	2,311	2,342	2,305	2,311	2,165	2,171	2,302	2,314	2,257	2,314			
	24	2,342	2,336	2,289	2,309	2,325	2,312	2,342	2,306	2,314	2,161	2,161	2,300	2,312	2,260	2,314			
	TOTAL	56,128	56,174	55,905	54,938	53,793	53,920	56,018	53,669	54,917	54,248	51,824	54,327	54,048	54,687	54,111			
	Cumulative Output Sold, kWh	949,382	1,005,556	1,061,461	1,116,399	1,170,192	1,224,112	1,280,130	1,333,799	1,388,716	1,442,964	1,494,788	1,549,115	1,603,163	1,657,850	1,711,961			
	Transformer and line efficiency	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.7%	99.7%	99.8%	99.7%	99.7%	99.7%	99.7%	99.8%	99.7%	0.0%		
	Hourly average	2,339	2,341	2,329	2,289	2,241	2,247	2,334	2,236	2,288	2,260	2,159	2,264	2,252	2,279	2,255	2,301		

APRIL 2023																			
				Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
				4/1/2023	4/2/2023	4/3/2023	4/4/2023	4/5/2023	4/6/2023	4/7/2023	4/8/2023	4/9/2023	4/10/2023	4/11/2023	4/12/2023	4/13/2023	4/14/2023	4/15/2023	4/16/2023
LFG and Biogas Flow to the Engines (KSCF)				1,447	1,474	1,447	1,447	1,419	1,419	1,444	1,433	1,442	1,442	1,408	1,477	1,459	1,430	1,417	1,417
LFG and Biogas Flow to the Engines (MMBTU HHV)				815	797	782	789	784	784	787	768	771	778	786	822	795	776	772	772
LFG and Biogas Flow to the Flare (KSCF)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)				1,447	1,474	1,447	1,447	1,419	1,419	1,444	1,433	1,442	1,442	1,408	1,477	1,459	1,430	1,417	1,417
LFG and Biogas Total Flow (MMBTU HHV)				815	797	782	789	784	784	787	768	771	778	786	822	795	776	772	772
Average Methane Content (%)				55.7	53.5	53.4	53.9	54.6	54.6	53.9	52.9	52.9	53.3	55.2	55.0	53.9	53.6	53.8	53.8
Engine 1 Hours				24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Engine 2 Hours				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3 Hours				24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Engine 4 Hours				24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Generator 1 Power Output (kWhr)				19,136	18,448	17,964	17,964	17,496	18,788	19,144	19,144	19,144	19,140	18,312	19,152	18,972	17,988	17,964	17,964
Generator 2 Power Output (kWhr)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)				19,140	18,320	18,428	19,136	18,676	18,560	17,940	17,512	17,368	17,940	16,976	18,772	18,640	17,848	17,944	17,932
Generator 4 Power Output (kWhr)				18,964	18,464	19,076	19,028	18,324	18,464	17,100	16,736	16,728	17,020	16,960	18,592	17,924	17,684	16,812	17,052
Gross Power Output (kWhr)				57,347	55,335	55,541	56,187	54,573	55,922	54,289	53,506	53,367	54,209	52,349	56,599	55,640	53,633	52,836	53,068
Net Power Output (kWhr)				55,596	53,540	53,804	54,438	52,794	54,194	52,452	51,684	51,580	52,438	50,640	54,846	53,864	51,908	51,220	51,490
Power Sold as metered by NStar, (kWhr)				55,441	53,381	53,644	54,270	52,640	54,039	52,309	51,552	51,426	52,279	50,500	54,654	53,686	51,745	51,054	51,351
Offgrid RECs (kWhr)				1,751	1,795	1,737	1,749	1,779	1,728	1,837	1,822	1,787	1,771	1,709	1,753	1,776	1,725	1,616	1,578
Calculated Performance Results																			
Daily																			
Power output (kW average when running)																			
	Generator 1			797	769	749	749	729	783	798	798	798	798	763	798	791	750	749	749
	Generator 2			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Generator 3			798	763	768	797	778	773	748	730	724	748	707	782	777	744	748	747
	Generator 4			790	769	795	793	764	769	713	697	697	709	707	775	747	737	701	711
Power output (kW average over 24-hrs)																			
	Facility Gross			2,389	2,306	2,314	2,341	2,274	2,330	2,262	2,229	2,224	2,259	2,181	2,358	2,318	2,235	2,202	2,211
	Facility Net			2,317	2,231	2,242	2,268	2,200	2,258	2,186	2,154	2,149	2,185	2,110	2,285	2,244	2,163	2,134	2,145
	In-plant load			73	75	72	73	74	72	77	76	74	74	71	73	74	72	67	66
Daily availability factor																			
	Facility			75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
	Engine 1			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 2			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 4			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																			
	Facility			72%	70%	70%	71%	69%	71%	69%	68%	67%	68%	66%	71%	70%	68%	67%	67%
	Engine 1			97%	93%	91%	91%	88%	95%	97%	97%	97%	97%	92%	97%	96%	91%	91%	91%
	Engine 2			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3			97%	93%	93%	97%	94%	94%	91%	88%	88%	91%	86%	95%	94%	90%	91%	91%
	Engine 4			96%	93%	96%	96%	93%	93%	86%	85%	84%	86%	86%	94%	91%	89%	85%	86%
Cumulative by engine																			
Engine operating run hours in the month																			
	Max Cumulative Available, hours			24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
	Engine 1			24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
	Engine 2			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Engine 3			24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
	Engine 4			24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
Engine operating run hours total from 0 hours																			
	Engine 1			132,969	132,993	133,017	133,041	133,065	133,089	133,113	133,137	133,161	133,185	133,209	133,233	133,257	133,281	133,305	133,329
	Engine 2			120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706
	Engine 3			132,284	132,308	132,332	132,356	132,380	132,404	132,428	132,452	132,476	132,500	132,524	132,548	132,572	132,596	132,620	132,668
	Engine 4			127,830	127,854	127,878	127,902	127,926	127,950	127,974	127,998	128,022	128,046	128,070	128,094	128,118	128,142	128,166	128,214
Cumulative availability, %				April 1, 2023 @ 00:00 hours															
	Engine 1			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 2			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 4			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Engine cumulative gross output, kWhr																			
	Max cumulative capacity one engine			825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200
	Engine 1			797	1,566	2,315	3,063	3,792	4,575	5,373	6,170	6,968	7,765	8,528	9,326	10,117	10,866	11,615	12,363
	Engine 2			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Engine 3			798	1,561	2,329	3,126	3,904	4,678	5,425	6,155	6,878	7,626	8,333	9,115	9,892	10,636	11,383	12,131
	Engine 4			790	1,560	2,354	3,147	3,911	4,680	5,393	6,090	6,787	7,496	8,203	8,977	9,724	10,461	11,162	11,872
Cumulative capacity factor, %																			
	Engine 1			97%	95%	94%	93%	92%	92%	93%	93%	94%	94%	94%	94%	94%	94%	94%	94%
	Engine 2			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3			97%	95%	94%	95%	95%	94%	94%	93%	93%	92%						

		Saturday 4/1/2023	Sunday 4/2/2023	Monday 4/3/2023	Tuesday 4/4/2023	Wednesday 4/5/2023	Thursday 4/6/2023	Friday 4/7/2023	Saturday 4/8/2023	Sunday 4/9/2023	Monday 4/10/2023	Tuesday 4/11/2023	Wednesday 4/12/2023	Thursday 4/13/2023	Friday 4/14/2023	Saturday 4/15/2023	Sunday 4/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	72	144	216	288	360	432	504	576	648	720	792	864	936	1,008	1,080	1,152
	Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	57,347	112,682	168,223	224,410	278,983	334,905	389,194	442,700	496,067	550,276	602,625	659,224	714,864	768,497	821,333	874,401
	Cumulative Capacity Factor	72.4%	71.1%	70.8%	70.8%	70.5%	70.0%	69.8%	69.5%	69.3%	69.2%	68.9%	69.1%	69.2%	69.1%	68.9%	68.8%
	Cumulative fuel input, MMBtu HHV	815.2	1,613	2,395	3,184	3,969	4,753	5,540	6,308	7,079	7,857	8,644	9,466	10,261	11,037	11,809	12,581
	Cumulative gross output, kWhr	57347	112,682	168,223	224,410	278,983	334,905	389,194	442,700	496,067	550,276	602,625	659,224	714,864	768,497	821,333	874,401
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	12,797	12,972	12,681	12,644	12,937	12,625	13,055	12,916	13,010	12,924	13,520	13,079	12,866	13,026	13,148	13,090
	Daily heat rate, Btu/kWe gross HHV	14,215	14,410	14,087	14,046	14,372	14,025	14,502	14,348	14,453	14,357	15,018	14,529	14,292	14,471	14,606	14,542
	Cumulative heat rate, Btu/kWe gross LHV	12,797	12,883	12,816	12,773	12,805	12,775	12,814	12,826	12,846	12,854	12,912	12,926	12,921	12,929	12,943	12,952
	Cumulative heat rate, Btu/kWe gross HHV	14,215	14,311	14,237	14,189	14,225	14,191	14,235	14,248	14,270	14,279	14,343	14,359	14,354	14,362	14,378	14,388
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	8,732	8,828	8,924	9,020	9,116	9,212	9,308	9,404	9,500	9,596	9,692	9,788	9,884	9,980	10,076	10,172
	Actual cumulative engine run hours	7,160	7,232	7,304	7,376	7,448	7,520	7,592	7,664	7,736	7,808	7,880	7,952	8,024	8,096	8,168	8,240
	Cumulative Availability, %	82.0%	81.9%	81.8%	81.8%	81.7%	81.6%	81.6%	81.5%	81.4%	81.4%	81.3%	81.2%	81.2%	81.1%	81.1%	81.0%
	Max cumulative gross output, kWhr	7,217,100	7,296,300	7,375,500	7,454,700	7,533,900	7,616,400	7,695,600	7,774,800	7,854,000	7,933,200	8,012,400	8,091,600	8,170,800	8,250,000	8,329,200	8,408,400
	Actual cumulative gross output, kWhr	5,191,855	5,247,190	5,302,731	5,358,918	5,413,491	5,469,413	5,523,702	5,577,208	5,630,575	5,684,784	5,737,133	5,793,732	5,849,372	5,903,005	5,955,841	6,008,909
	Cumulative Capacity Factor	71.9%	71.9%	71.9%	71.9%	71.9%	71.8%	71.8%	71.7%	71.7%	71.7%	71.6%	71.6%	71.6%	71.6%	71.5%	71.5%
	Cumulative fuel input, MMBtu HHV	72,344	73,141	73,923	74,713	75,497	76,281	77,069	77,836	78,608	79,386	80,172	80,994	81,790	82,566	83,337	84,109
	Cumulative gross output, kWhr	5,191,855	5,247,190	5,302,731	5,358,918	5,413,491	5,469,413	5,523,702	5,577,208	5,630,575	5,684,784	5,737,133	5,793,732	5,849,372	5,903,005	5,955,841	6,008,909
	Cumulative heat rate, Btu/kWe gross LHV	12,543	12,548	12,549	12,550	12,554	12,555	12,560	12,563	12,568	12,571	12,580	12,584	12,587	12,591	12,596	12,600
	Cumulative heat rate, Btu/kWe gross HHV	13,934	13,939	13,941	13,942	13,946	13,947	13,952	13,956	13,961	13,965	13,974	13,980	13,983	13,987	13,993	13,997
Service																	
	Engine 1																
	Engine 2																
	Engine 3																
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Saturday 4/1/2023	Sunday 4/2/2023	Monday 4/3/2023	Tuesday 4/4/2023	Wednesday 4/5/2023	Thursday 4/6/2023	Friday 4/7/2023	Saturday 4/8/2023	Sunday 4/9/2023	Monday 4/10/2023	Tuesday 4/11/2023	Wednesday 4/12/2023	Thursday 4/13/2023	Friday 4/14/2023	Saturday 4/15/2023	Sunday 4/16/2023
	Date	4/1/2023	4/2/2023	4/3/2023	4/4/2023	4/5/2023	4/6/2023	4/7/2023	4/8/2023	4/9/2023	4/10/2023	4/11/2023	4/12/2023	4/13/2023	4/14/2023	4/15/2023	4/16/2023
	Hour																
	1	2,313	2,314	2,210	2,266	2,265	2,261	2,209	2,166	2,165	2,166	2,216	2,218	2,274	2,176	2,176	2,129
	2	2,310	2,315	2,208	2,267	2,266	2,261	2,216	2,166	2,166	2,166	2,215	2,219	2,266	2,205	2,155	2,129
	3	2,308	2,314	2,204	2,267	2,267	2,269	2,216	2,163	2,168	2,168	2,216	2,218	2,269	2,225	2,128	2,128
	4	2,308	2,314	2,207	2,267	2,253	2,268	2,216	2,159	2,165	2,165	2,216	2,218	2,272	2,219	2,127	2,130
	5	2,308	2,314	2,211	2,262	2,219	2,265	2,214	2,159	2,166	2,165	2,215	2,219	2,268	2,177	2,128	2,130
	6	2,309	2,313	2,214	2,265	2,172	2,266	2,211	2,164	2,167	2,162	2,215	2,216	2,264	2,175	2,128	2,130
	7	2,306	2,275	2,212	2,262	2,167	2,264	2,213	2,132	2,151	2,162	2,212	2,212	2,266	2,174	2,128	2,130
	8	2,302	2,245	2,209	2,261	2,162	2,304	2,176	2,116	2,119	2,160	2,212	2,280	2,268	2,157	2,129	2,131
	9	2,300	2,212	2,215	2,268	1,765	2,314	2,157	2,117	2,120	2,164	1,016	2,306	2,260	2,115	2,124	2,131
	10	2,300	2,207	2,217	2,268	1,923	2,317	2,162	2,119	2,121	2,169	767	2,306	2,213	2,112	2,123	2,131
	11	2,299	2,166	2,220	2,268	1,921	2,317	2,161	2,119	2,119	2,170	2,143	2,303	2,209	1,887	2,123	2,126
	12	2,298	2,166	2,222	2,253	2,211	2,286	2,161	2,120	2,119	2,170	2,219	2,310	2,209	2,124	2,124	2,125
	13	2,310	2,167	2,221	2,225	2,210	2,248	2,162	2,120	2,119	2,170	2,219	2,311	2,209	2,158	2,121	2,125
	14	2,313	2,167	2,223	2,262	2,218	2,223	2,161	2,120	2,119	2,172	2,217	2,310	2,216	2,157	2,121	2,124
	15	2,313	2,167	2,246	2,263	2,260	2,218	2,168	2,120	2,119	2,171	2,218	2,307	2,256	2,157	2,120	2,123
	16	2,314	2,167	2,260	2,256	2,259	2,218	2,173	2,167	2,120	2,171	2,219	2,307	2,256	2,158	2,121	2,123
	17	2,318	2,167	2,267	2,258	2,264	2,217	2,173	2,168	2,120	2,166	2,216	2,312	2,263	2,164	2,120	2,123
	18	2,318	2,167	2,269	2,259	2,264	2,219	2,173	2,168	2,120	2,168	2,221	2,313	2,264	2,167	2,121	2,148
	19	2,317	2,173	2,269	2,259	2,264	2,219	2,163	2,163	2,152	2,216	2,223	2,313	2,256	2,169	2,121	2,172
	20	2,317	2,213	2,269	2,259	2,264	2,215	2,161	2,166	2,161	2,217	2,220	2,314	2,216	2,172	2,121	2,173
	21	2,316	2,213	2,268	2,259	2,258	2,215	2,165	2,167	2,163	2,206	2,221	2,316	2,195	2,172	2,121	2,173
	22	2,316	2,211	2,268	2,262	2,265	2,217	2,166	2,164	2,161	2,211	2,220	2,280	2,168	2,176	2,121	2,173
	23	2,314	2,206	2,268	2,267	2,259	2,219	2,167	2,165	2,161	2,212	2,224	2,272	2,173	2,175	2,123	2,172
	24	2,314	2,208	2,267	2,267	2,264	2,219	2,165	2,164	2,165	2,212	2,220	2,274	2,176	2,174	2,130	2,172
	TOTAL	55,441	53,381	53,644	54,270	52,640	54,039	52,309	51,552	51,426	52,279	50,500	54,654	53,686	51,745	51,054	51,351
	Cumulative Output Sold, kWhr	55,441	108,822	162,466	216,736	269,376	323,415	375,724	427,276	478,702	530,981	581,481	636,135	689,821	741,566	792,620	843,971
	Transformer and line efficiency	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.6%	99.7%	99.7%	99.7%	99.7%
	Hourly average	2,310	2,224	2,235	2,261	2,193	2,252	2,180	2,148	2,143	2,178	2,104	2,277	2,237	2,156	2,127	2,140

APRIL 2023																			
			Monday 4/17/2023	Tuesday 4/18/2023	Wednesday 4/19/2023	Thursday 4/20/2023	Friday 4/21/2023	Saturday 4/22/2023	Sunday 4/23/2023	Monday 4/24/2023	Tuesday 4/25/2023	Wednesday 4/26/2023	Thursday 4/27/2023	Friday 4/28/2023	Saturday 4/29/2023	Sunday 4/30/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			1,411	1,411	1,427	1,419	1,411	1,405	1,405	1,418	1,411	1,411	1,415	1,419	1,411	1,400	42,793	130	42,664
LFG and Biogas Flow to the Engine			782	773	768	768	768	766	785	779	769	769	787	805	812	798	23,508	87	23,420
LFG and Biogas Flow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and BiogasFlow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF)			1,411	1,411	1,427	1,419	1,411	1,405	1,405	1,418	1,411	1,411	1,415	1,419	1,411	1,400	42,793		
LFG and Biogas Total Flow (MMBTU)			782	773	768	768	768	766	785	779	769	769	787	805	812	798	23,508		
Average Methane Content (%)			54.8	54.2	53.2	53.5	53.8	53.8	55.2	54.3	53.9	53.9	54.9	56.0	56.8	56.3	54.3		
Engine 1 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	720		
Engine 2 Hours			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Engine 3 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	720		
Engine 4 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	720		
Generator 1 Power Output (kWhr)			17,964	17,968	17,884	17,968	17,968	17,968	17,960	17,972	17,968	17,836	18,592	18,864	19,148	19,140	551,920		
Generator 2 Power Output (kWhr)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Generator 3 Power Output (kWhr)			17,940	17,936	17,628	17,732	17,940	17,940	17,936	17,944	17,944	17,800	18,576	19,320	19,476	18,748	545,992		
Generator 4 Power Output (kWhr)			17,920	17,696	16,848	17,280	17,924	17,920	17,920	17,920	17,132	17,008	18,456	18,968	19,064	18,192	535,176		
Gross Power Output (kWhr)			53,925	53,714	52,463	53,085	53,937	53,960	53,950	53,927	53,143	52,723	55,692	57,207	57,799	56,213	1,636,139		
Net Power Output (kWhr)			52,264	51,964	50,664	51,274	52,158	52,142	52,152	52,066	51,218	50,886	53,884	55,414	55,984	54,328	1,582,886		
Power Sold as metered by NStar, (MWhr)			52,082	51,800	50,498	51,117	52,004	51,980	51,996	51,896	51,047	50,730	53,732	55,259	55,836	54,164	1,578,112	CRMCB inplant	
Offgrid RECs (kWhr)			1,661	1,750	1,799	1,811	1,779	1,818	1,798	1,861	1,925	1,837	1,808	1,793	1,815	1,885	53,253	14,700	
Calculated Performance Results																		28%	
Daily																		of total in-plant power	
		Power output (kW average when operating)																	
		Generator 1	749	749	745	749	749	749	748	749	749	743	775	786	798	798			
		Generator 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Generator 3	748	747	735	739	748	748	747	748	748	742	774	805	812	781			
		Generator 4	747	737	702	720	747	747	747	747	714	709	769	790	794	758			
Power output (kW average over month)																			
		Facility Gross	2,247	2,238	2,186	2,212	2,247	2,248	2,248	2,247	2,214	2,197	2,321	2,384	2,408	2,342			
		Facility Net	2,178	2,165	2,111	2,136	2,173	2,173	2,173	2,169	2,134	2,120	2,245	2,309	2,333	2,264			
		In-plant load	69	73	75	75	74	76	75	78	80	77	75	75	76	79			
Daily availability factor																			
		Facility	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
		Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Daily capacity factor																			
		Facility	68%	68%	66%	67%	68%	68%	68%	68%	67%	67%	70%	72%	73%	71%			
		Engine 1	91%	91%	90%	91%	91%	91%	91%	91%	91%	90%	94%	95%	97%	97%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	91%	91%	89%	90%	91%	91%	91%	91%	91%	90%	94%	98%	98%	95%			
		Engine 4	91%	89%	85%	87%	91%	91%	91%	91%	87%	86%	93%	96%	96%	92%			
Cumulative by engine																			
Engine operating run hours in the month																			
		Max Cumulative Available, hours	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
		Engine 1	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
		Engine 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		Engine 3	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
		Engine 4	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
Engine operating run hours total																			
		Engine 1	133,377	133,401	133,425	133,449	133,473	133,497	133,521	133,545	133,569	133,593	133,617	133,641	133,665	133,689			
		Engine 2	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706			
		Engine 3	132,692	132,716	132,740	132,764	132,788	132,812	132,836	132,860	132,884	132,908	132,932	132,956	132,980	133,004			
		Engine 4	128,238	128,262	128,286	128,310	128,334	128,358	128,382	128,406	128,430	128,454	128,478	128,502	128,526	128,550			
Cumulative availability, %																			
		Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Engine cumulative gross output																			
		Max cumulative capacity of engine	14,025	14,850	15,675	16,500	17,325	18,150	18,975	19,800	20,625	21,450	22,275	23,100	23,925	24,750			
		Engine 1	13,112	13,861	14,606	15,354	16,103	16,852	17,600	18,349	19,098	19,841	20,615	21,401	22,199	22,997			
		Engine 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Engine 3	12,878	13,625	14,360	15,099	15,846	16,594	17,341	18,089	18,836	19,578	20,352	21,157	21,969	22,750			
		Engine 4	12,619	13,356	14,058	14,778	15,525	16,272	17,018	17,765	18,479	19,187	19,956	20,747	21,541	22,299			
Cumulative capacity factor, %																			
		Engine 1	93%	93%	93%	93%	93%	93%	93%	93%	93%	92%	93%	93%	93%	93%			
		Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 3	92%	92%	92%	92%	91%	91%	91%	91%	91%	91%	91%	92%	92%	92%			
		Engine 4	90%	90%	90%	90%	90%	90%	90%	90%	90%	89%	90%	90%	90%	90%			

		Monday 4/17/2023	Tuesday 4/18/2023	Wednesday 4/19/2023	Thursday 4/20/2023	Friday 4/21/2023	Saturday 4/22/2023	Sunday 4/23/2023	Monday 4/24/2023	Tuesday 4/25/2023	Wednesday 4/26/2023	Thursday 4/27/2023	Friday 4/28/2023	Saturday 4/29/2023	Sunday 4/30/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																		
	Max cumulative available engine run time, hours	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688	2,784	2,880			
	Actual cumulative engine run time, hours	1,224	1,296	1,368	1,440	1,512	1,584	1,656	1,728	1,800	1,872	1,944	2,016	2,088	2,160			
	Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300			
	Actual cumulative gross output, kWh	928,326	982,040	1,034,503	1,087,588	1,141,525	1,195,485	1,249,435	1,303,362	1,356,505	1,409,228	1,464,920	1,522,127	1,579,926	1,636,139			
	Cumulative Capacity Factor	68.8%	68.7%	68.6%	68.5%	68.5%	68.5%	68.5%	68.5%	68.4%	68.3%	68.4%	68.5%	68.7%	68.8%			
	Cumulative fuel input, MMBtu	13,362	14,135	14,904	15,672	16,440	17,205	17,990	18,769	19,538	20,307	21,094	21,898	22,710	23,508			
	Cumulative gross output, kWh	928,326	982,040	1,034,503	1,087,588	1,141,525	1,195,485	1,249,435	1,303,362	1,356,505	1,409,228	1,464,920	1,522,127	1,579,926	1,636,139			
Heat Rate																		
	Daily heat rate, Btu/kWe gross	13,048	12,958	13,180	13,025	12,819	12,772	13,090	13,007	13,023	13,127	12,719	12,659	12,647	12,776			
	Daily heat rate, Btu/kWe gross	14,494	14,395	14,641	14,469	14,241	14,188	14,541	14,449	14,467	14,582	14,129	14,063	14,049	14,192			
	Cumulative heat rate, Btu/kWe	12,957	12,957	12,969	12,971	12,964	12,956	12,961	12,963	12,966	12,972	12,962	12,951	12,940	12,934			
	Cumulative heat rate, Btu/kWe	14,394	14,394	14,406	14,410	14,402	14,392	14,398	14,400	14,403	14,410	14,399	14,386	14,374	14,368			
Cumulative by Facility starting 4/17/2023																		
	Max cumulative available engine run time, hours	10,268	10,364	10,460	10,556	10,652	10,748	10,844	10,940	11,036	11,132	11,228	11,324	11,420	11,516			
	Actual cumulative engine run time, hours	8,312	8,384	8,456	8,528	8,600	8,672	8,744	8,816	8,888	8,960	9,032	9,104	9,176	9,248			
	Cumulative Availability, %	81.0%	80.9%	80.8%	80.8%	80.7%	80.7%	80.6%	80.6%	80.5%	80.5%	80.4%	80.4%	80.4%	80.3%			
	Max cumulative gross output, kWh	8,487,600	8,566,800	8,646,000	8,725,200	8,804,400	8,883,600	8,962,800	9,042,000	9,121,200	9,200,400	9,279,600	9,358,800	9,438,000	9,517,200			
	Actual cumulative gross output, kWh	6,062,834	6,116,548	6,169,011	6,222,096	6,276,033	6,329,993	6,383,943	6,437,870	6,491,013	6,543,736	6,599,428	6,656,635	6,714,434	6,770,647			
	Cumulative Capacity Factor	71.4%	71.4%	71.4%	71.3%	71.3%	71.3%	71.2%	71.2%	71.2%	71.1%	71.1%	71.1%	71.1%	71.1%			
	Cumulative fuel input, MMBtu	84,891	85,664	86,432	87,200	87,968	88,734	89,518	90,297	91,066	91,835	92,622	93,426	94,238	95,036			
	Cumulative gross output, kWh	6,062,834	6,116,548	6,169,011	6,222,096	6,276,033	6,329,993	6,383,943	6,437,870	6,491,013	6,543,736	6,599,428	6,656,635	6,714,434	6,770,647			
	Cumulative heat rate, Btu/kWe	12,604	12,608	12,612	12,616	12,618	12,619	12,623	12,626	12,629	12,633	12,634	12,634	12,634	12,636			
	Cumulative heat rate, Btu/kWe	14,002	14,005	14,011	14,015	14,017	14,018	14,022	14,026	14,030	14,034	14,035	14,035	14,035	14,037			
Service																		
	Engine 1																	
	Engine 2																	
	Engine 3																	
	Engine 4																	
Oil - oil and filter change																		
Service - plugs, air filter, valve inspection																		
	Precipitation																	
	NSTAR Power Reports	Monday 4/17/2023	Tuesday 4/18/2023	Wednesday 4/19/2023	Thursday 4/20/2023	Friday 4/21/2023	Saturday 4/22/2023	Sunday 4/23/2023	Monday 4/24/2023	Tuesday 4/25/2023	Wednesday 4/26/2023	Thursday 4/27/2023	Friday 4/28/2023	Saturday 4/29/2023	Sunday 4/30/2023	TOTAL		
	Date																	
	Hour																	
	1	2,172	2,177	2,112	2,113	2,162	2,166	2,167	2,168	2,154	2,112	2,159	2,309	2,328	2,326			
	2	2,172	2,178	2,117	2,073	2,167	2,169	2,167	2,168	2,157	2,112	2,159	2,309	2,329	2,326			
	3	2,172	2,178	2,118	2,073	2,169	2,169	2,167	2,168	2,158	2,112	2,161	2,312	2,328	2,326			
	4	2,172	2,177	2,118	2,073	2,171	2,169	2,168	2,165	2,160	2,107	2,160	2,311	2,329	2,324			
	5	2,172	2,179	2,118	2,071	2,173	2,169	2,167	2,165	2,156	2,108	2,161	2,311	2,329	2,324			
	6	2,173	2,177	2,119	2,113	2,169	2,168	2,168	2,165	2,157	2,110	2,162	2,312	2,329	2,315			
	7	2,173	2,174	2,119	2,119	2,169	2,168	2,168	2,165	2,157	2,111	2,163	2,312	2,327	2,262			
	8	2,170	2,171	2,112	2,108	2,165	2,168	2,168	2,163	2,158	2,108	2,135	2,308	2,326	2,213			
	9	2,168	2,161	2,061	2,108	2,162	2,165	2,167	2,165	2,125	2,117	2,120	2,309	2,326	2,213			
	10	2,156	2,162	2,070	2,114	2,167	2,165	2,165	2,168	2,114	2,122	2,168	2,312	2,323	2,213			
	11	2,158	2,166	2,069	2,118	2,168	2,165	2,165	2,164	2,115	2,122	2,168	2,311	2,324	2,213			
	12	2,167	2,167	2,047	2,118	2,168	2,165	2,166	2,168	2,115	2,122	2,271	2,231	2,322	2,211			
	13	2,168	2,165	2,020	2,119	2,168	2,164	2,166	2,167	2,114	2,122	2,314	2,040	2,323	2,210			
	14	2,168	2,167	2,057	2,159	2,168	2,165	2,166	2,164	2,111	2,120	2,317	2,322	2,325	2,210			
	15	2,162	2,167	2,142	2,159	2,169	2,165	2,166	2,163	2,113	1,785	2,314	2,323	2,326	2,210			
	16	2,163	2,161	2,158	2,162	2,166	2,164	2,167	2,164	2,111	2,057	2,307	2,324	2,326	2,210			
	17	2,174	2,162	2,143	2,162	2,164	2,165	2,167	2,160	2,108	2,163	2,312	2,328	2,327	2,210			
	18	2,175	2,162	2,112	2,165	2,165	2,165	2,166	2,160	2,108	2,163	2,313	2,326	2,327	2,211			
	19	2,174	2,163	2,112	2,168	2,165	2,164	2,166	2,160	2,108	2,160	2,312	2,324	2,327	2,272			
	20	2,174	2,133	2,112	2,165	2,165	2,164	2,166	2,149	2,109	2,157	2,310	2,323	2,327	2,272			
	21	2,173	2,113	2,113	2,163	2,165	2,164	2,165	2,154	2,109	2,157	2,309	2,323	2,327	2,272			
	22	2,173	2,113	2,113	2,165	2,165	2,163	2,165	2,153	2,109	2,159	2,307	2,324	2,327	2,272			
	23	2,176	2,115	2,115	2,167	2,167	2,164	2,165	2,154	2,110	2,162	2,315	2,327	2,327	2,275			
	24	2,177	2,112	2,121	2,162	2,167	2,167	2,168	2,156	2,111	2,162	2,315	2,328	2,327	2,274			
	TOTAL	52,082	51,800	50,498	51,117	52,004	51,980	51,996	51,896	51,047	50,730	53,732	55,259	55,836	54,164			
	Cumulative Output Sold, kWh	896,053	947,853	998,351	1,049,468	1,101,472	1,153,452	1,205,448	1,257,344	1,308,391	1,359,121	1,412,853	1,468,112	1,523,948	1,578,112			
	Transformer and line efficiency	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%			
	Hourly average	2,170	2,158	2,104	2,130	2,167	2,166	2,167	2,162	2,127	2,114	2,239	2,302	2,327	2,257			

MAY 2023																		
			Monday 5/1/2023	Tuesday 5/2/2023	Wednesday 5/3/2023	Thursday 5/4/2023	Friday 5/5/2023	Saturday 5/6/2023	Sunday 5/7/2023	Monday 5/8/2023	Tuesday 5/9/2023	Wednesday 5/10/2023	Thursday 5/11/2023	Friday 5/12/2023	Saturday 5/13/2023	Sunday 5/14/2023	Monday 5/15/2023	Tuesday 5/16/2023
LFG and Biogas Flow to the Engines (KSCF)			1,406	1,416	1,413	1,413	1,424	1,414	1,414	1,426	456	-	510	1,408	1,438	1,438	1,409	437
LFG and Biogas Flow to the Engines (MMBTU HHV)			791	801	801	798	803	807	813	818	258	-	293	801	806	799	799	251
LFG and Biogas Flow to the Flare (KSCF)			-	-	-	-	-	-	-	-	684	991	623	-	-	-	-	650
LFG and BiogasFlow to the Flare (MMBTU HHV)			-	-	-	-	-	-	-	-	387	560	358	-	-	-	-	373
LFG and Biogas Total Flow (KSCF)			1,406	1,416	1,413	1,413	1,424	1,414	1,414	1,426	1,141	991	1,133	1,408	1,438	1,438	1,409	1,088
LFG and Biogas Total Flow (MMBTU HHV)			791	801	801	798	803	807	813	818	645	560	651	801	806	799	799	624
Average Methane Content (%)			55.6	55.9	56.0	55.8	55.7	56.4	56.8	56.7	55.8	55.8	56.8	56.2	55.4	54.9	56.0	56.7
Engine 1 Hours			24	24	24	24	24	24	24	24	8	-	-	-	-	-	-	-
Engine 2 Hours			-	-	-	-	-	-	-	-	-	-	10	24	24	24	24	8
Engine 3 Hours			24	24	24	24	24	24	24	24	8	-	9	24	24	24	24	7
Engine 4 Hours			24	24	24	24	24	24	24	24	7	-	10	24	24	24	24	8
Generator 1 Power Output (kWhr)			18,488	19,020	19,148	19,148	19,148	19,140	19,144	19,144	6,040	-	-	-	-	-	-	-
Generator 2 Power Output (kWhr)			-	-	-	-	-	-	-	-	-	-	7,288	18,708	19,136	19,128	19,124	5,976
Generator 3 Power Output (kWhr)			18,496	18,760	19,004	18,568	19,368	19,488	19,476	19,484	6,140	-	5,624	17,976	19,128	19,124	19,128	5,972
Generator 4 Power Output (kWhr)			18,076	18,568	19,068	19,068	19,312	19,432	19,384	19,396	6,128	-	7,044	18,664	19,080	18,260	18,760	5,952
Gross Power Output (kWhr)			55,158	56,440	57,314	56,890	57,919	58,149	58,104	58,120	18,345	-	19,981	55,392	57,375	56,571	57,081	17,929
Net Power Output (kWhr)			53,274	54,576	55,454	55,110	56,218	56,498	56,450	56,410	17,828	-	19,298	53,626	55,600	54,816	55,268	17,388
Power Sold as metered by NStar, (kWhr)			53,095	54,419	55,291	54,943	56,065	56,349	56,288	56,218	17,787	-	19,250	53,509	55,476	54,678	55,122	17,349
Offgrid RECs (kWhr)			1,884	1,864	1,860	1,780	1,701	1,651	1,654	1,710	517	-	683	1,766	1,775	1,755	1,813	541
Calculated Performance Results																		
Daily																		
Power output (kW average when running)																		
Generator 1			770	793	798	798	798	798	798	798	755	-	-	-	-	-	-	-
Generator 2			-	-	-	-	-	-	-	-	-	-	729	780	797	797	797	747
Generator 3			771	782	792	774	807	812	812	812	768	-	625	749	797	797	797	853
Generator 4			753	774	795	795	805	810	808	808	875	-	704	778	795	761	782	744
Power output (kW average over 24-hrs)																		
Facility Gross			2,298	2,352	2,388	2,370	2,413	2,423	2,421	2,422	764	-	833	2,308	2,391	2,357	2,378	747
Facility Net			2,220	2,274	2,311	2,296	2,342	2,354	2,352	2,350	743	-	804	2,234	2,317	2,284	2,303	725
In-plant load			79	78	78	74	71	69	69	71	22	-	28	74	74	73	76	23
Daily availability factor																		
Facility			75%	75%	75%	75%	75%	75%	75%	75%	24%	0%	30%	75%	75%	75%	75%	24%
Engine 1			100%	100%	100%	100%	100%	100%	100%	100%	33%	0%	0%	0%	0%	0%	0%	0%
Engine 2			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	42%	100%	100%	100%	100%	33%
Engine 3			100%	100%	100%	100%	100%	100%	100%	100%	33%	0%	38%	100%	100%	100%	100%	29%
Engine 4			100%	100%	100%	100%	100%	100%	100%	100%	29%	0%	42%	100%	100%	100%	100%	33%
Daily capacity factor																		
Facility			70%	71%	72%	72%	73%	73%	73%	73%	23%	0%	25%	70%	72%	71%	72%	23%
Engine 1			93%	96%	97%	97%	97%	97%	97%	97%	92%	0%	0%	0%	0%	0%	0%	0%
Engine 2			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	88%	94%	97%	97%	97%	91%
Engine 3			93%	95%	96%	94%	98%	98%	98%	98%	93%	0%	76%	91%	97%	97%	97%	103%
Engine 4			91%	94%	96%	96%	98%	98%	98%	98%	106%	0%	85%	94%	96%	92%	95%	90%
Cumulative by engine																		
Engine operating run hours in the month																		
Max Cumulative Available, hours			24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
Engine 1			24	48	72	96	120	144	168	192	200	200	200	200	200	200	200	200
Engine 2			0	0	0	0	0	0	0	0	0	0	10	34	58	82	106	114
Engine 3			24	48	72	96	120	144	168	192	200	200	209	233	257	281	305	312
Engine 4			24	48	72	96	120	144	168	192	199	199	209	233	257	281	305	313
Engine operating run hours total from 0 hours																		
Engine 1			133,689	133,713	133,737	133,785	133,809	133,833	133,857	133,881	133,889	133,889	133,889	133,889	133,889	133,889	133,889	133,889
Engine 2			120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,706	120,716	120,740	120,764	120,788	120,812	120,820
Engine 3			133,005	133,029	133,053	133,077	133,101	133,125	133,149	133,173	133,197	133,205	133,205	133,214	133,238	133,262	133,286	133,317
Engine 4			128,550	128,574	128,598	128,622	128,646	128,670	128,694	128,718	128,742	128,749	128,749	128,759	128,783	128,807	128,831	128,863
Cumulative availability, %			May 1, 2023 @ 00:00 hours															
Engine 1			100%	100%	100%	100%	100%	100%	100%	100%	93%	83%	76%	69%	64%	60%	56%	52%
Engine 2			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	12%	19%	24%	29%	30%
Engine 3			100%	100%	100%	100%	100%	100%	100%	100%	93%	83%	79%	81%	82%	84%	85%	81%
Engine 4			100%	100%	100%	100%	100%	100%	100%	100%	92%	83%	79%	81%	82%	84%	85%	82%
Engine cumulative gross output, kWhr																		
Max cumulative capacity one engine			825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200
Engine 1			770	1,563	2,361	3,159	3,956	4,754	5,552	6,349	7,104	7,104	7,104	7,104	7,104	7,104	7,104	7,104
Engine 2			-	-	-	-	-	-	-	-	-	-	729	1,508	2,306	3,103	3,899	4,646
Engine 3			771	1,552	2,344	3,118	3,925	4,737	5,548	6,360	7,128	7,128	7,753	8,502	9,299	10,095	10,892	11,746
Engine 4			753	1,527	2,321	3,116	3,921	4,730	5,538	6,346	7,221	7,221	7,926	8,703	9,498	10,259	11,041	11,785
Cumulative capacity factor, %																		
Engine 1			93%	95%	95%	96%	96%	96%	96%	96%	96%	86%	78%	72%	66%	62%	57%	54%
Engine 2			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	15%	21%	27%	32%	35%
Engine 3			93%	94%	95%	94%	95%	96%	96%	96%	96%	86%	85%	86%	87%	87%	88%	89%
Engine 4			91%	93%	94%	94%	95%	96%	96%	96%	97%	88%	87%	88%	89%	89%	89%	89%

		Monday 5/1/2023	Tuesday 5/2/2023	Wednesday 5/3/2023	Thursday 5/4/2023	Friday 5/5/2023	Saturday 5/6/2023	Sunday 5/7/2023	Monday 5/8/2023	Tuesday 5/9/2023	Wednesday 5/10/2023	Thursday 5/11/2023	Friday 5/12/2023	Saturday 5/13/2023	Sunday 5/14/2023	Monday 5/15/2023	Tuesday 5/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	72	144	216	288	360	432	504	576	599	599	628	700	772	844	916	939
	Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	69.3%	62.4%	59.5%	60.8%	61.9%	62.8%	63.6%	61.1%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	55,158	111,598	168,912	225,802	283,721	341,870	399,974	458,094	476,439	476,439	496,420	551,812	609,187	665,758	722,839	740,768
	Cumulative Capacity Factor	69.6%	70.5%	71.1%	71.3%	71.6%	71.4%	71.7%	71.9%	66.5%	59.9%	56.8%	57.9%	59.0%	59.9%	60.7%	58.3%
	Cumulative fuel input, MMBtu HHV	790.6	1,592	2,393	3,191	3,994	4,801	5,614	6,431	6,689	6,689	6,982	7,783	8,589	9,387	10,186	10,437
	Cumulative gross output, kWhr	55158	111,598	168,912	225,802	283,721	341,870	399,974	458,094	476,439	476,439	496,420	551,812	609,187	665,758	722,839	740,768
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	12,903	12,776	12,581	12,633	12,474	12,493	12,594	12,667	12,650		13,202	13,014	12,644	12,706	12,593	12,600
	Daily heat rate, Btu/kWe gross HHV	14,333	14,192	13,976	14,034	13,857	13,878	13,990	14,071	14,053		14,666	14,457	14,046	14,115	13,989	13,997
	Cumulative heat rate, Btu/kWe gross LHV	12,903	12,839	12,751	12,721	12,671	12,641	12,634	12,638	12,639	12,639	12,661	12,697	12,692	12,693	12,685	12,683
	Cumulative heat rate, Btu/kWe gross HHV	14,333	14,262	14,165	14,132	14,076	14,042	14,035	14,039	14,040	14,040	14,065	14,104	14,099	14,100	14,091	14,089
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	11,612	11,708	11,804	11,900	11,996	12,092	12,188	12,284	12,380	12,476	12,572	12,668	12,764	12,860	12,956	13,052
	Actual cumulative engine run hours	9,320	9,392	9,464	9,536	9,608	9,680	9,752	9,824	9,847	9,847	9,876	9,948	10,020	10,092	10,164	10,187
	Cumulative Availability, %	80.3%	80.2%	80.2%	80.1%	80.1%	80.1%	80.0%	80.0%	79.5%	78.9%	78.6%	78.5%	78.5%	78.5%	78.5%	78.0%
	Max cumulative gross output, kWhr	9,596,400	9,675,600	9,754,800	9,834,000	9,913,200	9,995,700	10,074,900	10,154,100	10,233,300	10,312,500	10,391,700	10,470,900	10,550,100	10,629,300	10,708,500	10,787,700
	Actual cumulative gross output, kWhr	6,825,805	6,882,245	6,939,559	6,996,449	7,054,368	7,112,517	7,170,621	7,228,741	7,247,086	7,247,086	7,267,067	7,322,459	7,379,834	7,436,405	7,493,486	7,511,415
	Cumulative Capacity Factor	71.1%	71.1%	71.1%	71.1%	71.2%	71.2%	71.2%	71.2%	70.8%	70.3%	69.9%	69.9%	70.0%	70.0%	70.0%	69.6%
	Cumulative fuel input, MMBtu HHV	95,827	96,628	97,429	98,227	99,030	99,837	100,650	101,468	101,725	101,725	102,018	102,819	103,625	104,424	105,222	105,473
	Cumulative gross output, kWhr	6,825,805	6,882,245	6,939,559	6,996,449	7,054,368	7,112,517	7,170,621	7,228,741	7,247,086	7,247,086	7,267,067	7,322,459	7,379,834	7,436,405	7,493,486	7,511,415
	Cumulative heat rate, Btu/kWe gross LHV	12,638	12,639	12,638	12,638	12,637	12,636	12,636	12,636	12,636	12,636	12,637	12,640	12,640	12,641	12,640	12,640
	Cumulative heat rate, Btu/kWe gross HHV	14,039	14,040	14,040	14,040	14,038	14,037	14,036	14,037	14,037	14,037	14,038	14,042	14,042	14,042	14,042	14,042
Service																	
	Engine 1										Top-End Overhaul on E-1						Top-End Overh
	Engine 2									Everource Planned Outage 103 line -----							Everource Planned
	Engine 3																
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
	Date	5/1/2023	5/2/2023	5/3/2023	5/4/2023	5/5/2023	5/6/2023	5/7/2023	5/8/2023	5/9/2023	5/10/2023	5/11/2023	5/12/2023	5/13/2023	5/14/2023	5/15/2023	5/16/2023
	Hour																
	1	2,271	2,117	2,315	2,260	2,322	2,348	2,351	2,348	2,347	-	-	2,079	2,313	2,311	2,266	2,315
	2	2,284	2,117	2,316	2,259	2,322	2,356	2,351	2,347	2,349	-	-	2,078	2,314	2,312	2,266	2,316
	3	2,318	2,151	2,316	2,258	2,325	2,354	2,351	2,348	2,351	-	-	2,079	2,314	2,312	2,266	2,314
	4	2,317	2,214	2,316	2,258	2,326	2,354	2,352	2,348	2,351	-	-	2,079	2,314	2,312	2,267	2,314
	5	2,318	2,214	2,312	2,257	2,326	2,353	2,352	2,348	2,351	-	-	2,077	2,313	2,313	2,267	2,313
	6	2,318	2,213	2,311	2,255	2,322	2,354	2,352	2,347	2,352	-	-	2,077	2,314	2,313	2,267	2,314
	7	2,318	2,211	2,314	2,258	2,321	2,354	2,352	2,348	2,350	-	-	2,076	2,314	2,312	2,286	2,314
	8	2,273	2,248	2,308	2,260	2,314	2,352	2,351	2,348	1,336	-	-	2,128	2,313	2,266	2,310	1,149
	9	2,257	2,307	2,304	2,255	2,330	2,349	2,349	2,343	-	-	-	2,217	2,312	2,266	2,300	-
	10	2,216	2,311	2,309	2,254	2,331	2,345	2,345	2,338	-	-	-	2,306	2,311	2,265	2,295	-
	11	2,193	2,311	2,308	2,256	2,331	2,345	2,342	2,337	-	-	-	2,304	2,310	2,263	2,300	-
	12	2,164	2,309	2,309	2,294	2,331	2,344	2,339	2,334	-	-	-	2,303	2,309	2,264	2,306	-
	13	2,164	2,310	2,309	2,312	2,343	2,342	2,336	2,331	-	-	-	2,303	2,309	2,264	2,305	-
	14	2,164	2,302	2,308	2,310	2,340	2,341	2,336	2,330	-	-	13	2,301	2,308	2,264	2,306	-
	15	2,165	2,308	2,309	2,313	2,343	2,341	2,336	2,332	-	-	1,312	2,302	2,309	2,263	2,306	-
	16	2,164	2,303	2,308	2,315	2,343	2,341	2,335	2,331	-	-	1,947	2,304	2,309	2,264	2,306	-
	17	2,159	2,310	2,304	2,321	2,348	2,342	2,336	2,339	-	-	1,622	2,308	2,309	2,264	2,311	-
	18	2,159	2,312	2,304	2,323	2,348	2,343	2,340	2,340	-	-	1,908	2,309	2,311	2,264	2,312	-
	19	2,160	2,310	2,304	2,320	2,348	2,343	2,345	2,341	-	-	2,074	2,313	2,312	2,264	2,312	-
	20	2,160	2,307	2,304	2,317	2,348	2,345	2,348	2,345	-	-	2,074	2,313	2,312	2,264	2,313	-
	21	2,159	2,307	2,304	2,318	2,348	2,350	2,348	2,347	-	-	2,074	2,313	2,312	2,264	2,313	-
	22	2,159	2,307	2,278	2,320	2,352	2,351	2,347	2,350	-	-	2,073	2,314	2,311	2,264	2,312	-
	23	2,119	2,309	2,260	2,325	2,351	2,351	2,347	2,350	-	-	2,075	2,313	2,312	2,264	2,315	-
	24	2,116	2,311	2,261	2,325	2,352	2,351	2,347	2,348	-	-	2,078	2,313	2,311	2,266	2,315	-
	TOTAL	53,095	54,419	55,291	54,943	56,065	56,349	56,288	56,218	17,787	-	19,250	53,509	55,476	54,678	55,122	17,349
	Cumulative Output Sold, kWhr	53,095	107,514	162,805	217,748	273,813	330,162	386,450	442,668	460,455	460,455	479,705	533,214	588,690	643,368	698,490	715,839
	Transformer and line efficiency	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.8%	#DIV/0!	99.8%	99.8%	99.8%	99.7%	99.7%	99.8%
	Hourly average	2,212	2,267	2,304	2,289	2,336	2,348	2,345	2,342	741	-	802	2,230	2,312	2,278	2,297	723

MAY 2023																				
			Wednesday 5/17/2023	Thursday 5/18/2023	Friday 5/19/2023	Saturday 5/20/2023	Sunday 5/21/2023	Monday 5/22/2023	Tuesday 5/23/2023	Wednesday 5/24/2023	Thursday 5/25/2023	Friday 5/26/2023	Saturday 5/27/2023	Sunday 5/28/2023	Monday 5/29/2023	Tuesday 5/30/2023	Wednesday 5/31/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			609	1,443	1,446	1,430	1,416	1,412	1,412	1,415	1,419	1,445	1,426	1,417	1,431	1,458	1,419	39,018	184	38,834
LFG and Biogas Flow to the Engine			347	803	803	803	789	794	788	804	804	814	806	802	802	807	790	21,994	125	21,869
LFG and Biogas Flow to the Flare (MMBTU)			572	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,521		
LFG and BiogasFlow to the Flare (MMBTU)			326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,004		
LFG and Biogas Total Flow (KSCF)			1,180	1,443	1,446	1,430	1,416	1,412	1,412	1,415	1,419	1,445	1,426	1,417	1,431	1,458	1,419	42,539		
LFG and Biogas Total Flow (MMBTU)			673	803	803	803	789	794	788	804	804	814	806	802	802	807	790	23,998		
Average Methane Content (%)			56.3	55.0	54.9	55.5	55.1	55.6	55.2	56.2	56.0	55.7	55.8	56.0	55.4	54.7	55.0	55.7		
Engine 1 Hours			10	24	24	24	24	24	24	24	24	24	24	24	24	24	24	546		
Engine 2 Hours			8	24	24	24	24	24	24	24	11	-	-	-	-	-	-	301		
Engine 3 Hours			-	-	-	-	-	-	-	-	14	24	24	24	24	24	24	470		
Engine 4 Hours			8	24	24	24	24	24	24	24	24	24	24	24	24	24	24	657		
Generator 1 Power Output (kWhr)			7,976	19,160	19,480	19,412	17,956	19,016	18,768	19,484	19,484	19,492	19,488	19,484	19,488	18,784	17,952	433,844		
Generator 2 Power Output (kWhr)			8,408	19,112	19,116	19,116	18,028	18,764	18,592	19,120	8,976	-	-	-	-	-	-	238,592		
Generator 3 Power Output (kWhr)			-	-	-	-	-	-	-	-	10,304	19,488	19,492	19,484	19,488	19,488	19,428	372,908		
Generator 4 Power Output (kWhr)			8,400	19,340	19,444	19,348	17,916	18,720	18,728	19,436	19,440	19,448	19,452	19,448	19,452	19,440	19,448	523,652		
Gross Power Output (kWhr)			24,883	57,804	58,234	58,073	54,092	56,696	56,280	58,226	58,323	58,487	58,491	58,491	58,501	57,805	56,902	1,572,056		
Net Power Output (kWhr)			24,064	56,068	56,566	56,398	52,456	55,058	54,650	56,598	56,670	56,820	56,784	56,766	56,804	56,050	55,126	1,524,692		
Power Sold as metered by NStar, (kWhr)			24,013	55,933	56,437	56,273	52,315	54,902	54,511	56,454	56,529	56,719	56,694	56,666	56,701	55,915	55,010	1,520,911	CRMCB inplant	
Offgrid RECs (kWhr)			819	1,736	1,668	1,675	1,636	1,638	1,630	1,628	1,653	1,667	1,707	1,725	1,697	1,755	1,776	47,364	10,964	
Calculated Performance Results																			23%	
Daily																			of total in-plant power	
Power output (kW average when operating)																				
Generator 1			798	798	812	809	748	792	782	812	812	812	812	812	812	783	748			
Generator 2			1,051	796	797	797	751	782	775	797	816	-	-	-	-	-	-			
Generator 3			-	-	-	-	-	-	-	-	736	812	812	812	812	812	810			
Generator 4			1,050	806	810	806	747	780	780	810	810	810	811	810	811	810	810			
Power output (kW average over month)																				
Facility Gross			1,037	2,409	2,426	2,420	2,254	2,362	2,345	2,426	2,430	2,437	2,437	2,437	2,438	2,409	2,371			
Facility Net			1,003	2,336	2,357	2,350	2,186	2,294	2,277	2,358	2,361	2,368	2,366	2,365	2,367	2,335	2,297			
In-plant load			34	72	70	70	68	68	68	68	69	69	71	72	71	73	74			
Daily availability factor																				
Facility			27%	75%	75%	75%	75%	75%	75%	75%	76%	75%	75%	75%	75%	75%	75%			
Engine 1			42%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Engine 2			33%	100%	100%	100%	100%	100%	100%	100%	46%	0%	0%	0%	0%	0%	0%			
Engine 3			0%	0%	0%	0%	0%	0%	0%	0%	58%	100%	100%	100%	100%	100%	100%			
Engine 4			33%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Daily capacity factor																				
Facility			31%	73%	74%	73%	68%	72%	71%	74%	74%	74%	74%	74%	74%	73%	72%			
Engine 1			97%	97%	98%	98%	91%	96%	95%	98%	98%	98%	98%	98%	98%	95%	91%			
Engine 2			127%	97%	97%	97%	91%	95%	94%	97%	99%	0%	0%	0%	0%	0%	0%			
Engine 3			0%	0%	0%	0%	0%	0%	0%	0%	89%	98%	98%	98%	98%	98%	98%			
Engine 4			127%	98%	98%	98%	90%	95%	95%	98%	98%	98%	98%	98%	98%	98%	98%			
Cumulative by engine																				
Engine operating run hours in the month																				
Max Cumulative Available, (hours)			408	432	456	480	504	528	552	576	600	624	648	672	696	720	744			
Engine 1			210	234	258	282	306	330	354	378	402	426	450	474	498	522	546			
Engine 2			122	146	170	194	218	242	266	290	301	301	301	301	301	301	301			
Engine 3			312	312	312	312	312	312	312	312	326	350	374	398	422	446	470			
Engine 4			321	345	369	393	417	441	465	489	513	537	561	585	609	633	657			
Engine operating run hours total																				
Engine 1			133,899	133,923	133,947	133,971	133,995	134,019	134,043	134,067	134,091	134,115	134,139	134,163	134,187	134,211	134,235			
Engine 2			120,828	120,852	120,876	120,900	120,924	120,948	120,972	120,996	121,007	121,007	121,007	121,007	121,007	121,007	121,007			
Engine 3			133,317	133,317	133,317	133,317	133,317	133,317	133,317	133,317	133,331	133,355	133,379	133,403	133,427	133,451	133,475			
Engine 4			128,871	128,895	128,919	128,943	128,967	128,991	129,015	129,039	129,063	129,087	129,111	129,135	129,159	129,183	129,207			
Cumulative availability, %																				
Engine 1			51%	54%	57%	59%	61%	63%	64%	66%	67%	68%	69%	71%	72%	73%	73%			
Engine 2			30%	34%	37%	40%	43%	46%	48%	50%	50%	48%	46%	45%	43%	42%	40%			
Engine 3			76%	72%	68%	65%	62%	59%	57%	54%	54%	56%	58%	59%	61%	62%	63%			
Engine 4			79%	80%	81%	82%	83%	84%	84%	85%	86%	86%	87%	87%	88%	88%	88%			
Engine cumulative gross output																				
Max cumulative capacity of (kWhr)			14,025	14,850	15,675	16,500	17,325	18,150	18,975	19,800	20,625	21,450	22,275	23,100	23,925	24,750	25,575			
Engine 1			7,902	8,700	9,512	10,321	11,069	11,861	12,643	13,455	14,267	15,079	15,891	16,703	17,515	18,297	19,045			
Engine 2			5,697	6,494	7,290	8,087	8,838	9,620	10,394											

		Wednesday 5/17/2023	Thursday 5/18/2023	Friday 5/19/2023	Saturday 5/20/2023	Sunday 5/21/2023	Monday 5/22/2023	Tuesday 5/23/2023	Wednesday 5/24/2023	Thursday 5/25/2023	Friday 5/26/2023	Saturday 5/27/2023	Sunday 5/28/2023	Monday 5/29/2023	Tuesday 5/30/2023	Wednesday 5/31/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																			
	Max cumulative available engine	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688	2,784	2,880	2,976			
	Actual cumulative engine run time	965	1,037	1,109	1,181	1,253	1,325	1,397	1,469	1,542	1,614	1,686	1,758	1,830	1,902	1,974			
	Cumulative Availability, %	59.1%	60.0%	60.8%	61.5%	62.2%	62.7%	63.3%	63.8%	64.3%	64.7%	65.0%	65.4%	65.7%	66.0%	66.3%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300	2,458,500			
	Actual cumulative gross output, kWh	765,651	823,455	881,689	939,762	993,854	1,050,550	1,106,830	1,165,056	1,223,379	1,281,866	1,340,357	1,398,848	1,457,349	1,515,154	1,572,056			
	Cumulative Capacity Factor	56.7%	57.6%	58.5%	59.2%	59.6%	60.2%	60.7%	61.2%	61.7%	62.2%	62.6%	63.0%	63.4%	63.7%	63.9%			
	Cumulative fuel input, MMBtu	10,784	11,587	12,390	13,193	13,982	14,776	15,564	16,368	17,172	17,986	18,792	19,595	20,397	21,204	21,994			
	Cumulative gross output, kWh	765,651	823,455	881,689	939,762	993,854	1,050,550	1,106,830	1,165,056	1,223,379	1,281,866	1,340,357	1,398,848	1,457,349	1,515,154	1,572,056			
Heat Rate																			
	Daily heat rate, Btu/kWe gross	12,550	12,507	12,415	12,449	13,134	12,604	12,610	12,427	12,406	12,533	12,405	12,348	12,346	12,567	12,501			
	Daily heat rate, Btu/kWe gross	13,941	13,894	13,791	13,829	14,590	14,001	14,009	13,805	13,782	13,923	13,780	13,717	13,714	13,961	13,887			
	Cumulative heat rate, Btu/kWe	12,679	12,667	12,650	12,638	12,665	12,661	12,659	12,647	12,636	12,631	12,621	12,610	12,599	12,598	12,594			
	Cumulative heat rate, Btu/kWe	14,084	14,071	14,052	14,039	14,069	14,065	14,062	14,049	14,037	14,031	14,020	14,008	13,996	13,995	13,991			
Cumulative by Facility starting C																			
	Max cumulative available engine	13,148	13,244	13,340	13,436	13,532	13,628	13,724	13,820	13,916	14,012	14,108	14,204	14,300	14,396	14,492			
	Actual cumulative engine run time	10,213	10,285	10,357	10,429	10,501	10,573	10,645	10,717	10,790	10,862	10,934	11,006	11,078	11,150	11,222			
	Cumulative Availability, %	77.7%	77.7%	77.6%	77.6%	77.6%	77.6%	77.6%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.5%	77.4%			
	Max cumulative gross output, kWh	10,866,900	10,946,100	11,025,300	11,104,500	11,183,700	11,262,900	11,342,100	11,421,300	11,500,500	11,579,700	11,658,900	11,738,100	11,817,300	11,896,500	11,975,700			
	Actual cumulative gross output, kWh	7,536,298	7,594,102	7,652,336	7,710,409	7,764,501	7,821,197	7,877,477	7,935,703	7,994,026	8,052,513	8,111,004	8,169,495	8,227,996	8,285,801	8,342,703			
	Cumulative Capacity Factor	69.4%	69.4%	69.4%	69.4%	69.4%	69.4%	69.5%	69.5%	69.5%	69.5%	69.6%	69.6%	69.6%	69.6%	69.7%			
	Cumulative fuel input, MMBtu	105,820	106,623	107,426	108,229	109,018	109,812	110,601	111,404	112,208	113,023	113,829	114,631	115,433	116,240	117,030			
	Cumulative gross output, kWh	7,536,298	7,594,102	7,652,336	7,710,409	7,764,501	7,821,197	7,877,477	7,935,703	7,994,026	8,052,513	8,111,004	8,169,495	8,227,996	8,285,801	8,342,703			
	Cumulative heat rate, Btu/kWe	12,640	12,639	12,637	12,636	12,639	12,639	12,639	12,639	12,639	12,635	12,633	12,631	12,629	12,629	12,628			
	Cumulative heat rate, Btu/kWe	14,041	14,040	14,038	14,037	14,041	14,040	14,040	14,038	14,037	14,036	14,034	14,032	14,029	14,029	14,028			
Service																			
	Engine 1	haul on E-3																	
	Engine 2	Outage 103 line																	
	Engine 3																		
	Engine 4																		
Oil - oil and filter change																			
Service - plugs, air filter, valve inspection																			
	Precipitation																		
	NSTAR Power Reports	Wednesday 5/17/2023	Thursday 5/18/2023	Friday 5/19/2023	Saturday 5/20/2023	Sunday 5/21/2023	Monday 5/22/2023	Tuesday 5/23/2023	Wednesday 5/24/2023	Thursday 5/25/2023	Friday 5/26/2023	Saturday 5/27/2023	Sunday 5/28/2023	Monday 5/29/2023	Tuesday 5/30/2023	Wednesday 5/31/2023	TOTAL		
	Date	5/17/2023	5/18/2023	5/19/2023	5/20/2023	5/21/2023	5/22/2023	5/23/2023	5/24/2023	5/25/2023	5/26/2023	5/27/2023	5/28/2023	5/29/2023	5/30/2023	5/31/2023			
	Hour																		
	1	-	2,314	2,358	2,353	2,225	2,182	2,283	2,362	2,352	2,369	2,367	2,365	2,364	2,363	2,300			
	2	-	2,315	2,359	2,354	2,198	2,182	2,180	2,363	2,353	2,370	2,367	2,365	2,364	2,364	2,301			
	3	-	2,316	2,359	2,353	2,178	2,183	2,182	2,363	2,352	2,369	2,368	2,365	2,365	2,364	2,301			
	4	-	2,321	2,359	2,352	2,178	2,184	2,183	2,362	2,353	2,370	2,367	2,365	2,366	2,364	2,301			
	5	-	2,320	2,360	2,352	2,178	2,182	2,182	2,363	2,353	2,370	2,368	2,366	2,366	2,364	2,301			
	6	-	2,320	2,359	2,350	2,178	2,183	2,182	2,362	2,353	2,370	2,368	2,365	2,366	2,365	2,301			
	7	-	2,318	2,358	2,350	2,178	2,182	2,179	2,362	2,351	2,369	2,368	2,366	2,365	2,366	2,299			
	8	-	2,338	2,351	2,349	2,177	2,299	1,996	2,356	2,346	2,365	2,367	2,365	2,364	2,362	2,297			
	9	-	2,343	2,344	2,348	2,180	2,343	1,960	2,349	2,344	2,361	2,363	2,364	2,363	2,350	2,292			
	10	-	2,345	2,342	2,350	2,180	2,306	2,267	2,341	2,343	2,360	2,361	2,359	2,361	2,354	2,205			
	11	-	2,345	2,344	2,352	2,176	2,281	2,344	2,344	2,343	2,358	2,359	2,357	2,360	2,355	1,549			
	12	-	2,343	2,344	2,353	2,176	2,281	2,344	2,344	2,318	2,357	2,357	2,357	2,360	2,352	2,291			
	13	-	2,341	2,345	2,350	2,176	2,281	2,346	2,345	2,361	2,357	2,356	2,355	2,360	2,333	2,350			
	14	872	2,129	2,345	2,351	2,174	2,315	2,345	2,343	2,361	2,353	2,356	2,355	2,360	2,291	2,349			
	15	2,296	2,344	2,346	2,350	2,172	2,342	2,346	2,341	2,360	2,353	2,356	2,355	2,361	2,291	2,349			
	16	2,316	2,344	2,350	2,352	2,172	2,345	2,345	2,344	2,356	2,356	2,356	2,355	2,360	2,292	2,349			
	17	2,314	2,351	2,351	2,352	2,172	2,351	2,353	2,349	2,364	2,361	2,357	2,356	2,361	2,298	2,355			
	18	2,316	2,352	2,351	2,352	2,173	2,352	2,353	2,350	2,365	2,363	2,357	2,357	2,361	2,298	2,355			
	19	2,317	2,353	2,351	2,352	2,174	2,352	2,354	2,351	2,365	2,363	2,358	2,358	2,362	2,298	2,356			
	20	2,317	2,352	2,351	2,351	2,177	2,353	2,354	2,351	2,366	2,364	2,362	2,362	2,363	2,298	2,360			
	21	2,315	2,353	2,351	2,351	2,179	2,353	2,355	2,351	2,367	2,364	2,363	2,363	2,362	2,298	2,361			
	22	2,316	2,358	2,352	2,350	2,179	2,352	2,357	2,353	2,367	2,363	2,364	2,363	2,362	2,297	2,362			
	23	2,317	2,359	2,354	2,321	2,181	2,358	2,360	2,352	2,368	2,367	2,364	2,364	2,362	2,299	2,363			
	24	2,317	2,359	2,353	2,225	2,184	2,360	2,361	2,353	2,368	2,367	2,365	2,364	2,363	2,299	2,363			
	TOTAL	24,013	55,933	56,437	56,273	52,315	54,902	54,511	56,454	56,529	56,719	56,694	56,666	56,701	55,915	55,010			
	Cumulative Output Sold, kWh	739,852	795,785	852,222	908,495	960,810	1,015,712	1,070,223	1,126,677	1,183,206	1,239,925	1,296,619	1,353,285	1,409,986	1,465,901	1,520,911			
	Transformer and line efficiency	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	0.0%		
	Hourly average	1,001	2,331	2,352	2,345	2,180	2,288	2,271	2,352	2,355	2,363	2,362	2,361	2,363	2,330	2,292	2,044		

JUNE 2023																		
			Thursday 6/1/2023	Friday 6/2/2023	Saturday 6/3/2023	Sunday 6/4/2023	Monday 6/5/2023	Tuesday 6/6/2023	Wednesday 6/7/2023	Thursday 6/8/2023	Friday 6/9/2023	Saturday 6/10/2023	Sunday 6/11/2023	Monday 6/12/2023	Tuesday 6/13/2023	Wednesday 6/14/2023	Thursday 6/15/2023	Friday 6/16/2023
LFG and Biogas Flow to the Engines (KSCF)			1,436	1,436	1,445	1,434	1,416	1,399	1,404	1,431	1,421	1,409	1,409	1,406	1,423	1,392	1,404	1,397
LFG and Biogas Flow to the Engines (MMBTU HHV)			803	803	816	811	801	793	793	799	799	795	790	796	805	784	791	780
LFG and Biogas Flow to the Flare (KSCF)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)			1,436	1,436	1,445	1,434	1,416	1,399	1,404	1,431	1,421	1,409	1,409	1,406	1,423	1,392	1,404	1,397
LFG and Biogas Total Flow (MMBTU HHV)			803	803	816	811	801	793	793	799	799	795	790	796	805	784	791	780
Average Methane Content (%)			55.2	55.2	55.8	55.9	55.9	56.0	55.8	55.2	55.6	55.8	55.4	55.9	55.9	55.7	55.7	55.2
Engine 1 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Engine 2 Hours			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3 Hours			24	24	24	24	24	24	24	22	24	24	24	24	24	24	24	24
Engine 4 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Generator 1 Power Output (kWhr)			18,888	18,656	19,492	19,488	19,488	18,836	18,872	18,524	19,160	19,004	17,960	17,968	18,336	17,968	17,672	18,124
Generator 2 Power Output (kWhr)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)			19,488	19,340	19,492	19,488	19,488	19,492	18,136	19,488	19,484	19,480	19,476	19,480	19,380	18,212	19,136	18,500
Generator 4 Power Output (kWhr)			19,448	19,364	19,456	19,452	19,448	19,444	19,448	19,448	19,448	19,440	19,440	19,448	19,260	19,084	19,084	19,080
Gross Power Output (kWhr)			57,907	57,444	58,494	58,494	58,553	57,892	56,535	57,493	58,117	57,953	56,916	56,924	57,020	55,314	55,941	55,765
Net Power Output (kWhr)			56,064	55,584	56,780	56,812	56,802	56,090	54,778	55,724	56,338	56,222	55,136	55,078	55,126	53,502	54,134	53,928
Power Sold as metered by NStar, (kWhr)			55,942	55,447	56,730	56,750	56,673	55,976	54,658	55,604	56,217	56,088	55,012	54,925	54,970	53,358	53,985	53,780
Offgrid RECs (kWhr)			1,843	1,860	1,714	1,682	1,751	1,802	1,757	1,769	1,779	1,731	1,780	1,846	1,894	1,812	1,807	1,837
Calculated Performance Results																		
Daily																		
Power output (kW average when running)																		
	Generator 1		787	777	812	812	812	785	786	772	798	792	748	749	764	749	736	755
	Generator 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Generator 3		812	806	812	812	812	812	756	886	812	812	812	812	808	759	797	771
	Generator 4		810	807	811	811	810	810	810	810	810	810	810	810	803	795	795	795
Power output (kW average over 24-hrs)																		
	Facility Gross		2,413	2,394	2,437	2,437	2,440	2,412	2,356	2,396	2,422	2,415	2,372	2,372	2,376	2,305	2,331	2,324
	Facility Net		2,336	2,316	2,366	2,367	2,367	2,337	2,282	2,322	2,347	2,343	2,297	2,295	2,297	2,229	2,256	2,247
	In-plant load		77	78	71	70	73	75	73	74	74	72	74	77	79	76	75	77
Daily availability factor																		
	Facility		75%	75%	75%	75%	75%	75%	75%	73%	75%	75%	75%	75%	75%	75%	75%	75%
	Engine 1		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3		100%	100%	100%	100%	100%	100%	100%	92%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																		
	Facility		73%	73%	74%	74%	74%	73%	71%	73%	73%	73%	72%	72%	72%	70%	71%	70%
	Engine 1		95%	94%	98%	98%	98%	95%	95%	94%	97%	96%	91%	91%	93%	91%	89%	92%
	Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3		98%	98%	98%	98%	98%	98%	92%	107%	98%	98%	98%	98%	98%	92%	97%	93%
	Engine 4		98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	97%	96%	96%	96%
Cumulative by engine																		
Engine operating run hours in the month																		
	Max Cumulative Available, hours		24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
	Engine 1		24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
	Engine 2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Engine 3		24	48	72	96	120	144	168	190	214	238	262	286	310	334	358	382
	Engine 4		24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
Engine operating run hours total from 0 hours																		
	Engine 1		134,234	134,258	134,306	134,330	134,354	134,378	134,402	134,426	134,450	134,474	134,498	134,522	134,546	134,570	134,594	134,618
	Engine 2		121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011	121,011
	Engine 3		133,475	133,499	133,523	133,547	133,571	133,595	133,619	133,643	133,665	133,689	133,713	133,737	133,761	133,785	133,809	133,833
	Engine 4		129,210	129,234	129,258	129,282	129,306	129,330	129,354	129,378	129,402	129,426	129,450	129,474	129,498	129,522	129,546	129,570
Cumulative availability, %			June 1, 2023 @ 00:00 hours															
	Engine 1		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3		100%	100%	100%	100%	100%	100%	100%	99%	99%	99%	99%	99%	99%	99%	99%	99%
	Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Engine cumulative gross output, kWhr																		
	Max cumulative capacity one engine		825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200
	Engine 1		787	1,564	2,377	3,189	4,001	4,785	5,572	6,344	7,142	7,934	8,682	9,431	10,195	10,943	11,680	12,435
	Engine 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Engine 3		812	1,618	2,430	3,242	4,054	4,866	5,622	6,508	7,319	8,131	8,943	9,754	10,562	11,321	12,118	12,889
	Engine 4		810	1,617	2,428	3,238	4,049	4,859	5,669	6,480	7,290	8,100	8,910	9,721	10,523	11,318	12,113	12,908
Cumulative capacity factor, %																		
	Engine 1		95%	95%	96%	97%	97%	97%	96%	96%	96%	96%	96%	95%	95%	95%	94%	94%
	Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Engine 3		98%	98%	98%	98%	98%	98%	97%	99%	99%	99%	99%	99%	98%	98%	98%	98%
	Engine 4		98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%

		Thursday 6/1/2023	Friday 6/2/2023	Saturday 6/3/2023	Sunday 6/4/2023	Monday 6/5/2023	Tuesday 6/6/2023	Wednesday 6/7/2023	Thursday 6/8/2023	Friday 6/9/2023	Saturday 6/10/2023	Sunday 6/11/2023	Monday 6/12/2023	Tuesday 6/13/2023	Wednesday 6/14/2023	Thursday 6/15/2023	Friday 6/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	72	144	216	288	360	432	504	574	646	718	790	862	934	1,006	1,078	1,150
	Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	74.7%	74.8%	74.8%	74.8%	74.8%	74.8%	74.9%	74.9%	74.9%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	57,907	115,351	173,845	232,339	290,892	348,784	405,319	462,812	520,929	578,882	635,798	692,722	749,742	805,056	860,997	916,762
	Cumulative Capacity Factor	73.1%	72.8%	73.2%	73.3%	73.5%	72.9%	72.7%	72.7%	72.7%	72.8%	72.7%	72.6%	72.6%	72.4%	72.3%	72.2%
	Cumulative fuel input, MMBtu HHV	802.5	1,605	2,421	3,232	4,033	4,826	5,619	6,418	7,218	8,013	8,803	9,598	10,404	11,187	11,979	12,758
	Cumulative gross output, kWhr	57907	115,351	173,845	232,339	290,892	348,784	405,319	462,812	520,929	578,882	635,798	692,722	749,742	805,056	860,997	916,762
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	12,475	12,576	12,556	12,481	12,312	12,332	12,628	12,517	12,382	12,352	12,495	12,580	12,710	12,757	12,730	12,590
	Daily heat rate, Btu/kWe gross HHV	13,858	13,970	13,948	13,865	13,676	13,700	14,028	13,904	13,755	13,721	13,880	13,975	14,120	14,172	14,142	13,985
	Cumulative heat rate, Btu/kWe gross LHV	12,475	12,525	12,536	12,522	12,480	12,455	12,479	12,484	12,473	12,461	12,464	12,473	12,491	12,510	12,524	12,528
	Cumulative heat rate, Btu/kWe gross HHV	13,858	13,914	13,926	13,910	13,863	13,836	13,863	13,868	13,855	13,842	13,845	13,856	13,876	13,896	13,912	13,917
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	14,588	14,684	14,780	14,876	14,972	15,068	15,164	15,260	15,356	15,452	15,548	15,644	15,740	15,836	15,932	16,028
	Actual cumulative engine run hours	11,294	11,366	11,438	11,510	11,582	11,654	11,726	11,796	11,868	11,940	12,012	12,084	12,156	12,228	12,300	12,372
	Cumulative Availability, %	77.4%	77.4%	77.4%	77.4%	77.4%	77.3%	77.3%	77.3%	77.3%	77.3%	77.3%	77.2%	77.2%	77.2%	77.2%	77.2%
	Max cumulative gross output, kWhr	12,054,900	12,134,100	12,213,300	12,292,500	12,371,700	12,454,200	12,533,400	12,612,600	12,691,800	12,771,000	12,850,200	12,929,400	13,008,600	13,087,800	13,167,000	13,246,200
	Actual cumulative gross output, kWhr	8,400,610	8,458,054	8,516,548	8,575,042	8,633,595	8,691,487	8,748,022	8,805,515	8,863,632	8,921,585	8,978,501	9,035,425	9,092,445	9,147,759	9,203,700	9,259,465
	Cumulative Capacity Factor	69.7%	69.7%	69.7%	69.8%	69.8%	69.8%	69.8%	69.8%	69.8%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%
	Cumulative fuel input, MMBtu HHV	117,833	118,635	119,451	120,262	121,063	121,856	122,649	123,449	124,248	125,043	125,833	126,629	127,434	128,218	129,009	129,789
	Cumulative gross output, kWhr	8,400,610	8,458,054	8,516,548	8,575,042	8,633,595	8,691,487	8,748,022	8,805,515	8,863,632	8,921,585	8,978,501	9,035,425	9,092,445	9,147,759	9,203,700	9,259,465
	Cumulative heat rate, Btu/kWe gross LHV	12,627	12,626	12,626	12,625	12,623	12,621	12,621	12,620	12,619	12,617	12,616	12,616	12,617	12,617	12,618	12,618
	Cumulative heat rate, Btu/kWe gross HHV	14,027	14,026	14,026	14,025	14,022	14,020	14,020	14,019	14,018	14,016	14,015	14,015	14,015	14,016	14,017	14,017
Service																	
	Engine 1																
	Engine 2																
	Engine 3																
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	Date	6/1/2023	6/2/2023	6/3/2023	6/4/2023	6/5/2023	6/6/2023	6/7/2023	6/8/2023	6/9/2023	6/10/2023	6/11/2023	6/12/2023	6/13/2023	6/14/2023	6/15/2023	6/16/2023
	Hour																
	1	2,363	2,300	2,362	2,365	2,364	2,366	2,300	2,359	2,297	2,361	2,297	2,296	2,294	2,218	2,266	2,269
	2	2,364	2,300	2,363	2,365	2,364	2,366	2,301	2,359	2,298	2,362	2,296	2,296	2,294	2,218	2,267	2,270
	3	2,363	2,300	2,363	2,366	2,365	2,366	2,301	2,359	2,299	2,361	2,297	2,296	2,285	2,219	2,267	2,269
	4	2,364	2,297	2,363	2,366	2,364	2,366	2,302	2,359	2,299	2,361	2,298	2,296	2,284	2,219	2,267	2,269
	5	2,364	2,297	2,363	2,366	2,365	2,365	2,301	2,360	2,299	2,361	2,298	2,297	2,285	2,219	2,268	2,270
	6	2,364	2,297	2,364	2,365	2,364	2,364	2,302	2,360	2,352	2,361	2,297	2,296	2,284	2,219	2,268	2,269
	7	2,364	2,298	2,363	2,366	2,365	2,365	2,301	2,361	2,362	2,361	2,297	2,294	2,283	2,218	2,268	2,268
	8	2,360	2,294	2,364	2,367	2,361	2,360	2,262	2,354	2,357	2,359	2,297	2,288	2,323	2,216	2,267	2,282
	9	2,354	2,271	2,364	2,366	2,359	2,357	2,231	2,338	2,352	2,357	2,296	2,284	2,344	2,210	2,256	2,302
	10	2,349	2,255	2,365	2,365	2,356	2,356	2,003	2,289	2,349	2,357	2,291	2,282	2,347	2,202	2,233	2,299
	11	2,348	2,253	2,364	2,364	2,357	2,355	1,559	2,287	2,348	2,355	2,287	2,280	2,347	2,203	2,206	2,289
	12	2,347	2,223	2,364	2,363	2,357	2,352	2,217	2,289	2,347	2,349	2,287	2,279	2,343	2,201	2,205	2,212
	13	2,346	2,205	2,364	2,363	2,356	2,350	2,352	2,289	2,347	2,353	2,287	2,280	2,327	2,203	2,205	2,201
	14	2,345	2,316	2,364	2,363	2,356	2,328	2,352	2,288	2,346	2,354	2,286	2,279	2,274	2,202	2,205	2,202
	15	2,315	2,344	2,364	2,363	2,357	2,286	2,351	2,288	2,346	2,354	2,286	2,279	2,266	2,201	2,205	2,202
	16	2,284	2,346	2,364	2,363	2,358	2,288	2,353	2,292	2,348	2,355	2,287	2,280	2,269	2,202	2,231	2,203
	17	2,289	2,351	2,364	2,363	2,363	2,292	2,359	2,295	2,355	2,313	2,286	2,285	2,272	2,213	2,259	2,208
	18	2,290	2,354	2,364	2,364	2,363	2,297	2,359	2,296	2,359	2,292	2,287	2,286	2,273	2,213	2,260	2,208
	19	2,291	2,355	2,364	2,365	2,363	2,299	2,359	2,297	2,359	2,293	2,288	2,291	2,273	2,233	2,259	2,209
	20	2,291	2,356	2,364	2,365	2,363	2,299	2,359	2,297	2,359	2,293	2,288	2,288	2,279	2,266	2,260	2,215
	21	2,294	2,356	2,364	2,365	2,363	2,300	2,358	2,297	2,359	2,293	2,293	2,289	2,280	2,267	2,261	2,216
	22	2,296	2,359	2,364	2,364	2,362	2,299	2,358	2,297	2,359	2,292	2,292	2,295	2,280	2,266	2,265	2,216
	23	2,298	2,360	2,364	2,364	2,362	2,300	2,359	2,297	2,360	2,295	2,297	2,294	2,246	2,265	2,268	2,216
	24	2,299	2,360	2,364	2,364	2,366	2,300	2,359	2,297	2,361	2,296	2,297	2,295	2,218	2,265	2,269	2,216
	TOTAL	55,942	55,447	56,730	56,750	56,673	55,976	54,658	55,604	56,217	56,088	55,012	54,925	54,970	53,358	53,985	53,780
	Cumulative Output Sold, kWhr	55,942	111,389	168,119	224,869	281,542	337,518	392,176	447,780	503,997	560,085	615,097	670,022	724,992	778,350	832,335	886,115
	Transformer and line efficiency	99.8%	99.8%	99.9%	99.9%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.7%	99.7%
	Hourly average	2,331	2,310	2,364	2,365	2,361	2,332	2,277	2,317	2,342	2,337	2,292	2,289	2,290	2,223	2,249	2,241

JUNE 2023																			
			Saturday 6/17/2023	Sunday 6/18/2023	Monday 6/19/2023	Tuesday 6/20/2023	Wednesday 6/21/2023	Thursday 6/22/2023	Friday 6/23/2023	Saturday 6/24/2023	Sunday 6/25/2023	Monday 6/26/2023	Tuesday 6/27/2023	Wednesday 6/28/2023	Thursday 6/29/2023	Friday 6/30/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			1,405	1,393	1,370	1,408	1,389	1,394	1,422	1,395	1,395	1,413	1,380	1,380	1,399	1,374	42,176	177	41,999
LFG and Biogas Flow to the Engine			794	786	761	784	773	788	801	788	788	799	780	780	780	768	23,726	120	23,606
LFG and Biogas Flow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and BiogasFlow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF)			1,405	1,393	1,370	1,408	1,389	1,394	1,422	1,395	1,395	1,413	1,380	1,380	1,399	1,374	42,176		
LFG and Biogas Total Flow (MMBTU)			794	786	761	784	773	788	801	788	788	799	780	780	780	768	23,726		
Average Methane Content (%)			55.8	55.7	54.9	55.0	55.0	55.8	55.7	55.8	55.8	55.8	55.8	55.8	55.1	55.2	55.6		
Engine 1 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	720		
Engine 2 Hours			-	-	-	15	24	24	24	24	24	24	24	24	24	24	255		
Engine 3 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	718		
Engine 4 Hours			24	24	24	9	-	-	-	-	-	-	-	-	-	-	465		
Generator 1 Power Output (kWhr)			17,960	17,964	17,724	18,776	19,136	19,136	19,132	19,140	19,136	19,052	17,960	17,956	17,960	17,368	556,836		
Generator 2 Power Output (kWhr)			-	-	-	10,768	17,948	18,772	19,120	19,124	19,124	19,120	19,128	19,124	19,124	19,128	200,480		
Generator 3 Power Output (kWhr)			18,132	18,500	17,948	17,944	17,940	18,772	19,132	19,128	19,132	19,124	19,124	19,132	19,128	19,136	569,832		
Generator 4 Power Output (kWhr)			19,084	19,080	18,508	6,932	-	-	-	-	-	-	-	-	-	-	373,404		
Gross Power Output (kWhr)			55,229	55,607	54,234	54,454	55,062	56,691	57,414	57,414	57,417	57,343	56,258	56,258	56,260	55,681	1,702,084		
Net Power Output (kWhr)			53,524	53,876	52,478	52,734	53,260	54,832	55,496	55,540	55,516	55,378	54,322	54,336	54,312	53,754	1,647,456		
Power Sold as metered by NStar, (MWhr)			53,439	53,733	52,389	52,589	53,113	54,698	55,355	55,404	55,421	55,242	54,167	54,189	54,169	53,616	1,643,639	CRMCB inplant	
Offgrid RECs (kWhr)			1,705	1,731	1,756	1,720	1,802	1,859	1,918	1,874	1,901	1,965	1,936	1,922	1,948	1,927	54,628	9,421	
Calculated Performance Results																		17%	
Daily																		of total in-plant power	
		Power output (kW average when operating)																	
		Generator 1	748	749	739	782	797	797	797	798	797	794	748	748	748	724			
		Generator 2	-	-	-	718	748	782	797	797	797	797	797	797	797	797			
		Generator 3	756	771	748	748	748	782	797	797	797	797	797	797	797	797			
		Generator 4	795	795	771	770	-	-	-	-	-	-	-	-	-	-			
Power output (kW average over 24 hours)																			
		Facility Gross	2,301	2,317	2,260	2,269	2,294	2,362	2,392	2,392	2,392	2,389	2,344	2,344	2,344	2,320			
		Facility Net	2,230	2,245	2,187	2,197	2,219	2,285	2,312	2,314	2,313	2,307	2,263	2,264	2,263	2,240			
		In-plant load	71	72	73	72	75	77	80	78	79	82	81	80	81	80			
Daily availability factor																			
		Facility	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
		Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 2	0%	0%	0%	63%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	38%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Daily capacity factor																			
		Facility	70%	70%	68%	69%	70%	72%	72%	72%	72%	72%	71%	71%	71%	70%			
		Engine 1	91%	91%	90%	95%	97%	97%	97%	97%	97%	96%	91%	91%	91%	88%			
		Engine 2	0%	0%	0%	87%	91%	95%	97%	97%	97%	97%	97%	97%	97%	97%			
		Engine 3	92%	93%	91%	91%	91%	95%	97%	97%	97%	97%	97%	97%	97%	97%			
		Engine 4	96%	96%	93%	93%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Cumulative by engine																			
Engine operating run hours in the month																			
		Max Cumulative Available, (hours)	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
		Engine 1	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
		Engine 2	0	0	0	15	39	63	87	111	135	159	183	207	231	255			
		Engine 3	406	430	454	478	502	526	550	574	598	622	646	670	694	718			
		Engine 4	408	432	456	465	465	465	465	465	465	465	465	465	465	465			
Engine operating run hours total																			
		Engine 1	134,642	134,666	134,690	134,714	134,738	134,762	134,786	134,810	134,834	134,858	134,882	134,906	134,930	134,954			
		Engine 2	121,011	121,011	121,011	121,026	121,050	121,074	121,098	121,122	121,146	121,170	121,194	121,218	121,242	121,266			
		Engine 3	133,881	133,905	133,929	133,953	133,977	134,001	134,025	134,049	134,073	134,097	134,121	134,145	134,169	134,193			
		Engine 4	129,618	129,642	129,666	129,675	129,675	129,675	129,675	129,675	129,675	129,675	129,675	129,675	129,675	129,675			
Cumulative availability, %																			
		Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 2	0%	0%	0%	3%	8%	12%	16%	19%	23%	25%	28%	31%	33%	35%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	97%	92%	88%	84%	81%	78%	75%	72%	69%	67%	65%			
Engine cumulative gross output																			
		Max cumulative capacity of (kWhr)	14,025	14,850	15,675	16,500	17,325	18,150	18,975	19,800	20,625	21,450	22,275	23,100	23,925	24,750			
		Engine 1	13,183	13,932	14,670	15,453	16,250	17,047	17,844	18,642	19,439	20,233	20,981	21,730	22,478	23,202			
		Engine 2	-	-	-	718	1,466	2,248	3,045	3,841	4,638	5,435	6,232	7,029	7,826	8,623			
		Engine 3	13,644	14,415	15,163	15,911	16,658	17,440	18,237	19,034	19,832	20,628	21,425	22,222	23,019	23,817			
		Engine 4	13,704	14,499	15,270	16,040	16,040	16,040	16,040	16,040	16,040	16,040	16,040	16,040	16,040	16,040			
Cumulative capacity factor, %																			
		Engine 1	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%			
		Engine 2	0%	0%	0%	4%	8%	12%	16%	19%	22%	25%	28%	30%	33%	35%			
		Engine 3	97%	97%	97%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%			
		Engine 4	98%	98%	97%	97%	93%	88%	85%	81%	78%	75%	72%	69%	67%	65%			

		Saturday 6/17/2023	Sunday 6/18/2023	Monday 6/19/2023	Tuesday 6/20/2023	Wednesday 6/21/2023	Thursday 6/22/2023	Friday 6/23/2023	Saturday 6/24/2023	Sunday 6/25/2023	Monday 6/26/2023	Tuesday 6/27/2023	Wednesday 6/28/2023	Thursday 6/29/2023	Friday 6/30/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																		
	Max cumulative available engine run time, hours	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688	2,784	2,880			
	Actual cumulative engine run time, hours	1,222	1,294	1,366	1,438	1,510	1,582	1,654	1,726	1,798	1,870	1,942	2,014	2,086	2,158			
	Cumulative Availability, %	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%	74.9%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300			
	Actual cumulative gross output, kWh	971,991	1,027,598	1,081,832	1,136,286	1,191,348	1,248,039	1,305,453	1,362,867	1,420,284	1,477,627	1,533,885	1,590,143	1,646,403	1,702,084			
	Cumulative Capacity Factor	72.0%	71.9%	71.7%	71.6%	71.5%	71.5%	71.5%	71.6%	71.6%	71.6%	71.6%	71.6%	71.6%	71.5%			
	Cumulative fuel input, MMBtu	13,552	14,338	15,098	15,882	16,656	17,444	18,245	19,033	19,821	20,619	21,399	22,179	22,958	23,726			
	Cumulative gross output, kWh	971,991	1,027,598	1,081,832	1,136,286	1,191,348	1,248,039	1,305,453	1,362,867	1,420,284	1,477,627	1,533,885	1,590,143	1,646,403	1,702,084			
Heat Rate																		
	Daily heat rate, Btu/kWe gross	12,935	12,719	12,626	12,959	12,643	12,514	12,565	12,352	12,351	12,537	12,476	12,476	12,476	12,410			
	Daily heat rate, Btu/kWe gross	14,369	14,130	14,026	14,396	14,044	13,902	13,958	13,721	13,721	13,927	13,859	13,859	13,859	13,786			
	Cumulative heat rate, Btu/kWe	12,551	12,560	12,563	12,582	12,585	12,582	12,581	12,572	12,563	12,562	12,559	12,556	12,553	12,548			
	Cumulative heat rate, Btu/kWe	13,943	13,953	13,956	13,977	13,980	13,977	13,976	13,965	13,955	13,954	13,951	13,948	13,945	13,939			
Cumulative by Facility starting 6/1/2023																		
	Max cumulative available engine run time, hours	16,124	16,220	16,316	16,412	16,508	16,604	16,700	16,796	16,892	16,988	17,084	17,180	17,276	17,372			
	Actual cumulative engine run time, hours	12,444	12,516	12,588	12,660	12,732	12,804	12,876	12,948	13,020	13,092	13,164	13,236	13,308	13,380			
	Cumulative Availability, %	77.2%	77.2%	77.2%	77.1%	77.1%	77.1%	77.1%	77.1%	77.1%	77.1%	77.1%	77.0%	77.0%	77.0%			
	Max cumulative gross output, kWh	13,325,400	13,404,600	13,483,800	13,563,000	13,642,200	13,721,400	13,800,600	13,879,800	13,959,000	14,038,200	14,117,400	14,196,600	14,275,800	14,355,000			
	Actual cumulative gross output, kWh	9,314,694	9,370,301	9,424,535	9,478,989	9,534,051	9,590,742	9,648,156	9,705,570	9,762,987	9,820,330	9,876,588	9,932,846	9,989,106	10,044,787			
	Cumulative Capacity Factor	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	70.0%	70.0%	70.0%	70.0%	70.0%			
	Cumulative fuel input, MMBtu	130,582	131,368	132,129	132,913	133,686	134,474	135,275	136,063	136,851	137,650	138,429	139,209	139,989	140,756			
	Cumulative gross output, kWh	9,314,694	9,370,301	9,424,535	9,478,989	9,534,051	9,590,742	9,648,156	9,705,570	9,762,987	9,820,330	9,876,588	9,932,846	9,989,106	10,044,787			
	Cumulative heat rate, Btu/kWe	12,620	12,620	12,620	12,622	12,623	12,622	12,622	12,620	12,618	12,618	12,617	12,616	12,615	12,614			
	Cumulative heat rate, Btu/kWe	14,019	14,020	14,020	14,022	14,022	14,021	14,021	14,019	14,017	14,017	14,016	14,015	14,014	14,013			
Service																		
	Engine 1																	
	Engine 2																	
	Engine 3																	
	Engine 4																	
Oil - oil and filter change																		
Service - plugs, air filter, valve inspection																		
	Precipitation																	
	NSTAR Power Reports	Saturday 6/17/2023	Sunday 6/18/2023	Monday 6/19/2023	Tuesday 6/20/2023	Wednesday 6/21/2023	Thursday 6/22/2023	Friday 6/23/2023	Saturday 6/24/2023	Sunday 6/25/2023	Monday 6/26/2023	Tuesday 6/27/2023	Wednesday 6/28/2023	Thursday 6/29/2023	Friday 6/30/2023	TOTAL		
	Date																	
	Hour																	
	1	2,218	2,268	2,220	2,172	2,223	2,218	2,313	2,310	2,313	2,309	2,259	2,260	2,263	2,262			
	2	2,220	2,267	2,220	2,172	2,223	2,219	2,312	2,311	2,313	2,309	2,259	2,260	2,263	2,263			
	3	2,220	2,268	2,221	2,172	2,224	2,219	2,313	2,310	2,313	2,309	2,260	2,261	2,263	2,263			
	4	2,221	2,268	2,221	2,173	2,224	2,219	2,312	2,310	2,313	2,308	2,261	2,261	2,264	2,262			
	5	2,220	2,267	2,222	2,173	2,224	2,218	2,313	2,310	2,313	2,308	2,262	2,261	2,263	2,263			
	6	2,221	2,267	2,222	2,173	2,223	2,220	2,313	2,310	2,313	2,309	2,260	2,261	2,263	2,263			
	7	2,220	2,267	2,222	2,174	2,219	2,219	2,312	2,310	2,313	2,308	2,259	2,260	2,260	2,263			
	8	2,221	2,267	2,219	2,194	2,214	2,292	2,307	2,310	2,313	2,305	2,258	2,257	2,256	2,254			
	9	2,221	2,267	2,211	2,212	2,206	2,302	2,301	2,310	2,314	2,300	2,253	2,252	2,254	2,251			
	10	2,221	2,265	2,205	1,967	2,205	2,298	2,301	2,311	2,312	2,299	2,251	2,254	2,251	2,249			
	11	2,219	2,261	2,206	2,210	2,204	2,298	2,299	2,311	2,309	2,299	2,253	2,253	2,251	2,248			
	12	2,219	2,231	2,181	2,211	2,205	2,297	2,300	2,310	2,306	2,295	2,251	2,252	2,248	2,251			
	13	2,219	2,214	2,118	2,212	2,205	2,299	2,299	2,309	2,306	2,301	2,251	2,251	2,248	2,203			
	14	2,219	2,214	2,115	2,210	2,206	2,301	2,298	2,309	2,305	2,296	2,251	2,252	2,248	2,202			
	15	2,218	2,213	2,115	2,209	2,204	2,302	2,299	2,308	2,305	2,298	2,252	2,251	2,248	2,201			
	16	2,219	2,213	2,117	2,209	2,205	2,307	2,300	2,305	2,304	2,306	2,252	2,253	2,251	2,203			
	17	2,219	2,213	2,159	2,216	2,209	2,306	2,305	2,305	2,305	2,308	2,256	2,257	2,256	2,208			
	18	2,219	2,214	2,170	2,217	2,209	2,306	2,305	2,306	2,306	2,308	2,258	2,260	2,257	2,211			
	19	2,219	2,214	2,170	2,217	2,210	2,307	2,305	2,305	2,306	2,308	2,258	2,262	2,257	2,215			
	20	2,219	2,214	2,170	2,218	2,211	2,307	2,309	2,305	2,305	2,308	2,261	2,262	2,258	2,216			
	21	2,244	2,214	2,171	2,217	2,212	2,308	2,309	2,305	2,308	2,308	2,261	2,262	2,261	2,217			
	22	2,267	2,214	2,171	2,217	2,212	2,311	2,310	2,305	2,309	2,308	2,261	2,262	2,262	2,217			
	23	2,268	2,214	2,171	2,222	2,218	2,312	2,310	2,308	2,308	2,276	2,260	2,262	2,262	2,216			
	24	2,268	2,219	2,172	2,222	2,218	2,313	2,310	2,311	2,309	2,259	2,260	2,263	2,262	2,215			
	TOTAL	53,439	53,733	52,389	52,589	53,113	54,698	55,355	55,404	55,421	55,242	54,167	54,189	54,169	53,616			
	Cumulative Output Sold, kWh	939,554	993,287	1,045,676	1,098,265	1,151,378	1,206,076	1,261,431	1,316,835	1,372,256	1,427,498	1,481,665	1,535,854	1,590,023	1,643,639			
	Transformer and line efficiency	99.8%	99.7%	99.8%	99.7%	99.7%	99.8%	99.7%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.7%	0.0%		
	Hourly average	2,227	2,239	2,183	2,191	2,213	2,279	2,306	2,309	2,309	2,302	2,257	2,258	2,257	2,234	2,283		

JULY 2023																		
			Saturday 7/1/2023	Sunday 7/2/2023	Monday 7/3/2023	Tuesday 7/4/2023	Wednesday 7/5/2023	Thursday 7/6/2023	Friday 7/7/2023	Saturday 7/8/2023	Sunday 7/9/2023	Monday 7/10/2023	Tuesday 7/11/2023	Wednesday 7/12/2023	Thursday 7/13/2023	Friday 7/14/2023	Saturday 7/15/2023	Sunday 7/16/2023
LFG and Biogas Flow to the Engines (KSCF)			1,381	1,381	1,379	1,379	1,398	1,384	1,357	1,377	1,348	1,348	1,343	1,364	1,359	1,326	1,322	1,340
LFG and Biogas Flow to the Engines (MMBTU HHV)			774	779	772	758	776	768	743	764	748	754	748	757	762	750	760	771
LFG and Biogas Flow to the Flare (KSCF)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)			1,381	1,381	1,379	1,379	1,398	1,384	1,357	1,377	1,348	1,348	1,343	1,364	1,359	1,326	1,322	1,340
LFG and Biogas Total Flow (MMBTU HHV)			774	779	772	758	776	768	743	764	748	754	748	757	762	750	760	771
Average Methane Content (%)			55.3	55.7	55.3	54.3	54.8	54.8	54.1	54.9	54.8	55.2	55.0	54.8	55.4	55.9	56.8	56.8
Engine 1 Hours			-	-	-	17	12	8	-	-	-	-	-	-	-	-	-	-
Engine 2 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Engine 3 Hours			24	24	24	24	12	16	23	24	24	24	24	24	24	24	24	24
Engine 4 Hours			-	-	-	7	24	24	24	24	24	24	24	24	24	24	24	24
Generator 1 Power Output (kWhr)			17,700	17,956	17,952	11,980	9,596	6,308	-	-	-	-	-	-	-	-	-	-
Generator 2 Power Output (kWhr)			19,124	19,124	19,120	18,348	19,116	19,120	18,500	19,120	19,120	19,124	19,124	19,124	19,124	19,128	19,324	19,476
Generator 3 Power Output (kWhr)			19,132	19,136	19,128	18,348	9,440	11,960	17,344	17,180	16,732	16,732	17,128	17,444	17,928	17,928	18,796	19,464
Generator 4 Power Output (kWhr)			-	-	-	4,500	17,912	17,136	17,256	17,896	17,896	17,900	17,896	17,896	17,892	18,400	19,240	19,416
Gross Power Output (kWhr)			56,036	56,284	56,301	53,236	56,172	54,597	53,110	54,209	53,770	53,770	54,163	54,486	54,969	55,467	57,358	58,330
Net Power Output (kWhr)			54,172	54,402	54,386	51,436	54,244	52,688	51,274	52,350	51,930	51,908	52,204	52,456	52,930	53,568	55,524	56,472
Power Sold as metered by NStar, (kWhr)			54,063	54,313	54,244	51,309	54,101	52,544	51,133	52,201	51,804	51,767	52,053	52,310	52,788	53,413	55,382	56,354
Offgrid RECs (kWhr)			1,864	1,882	1,915	1,800	1,928	1,909	1,836	1,859	1,840	1,862	1,959	2,030	2,039	1,899	1,834	1,858
Calculated Performance Results																		
Daily																		
Power output (kW average when running)																		
Generator 1			-	-	-	705	800	789	-	-	-	-	-	-	-	-	-	-
Generator 2			797	797	797	765	797	797	771	797	797	797	797	797	797	797	805	812
Generator 3			797	797	797	765	787	748	754	716	697	697	714	727	747	747	783	811
Generator 4			-	-	-	643	746	714	719	746	746	746	746	746	746	767	802	809
Power output (kW average over 24-hrs)																		
Facility Gross			2,335	2,345	2,346	2,218	2,341	2,275	2,213	2,259	2,240	2,240	2,257	2,270	2,290	2,311	2,390	2,430
Facility Net			2,257	2,267	2,266	2,143	2,260	2,195	2,136	2,181	2,164	2,163	2,175	2,186	2,205	2,232	2,314	2,353
In-plant load			78	78	80	75	80	80	77	77	77	78	82	85	85	79	76	77
Daily availability factor																		
Facility			50%	50%	50%	75%	75%	75%	74%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Engine 1			0%	0%	0%	71%	50%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 2			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 3			100%	100%	100%	100%	50%	67%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 4			0%	0%	0%	29%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																		
Facility			71%	71%	71%	67%	71%	69%	67%	68%	68%	68%	68%	69%	69%	70%	72%	74%
Engine 1			0%	0%	0%	85%	97%	96%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 2			97%	97%	97%	93%	97%	97%	93%	97%	97%	97%	97%	97%	97%	97%	98%	98%
Engine 3			97%	97%	97%	93%	95%	91%	91%	87%	85%	85%	87%	88%	91%	91%	95%	98%
Engine 4			0%	0%	0%	78%	90%	87%	87%	90%	90%	90%	90%	90%	90%	93%	97%	98%
Cumulative by engine																		
Engine operating run hours in the month																		
Max Cumulative Available, hours			24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
Engine 1			0	0	0	17	29	37	37	37	37	37	37	37	37	37	37	37
Engine 2			24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
Engine 3			24	48	72	96	108	124	147	171	195	219	243	267	291	315	339	363
Engine 4			0	0	0	7	31	55	79	103	127	151	175	199	223	247	271	295
Engine operating run hours total from 0 hours																		
Engine 1			134,954	134,954	134,954	134,971	134,983	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991
Engine 2			121,266	121,290	121,314	121,338	121,362	121,386	121,410	121,434	121,458	121,482	121,506	121,530	121,554	121,578	121,602	121,650
Engine 3			134,194	134,218	134,242	134,266	134,290	134,302	134,318	134,341	134,365	134,389	134,413	134,437	134,461	134,485	134,509	134,557
Engine 4			129,675	129,675	129,675	129,682	129,706	129,730	129,754	129,778	129,802	129,826	129,850	129,874	129,898	129,922	129,946	129,970
Cumulative availability, %			July 1, 2023 @ 00:00 hours															
Engine 1			0%	0%	0%	18%	24%	26%	22%	19%	17%	15%	14%	13%	12%	11%	10%	10%
Engine 2			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 3			100%	100%	100%	100%	90%	86%	88%	89%	90%	91%	92%	93%	93%	94%	94%	95%
Engine 4			0%	0%	0%	7%	26%	38%	47%	54%	59%	63%	66%	69%	71%	74%	75%	77%
Engine cumulative gross output, kWhr																		
Max cumulative capacity one engine			825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200
Engine 1			-	-	-	705	1,504	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293
Engine 2			797	1,594	2,390	3,155	3,951	4,748	5,519	6,316	7,112	7,909	8,706	9,503	10,300	11,097	11,902	12,713
Engine 3			797	1,595	2,392	3,156	3,943	4,690	5,444	6,160	6,857	7,554	8,268	8,995	9,742	10,489	11,272	12,083
Engine 4			-	-	-	643	1,389	2,103	2,822	3,568	4,314	5,059	5,805	6,551	7,296	8,063	8,865	9,674
Cumulative capacity factor, %																		
Engine 1			0%	0%	0%	21%	36%	46%	40%	35%	31%	28%	25%	23%	21%	20%	19%	17%
Engine 2			97%	97%	97%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%
Engine 3			97%	97%	97%	96%	96%	95%	94%	93%	92%	92%	91%	91%	91%	91%	91%	92%
Engine 4			0%	0%	0%	19%	34%	42%	49%	54%	58%	61%	64%	66%	68%	70%	72%	73%

		Saturday 7/1/2023	Sunday 7/2/2023	Monday 7/3/2023	Tuesday 7/4/2023	Wednesday 7/5/2023	Thursday 7/6/2023	Friday 7/7/2023	Saturday 7/8/2023	Sunday 7/9/2023	Monday 7/10/2023	Tuesday 7/11/2023	Wednesday 7/12/2023	Thursday 7/13/2023	Friday 7/14/2023	Saturday 7/15/2023	Sunday 7/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	48	96	144	216	288	360	431	503	575	647	719	791	863	935	1,007	1,079
	Cumulative Availability, %	50.0%	50.0%	50.0%	56.3%	60.0%	62.5%	64.1%	65.5%	66.6%	67.4%	68.1%	68.7%	69.2%	69.6%	69.9%	70.2%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	56,036	112,320	168,621	221,857	278,029	332,626	385,736	439,945	493,715	547,485	601,648	656,134	711,103	766,570	823,928	882,258
	Cumulative Capacity Factor	70.8%	70.9%	71.0%	70.0%	70.2%	69.5%	69.2%	69.1%	68.9%	68.8%	68.8%	68.8%	68.8%	68.9%	69.2%	69.4%
	Cumulative fuel input, MMBtu HHV	773.5	1,553	2,325	3,083	3,859	4,626	5,369	6,134	6,882	7,635	8,383	9,140	9,902	10,652	11,412	12,183
	Cumulative gross output, kWhr	56036	112,320	168,621	221,857	278,029	332,626	385,736	439,945	493,715	547,485	601,648	656,134	711,103	766,570	823,928	882,258
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	12,426	12,461	12,350	12,819	12,433	12,655	12,594	12,690	12,523	12,620	12,432	12,507	12,472	12,177	11,920	11,896
	Daily heat rate, Btu/kWe gross HHV	13,804	13,842	13,719	14,240	13,811	14,058	13,990	14,097	13,911	14,019	13,810	13,893	13,855	13,527	13,241	13,214
	Cumulative heat rate, Btu/kWe gross LHV	12,426	12,443	12,412	12,510	12,494	12,521	12,531	12,550	12,547	12,554	12,543	12,540	12,535	12,509	12,468	12,430
	Cumulative heat rate, Btu/kWe gross HHV	13,804	13,823	13,788	13,897	13,879	13,909	13,920	13,942	13,938	13,946	13,934	13,931	13,925	13,896	13,850	13,808
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	17,468	17,564	17,660	17,756	17,852	17,948	18,044	18,140	18,236	18,332	18,428	18,524	18,620	18,716	18,812	18,908
	Actual cumulative engine run hours	13,428	13,476	13,524	13,596	13,668	13,740	13,811	13,883	13,955	14,027	14,099	14,171	14,243	14,315	14,387	14,459
	Cumulative Availability, %	76.9%	76.7%	76.6%	76.6%	76.6%	76.6%	76.5%	76.5%	76.5%	76.5%	76.5%	76.5%	76.5%	76.5%	76.5%	76.5%
	Max cumulative gross output, kWhr	14,434,200	14,513,400	14,592,600	14,671,800	14,751,000	14,833,500	14,912,700	14,991,900	15,071,100	15,150,300	15,229,500	15,308,700	15,387,900	15,467,100	15,546,300	15,625,500
	Actual cumulative gross output, kWhr	10,100,823	10,157,107	10,213,408	10,266,644	10,322,816	10,377,413	10,430,523	10,484,732	10,538,502	10,592,272	10,646,435	10,700,921	10,755,890	10,811,357	10,868,715	10,927,045
	Cumulative Capacity Factor	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%	69.9%
	Cumulative fuel input, MMBtu HHV	141,530	142,309	143,081	143,839	144,615	145,383	146,126	146,890	147,638	148,392	149,140	149,897	150,658	151,409	152,168	152,939
	Cumulative gross output, kWhr	10,100,823	10,157,107	10,213,408	10,266,644	10,322,816	10,377,413	10,430,523	10,484,732	10,538,502	10,592,272	10,646,435	10,700,921	10,755,890	10,811,357	10,868,715	10,927,045
	Cumulative heat rate, Btu/kWe gross LHV	12,613	12,612	12,611	12,612	12,611	12,611	12,611	12,612	12,611	12,611	12,610	12,610	12,609	12,607	12,603	12,599
	Cumulative heat rate, Btu/kWe gross HHV	14,012	14,011	14,009	14,010	14,009	14,010	14,009	14,010	14,009	14,009	14,008	14,008	14,007	14,005	14,001	13,996
Service																	
	Engine 1																
	Engine 2																
	Engine 3																
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Saturday 7/1/2023	Sunday 7/2/2023	Monday 7/3/2023	Tuesday 7/4/2023	Wednesday 7/5/2023	Thursday 7/6/2023	Friday 7/7/2023	Saturday 7/8/2023	Sunday 7/9/2023	Monday 7/10/2023	Tuesday 7/11/2023	Wednesday 7/12/2023	Thursday 7/13/2023	Friday 7/14/2023	Saturday 7/15/2023	Sunday 7/16/2023
	Date	7/1/2023	7/2/2023	7/3/2023	7/4/2023	7/5/2023	7/6/2023	7/7/2023	7/8/2023	7/9/2023	7/10/2023	7/11/2023	7/12/2023	7/13/2023	7/14/2023	7/15/2023	7/16/2023
	Hour																
	1	2,214	2,267	2,259	2,262	2,259	2,265	2,161	2,209	2,161	2,160	2,159	2,155	2,205	2,201	2,258	2,348
	2	2,218	2,267	2,261	2,262	2,258	2,265	833	2,209	2,160	2,161	2,160	2,155	2,205	2,202	2,258	2,348
	3	2,218	2,267	2,262	2,262	2,259	2,265	1,851	2,208	2,160	2,161	2,162	2,156	2,205	2,203	2,258	2,348
	4	2,218	2,267	2,261	2,262	2,259	2,265	2,211	2,208	2,159	2,160	2,209	2,156	2,205	2,203	2,258	2,348
	5	2,219	2,267	2,263	2,262	2,259	2,266	2,210	2,207	2,160	2,161	2,208	2,155	2,205	2,203	2,257	2,348
	6	2,253	2,267	2,263	2,262	2,259	2,265	2,209	2,207	2,159	2,161	2,209	2,156	2,205	2,204	2,259	2,348
	7	2,267	2,267	2,264	2,262	2,260	2,267	2,207	2,207	2,160	2,161	2,209	2,156	2,205	2,205	2,259	2,348
	8	2,267	2,267	2,261	2,263	2,257	2,179	2,207	2,207	2,160	2,157	2,204	2,152	2,200	2,202	2,259	2,349
	9	2,262	2,267	2,261	2,230	2,248	2,190	2,204	2,203	2,160	2,151	2,201	2,147	2,196	2,199	2,259	2,348
	10	2,259	2,266	2,259	2,215	2,242	2,152	2,200	2,159	2,160	2,145	2,194	2,159	2,194	2,199	2,259	2,349
	11	2,260	2,266	2,259	2,215	2,245	2,150	2,199	2,156	2,159	2,151	2,188	2,193	2,193	2,202	2,303	2,347
	12	2,260	2,263	2,258	2,211	2,176	2,149	2,198	2,154	2,156	2,151	2,145	2,192	2,193	2,202	2,345	2,347
	13	2,259	2,262	2,259	2,211	2,252	2,149	2,198	2,154	2,155	2,151	2,145	2,192	2,190	2,202	2,344	2,347
	14	2,260	2,258	2,258	2,210	2,254	2,148	2,198	2,153	2,155	2,153	2,145	2,191	2,190	2,222	2,344	2,347
	15	2,259	2,258	2,257	2,209	2,254	2,149	2,198	2,153	2,155	2,152	2,145	2,190	2,192	2,251	2,343	2,345
	16	2,258	2,260	2,258	2,211	2,255	2,154	2,197	2,152	2,154	2,158	2,147	2,192	2,198	2,251	2,341	2,348
	17	2,258	2,264	2,257	1,222	2,260	2,155	2,202	2,153	2,155	2,159	2,150	2,197	2,199	2,256	2,345	2,348
	18	2,258	2,264	2,257	740	2,261	2,156	2,204	2,155	2,158	2,160	2,152	2,199	2,201	2,257	2,346	2,348
	19	2,262	2,259	2,259	2,248	2,263	2,158	2,207	2,156	2,161	2,159	2,153	2,202	2,201	2,257	2,348	2,350
	20	2,266	2,259	2,261	2,259	2,264	2,159	2,207	2,156	2,160	2,160	2,153	2,203	2,200	2,259	2,348	2,350
	21	2,267	2,258	2,262	2,258	2,264	2,159	2,208	2,156	2,160	2,159	2,153	2,202	2,201	2,258	2,348	2,350
	22	2,266	2,258	2,261	2,258	2,264	2,159	2,208	2,159	2,159	2,159	2,153	2,203	2,202	2,258	2,348	2,349
	23	2,267	2,257	2,262	2,258	2,265	2,160	2,208	2,160	2,159	2,158	2,155	2,203	2,202	2,258	2,348	2,348
	24	2,268	2,258	2,262	2,257	2,264	2,160	2,208	2,160	2,159	2,159	2,154	2,204	2,201	2,259	2,347	2,348
	TOTAL	54,063	54,313	54,244	51,309	54,101	52,544	51,133	52,201	51,804	51,767	52,053	52,310	52,788	53,413	55,382	56,354
	Cumulative Output Sold, kWhr	54,063	108,376	162,620	213,929	268,030	320,674	371,707	423,908	475,712	527,479	579,532	631,842	684,630	738,043	793,425	849,779
	Transformer and line efficiency	99.8%	99.8%	99.7%	99.8%	99.7%	99.7%	99.7%	99.7%	99.8%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.8%
	Hourly average	2,253	2,263	2,260	2,138	2,254	2,189	2,131	2,175	2,159	2,157	2,169	2,180	2,200	2,226	2,308	2,348

JULY 2023																				
			Monday 7/17/2023	Tuesday 7/18/2023	Wednesday 7/19/2023	Thursday 7/20/2023	Friday 7/21/2023	Saturday 7/22/2023	Sunday 7/23/2023	Monday 7/24/2023	Tuesday 7/25/2023	Wednesday 7/26/2023	Thursday 7/27/2023	Friday 7/28/2023	Saturday 7/29/2023	Sunday 7/30/2023	Monday 7/31/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			1,337	1,335	1,337	1,355	1,359	1,359	1,361	1,355	1,345	1,345	1,339	1,339	1,313	1,321	1,308	41,895	12	41,883
LFG and Biogas Flow to the Engine			760	756	757	760	766	766	757	753	753	758	758	739	733	741	733	23,473	4	23,469
LFG and Biogas Flow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and BiogasFlow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF)			1,337	1,335	1,337	1,355	1,359	1,359	1,361	1,355	1,345	1,345	1,339	1,339	1,313	1,321	1,308	41,895		
LFG and Biogas Total Flow (MMBTU)			760	756	757	760	766	766	757	753	753	758	758	739	733	741	733	23,473		
Average Methane Content (%)			56.2	56.0	55.9	55.5	55.7	55.7	55.0	54.9	55.3	55.7	55.9	54.5	55.2	55.4	55.3	55.4		
Engine 1 Hours			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37		
Engine 2 Hours			24	24	22	24	24	24	24	24	24	24	24	24	24	24	24	742		
Engine 3 Hours			23	23	23	23	23	23	23	23	23	23	23	23	23	23	24	709		
Engine 4 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	655		
Generator 1 Power Output (kWhr)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81,492		
Generator 2 Power Output (kWhr)			19,480	18,140	19,280	19,124	19,124	19,124	19,116	19,124	19,128	19,124	19,124	18,268	19,124	19,120	18,656	590,172		
Generator 3 Power Output (kWhr)			19,340	19,044	18,148	19,116	19,120	19,112	18,272	17,928	17,924	17,928	18,520	17,240	16,740	16,732	17,144	546,128		
Generator 4 Power Output (kWhr)			19,384	19,404	19,212	19,048	19,060	19,052	19,052	19,060	19,056	19,052	19,056	17,768	17,900	18,280	18,500	504,120		
Gross Power Output (kWhr)			58,199	56,607	56,677	57,350	57,358	57,333	56,503	56,170	56,170	56,170	56,751	53,334	53,834	54,196	54,361	1,723,271		
Net Power Output (kWhr)			56,248	54,692	54,776	55,448	55,472	55,480	54,660	54,268	54,268	54,292	54,820	51,404	51,972	52,428	52,536	1,664,708		
Power Sold as metered by NStar, (MWhr)			56,086	54,546	54,647	55,304	55,315	55,351	54,549	54,125	54,111	54,148	54,687	51,282	51,850	52,315	52,409	1,660,504	CRMCB inplant	
Offgrid RECs (kWhr)			1,951	1,915	1,901	1,902	1,886	1,853	1,843	1,902	1,902	1,878	1,931	1,930	1,862	1,768	1,825	58,563	9,879	
Calculated Performance Results																			17%	
Daily																			of total in-plant power	
		Power output (kW average when operating)																		
		Generator 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Generator 2	812	756	876	797	797	797	797	797	797	797	797	761	797	797	777			
		Generator 3	841	828	789	831	831	831	794	779	779	779	805	750	728	727	714			
		Generator 4	808	809	801	794	794	794	794	794	794	794	794	740	746	762	771			
		Power output (kW average over 24 hours)																		
		Facility Gross	2,425	2,359	2,362	2,390	2,390	2,389	2,354	2,340	2,340	2,340	2,365	2,222	2,243	2,258	2,265			
		Facility Net	2,344	2,279	2,282	2,310	2,311	2,312	2,278	2,261	2,261	2,262	2,284	2,142	2,166	2,185	2,189			
		In-plant load	81	80	79	79	79	77	77	79	79	78	80	80	78	74	76			
		Daily availability factor																		
		Facility	74%	74%	72%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	75%			
		Engine 1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 2	100%	100%	92%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 3	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	100%			
		Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Daily capacity factor																		
		Facility	73%	71%	72%	72%	72%	72%	71%	71%	71%	71%	72%	67%	68%	68%	69%			
		Engine 1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 2	98%	92%	106%	97%	97%	97%	97%	97%	97%	97%	97%	92%	97%	97%	94%			
		Engine 3	102%	100%	96%	101%	101%	101%	96%	94%	94%	94%	98%	91%	88%	88%	87%			
		Engine 4	98%	98%	97%	96%	96%	96%	96%	96%	96%	96%	96%	90%	90%	92%	93%			
Cumulative by engine																				
		Engine operating run hours in the month																		
		Max Cumulative Available, (hours)	408	432	456	480	504	528	552	576	600	624	648	672	696	720	744			
		Engine 1	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37			
		Engine 2	408	432	454	478	502	526	550	574	598	622	646	670	694	718	742			
		Engine 3	386	409	432	455	478	501	524	547	570	593	616	639	662	685	709			
		Engine 4	319	343	367	391	415	439	463	487	511	535	559	583	607	631	655			
		Engine operating run hours total																		
		Engine 1	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991	134,991			
		Engine 2	121,674	121,698	121,720	121,744	121,768	121,792	121,816	121,840	121,864	121,888	121,912	121,936	121,960	121,984	122,008			
		Engine 3	134,580	134,603	134,626	134,649	134,672	134,695	134,718	134,741	134,764	134,787	134,810	134,833	134,856	134,879	134,903			
		Engine 4	129,994	130,018	130,042	130,066	130,090	130,114	130,138	130,162	130,186	130,210	130,234	130,258	130,282	130,306	130,330			
		Cumulative availability, %																		
		Engine 1	9%	9%	8%	8%	7%	7%	7%	6%	6%	6%	6%	6%	5%	5%	5%			
		Engine 2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 3	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%			
		Engine 4	78%	79%	80%	81%	82%	83%	84%	85%	85%	86%	86%	87%	87%	88%	88%			
		Engine cumulative gross output																		
		Max cumulative capacity of (MWhr)	14,025	14,850	15,675	16,500	17,325	18,150	18,975	19,800	20,625	21,450	22,275	23,100	23,925	24,750	25,575			
		Engine 1	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293	2,293						

		Monday 7/17/2023	Tuesday 7/18/2023	Wednesday 7/19/2023	Thursday 7/20/2023	Friday 7/21/2023	Saturday 7/22/2023	Sunday 7/23/2023	Monday 7/24/2023	Tuesday 7/25/2023	Wednesday 7/26/2023	Thursday 7/27/2023	Friday 7/28/2023	Saturday 7/29/2023	Sunday 7/30/2023	Monday 7/31/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																			
	Max cumulative available engine run time, hours	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688	2,784	2,880	2,976			
	Actual cumulative engine run time, hours	1,150	1,221	1,290	1,361	1,432	1,503	1,574	1,645	1,716	1,787	1,858	1,929	2,000	2,071	2,143			
	Cumulative Availability, %	70.5%	70.7%	70.7%	70.9%	71.0%	71.2%	71.3%	71.4%	71.5%	71.6%	71.7%	71.8%	71.8%	71.9%	72.0%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300	2,458,500			
	Actual cumulative gross output, kWh	940,457	997,064	1,053,741	1,111,091	1,168,449	1,225,782	1,282,285	1,338,455	1,394,625	1,450,795	1,507,546	1,560,880	1,614,714	1,668,910	1,723,271			
	Cumulative Capacity Factor	69.7%	69.8%	69.9%	70.0%	70.1%	70.2%	70.3%	70.3%	70.3%	70.3%	70.4%	70.3%	70.2%	70.1%	70.1%			
	Cumulative fuel input, MMBtu	12,943	13,699	14,456	15,216	15,982	16,748	17,505	18,258	19,011	19,769	20,527	21,267	21,999	22,740	23,473			
	Cumulative gross output, kWh	940,457	997,064	1,053,741	1,111,091	1,168,449	1,225,782	1,282,285	1,338,455	1,394,625	1,450,795	1,507,546	1,560,880	1,614,714	1,668,910	1,723,271			
Heat Rate																			
	Daily heat rate, Btu/kWe gross	11,757	12,029	12,015	11,936	12,023	12,029	12,056	12,069	12,069	12,150	12,025	12,478	12,254	12,305	12,130			
	Daily heat rate, Btu/kWe gross	13,060	13,362	13,348	13,259	13,356	13,362	13,392	13,408	13,408	13,497	13,358	13,862	13,612	13,669	13,475			
	Cumulative heat rate, Btu/kWe	12,389	12,368	12,349	12,328	12,313	12,300	12,289	12,280	12,271	12,267	12,257	12,265	12,265	12,266	12,262			
	Cumulative heat rate, Btu/kWe	13,762	13,739	13,718	13,695	13,678	13,663	13,651	13,641	13,632	13,626	13,616	13,625	13,624	13,626	13,621			
Cumulative by Facility starting 7/17/2023																			
	Max cumulative available engine run time, hours	19,004	19,100	19,196	19,292	19,388	19,484	19,580	19,676	19,772	19,868	19,964	20,060	20,156	20,252	20,348			
	Actual cumulative engine run time, hours	14,530	14,601	14,670	14,741	14,812	14,883	14,954	15,025	15,096	15,167	15,238	15,309	15,380	15,451	15,523			
	Cumulative Availability, %	76.5%	76.4%	76.4%	76.4%	76.4%	76.4%	76.4%	76.4%	76.4%	76.3%	76.3%	76.3%	76.3%	76.3%	76.3%			
	Max cumulative gross output, kWh	15,704,700	15,783,900	15,863,100	15,942,300	16,021,500	16,100,700	16,179,900	16,259,100	16,338,300	16,417,500	16,496,700	16,575,900	16,655,100	16,734,300	16,813,500			
	Actual cumulative gross output, kWh	10,985,244	11,041,851	11,098,528	11,155,878	11,213,236	11,270,569	11,327,072	11,383,242	11,439,412	11,495,582	11,552,333	11,605,667	11,659,501	11,713,697	11,768,058			
	Cumulative Capacity Factor	69.9%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%			
	Cumulative fuel input, MMBtu	153,699	154,455	155,212	155,972	156,738	157,505	158,261	159,014	159,767	160,526	161,284	162,023	162,756	163,497	164,229			
	Cumulative gross output, kWh	10,985,244	11,041,851	11,098,528	11,155,878	11,213,236	11,270,569	11,327,072	11,383,242	11,439,412	11,495,582	11,552,333	11,605,667	11,659,501	11,713,697	11,768,058			
	Cumulative heat rate, Btu/kWe	12,595	12,592	12,589	12,586	12,583	12,580	12,578	12,575	12,573	12,570	12,568	12,567	12,566	12,565	12,563			
	Cumulative heat rate, Btu/kWe	13,991	13,988	13,985	13,981	13,978	13,975	13,972	13,969	13,966	13,964	13,961	13,961	13,959	13,958	13,955			
Service																			
	Engine 1																		
	Engine 2																		
	Engine 3																		
	Engine 4																		
Oil - oil and filter change																			
Service - plugs, air filter, valve inspection																			
	Precipitation																		
	NSTAR Power Reports	Monday 7/17/2023	Tuesday 7/18/2023	Wednesday 7/19/2023	Thursday 7/20/2023	Friday 7/21/2023	Saturday 7/22/2023	Sunday 7/23/2023	Monday 7/24/2023	Tuesday 7/25/2023	Wednesday 7/26/2023	Thursday 7/27/2023	Friday 7/28/2023	Saturday 7/29/2023	Sunday 7/30/2023	Monday 7/31/2023	TOTAL		
	Date																		
	Hour																		
	1	2,348	2,285	2,347	2,308	2,308	2,307	2,308	2,259	2,257	2,258	2,259	2,307	2,161	2,165	2,166			
	2	2,348	2,285	2,348	2,308	2,308	2,307	2,307	2,259	2,257	2,259	2,259	2,307	2,162	2,166	2,166			
	3	2,348	2,285	2,348	2,308	2,308	2,306	2,308	2,259	2,256	2,259	2,260	2,307	2,161	2,165	2,213			
	4	2,348	2,284	2,348	2,309	2,308	2,307	2,308	2,260	2,256	2,260	2,260	2,252	2,162	2,188	2,213			
	5	2,348	2,285	2,348	2,309	2,309	2,308	2,308	2,260	2,257	2,260	2,260	2,160	2,162	2,212	2,214			
	6	2,348	2,285	2,348	2,309	2,310	2,308	2,308	2,260	2,257	2,260	2,260	2,158	2,162	2,213	2,213			
	7	2,348	2,310	2,349	2,309	2,309	2,309	2,309	2,260	2,257	2,260	2,259	2,155	2,161	2,213	2,214			
	8	2,345	2,344	2,345	2,305	2,306	2,309	2,267	2,255	2,257	2,259	2,256	2,051	2,162	2,213	2,207			
	9	2,342	1,967	2,260	2,300	2,302	2,307	2,259	2,252	2,254	2,253	2,251	1,666	2,161	2,213	2,203			
	10	2,340	1,550	1,552	2,300	2,301	2,305	2,257	2,250	2,251	2,253	2,249	1,863	2,160	2,212	2,099			
	11	2,338	2,203	2,103	2,299	2,299	2,305	2,257	2,249	2,249	2,252	2,249	1,864	2,157	2,210	1,330			
	12	2,337	2,341	2,298	2,298	2,300	2,305	2,257	2,248	2,248	2,251	2,249	1,991	2,159	2,183	2,157			
	13	2,330	2,335	2,299	2,298	2,300	2,305	2,256	2,249	2,249	2,251	2,294	2,283	2,158	2,163	2,182			
	14	2,334	2,337	2,299	2,298	2,300	2,304	2,256	2,249	2,249	2,250	2,296	2,281	2,158	2,163	2,251			
	15	2,331	2,338	2,298	2,297	2,300	2,304	2,256	2,249	2,252	2,249	2,294	2,206	2,157	2,163	2,252			
	16	2,331	2,338	2,300	2,299	2,300	2,303	2,257	2,253	2,251	2,249	2,296	2,155	2,158	2,163	2,259			
	17	2,337	2,345	2,306	2,305	2,305	2,305	2,256	2,255	2,252	2,254	2,301	2,155	2,159	2,164	2,259			
	18	2,340	2,346	2,308	2,305	2,305	2,306	2,257	2,256	2,256	2,257	2,303	2,157	2,160	2,164	2,258			
	19	2,344	2,346	2,307	2,306	2,306	2,307	2,259	2,257	2,257	2,258	2,304	2,159	2,160	2,164	2,259			
	20	2,345	2,346	2,307	2,305	2,305	2,306	2,260	2,257	2,257	2,259	2,305	2,161	2,160	2,163	2,258			
	21	2,345	2,348	2,307	2,306	2,306	2,306	2,260	2,257	2,257	2,259	2,305	2,161	2,160	2,163	2,259			
	22	2,343	2,347	2,307	2,308	2,306	2,307	2,260	2,258	2,258	2,259	2,306	2,161	2,163	2,164	2,259			
	23	2,284	2,348	2,307	2,307	2,307	2,307	2,259	2,257	2,258	2,259	2,305	2,160	2,163	2,164	2,259			
	24	2,284	2,348	2,308	2,308	2,307	2,308	2,260	2,257	2,259	2,260	2,307	2,162	2,164	2,164	2,259			
	TOTAL	56,086	54,546	54,647	55,304	55,315	55,351	54,549	54,125	54,111	54,148	54,687	51,282	51,850	52,315	52,409			
	Cumulative Output Sold, kWh	905,865	960,411	1,015,058	1,070,362	1,125,677	1,181,028	1,235,577	1,289,702	1,343,813	1,397,961	1,452,648	1,503,930	1,555,780	1,608,095	1,660,504			
	Transformer and line efficiency	99.7%	99.7%	99.8%	99.7%	99.7%	99.8%	99.8%	99.7%	99.7%	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	0.0%		
	Hourly average	2,337	2,273	2,277	2,304	2,305	2,306	2,273	2,255	2,255	2,256	2,279	2,137	2,160	2,180	2,184	2,232		

AUGUST 2023																		
			Tuesday 8/1/2023	Wednesday 8/2/2023	Thursday 8/3/2023	Friday 8/4/2023	Saturday 8/5/2023	Sunday 8/6/2023	Monday 8/7/2023	Tuesday 8/8/2023	Wednesday 8/9/2023	Thursday 8/10/2023	Friday 8/11/2023	Saturday 8/12/2023	Sunday 8/13/2023	Monday 8/14/2023	Tuesday 8/15/2023	Wednesday 8/16/2023
LFG and Biogas Flow to the Engines (KSCF)			1,376	1,344	1,354	1,369	1,369	1,111	399	1,352	1,352	1,366	1,383	1,383	1,369	1,334	1,328	1,353
LFG and Biogas Flow to the Engines (MMBTU HHV)			759	752	759	759	761	604	223	768	768	779	786	782	774	759	764	777
LFG and Biogas Flow to the Flare (KSCF)			-	-	-	-	-	159	593	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)			-	-	-	-	-	86	331	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)			1,376	1,344	1,354	1,369	1,369	1,270	991	1,352	1,352	1,366	1,383	1,383	1,369	1,334	1,328	1,353
LFG and Biogas Total Flow (MMBTU HHV)			759	752	759	759	761	690	554	768	768	779	786	782	774	759	764	777
Average Methane Content (%)			54.5	55.3	55.4	54.8	54.9	53.7	55.2	56.1	56.1	56.4	56.2	55.9	55.9	56.2	56.9	56.8
Engine 1 Hours			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 2 Hours			24	24	24	24	24	20	7	24	24	24	24	24	24	24	24	24
Engine 3 Hours			24	24	24	24	24	20	7	24	24	24	24	24	24	24	24	24
Engine 4 Hours			24	24	24	24	24	20	7	24	24	24	24	24	24	24	24	24
Generator 1 Power Output (kWhr)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 2 Power Output (kWhr)			19,108	18,644	19,124	19,120	19,120	15,520	5,724	19,128	19,376	19,476	19,480	19,476	19,484	19,476	19,476	19,476
Generator 3 Power Output (kWhr)			17,916	17,568	18,764	19,112	18,360	14,552	5,380	18,764	19,124	18,828	19,476	19,476	19,476	19,468	19,468	19,468
Generator 4 Power Output (kWhr)			19,044	18,460	19,060	19,056	19,056	15,468	5,724	19,076	19,292	19,408	19,436	19,432	19,436	19,428	19,436	19,436
Gross Power Output (kWhr)			56,119	54,720	56,994	57,353	56,608	45,597	16,839	56,892	57,693	57,614	58,292	58,280	58,284	58,284	58,292	58,287
Net Power Output (kWhr)			54,252	52,904	55,056	55,288	54,696	44,116	16,224	54,872	55,804	55,772	56,448	56,484	56,460	56,416	56,448	56,452
Power Sold as metered by NStar, (kWhr)			54,164	52,744	54,925	55,148	54,567	54,557	16,181	54,740	55,658	55,636	56,310	56,367	56,346	56,272	56,302	56,304
Offgrid RECs (kWhr)			1,867	1,816	1,938	2,065	1,912	1,481	615	2,020	1,889	1,842	1,844	1,796	1,824	1,868	1,844	1,835
Calculated Performance Results																		
Daily																		
Power output (kW average when running)																		
Generator 1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 2			796	777	797	797	797	776	818	797	807	812	812	812	812	812	812	812
Generator 3			747	732	782	796	765	728	769	782	797	785	812	812	812	811	811	811
Generator 4			794	769	794	794	794	773	818	795	804	809	810	810	810	810	810	810
Power output (kW average over 24-hrs)																		
Facility Gross			2,338	2,280	2,375	2,390	2,359	1,900	702	2,371	2,404	2,401	2,429	2,428	2,429	2,429	2,429	2,429
Facility Net			2,261	2,204	2,294	2,304	2,279	1,838	676	2,286	2,325	2,324	2,352	2,354	2,353	2,351	2,352	2,352
In-plant load			78	76	81	86	80	62	26	84	79	77	77	75	76	78	77	76
Daily availability factor																		
Facility			75%	75%	75%	75%	75%	63%	22%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Engine 1			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 2			100%	100%	100%	100%	100%	83%	29%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 3			100%	100%	100%	100%	100%	83%	29%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 4			100%	100%	100%	100%	100%	83%	29%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																		
Facility			71%	69%	72%	72%	71%	58%	21%	72%	73%	73%	74%	74%	74%	74%	74%	74%
Engine 1			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 2			97%	94%	97%	97%	97%	94%	99%	97%	98%	98%	98%	98%	98%	98%	98%	98%
Engine 3			90%	89%	95%	97%	93%	88%	93%	95%	97%	95%	98%	98%	98%	98%	98%	98%
Engine 4			96%	93%	96%	96%	96%	94%	99%	96%	97%	98%	98%	98%	98%	98%	98%	98%
Cumulative by engine																		
Engine operating run hours in the month																		
Max Cumulative Available, hours			24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384
Engine 1			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine 2			24	48	72	96	120	140	147	171	195	219	243	267	291	315	339	363
Engine 3			24	48	72	96	120	140	147	171	195	219	243	267	291	315	339	363
Engine 4			24	48	72	96	120	140	147	171	195	219	243	267	291	315	339	363
Engine operating run hours total from 0 hours																		
Engine 1			135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063
Engine 2			122,007	122,031	122,079	122,103	122,127	122,147	122,154	122,178	122,202	122,226	122,250	122,274	122,298	122,322	122,346	122,370
Engine 3			134,915	134,939	134,963	134,987	135,011	135,035	135,055	135,062	135,086	135,110	135,134	135,158	135,182	135,206	135,230	135,278
Engine 4			130,329	130,353	130,377	130,401	130,425	130,449	130,469	130,476	130,500	130,524	130,548	130,572	130,596	130,620	130,644	130,692
Cumulative availability, %			August 1, 2023 @ 00:00 hours															
Engine 1			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 2			100%	100%	100%	100%	100%	97%	88%	89%	90%	91%	92%	93%	93%	94%	94%	95%
Engine 3			100%	100%	100%	100%	100%	97%	88%	89%	90%	91%	92%	93%	93%	94%	94%	95%
Engine 4			100%	100%	100%	100%	100%	97%	88%	89%	90%	91%	92%	93%	93%	94%	94%	95%
Engine cumulative gross output, kWhr																		
Max cumulative capacity one engine			825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200
Engine 1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 2			796	1,573	2,370	3,167	3,963	4,739	5,557	6,354	7,161	7,973	8,784	9,596	10,408	11,219	12,031	12,842
Engine 3			747	1,479	2,260	3,057	3,822	4,549	5,318	6,100	6,897	7,681	8,493	9,304	10,116	10,927	11,738	12,549
Engine 4			794	1,563	2,357	3,151	3,945	4,718	5,536	6,331	7,135	7,943	8,753	9,563	10,373	11,182	11,992	12,802
Cumulative capacity factor, %																		
Engine 1			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 2			97%	95%	96%	96%	96%	96%	96%	96%	96%	97%	97%	97%	97%	97%	97%	97%
Engine 3			90%	90%	91%	93%	93%	92%	92%	92%	93%	93%	94%	94%	94%	95%	95%	95%
Engine 4			96%	95%	95%	95%	96%	95%	96%	96%	96%	96%	96%	97%	97%	97%	97%	97%

		Tuesday 8/1/2023	Wednesday 8/2/2023	Thursday 8/3/2023	Friday 8/4/2023	Saturday 8/5/2023	Sunday 8/6/2023	Monday 8/7/2023	Tuesday 8/8/2023	Wednesday 8/9/2023	Thursday 8/10/2023	Friday 8/11/2023	Saturday 8/12/2023	Sunday 8/13/2023	Monday 8/14/2023	Tuesday 8/15/2023	Wednesday 8/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	72	144	216	288	360	420	441	513	585	657	729	801	873	945	1,017	1,089
	Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	72.9%	65.6%	66.8%	67.7%	68.4%	69.0%	69.5%	70.0%	70.3%	70.6%	70.9%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	56,119	110,839	167,833	225,186	281,794	327,391	344,230	401,122	458,815	516,429	574,721	633,001	691,285	749,569	807,861	866,148
	Cumulative Capacity Factor	70.9%	70.0%	70.6%	71.1%	71.2%	68.4%	61.7%	63.0%	64.1%	64.9%	65.7%	66.4%	66.9%	67.4%	67.8%	68.2%
	Cumulative fuel input, MMBtu HHV	758.6	1,510	2,269	3,029	3,790	4,394	4,616	5,384	6,152	6,931	7,717	8,499	9,273	10,032	10,796	11,573
	Cumulative gross output, kWhr	56119	110,839	167,833	225,186	281,794	327,391	344,230	401,122	458,815	516,429	574,721	633,001	691,285	749,569	807,861	866,148
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	12,169	12,366	11,990	11,915	12,108	11,918	11,900	12,147	11,979	12,175	12,138	12,083	11,948	11,729	11,800	12,002
	Daily heat rate, Btu/kWe gross HHV	13,518	13,737	13,319	13,236	13,450	13,239	13,219	13,494	13,307	13,524	13,484	13,423	13,273	13,029	13,108	13,332
	Cumulative heat rate, Btu/kWe gross LHV	12,169	12,266	12,172	12,107	12,107	12,081	12,072	12,082	12,069	12,081	12,087	12,087	12,075	12,048	12,030	12,028
	Cumulative heat rate, Btu/kWe gross HHV	13,518	13,626	13,522	13,449	13,449	13,420	13,410	13,422	13,408	13,421	13,427	13,427	13,414	13,384	13,364	13,362
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	20,444	20,540	20,636	20,732	20,828	20,924	21,020	21,116	21,212	21,308	21,404	21,500	21,596	21,692	21,788	21,884
	Actual cumulative engine run hours	15,595	15,667	15,739	15,811	15,883	15,943	15,964	16,036	16,108	16,180	16,252	16,324	16,396	16,468	16,540	16,612
	Cumulative Availability, %	76.3%	76.3%	76.3%	76.3%	76.3%	76.2%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%
	Max cumulative gross output, kWhr	16,892,700	16,971,900	17,051,100	17,130,300	17,209,500	17,292,000	17,371,200	17,450,400	17,529,600	17,608,800	17,688,000	17,767,200	17,846,400	17,925,600	18,004,800	18,084,000
	Actual cumulative gross output, kWhr	11,824,177	11,878,897	11,935,891	11,993,244	12,049,852	12,095,449	12,112,288	12,169,180	12,226,873	12,284,487	12,342,779	12,401,059	12,459,343	12,517,627	12,575,919	12,634,206
	Cumulative Capacity Factor	70.0%	70.0%	70.0%	70.0%	70.0%	69.9%	69.7%	69.7%	69.7%	69.8%	69.8%	69.8%	69.8%	69.8%	69.8%	69.9%
	Cumulative fuel input, MMBtu HHV	164,988	165,739	166,498	167,258	168,019	168,623	168,845	169,613	170,381	171,160	171,946	172,728	173,502	174,261	175,025	175,802
	Cumulative gross output, kWhr	11,824,177	11,878,897	11,935,891	11,993,244	12,049,852	12,095,449	12,112,288	12,169,180	12,226,873	12,284,487	12,342,779	12,401,059	12,459,343	12,517,627	12,575,919	12,634,206
	Cumulative heat rate, Btu/kWe gross LHV	12,561	12,560	12,557	12,554	12,552	12,550	12,549	12,547	12,544	12,542	12,541	12,538	12,536	12,532	12,528	12,526
	Cumulative heat rate, Btu/kWe gross HHV	13,953	13,952	13,949	13,946	13,944	13,941	13,940	13,938	13,935	13,933	13,931	13,928	13,925	13,921	13,917	13,915
Service																	
	Engine 1																
	Engine 2							Eversource Outage									
	Engine 3																
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Tuesday 8/1/2023	Wednesday 8/2/2023	Thursday 8/3/2023	Friday 8/4/2023	Saturday 8/5/2023	Sunday 8/6/2023	Monday 8/7/2023	Tuesday 8/8/2023	Wednesday 8/9/2023	Thursday 8/10/2023	Friday 8/11/2023	Saturday 8/12/2023	Sunday 8/13/2023	Monday 8/14/2023	Tuesday 8/15/2023	Wednesday 8/16/2023
	Date	8/1/2023	8/2/2023	8/3/2023	8/4/2023	8/5/2023	8/6/2023	8/7/2023	8/8/2023	8/9/2023	8/10/2023	8/11/2023	8/12/2023	8/13/2023	8/14/2023	8/15/2023	8/16/2023
	Hour																
	1	2,260	2,261	2,263	2,303	2,300	2,290	-	2,248	2,301	2,334	2,350	2,350	2,349	2,349	2,349	2,348
	2	2,260	2,261	2,263	2,303	2,300	2,300	-	2,249	2,300	2,335	2,351	2,350	2,348	2,348	2,350	2,349
	3	2,261	2,262	2,263	2,304	2,300	2,300	-	2,250	2,300	2,335	2,350	2,352	2,349	2,349	2,350	2,348
	4	2,262	2,262	2,263	2,303	2,302	2,302	-	2,250	2,301	2,336	2,351	2,352	2,348	2,349	2,350	2,349
	5	2,262	2,262	2,263	2,303	2,301	2,301	-	2,251	2,301	2,337	2,350	2,352	2,349	2,350	2,350	2,349
	6	2,261	2,262	2,264	2,303	2,302	2,302	-	2,249	2,301	2,337	2,351	2,352	2,349	2,350	2,351	2,350
	7	2,262	2,263	2,263	2,303	2,302	2,302	-	2,249	2,308	2,337	2,351	2,352	2,349	2,351	2,348	2,348
	8	2,256	2,254	2,297	2,299	2,303	2,303	-	2,277	2,322	2,340	2,343	2,352	2,350	2,345	2,344	2,341
	9	2,253	2,252	2,301	2,295	2,293	2,293	-	2,289	2,322	1,849	2,342	2,350	2,350	2,341	2,343	2,341
	10	2,251	1,894	2,299	2,293	2,255	2,255	-	2,289	2,325	2,296	2,342	2,347	2,350	2,336	2,341	2,341
	11	2,250	1,163	2,297	2,292	2,258	2,258	-	2,290	2,325	2,331	2,341	2,346	2,347	2,335	2,335	2,342
	12	2,250	2,253	2,294	2,291	2,257	2,257	-	2,291	2,323	2,328	2,341	2,345	2,345	2,334	2,336	2,342
	13	2,250	2,253	2,293	2,291	2,257	2,257	-	2,289	2,319	2,333	2,340	2,345	2,345	2,334	2,337	2,341
	14	2,249	2,250	2,291	2,291	2,257	2,257	-	2,288	2,314	2,340	2,340	2,345	2,345	2,333	2,337	2,342
	15	2,248	2,253	2,294	2,290	2,257	2,257	-	2,288	2,313	2,341	2,340	2,345	2,345	2,340	2,341	2,342
	16	2,252	2,257	2,301	2,292	2,258	2,258	-	2,294	2,316	2,345	2,340	2,345	2,345	2,345	2,349	2,347
	17	2,258	2,260	2,301	2,299	2,258	2,258	435	2,298	2,326	2,346	2,348	2,347	2,346	2,347	2,349	2,348
	18	2,258	2,259	2,301	2,299	2,257	2,257	2,251	2,300	2,333	2,348	2,348	2,347	2,347	2,348	2,349	2,348
	19	2,259	2,259	2,302	2,299	2,258	2,258	2,251	2,300	2,335	2,348	2,348	2,346	2,347	2,348	2,349	2,348
	20	2,259	2,259	2,302	2,299	2,258	750	2,249	2,300	2,334	2,348	2,348	2,348	2,347	2,348	2,349	2,347
	21	2,260	2,261	2,302	2,298	2,258	-	2,250	2,301	2,334	2,348	2,348	2,350	2,349	2,348	2,349	2,348
	22	2,261	2,261	2,302	2,299	2,259	-	2,249	2,300	2,335	2,347	2,348	2,350	2,349	2,348	2,349	2,348
	23	2,261	2,261	2,303	2,299	2,258	-	2,248	2,300	2,335	2,348	2,350	2,350	2,350	2,348	2,348	2,348
	24	2,261	2,262	2,303	2,300	2,259	-	2,248	2,300	2,335	2,349	2,349	2,349	2,348	2,348	2,349	2,349
	TOTAL	54,164	52,744	54,925	55,148	54,567	44,015	16,181	54,740	55,658	55,636	56,310	56,367	56,346	56,272	56,302	56,304
	Cumulative Output Sold, kWhr	54,164	106,908	161,833	216,981	271,548	315,563	331,744	386,484	442,142	497,778	554,088	610,455	666,801	723,073	779,375	835,679
	Transformer and line efficiency	99.8%	99.7%	99.8%	99.7%	99.8%	99.8%	99.7%	99.8%	99.7%	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%
	Hourly average	2,257	2,198	2,289	2,298	2,274	1,834	674	2,281	2,319	2,318	2,346	2,349	2,348	2,345	2,346	2,346

AUGUST 2023																				
			Thursday 8/17/2023	Friday 8/18/2023	Saturday 8/19/2023	Sunday 8/20/2023	Monday 8/21/2023	Tuesday 8/22/2023	Wednesday 8/23/2023	Thursday 8/24/2023	Friday 8/25/2023	Saturday 8/26/2023	Sunday 8/27/2023	Monday 8/28/2023	Tuesday 8/29/2023	Wednesday 8/30/2023	Thursday 8/31/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			1,328	1,316	1,344	1,331	1,351	1,384	1,364	1,357	1,345	1,309	1,323	1,327	1,311	1,305	1,321	40,556	-	40,556
LFG and Biogas Flow to the Engine			760	760	773	766	766	774	758	762	776	759	762	762	754	762	762	23,029	-	23,029
LFG and Biogas Flow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	751		
LFG and BiogasFlow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	417		
LFG and Biogas Total Flow (KSCF)			1,328	1,316	1,344	1,331	1,351	1,384	1,364	1,357	1,345	1,309	1,323	1,327	1,311	1,305	1,321	41,307		
LFG and Biogas Total Flow (MMBTU)			760	760	773	766	766	774	758	762	776	759	762	762	754	762	762	23,446		
Average Methane Content (%)			56.5	57.1	56.8	56.9	56.0	55.3	54.9	55.5	57.0	57.3	56.9	56.8	56.9	57.7	57.0	56.1		
Engine 1 Hours			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Engine 2 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	723		
Engine 3 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	723		
Engine 4 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	723		
Generator 1 Power Output (kWhr)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Generator 2 Power Output (kWhr)			19,480	19,476	19,476	19,476	19,468	19,496	18,960	19,480	19,480	19,476	19,484	19,480	19,484	19,484	18,488	581,896		
Generator 3 Power Output (kWhr)			19,472	19,468	19,472	19,468	19,460	19,488	19,276	19,432	19,472	19,464	19,476	19,476	19,472	19,476	19,476	577,048		
Generator 4 Power Output (kWhr)			19,436	19,432	19,432	19,440	19,416	19,448	19,440	18,444	19,436	19,432	19,440	19,444	19,436	19,432	19,440	580,796		
Gross Power Output (kWhr)			58,287	58,284	58,288	58,271	58,255	58,341	57,579	57,257	58,297	58,290	58,334	58,346	58,351	58,351	57,342	1,738,021		
Net Power Output (kWhr)			56,456	56,440	56,556	56,516	56,384	56,380	55,696	55,428	56,492	56,524	56,604	56,440	56,420	56,484	55,492	1,682,004		
Power Sold as metered by NStar, (MWhr)			56,307	56,311	56,426	56,409	56,274	56,184	55,562	55,310	56,348	56,398	56,491	56,328	56,274	56,340	55,380	1,688,563	CRMCB inplant	
Offgrid RECs (kWhr)			1,831	1,844	1,732	1,755	1,871	1,961	1,883	1,829	1,805	1,766	1,730	1,906	1,931	1,867	1,850	56,017	10,328	
Calculated Performance Results																			18%	
Daily																			of total in-plant power	
Power output (kW average when available)																				
Generator 1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Generator 2			812	812	812	812	811	812	790	812	812	812	812	812	812	812	770			
Generator 3			811	811	811	811	811	812	803	810	811	811	812	812	811	812	812			
Generator 4			810	810	810	810	809	810	810	769	810	810	810	810	810	810	810			
Power output (kW average over 24 hours)																				
Facility Gross			2,429	2,429	2,429	2,428	2,427	2,431	2,399	2,386	2,429	2,429	2,431	2,431	2,431	2,431	2,389			
Facility Net			2,352	2,352	2,357	2,355	2,349	2,349	2,321	2,310	2,354	2,355	2,359	2,352	2,351	2,354	2,312			
In-plant load			76	77	72	73	78	82	78	76	75	74	72	79	80	78	77			
Daily availability factor																				
Facility			75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
Engine 1			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 2			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Engine 3			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Engine 4			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Daily capacity factor																				
Facility			74%	74%	74%	74%	74%	74%	73%	72%	74%	74%	74%	74%	74%	74%	72%			
Engine 1			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 2			98%	98%	98%	98%	98%	98%	96%	98%	98%	98%	98%	98%	98%	98%	93%			
Engine 3			98%	98%	98%	98%	98%	98%	97%	98%	98%	98%	98%	98%	98%	98%	98%			
Engine 4			98%	98%	98%	98%	98%	98%	98%	93%	98%	98%	98%	98%	98%	98%	98%			
Cumulative by engine																				
Engine operating run hours in the month																				
Max Cumulative Available, (hours)			408	432	456	480	504	528	552	576	600	624	648	672	696	720	744			
Engine 1			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Engine 2			387	411	435	459	483	507	531	555	579	603	627	651	675	699	723			
Engine 3			387	411	435	459	483	507	531	555	579	603	627	651	675	699	723			
Engine 4			387	411	435	459	483	507	531	555	579	603	627	651	675	699	723			
Engine operating run hours total																				
Engine 1			135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063			
Engine 2			122,394	122,418	122,442	122,466	122,490	122,514	122,538	122,562	122,586	122,610	122,634	122,658	122,682	122,706	122,730			
Engine 3			135,302	135,326	135,350	135,374	135,398	135,422	135,446	135,470	135,494	135,518	135,542	135,566	135,590	135,614	135,638			
Engine 4			130,716	130,740	130,764	130,788	130,812	130,836	130,860	130,884	130,908	130,932	130,956	130,980	131,004	131,028	131,052			
Cumulative availability, %																				
Engine 1			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 2			95%	95%	95%	96%	96%	96%	96%	96%	97%	97%	97%	97%	97%	97%	97%			
Engine 3			95%	95%	95%	96%	96%	96%	96%	96%	97%	97%	97%	97%	97%	97%	97%			
Engine 4			95%	95%	95%	96%	96%	96%	96%	96%	97%	97%	97%	97%	97%	97%	97%			
Engine cumulative gross output																				
Max cumulative capacity of (MWhr)			14,025	14,850	15,675	16,500	17,325	18,150	18,975	19,800	20,625	21,450	22,275	23,100	23,925	24,750	25,575			
Engine 1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Engine 2			13,654	14,465	15,277	16,088	16,900	17,712	18,502	19,314	20,125	20,937	21,749	22,560	23,372	24,184	24,954			
Engine 3			13,360	14,172	14,983	15,794	16,605	17,417	18,220	19,030	19,841	20,652	21,464	22,275	23,086	23,898	24,709			
Engine 4			13,612	14																

		Thursday 8/17/2023	Friday 8/18/2023	Saturday 8/19/2023	Sunday 8/20/2023	Monday 8/21/2023	Tuesday 8/22/2023	Wednesday 8/23/2023	Thursday 8/24/2023	Friday 8/25/2023	Saturday 8/26/2023	Sunday 8/27/2023	Monday 8/28/2023	Tuesday 8/29/2023	Wednesday 8/30/2023	Thursday 8/31/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																			
	Max cumulative available engine run time, hours	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688	2,784	2,880	2,976			
	Actual cumulative engine run time, hours	1,161	1,233	1,305	1,377	1,449	1,521	1,593	1,665	1,737	1,809	1,881	1,953	2,025	2,097	2,169			
	Cumulative Availability, %	71.1%	71.4%	71.5%	71.7%	71.9%	72.0%	72.1%	72.3%	72.4%	72.5%	72.6%	72.7%	72.7%	72.8%	72.9%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300	2,458,500			
	Actual cumulative gross output, kWh	924,435	982,719	1,041,007	1,099,278	1,157,533	1,215,874	1,273,453	1,330,710	1,389,007	1,447,297	1,505,631	1,563,977	1,622,328	1,680,679	1,738,021			
	Cumulative Capacity Factor	68.5%	68.8%	69.0%	69.3%	69.5%	69.6%	69.8%	69.9%	70.0%	70.2%	70.3%	70.4%	70.5%	70.6%	70.7%			
	Cumulative fuel input, MMBtu	12,333	13,092	13,865	14,631	15,397	16,171	16,929	17,691	18,467	19,226	19,988	20,750	21,504	22,266	23,029			
	Cumulative gross output, kWh	924,435	982,719	1,041,007	1,099,278	1,157,533	1,215,874	1,273,453	1,330,710	1,389,007	1,447,297	1,505,631	1,563,977	1,622,328	1,680,679	1,738,021			
Heat Rate																			
	Daily heat rate, Btu/kWe gross	11,730	11,730	11,935	11,834	11,837	11,941	11,857	11,972	11,987	11,714	11,762	11,760	11,635	11,759	11,966			
	Daily heat rate, Btu/kWe gross	13,030	13,031	13,258	13,145	13,149	13,265	13,171	13,300	13,316	13,013	13,066	13,063	12,925	13,062	13,292			
	Cumulative heat rate, Btu/kWe	12,009	11,993	11,990	11,981	11,974	11,973	11,967	11,968	11,968	11,958	11,950	11,943	11,932	11,926	11,928			
	Cumulative heat rate, Btu/kWe	13,341	13,322	13,319	13,310	13,302	13,300	13,294	13,294	13,295	13,284	13,275	13,267	13,255	13,248	13,250			
Cumulative by Facility starting 8/1/2023																			
	Max cumulative available engine run time, hours	21,980	22,076	22,172	22,268	22,364	22,460	22,556	22,652	22,748	22,844	22,940	23,036	23,132	23,228	23,324			
	Actual cumulative engine run time, hours	16,684	16,756	16,828	16,900	16,972	17,044	17,116	17,188	17,260	17,332	17,404	17,476	17,548	17,620	17,692			
	Cumulative Availability, %	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%	75.9%			
	Max cumulative gross output, kWh	18,163,200	18,242,400	18,321,600	18,400,800	18,480,000	18,559,200	18,638,400	18,717,600	18,796,800	18,876,000	18,955,200	19,034,400	19,113,600	19,192,800	19,272,000			
	Actual cumulative gross output, kWh	12,692,493	12,750,777	12,809,065	12,867,336	12,925,591	12,983,932	13,041,511	13,098,768	13,157,065	13,215,355	13,273,689	13,332,035	13,390,386	13,448,737	13,506,079			
	Cumulative Capacity Factor	69.9%	69.9%	69.9%	69.9%	69.9%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.1%	70.1%	70.1%			
	Cumulative fuel input, MMBtu	176,562	177,321	178,094	178,860	179,626	180,400	181,158	181,920	182,696	183,455	184,217	184,979	185,733	186,496	187,258			
	Cumulative gross output, kWh	12,692,493	12,750,777	12,809,065	12,867,336	12,925,591	12,983,932	13,041,511	13,098,768	13,157,065	13,215,355	13,273,689	13,332,035	13,390,386	13,448,737	13,506,079			
	Cumulative heat rate, Btu/kWe	12,522	12,519	12,516	12,513	12,510	12,507	12,505	12,502	12,500	12,496	12,493	12,490	12,486	12,483	12,481			
	Cumulative heat rate, Btu/kWe	13,911	13,907	13,904	13,900	13,897	13,894	13,891	13,888	13,886	13,882	13,878	13,875	13,871	13,867	13,865			
Service																			
	Engine 1																		
	Engine 2																		
	Engine 3																		
	Engine 4																		
Oil - oil and filter change																			
Service - plugs, air filter, valve inspection																			
	Precipitation																		
	NSTAR Power Reports	Thursday 8/17/2023	Friday 8/18/2023	Saturday 8/19/2023	Sunday 8/20/2023	Monday 8/21/2023	Tuesday 8/22/2023	Wednesday 8/23/2023	Thursday 8/24/2023	Friday 8/25/2023	Saturday 8/26/2023	Sunday 8/27/2023	Monday 8/28/2023	Tuesday 8/29/2023	Wednesday 8/30/2023	Thursday 8/31/2023	TOTAL		
	Date																		
	Hour																		
	1	2,350	2,350	2,352	2,352	2,351	2,346	2,344	2,351	2,350	2,349	2,354	2,355	2,347	2,350	2,353			
	2	2,349	2,350	2,353	2,352	2,351	2,347	2,344	2,351	2,349	2,350	2,354	2,355	2,346	2,350	2,353			
	3	2,349	2,350	2,354	2,352	2,351	2,347	2,344	2,351	2,350	2,349	2,355	2,356	2,347	2,350	2,353			
	4	2,349	2,350	2,354	2,352	2,350	2,348	2,343	2,351	2,351	2,351	2,355	2,356	2,348	2,350	2,353			
	5	2,350	2,350	2,354	2,353	2,350	2,348	2,344	2,351	2,350	2,356	2,356	2,356	2,347	2,350	2,354			
	6	2,350	2,349	2,354	2,353	2,350	2,348	2,344	2,352	2,350	2,351	2,356	2,356	2,348	2,350	2,353			
	7	2,351	2,349	2,353	2,354	2,349	2,349	2,344	2,351	2,350	2,350	2,356	2,355	2,347	2,350	2,352			
	8	2,344	2,342	2,353	2,353	2,344	2,336	2,342	2,345	2,346	2,351	2,356	2,350	2,342	2,345	2,347			
	9	2,342	2,340	2,350	2,352	2,342	2,335	2,292	2,312	2,345	2,350	2,356	2,346	2,340	2,343	2,297			
	10	2,340	2,339	2,349	2,350	2,341	2,334	2,278	1,621	2,344	2,350	2,355	2,342	2,339	2,342	1,545			
	11	2,339	2,343	2,349	2,349	2,340	2,334	2,219	2,071	2,344	2,349	2,353	2,340	2,338	2,342	2,205			
	12	2,340	2,337	2,350	2,348	2,339	2,333	1,886	2,340	2,344	2,350	2,353	2,340	2,337	2,341	2,338			
	13	2,340	2,338	2,350	2,348	2,342	2,334	2,330	2,340	2,344	2,349	2,353	2,337	2,337	2,341	2,339			
	14	2,340	2,336	2,350	2,347	2,343	2,334	2,340	2,340	2,343	2,348	2,352	2,337	2,338	2,343	2,338			
	15	2,340	2,340	2,349	2,347	2,331	2,335	2,340	2,340	2,344	2,348	2,352	2,338	2,341	2,343	2,343			
	16	2,343	2,348	2,350	2,348	2,342	2,341	2,342	2,345	2,350	2,348	2,352	2,340	2,343	2,347	2,345			
	17	2,348	2,348	2,350	2,347	2,343	2,340	2,347	2,350	2,350	2,348	2,352	2,346	2,348	2,348	2,350			
	18	2,348	2,349	2,351	2,349	2,345	2,342	2,347	2,351	2,349	2,348	2,352	2,345	2,348	2,350	2,350			
	19	2,349	2,350	2,350	2,351	2,345	2,342	2,347	2,350	2,349	2,349	2,353	2,346	2,348	2,350	2,351			
	20	2,349	2,350	2,349	2,349	2,344	2,341	2,347	2,349	2,349	2,349	2,353	2,346	2,348	2,349	2,350			
	21	2,349	2,350	2,350	2,351	2,344	2,342	2,348	2,349	2,349	2,352	2,353	2,347	2,348	2,350	2,352			
	22	2,348	2,350	2,349	2,350	2,346	2,342	2,349	2,349	2,349	2,353	2,353	2,347	2,349	2,350	2,353			
	23	2,350	2,351	2,351	2,351	2,345	2,343	2,350	2,350	2,349	2,353	2,353	2,346	2,350	2,353	2,353			
	24	2,350	2,352	2,352	2,351	2,346	2,343	2,351	2,350	2,349	2,353	2,354	2,346	2,350	2,353	2,353			
	TOTAL	56,307	56,311	56,426	56,409	56,274	56,184	55,562	55,310	56,348	56,398	56,491	56,328	56,274	56,340	55,380			
	Cumulative Output Sold, kWh	891,986	948,297	1,004,723	1,061,132	1,117,406	1,173,590	1,229,152	1,284,462	1,340,810	1,397,208	1,453,699	1,510,027	1,566,301	1,622,641	1,678,021			
	Transformer and line efficiency	99.7%	99.8%	99.8%	99.8%	99.8%	99.7%	99.8%	99.8%	99.7%	99.8%	99.8%	99.8%	99.7%	99.7%	99.8%	0.0%		
	Hourly average	2,346	2,346	2,351	2,350	2,345	2,341	2,315	2,305	2,348	2,350	2,354	2,347	2,345	2,348	2,308	2,255		

New Bedford/Dartmouth, Massachusetts

SEPTEMBER 2023

SEPTEMBER 2023																				
				Friday	Saturday	Sunday	Labor Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				9/1/2023	9/2/2023	9/3/2023	9/4/2023	9/5/2023	9/6/2023	9/7/2023	9/8/2023	9/9/2023	9/10/2023	9/11/2023	9/12/2023	9/13/2023	9/14/2023	9/15/2023	9/16/2023	
LFG and Biogas Flow to the Engines (KSCF)				1,341	1,332	1,347	1,347	1,370	1,377	1,370	1,344	1,334	1,334	1,323	1,328	1,313	1,313	1,317	1,333	
LFG and Biogas Flow to the Engines (MMBTU HHV)				753	760	773	767	767	777	765	751	743	751	755	764	755	755	759	777	
LFG and Biogas Flow to the Flare (KSCF)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LFG and BiogasFlow to the Flare (MMBTU HHV)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LFG and Biogas Total Flow (KSCF)				1,341	1,332	1,347	1,347	1,370	1,377	1,370	1,344	1,334	1,334	1,323	1,328	1,313	1,313	1,317	1,333	
LFG and Biogas Total Flow (MMBTU HHV)				753	760	773	767	767	777	765	751	743	751	755	764	755	755	759	777	
Average Methane Content (%)				55.5	56.4	56.7	56.2	55.3	55.7	55.2	55.2	55.0	55.6	56.4	56.8	56.8	56.8	56.9	57.6	
Engine 1 Hours				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Engine 2 Hours				24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
Engine 3 Hours				24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
Engine 4 Hours				24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
Generator 1 Power Output (kWhr)				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Generator 2 Power Output (kWhr)				19,480	19,480	19,476	19,484	19,488	19,488	19,488	19,488	19,492	19,484	19,484	19,484	19,484	19,480	19,480	19,476	
Generator 3 Power Output (kWhr)				19,476	19,472	19,468	19,476	19,476	19,480	19,484	17,644	17,944	18,556	19,476	19,476	19,476	19,472	19,476	19,476	
Generator 4 Power Output (kWhr)				19,440	19,444	19,428	19,436	19,432	19,408	19,368	19,416	19,428	19,428	19,428	19,064	19,436	19,436	19,436	19,444	
Gross Power Output (kWhr)				58,347	58,338	58,323	58,345	58,354	58,337	58,299	56,502	56,811	57,413	58,343	57,975	58,349	58,349	58,356	58,352	
Net Power Output (kWhr)				56,480	56,520	56,464	56,456	56,288	56,300	56,260	54,488	54,872	55,500	56,320	56,012	56,444	56,460	56,508	56,584	
Power Sold as metered by NStar, (kWhr)				56,360	56,408	56,350	56,324	56,134	56,147	56,098	54,341	54,717	55,374	56,155	55,857	56,287	56,306	56,363	56,465	
Offgrid RECs (kWhr)				1,867	1,818	1,859	1,889	2,066	2,037	2,039	2,014	1,939	1,913	2,023	1,963	1,905	1,889	1,848	1,768	
Calculated Performance Results																				
Daily																				
Power output (kW average when running)																				
Generator 1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Generator 2				812	812	812	812	812	812	812	812	812	812	812	812	812	812	812	812	
Generator 3				812	811	811	812	812	812	812	735	748	773	812	812	812	812	811	812	
Generator 4				810	810	810	810	810	809	807	809	810	810	810	794	810	810	810	810	
Power output (kW average over 24-hrs)																				
Facility Gross				2,431	2,431	2,430	2,431	2,431	2,431	2,429	2,354	2,367	2,392	2,431	2,416	2,431	2,431	2,432	2,431	
In-plant Net				2,353	2,355	2,353	2,352	2,345	2,346	2,344	2,270	2,286	2,313	2,347	2,334	2,352	2,353	2,355	2,358	
In-plant load				78	76	77	79	86	85	85	84	81	80	84	82	79	79	77	74	
Daily availability factor																				
Facility				75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	
Engine 1				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Engine 2				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Engine 3				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Engine 4				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Daily capacity factor																				
Facility				74%	74%	74%	74%	74%	74%	74%	71%	72%	72%	74%	73%	74%	74%	74%	74%	
Engine 1				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Engine 2				98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	
Engine 3				98%	98%	98%	98%	98%	98%	98%	89%	91%	94%	98%	98%	98%	98%	98%	98%	
Engine 4				98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	96%	98%	98%	98%	98%	
Cumulative by engine																				
Engine operating run hours in the month																				
Max Cumulative Available, hours				24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	
Engine 1				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Engine 2				24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	
Engine 3				24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	
Engine 4				24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	
Engine operating run hours total from 0 hours																				
Engine 1				135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	135,063	
Engine 2				122,729	122,753	122,777	122,801	122,825	122,849	122,873	122,897	122,921	122,945	122,969	122,993	123,017	123,041	123,065	123,113	
Engine 3				135,638	135,662	135,686	135,710	135,734	135,758	135,782	135,806	135,830	135,854	135,878	135,902	135,926	135,950	135,974	136,022	
Engine 4				131,052	131,076	131,100	131,124	131,148	131,172	131,196	131,220	131,244	131,268	131,292	131,316	131,340	131,364	131,388	131,436	
Cumulative availability, %				September 1, 2023 @ 00:00 hours																
Engine 1				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Engine 2				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Engine 3				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Engine 4				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Engine cumulative gross output, kWhr																				
Max cumulative capacity one engine				825	1,650	2,475	3,300	4,125	4,950	5,775	6,600	7,425	8,250	9,075	9,900	10,725	11,550	12,375	13,200	
Engine 1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Engine 2				812	1,623	2,435	3,247	4,059	4,871	5,683	6,495	7,307	8,119	8,931	9,742	10,554	11,366	12,177	12,989	
Engine 3				812	1,623	2,434	3,246	4,057	4,869	5,681	6,416	7,163	7,937	8,748	9,560	10,371	11,182	11,994	12,805	
Engine 4				810	1,620	2,430	3,240	4,049	4,858	5,665	6,474	7,283	8,093	8,902	9,697	10,507	11,316	12,126	12,936	
Cumulative capacity factor, %																				
Engine 1				0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Engine 2				98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	
Engine 3				98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	97%	97%	97%	97%	97%	
Engine 4				98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	

		Friday 9/1/2023	Saturday 9/2/2023	Sunday 9/3/2023	Monday 9/4/2023	Tuesday 9/5/2023	Wednesday 9/6/2023	Thursday 9/7/2023	Friday 9/8/2023	Saturday 9/9/2023	Sunday 9/10/2023	Monday 9/11/2023	Tuesday 9/12/2023	Wednesday 9/13/2023	Thursday 9/14/2023	Friday 9/15/2023	Saturday 9/16/2023
Cumulative by Facility in month																	
	Max cumulative available engine run hours	96	192	288	384	480	576	672	768	864	960	1,056	1,152	1,248	1,344	1,440	1,536
	Actual cumulative engine run hours	72	144	216	288	360	432	504	576	648	720	792	864	936	1,008	1,080	1,152
	Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
	Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	478,500	557,700	636,900	716,100	795,300	874,500	953,700	1,032,900	1,112,100	1,191,300	1,270,500
	Actual cumulative gross output, kWhr	58,347	116,685	175,008	233,353	291,707	350,044	408,343	464,845	521,656	579,069	637,412	695,387	753,736	812,085	870,441	928,793
	Cumulative Capacity Factor	73.7%	73.7%	73.7%	73.7%	73.7%	73.2%	73.2%	73.0%	72.8%	72.8%	72.9%	72.9%	73.0%	73.0%	73.1%	73.1%
	Cumulative fuel input, MMBtu HHV	753.4	1,513	2,287	3,053	3,820	4,597	5,362	6,113	6,855	7,607	8,361	9,125	9,880	10,636	11,394	12,171
	Cumulative gross output, kWhr	58347	116,685	175,008	233,353	291,707	350,044	408,343	464,845	521,656	579,069	637,412	695,387	753,736	812,085	870,441	928,793
Heat Rate																	
	Daily heat rate, Btu/kWe gross LHV	11,624	11,727	11,936	11,828	11,826	11,984	11,817	11,960	11,772	11,777	11,648	11,861	11,650	11,650	11,704	11,985
	Daily heat rate, Btu/kWe gross HHV	12,912	13,028	13,259	13,139	13,137	13,312	13,127	13,286	13,077	13,082	12,939	13,176	12,941	12,941	13,001	13,314
	Cumulative heat rate, Btu/kWe gross LHV	11,624	11,676	11,762	11,779	11,788	11,821	11,820	11,837	11,830	11,825	11,809	11,813	11,800	11,789	11,784	11,796
	Cumulative heat rate, Btu/kWe gross HHV	12,912	12,970	13,066	13,084	13,095	13,131	13,131	13,150	13,142	13,136	13,118	13,123	13,109	13,097	13,090	13,104
Cumulative by Facility starting Calendar Year																	
	Max cumulative available engine run hours	23,420	23,516	23,612	23,708	23,804	23,900	23,996	24,092	24,188	24,284	24,380	24,476	24,572	24,668	24,764	24,860
	Actual cumulative engine run hours	17,764	17,836	17,908	17,980	18,052	18,124	18,196	18,268	18,340	18,412	18,484	18,556	18,628	18,700	18,772	18,844
	Cumulative Availability, %	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%
	Max cumulative gross output, kWhr	19,351,200	19,430,400	19,509,600	19,588,800	19,668,000	19,750,500	19,829,700	19,908,900	19,988,100	20,067,300	20,146,500	20,225,700	20,304,900	20,384,100	20,463,300	20,542,500
	Actual cumulative gross output, kWhr	13,564,426	13,622,764	13,681,087	13,739,432	13,797,786	13,856,123	13,914,422	13,970,924	14,027,735	14,085,148	14,143,491	14,201,466	14,259,815	14,318,164	14,376,520	14,434,872
	Cumulative Capacity Factor	70.1%	70.1%	70.1%	70.1%	70.2%	70.2%	70.2%	70.2%	70.2%	70.2%	70.2%	70.2%	70.2%	70.2%	70.3%	70.3%
	Cumulative fuel input, MMBtu HHV	188,011	188,771	189,544	190,311	191,078	191,854	192,620	193,370	194,113	194,864	195,619	196,383	197,138	197,893	198,652	199,429
	Cumulative gross output, kWhr	13,564,426	13,622,764	13,681,087	13,739,432	13,797,786	13,856,123	13,914,422	13,970,924	14,027,735	14,085,148	14,143,491	14,201,466	14,259,815	14,318,164	14,376,520	14,434,872
	Cumulative heat rate, Btu/kWe gross LHV	12,477	12,474	12,472	12,469	12,466	12,464	12,462	12,460	12,457	12,454	12,451	12,448	12,445	12,442	12,439	12,437
	Cumulative heat rate, Btu/kWe gross HHV	13,861	13,857	13,854	13,851	13,848	13,846	13,843	13,841	13,838	13,835	13,831	13,828	13,825	13,821	13,818	13,816
Service																	
	Engine 1																
	Engine 2																
	Engine 3																
	Engine 4																
Oil - oil and filter change																	
Service - plugs, air filter, valve inspection and adjustment																	
	Precipitation																
	NSTAR Power Reports	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Date	9/1/2023	9/2/2023	9/3/2023	9/4/2023	9/5/2023	9/6/2023	9/7/2023	9/8/2023	9/9/2023	9/10/2023	9/11/2023	9/12/2023	9/13/2023	9/14/2023	9/15/2023	9/16/2023
	Hour																
	1	2,353	2,354	2,350	2,349	2,347	2,341	2,346	2,344	2,280	2,283	2,345	2,340	2,348	2,348	2,351	2,353
	2	2,352	2,354	2,349	2,349	2,348	2,342	2,345	2,343	2,281	2,282	2,346	2,341	2,347	2,350	2,351	2,354
	3	2,352	2,354	2,350	2,349	2,348	2,341	2,346	2,344	2,281	2,283	2,346	2,341	2,349	2,349	2,351	2,354
	4	2,352	2,354	2,350	2,349	2,348	2,342	2,346	2,344	2,281	2,283	2,346	2,341	2,348	2,350	2,352	2,354
	5	2,352	2,354	2,350	2,349	2,348	2,340	2,346	2,340	2,281	2,283	2,346	2,340	2,349	2,349	2,352	2,354
	6	2,352	2,353	2,350	2,350	2,349	2,341	2,346	2,282	2,281	2,283	2,346	2,341	2,349	2,350	2,352	2,354
	7	2,353	2,353	2,351	2,349	2,349	2,341	2,346	2,281	2,282	2,283	2,346	2,341	2,350	2,350	2,352	2,355
	8	2,348	2,353	2,350	2,349	2,343	2,336	2,342	2,277	2,281	2,284	2,346	2,337	2,345	2,346	2,351	2,354
	9	2,345	2,351	2,349	2,348	2,336	2,337	2,337	2,067	2,282	2,284	2,337	2,335	2,343	2,342	2,346	2,354
	10	2,343	2,348	2,348	2,346	2,333	2,337	2,335	1,546	2,280	2,282	2,333	1,981	2,342	2,341	2,344	2,355
	11	2,342	2,348	2,346	2,345	2,331	2,336	2,331	2,101	2,278	2,280	2,333	2,340	2,339	2,340	2,342	2,354
	12	2,342	2,348	2,346	2,343	2,330	2,335	2,326	2,330	2,278	2,280	2,333	2,340	2,338	2,338	2,342	2,354
	13	2,341	2,347	2,346	2,344	2,328	2,332	2,325	2,329	2,276	2,280	2,331	2,340	2,338	2,339	2,340	2,353
	14	2,342	2,347	2,345	2,344	2,328	2,333	2,323	2,328	2,277	2,280	2,334	2,339	2,339	2,338	2,338	2,353
	15	2,342	2,348	2,344	2,343	2,329	2,332	2,322	2,328	2,275	2,319	2,337	2,340	2,342	2,339	2,343	2,352
	16	2,344	2,348	2,344	2,343	2,331	2,331	2,322	2,331	2,277	2,343	2,337	2,345	2,341	2,339	2,344	2,351
	17	2,349	2,348	2,346	2,344	2,336	2,339	2,329	2,337	2,277	2,345	2,338	2,345	2,347	2,347	2,350	2,351
	18	2,349	2,348	2,347	2,346	2,338	2,341	2,332	2,339	2,280	2,346	2,338	2,346	2,346	2,348	2,352	2,351
	19	2,349	2,349	2,348	2,347	2,338	2,346	2,338	2,341	2,281	2,345	2,338	2,347	2,347	2,350	2,352	2,351
	20	2,350	2,348	2,346	2,346	2,338	2,345	2,343	2,290	2,281	2,345	2,338	2,347	2,348	2,350	2,352	2,351
	21	2,350	2,350	2,348	2,347	2,339	2,345	2,342	2,280	2,281	2,345	2,338	2,347	2,347	2,351	2,352	2,350
	22	2,352	2,350	2,349	2,348	2,339	2,344	2,342	2,280	2,281	2,345	2,342	2,347	2,348	2,350	2,352	2,351
	23	2,353	2,351	2,349	2,349	2,340	2,345	2,344	2,279	2,282	2,345	2,341	2,348	2,348	2,351	2,351	2,351
	24	2,353	2,350	2,349	2,348	2,340	2,345	2,344	2,280	2,283	2,346	2,340	2,348	2,349	2,351	2,351	2,351
	TOTAL	56,360	56,408	56,350	56,324	56,134	56,147	56,098	54,341	54,717	55,374	56,155	55,857	56,287	56,306	56,363	56,465
	Cumulative Output Sold, kWhr	56,360	112,768	169,118	225,442	281,576	337,723	393,821	448,162	502,879	558,253	614,408	670,265	726,552	782,858	839,221	895,686
	Transformer and line efficiency	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.7%	99.7%	99.8%	99.7%	99.7%	99.7%	99.7%	99.7%	99.8%
	Hourly average	2,348	2,350	2,348	2,347	2,339	2,339	2,337	2,264	2,280	2,307	2,340	2,327	2,345	2,346	2,348	2,353

SEPTEMBER 2023																			
			Sunday 9/17/2023	Monday 9/18/2023	Tuesday 9/19/2023	Wednesday 9/20/2023	Thursday 9/21/2023	Friday 9/22/2023	Saturday 9/23/2023	Sunday 9/24/2023	Monday 9/25/2023	Tuesday 9/26/2023	Wednesday 9/27/2023	Thursday 9/28/2023	Friday 9/29/2023	Saturday 9/30/2023	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine			1,333	1,295	1,344	1,344	1,360	1,334	1,328	1,290	1,302	1,308	1,316	1,320	1,297	1,307	39,899	-	39,899
LFG and Biogas Flow to the Engine			766	751	775	762	766	749	763	754	755	752	760	761	748	765	22,798	-	22,798
LFG and Biogas Flow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and BiogasFlow to the Flare (MMBTU)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF)			1,333	1,295	1,344	1,344	1,360	1,334	1,328	1,290	1,302	1,308	1,316	1,320	1,297	1,307	39,899		
LFG and Biogas Total Flow (MMBTU)			766	751	775	762	766	749	763	754	755	752	760	761	748	765	22,798		
Average Methane Content (%)			56.7	57.3	57.0	56.1	55.7	55.5	56.8	57.8	57.3	56.8	57.1	57.0	57.0	57.8	56.5		
Engine 1 Hours			-	13	13	-	-	-	-	-	-	-	-	-	-	-	26		
Engine 2 Hours			24	10	13	24	24	24	24	24	24	24	24	24	24	24	695		
Engine 3 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	720		
Engine 4 Hours			24	24	24	24	24	24	24	24	24	24	24	24	24	24	720		
Generator 1 Power Output (kWhr)			-	10,168	9,544	-	-	-	-	-	-	-	-	-	-	-	19,712		
Generator 2 Power Output (kWhr)			19,472	8,292	9,796	19,484	19,484	19,484	19,480	19,480	19,480	19,488	19,480	19,480	19,476	19,480	563,588		
Generator 3 Power Output (kWhr)			19,468	19,484	19,484	19,476	19,480	19,400	19,472	19,472	19,472	19,480	19,472	19,476	19,460	19,476	579,900		
Generator 4 Power Output (kWhr)			19,432	19,440	19,432	19,436	19,432	18,584	19,432	19,432	19,424	19,436	19,436	19,432	19,424	19,432	581,676		
Gross Power Output (kWhr)			58,336	57,380	58,263	58,355	58,351	57,424	58,347	58,347	58,341	58,358	58,343	58,343	58,309	58,347	1,743,637		
Net Power Output (kWhr)			56,524	55,584	56,432	56,488	56,452	55,528	56,580	56,580	56,596	56,548	56,584	56,620	56,592	56,732	1,687,796		
Power Sold as metered by NStar, (MWhr)			56,403	55,446	56,294	56,353	56,330	55,400	56,458	56,488	56,397	56,419	56,465	56,497	56,502	56,615	1,683,753	CRMCB inplant	
Offgrid RECs (kWhr)			1,812	1,796	1,831	1,867	1,899	1,896	1,767	1,767	1,745	1,810	1,759	1,723	1,717	1,615	55,841	9,520	
Calculated Performance Results																		17%	
Daily																		of total in-plant power	
		Power output (kW average when available)																	
		Generator 1	-	782	734	-	-	-	-	-	-	-	-	-	-	-			
		Generator 2	811	829	754	812	812	812	812	812	812	812	812	812	812	812			
		Generator 3	811	812	812	812	812	808	811	811	811	812	811	812	811	812			
		Generator 4	810	810	810	810	810	774	810	810	809	810	810	810	809	810			
		Power output (kW average over 24 hours)																	
		Facility Gross	2,431	2,391	2,428	2,431	2,431	2,393	2,431	2,431	2,431	2,432	2,431	2,431	2,430	2,431			
		Facility Net	2,355	2,316	2,351	2,354	2,352	2,314	2,358	2,358	2,358	2,356	2,358	2,359	2,358	2,364			
		In-plant load	76	75	76	78	79	79	74	74	73	75	73	72	72	67			
		Daily availability factor																	
		Facility	75%	74%	77%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
		Engine 1	0%	54%	54%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 2	100%	42%	54%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Daily capacity factor																	
		Facility	74%	72%	74%	74%	74%	73%	74%	74%	74%	74%	74%	74%	74%	74%			
		Engine 1	0%	95%	89%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
		Engine 2	98%	101%	91%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%			
		Engine 3	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%			
		Engine 4	98%	98%	98%	98%	98%	94%	98%	98%	98%	98%	98%	98%	98%	98%			
Cumulative by engine																			
		Engine operating run hours in the month																	
		Max Cumulative Available, (hours)	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
		Engine 1	0	13	26	26	26	26	26	26	26	26	26	26	26	26			
		Engine 2	408	418	431	455	479	503	527	551	575	599	623	647	671	695			
		Engine 3	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
		Engine 4	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
		Engine operating run hours total																	
		Engine 1	135,063	135,076	135,089	135,089	135,089	135,089	135,089	135,089	135,089	135,089	135,089	135,089	135,089	135,089			
		Engine 2	123,137	123,147	123,160	123,184	123,208	123,232	123,256	123,280	123,304	123,328	123,352	123,376	123,400	123,424			
		Engine 3	136,046	136,070	136,094	136,118	136,142	136,166	136,190	136,214	136,238	136,262	136,286	136,310	136,334	136,358			
		Engine 4	131,460	131,484	131,508	131,532	131,556	131,580	131,604	131,628	131,652	131,676	131,700	131,724	131,748	131,772			
		Cumulative availability, %																	
		Engine 1	0%	3%	6%	5%	5%	5%	5%	5%	4%	4%	4%	4%	4%	4%			
		Engine 2	100%	97%	95%	95%	95%	95%	95%	96%	96%	96%	96%	96%	96%	97%			
		Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
		Engine cumulative gross output																	
		Max cumulative capacity of (kWhr)	14,025	14,850	15,675	16,500	17,325	18,150	18,975	19,800	20,625	21,450	22,275	23,100	23,925	24,750			
		Engine 1	-	782	1,516	1,516	1,516	1,516	1,516	1,516	1,516	1,516	1,516	1,516	1,516	1,516			
		Engine 2	13,800	14,629	15,383	16,195	17,007	17,818	18,630	19,442	20,253	21,065	21,877	22,689	23,500	24,312			
		Engine 3	13,617	14,428	15,240	16,052	16,863	17,672	18,483	19,294	20,106	20,917	21,729	22,540	23,351	24,163			
		Engine 4	13,746	14,556	15,366	16,176	16,985	17,760	18,569	19,379	20,188	20,998	21,808	22,618	23,427	24,237			
		Cumulative capacity factor, %																	
		Engine 1	0%	5%	10%	9%	9%	8%	8%	8%	7%	7%	7%	7%	6%	6%			
		Engine 2	98%	99%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%			
		Engine 3	97%	97%	97%	97%	97%	97%	97%	97%	97%	98%	98%	98%	98%	98%			
		Engine 4	98%	98%	98%	98%	98%	98%	98%	98%</									

		Sunday 9/17/2023	Monday 9/18/2023	Tuesday 9/19/2023	Wednesday 9/20/2023	Thursday 9/21/2023	Friday 9/22/2023	Saturday 9/23/2023	Sunday 9/24/2023	Monday 9/25/2023	Tuesday 9/26/2023	Wednesday 9/27/2023	Thursday 9/28/2023	Friday 9/29/2023	Saturday 9/30/2023	TOTAL	Biogas	LFG
Cumulative by Facility in month																		
	Max cumulative available engine run time, hours	1,632	1,728	1,824	1,920	2,016	2,112	2,208	2,304	2,400	2,496	2,592	2,688	2,784	2,880			
	Actual cumulative engine run time, hours	1,224	1,295	1,369	1,441	1,513	1,585	1,657	1,729	1,801	1,873	1,945	2,017	2,089	2,161			
	Cumulative Availability, %	75.0%	74.9%	75.1%	75.1%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%			
	Max cumulative gross output, kWh	1,349,700	1,428,900	1,508,100	1,587,300	1,666,500	1,745,700	1,824,900	1,904,100	1,983,300	2,062,500	2,141,700	2,220,900	2,300,100	2,379,300			
	Actual cumulative gross output, kWh	987,129	1,044,509	1,102,772	1,161,127	1,219,478	1,276,902	1,335,249	1,393,596	1,451,937	1,510,295	1,568,638	1,626,981	1,685,290	1,743,637			
	Cumulative Capacity Factor	73.1%	73.1%	73.1%	73.2%	73.2%	73.1%	73.2%	73.2%	73.2%	73.2%	73.2%	73.3%	73.3%	73.3%			
	Cumulative fuel input, MMBtu	12,937	13,687	14,462	15,225	15,990	16,739	17,502	18,256	19,012	19,764	20,524	21,285	22,033	22,798			
	Cumulative gross output, kWh	987,129	1,044,509	1,102,772	1,161,127	1,219,478	1,276,902	1,335,249	1,393,596	1,451,937	1,510,295	1,568,638	1,626,981	1,685,290	1,743,637			
Heat Rate																		
	Daily heat rate, Btu/kWe gross	11,814	11,777	11,974	11,756	11,816	11,737	11,769	11,639	11,656	11,601	11,728	11,745	11,545	11,801			
	Daily heat rate, Btu/kWe gross	13,124	13,083	13,302	13,060	13,126	13,038	13,074	12,930	12,948	12,888	13,028	13,047	12,825	13,110			
	Cumulative heat rate, Btu/kWe	11,797	11,796	11,806	11,803	11,804	11,801	11,799	11,793	11,787	11,780	11,778	11,777	11,769	11,770			
	Cumulative heat rate, Btu/kWe	13,105	13,104	13,115	13,112	13,112	13,109	13,108	13,100	13,094	13,086	13,084	13,083	13,074	13,075			
Cumulative by Facility starting 9/1/2023																		
	Max cumulative available engine run time, hours	24,956	25,052	25,148	25,244	25,340	25,436	25,532	25,628	25,724	25,820	25,916	26,012	26,108	26,204			
	Actual cumulative engine run time, hours	18,916	18,987	19,061	19,133	19,205	19,277	19,349	19,421	19,493	19,565	19,637	19,709	19,781	19,853			
	Cumulative Availability, %	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%	75.8%			
	Max cumulative gross output, kWh	20,621,700	20,700,900	20,780,100	20,859,300	20,938,500	21,017,700	21,096,900	21,176,100	21,255,300	21,334,500	21,413,700	21,492,900	21,572,100	21,651,300			
	Actual cumulative gross output, kWh	14,493,208	14,550,588	14,608,851	14,667,206	14,725,557	14,782,981	14,841,328	14,899,675	14,958,016	15,016,374	15,074,717	15,133,060	15,191,369	15,249,716			
	Cumulative Capacity Factor	70.3%	70.3%	70.3%	70.3%	70.3%	70.3%	70.3%	70.4%	70.4%	70.4%	70.4%	70.4%	70.4%	70.4%			
	Cumulative fuel input, MMBtu	200,194	200,945	201,720	202,482	203,248	203,997	204,760	205,514	206,269	207,022	207,782	208,543	209,291	210,056			
	Cumulative gross output, kWh	14,493,208	14,550,588	14,608,851	14,667,206	14,725,557	14,782,981	14,841,328	14,899,675	14,958,016	15,016,374	15,074,717	15,133,060	15,191,369	15,249,716			
	Cumulative heat rate, Btu/kWe	12,434	12,432	12,430	12,427	12,425	12,422	12,420	12,417	12,414	12,410	12,408	12,405	12,402	12,400			
	Cumulative heat rate, Btu/kWe	13,813	13,810	13,808	13,805	13,802	13,799	13,797	13,793	13,790	13,786	13,783	13,781	13,777	13,774			
Service																		
	Engine 1																	
	Engine 2				Ed Brown Live Automation Maintenance													
	Engine 3																	
	Engine 4																	
Oil - oil and filter change																		
Service - plugs, air filter, valve inspection																		
	Precipitation																	
	NSTAR Power Reports	Sunday 9/17/2023	Monday 9/18/2023	Tuesday 9/19/2023	Wednesday 9/20/2023	Thursday 9/21/2023	Friday 9/22/2023	Saturday 9/23/2023	Sunday 9/24/2023	Monday 9/25/2023	Tuesday 9/26/2023	Wednesday 9/27/2023	Thursday 9/28/2023	Friday 9/29/2023	Saturday 9/30/2023	TOTAL		
	Date	9/17/2023	9/18/2023	9/19/2023	9/20/2023	9/21/2023	9/22/2023	9/23/2023	9/24/2023	9/25/2023	9/26/2023	9/27/2023	9/28/2023	9/29/2023	9/30/2023			
	Hour																	
	1	2,352	2,350	2,357	2,352	2,352	2,351	2,353	2,352	2,354	2,354	2,355	2,359	2,358	2,359			
	2	2,353	2,351	2,358	2,352	2,352	2,351	2,354	2,353	2,354	2,354	2,355	2,359	2,358	2,359			
	3	2,352	2,351	2,358	2,352	2,352	2,351	2,353	2,353	2,354	2,353	2,354	2,359	2,358	2,359			
	4	2,352	2,352	2,358	2,352	2,353	2,351	2,353	2,354	2,354	2,354	2,355	2,359	2,359	2,360			
	5	2,352	2,351	2,358	2,352	2,353	2,351	2,352	2,353	2,354	2,354	2,355	2,360	2,358	2,359			
	6	2,353	2,351	2,358	2,352	2,352	2,351	2,352	2,354	2,354	2,354	2,355	2,359	2,358	2,359			
	7	2,353	2,350	2,359	2,353	2,353	2,352	2,353	2,354	2,353	2,353	2,355	2,360	2,357	2,359			
	8	2,353	2,346	2,355	2,348	2,348	2,350	2,352	2,354	2,350	2,349	2,346	2,355	2,353	2,359			
	9	2,351	2,345	2,350	2,344	2,339	2,337	2,353	2,354	2,344	2,347	2,349	2,349	2,348	2,358			
	10	2,350	2,345	2,348	2,343	2,336	2,341	2,353	2,354	2,337	2,346	2,345	2,343	2,340	2,359			
	11	2,349	1,723	2,348	2,342	2,340	2,322	2,353	2,355	2,347	2,348	2,349	2,348	2,341	2,359			
	12	2,348	1,969	2,208	2,341	2,340	2,282	2,352	2,354	2,347	2,348	2,348	2,347	2,346	2,359			
	13	2,347	2,353	2,341	2,341	2,341	2,339	2,352	2,354	2,347	2,348	2,348	2,347	2,352	2,359			
	14	2,348	2,351	2,343	2,340	2,340	2,340	2,351	2,354	2,344	2,348	2,349	2,343	2,351	2,359			
	15	2,347	2,349	2,343	2,340	2,341	2,332	2,353	2,354	2,336	2,345	2,347	2,348	2,352	2,359			
	16	2,348	2,351	2,345	2,345	2,342	2,333	2,352	2,354	2,344	2,346	2,340	2,351	2,353	2,359			
	17	2,348	2,356	2,351	2,349	2,348	2,348	2,352	2,354	2,353	2,345	2,356	2,355	2,358	2,359			
	18	2,348	2,359	2,350	2,350	2,348	2,349	2,353	2,354	2,353	2,352	2,357	2,356	2,357	2,359			
	19	2,349	2,358	2,351	2,350	2,349	2,350	2,352	2,354	2,352	2,353	2,358	2,356	2,357	2,359			
	20	2,350	2,357	2,351	2,351	2,350	2,350	2,352	2,353	2,353	2,354	2,357	2,356	2,357	2,359			
	21	2,349	2,356	2,351	2,350	2,350	2,351	2,352	2,353	2,353	2,354	2,357	2,356	2,357	2,358			
	22	2,350	2,357	2,351	2,351	2,350	2,351	2,352	2,353	2,353	2,353	2,358	2,357	2,357	2,358			
	23	2,350	2,358	2,351	2,351	2,351	1,871	2,352	2,353	2,353	2,353	2,359	2,357	2,358	2,358			
	24	2,351	2,357	2,351	2,352	2,350	1,996	2,352	2,354	2,354	2,354	2,359	2,358	2,359	2,361			
	TOTAL	56,403	55,446	56,294	56,353	56,330	55,400	56,458	56,488	56,397	56,419	56,465	56,497	56,502	56,615			
	Cumulative Output Sold, kWh	952,089	1,007,535	1,063,829	1,120,182	1,176,512	1,231,912	1,288,370	1,344,858	1,401,255	1,457,674	1,514,139	1,570,636	1,627,138	1,683,753			
	Transformer and line efficiency	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.6%	99.8%	99.8%	99.8%	99.8%	99.8%	0.0%		
	Hourly average	2,350	2,310	2,346	2,348	2,347	2,308	2,352	2,354	2,350	2,351	2,353	2,354	2,354	2,359	2,339		

EVERSOURCE OUTAGE IMPACT ON GREATER NEW BEDFORD	
OWNED AND OPERATED BY COMMONWEALTH ENERGY	
300 SAMUEL BARNET BLVD, NEW BEDFORD/DARTMOUTH	
107 LINE	
HOURS OF PRODUCTION LOST DUE TO EVERSOURCE OUTAGES	
TOTAL	
	<u>2023</u>
January	-
February	15
March	-
April	-
May	84
June	-
July	-
August	17
September	-
October	-
November	-
December	-
TOTAL	116
HOURS LOST DUE TO PLANNED OUTAGES	
	<u>2023</u>
January	
February	14.5
March	
April	
May	84
June	
July	
August	
September	
October	
November	
December	
TOTAL	99
HOURS LOST DUE TO UNPLANNED OUTAGES	
	<u>2023</u>
January	
February	
March	
April	
May	
June	
July	
August	17
September	
October	
November	
December	
TOTAL	17

EMERGENCY GENERATOR LOG SHEET

PRIOR TO RUNNING

AFTER SHUTTING DOWN

DATE	TIME	RUN HRS	DATE	TIME	RUN HRS	REASON
10-Jan-23	8:06	659.3	10-Jan-23	13:36	664.9	Stepdown Trans. Service [EESCO]
7-Feb-23	14:15	664.9	8-Feb-23	5:10	679.3	Eversource Work
9-May-23	7:25	679.3	11-May-23	13:20	733.2	Eversource Work
16-May-23	7:30	733.2	17-May-23	12:48	762.6	Eversource Work
6-Aug-23	20:30	762.6	7-Aug-23	16:14	782.4	Eversource Trip
					123.1	Total run hours from
						January 1 to September 30, 2023

TYPE A39SM
REG TYPE A34GV

Pkh _____ VTR _____ :1
Mult. by _____ CTR _____ :5



SERIAL # **08128229** **Honeywell**

9S

Cell W/KYZ
Multifunction

CL20



KZG08128229UBC33

CL20, 120 TO 480V, 4W, 60Hz

Kh 1.8

FM 9S Watthour Meter

ZD3213M10LL-81

P/R 24

R3.05.01-2010QM-038681

TA 2.5A

FCC ID: A7LE910SV

This device complies with Part 15 of the FCC Rules

RESET

ALT

Usage History

Select an Account :

Download my secure data with Green Button

Email My Data

300 SAMUEL-BARNET BLV CGN, NEW BEDFRD MA 02745

Meter Number: 8128229

View Data From :

13 months 13 months 24 months 36 months

Read Date	Usage (kWh)	Number of Days	Usage Per Day	Cost Per Day	Total Charge	Average Temp(°F)
10/18/2023	0	30	0	\$0.50	\$15.00	59.0
09/18/2023	0	32	0	\$0.47	\$15.00	70.0
08/17/2023	0	30	0	\$0.50	\$15.00	73.0
07/18/2023	0	32	0	\$0.47	\$15.00	69.0
06/16/2023	0	30	0	\$0.50	\$15.00	57.0
05/17/2023	0	29	0	\$0.52	\$15.00	53.0
04/18/2023	0	32	0	\$0.47	\$15.00	46.0
03/17/2023	0	30	0	\$0.50	\$15.00	39.0
02/15/2023	2100	28	75	\$7.66	\$434.42	37.0
01/18/2023	0	33	0	\$0.33	\$10.78	38.0

CRM Bioenergy Biogas Flow Rate													
SCADA													
CRM Bioenergy Biogas Flow Rate from SCADA													
		Minutes	Totalizer Reading,	scfm	Tot KSCF	% Methane			Heat valued	Tot Heat value	Average methane	Biogas flow	Biogas flow rate
Date	Time	in Period	KSCF		in month	Month	End	Start	per time period,	in month,	content,	rate,	50% methane,
1-Jan-23	0:00	1,440	1,152.85	5	218.12		69.8%	69.8%	5.0	154.0	69.8	5	6.8
2-Jan-23	0:00	1,440	1,158.85	4			70.0%	69.8%	4.2				
3-Jan-23	0:00	1,440	1,166.05	5			69.5%	70.0%	5.1				
4-Jan-23	0:00	1,440	1,173.35	5			69.8%	69.5%	5.1				
5-Jan-23	0:00	1,440	1,180.85	5			69.7%	69.8%	5.3				
6-Jan-23	0:00	1,440	1,186.05	4			69.9%	69.7%	3.7				
7-Jan-23	0:00	1,440	1,193.35	5			70.0%	69.9%	5.2				
8-Jan-23	0:00	1,440	1,201.35	6			70.0%	70.0%	5.7				
9-Jan-23	0:00	1,440	1,209.25	5			70.0%	70.0%	5.6				
10-Jan-23	0:00	1,440	1,216.45	5			70.0%	70.0%	5.1				
11-Jan-23	0:00	1,440	1,223.75	5			70.0%	70.0%	5.2				
12-Jan-23	0:00	1,440	1,231.25	5			70.0%	70.0%	5.3				
13-Jan-23	0:00	1,440	1,236.45	4			70.0%	70.0%	3.7				
14-Jan-23	0:00	1,440	1,243.75	5			70.0%	70.0%	5.2				
15-Jan-23	0:00	1,440	1,251.75	6			70.0%	70.0%	5.7				
16-Jan-23	0:00	1,440	1,259.25	5			70.0%	70.0%	5.3				
17-Jan-23	0:00	1,440	1,264.45	4			70.0%	70.0%	3.7				
18-Jan-23	0:00	1,440	1,271.75	5			69.0%	70.0%	5.1				
19-Jan-23	0:00	1,440	1,279.75	6			68.5%	69.0%	5.6				
20-Jan-23	0:00	1,440	1,287.65	5			68.2%	68.5%	5.5				
21-Jan-23	0:00	1,440	1,294.85	5			68.0%	68.2%	5.0				
22-Jan-23	0:00	1,440	1,302.75	5			67.4%	68.0%	5.4				
23-Jan-23	0:00	1,440	1,309.95	5			66.9%	67.4%	4.9				
24-Jan-23	0:00	1,440	1,317.25	5			66.5%	66.9%	4.9				
25-Jan-23	0:00	1,440	1,324.75	5			66.4%	66.5%	5.0				
26-Jan-23	0:00	1,440	1,329.95	4			66.1%	66.4%	3.5				
27-Jan-23	0:00	1,440	1,335.15	4			66.5%	66.1%	3.5				
28-Jan-23	0:00	1,440	1,342.45	5			66.5%	66.5%	4.9				
29-Jan-23	0:00	1,440	1,350.45	6			66.5%	66.5%	5.4				
30-Jan-23	0:00	1,440	1,357.95	5			66.3%	66.5%	5.0				
31-Jan-23	0:00	1,440	1,363.15	4			66.5%	66.3%	3.5				
1-Feb-23	0:00	1,440	1,370.45	5	217.60		66.5%	66.5%	4.9	151.1	68.6	5	6.7
2-Feb-23	0:00	1,440	1,378.45	6			66.5%	66.5%	5.4				
3-Feb-23	0:00	1,440	1,387.55	6			66.7%	66.5%	6.1				
4-Feb-23	0:00	1,440	1,397.75	7			66.6%	66.7%	6.9				
5-Feb-23	0:00	1,440	1,409.05	8			66.6%	66.6%	7.6				
6-Feb-23	0:00	1,440	1,421.45	9			66.6%	66.6%	8.4				
7-Feb-23	0:00	1,440	1,434.95	9			66.6%	66.6%	9.1				
8-Feb-23	0:00	1,440	1,449.55	10			66.6%	66.6%	9.8				
9-Feb-23	0:00	1,440	1,465.25	11			66.6%	66.6%	10.6				
10-Feb-23	0:00	1,440	1,482.05	12			66.6%	66.6%	11.3				
11-Feb-23	0:00	1,440	1,499.95	12			66.6%	66.6%	12.1				
12-Feb-23	0:00	1,440	1,518.95	13			66.6%	66.6%	12.8				
13-Feb-23	0:00	1,440	1,537.95	13			66.6%	66.6%	12.8				
14-Feb-23	0:00	1,440	1,557.15	13			66.6%	66.6%	12.9				
15-Feb-23	0:00	1,440	1,575.65	13			66.6%	66.6%	12.5				
16-Feb-23	0:00	1,440	1,594.65	13			66.6%	66.6%	12.8				
17-Feb-23	0:00	1,440	1,613.75	13			66.6%	66.6%	12.9				
18-Feb-23	0:00	1,440	1,631.75	13			66.6%	66.6%	12.1				
19-Feb-23	0:00	1,440	1,650.50	13			66.6%	66.6%	12.6				
20-Feb-23	0:00	1,440	1,669.27	13			66.6%	66.6%	12.7				
21-Feb-23	0:00	1,440	1,688.06	13			66.6%	66.6%	12.7				

CRM Bioenergy Biogas Flow Rate from SCADA														
Date	Time	Minutes in Period	Totalizer Reading KSCF	scfm	Tot KSCF in month	% Methane			Heat valued per time period, MMBtu	Tot Heat value in month, MMBtu	Average methane content, %	Biogas flow rate, ave scfm	Biogas flow rate 50% methane, ave scfm	
22-Feb-23	0:00	1,440	1,706.87	13				66.6%	66.6%	12.7				
23-Feb-23	0:00	1,440	1,725.70	13				66.6%	66.6%	12.7				
24-Feb-23	0:00	1,440	1,744.55	13				66.6%	66.6%	12.7				
25-Feb-23	0:00	1,440	1,763.42	13				66.6%	66.6%	12.7				
26-Feb-23	0:00	1,440	1,782.31	13				66.6%	66.6%	12.7				
27-Feb-23	0:00	1,440	1,801.22	13				66.6%	66.6%	12.7				
28-Feb-23	0:00	1,440	1,820.15	13				66.6%	66.6%	12.8				
1-Mar-23	0:00	1,440	1,833.15	9	462.70			66.6%	66.6%	8.8	311.9	66.6	11	15.3
2-Mar-23	0:00	1,440	1,843.15	7				66.6%	66.6%	6.7				
3-Mar-23	0:00	1,440	1,851.05	5				66.6%	66.6%	5.3				
4-Mar-23	0:00	1,440	1,858.55	5				66.6%	66.6%	5.1				
5-Mar-23	0:00	1,440	1,865.56	5				66.6%	66.6%	4.7				
6-Mar-23	0:00	1,440	1,872.61	5				66.6%	66.6%	4.8				
7-Mar-23	0:00	1,440	1,879.67	5				66.6%	66.6%	4.8				
8-Mar-23	0:00	1,440	1,887.67	6				66.6%	66.6%	5.4				
9-Mar-23	0:00	1,440	1,894.87	5				66.6%	66.6%	4.9				
10-Mar-23	0:00	1,440	1,901.93	5				66.6%	66.6%	4.8				
11-Mar-23	0:00	1,440	1,908.33	4				66.6%	66.6%	4.3				
12-Mar-23	0:00	1,440	1,914.38	4				66.6%	66.6%	4.1				
13-Mar-23	0:00	1,440	1,921.38	5				66.6%	66.6%	4.7				
14-Mar-23	0:00	1,440	1,928.43	5				66.6%	66.6%	4.8				
15-Mar-23	0:00	1,440	1,935.47	5				66.6%	66.6%	4.7				
16-Mar-23	0:00	1,440	1,942.56	5				66.7%	66.6%	4.8				
17-Mar-23	0:00	1,440	1,949.56	5				66.6%	66.7%	4.7				
18-Mar-23	0:00	1,440	1,956.36	5				66.8%	66.6%	4.6				
19-Mar-23	0:00	1,440	1,963.06	5				66.6%	66.8%	4.5				
20-Mar-23	0:00	1,440	1,969.56	5				66.6%	66.6%	4.4				
21-Mar-23	0:00	1,440	1,975.58	4				66.7%	66.6%	4.1				
22-Mar-23	0:00	1,440	1,981.62	4				66.7%	66.7%	4.1				
23-Mar-23	0:00	1,440	1,988.67	5				66.8%	66.7%	4.8				
24-Mar-23	0:00	1,440	1,995.67	5				66.6%	66.8%	4.7				
25-Mar-23	0:00	1,440	2,002.75	5				66.6%	66.6%	4.8				
26-Mar-23	0:00	1,440	2,009.75	5				66.6%	66.6%	4.7				
27-Mar-23	0:00	1,440	2,018.75	6				66.6%	66.6%	6.1				
28-Mar-23	0:00	1,440	2,025.75	5				66.6%	66.6%	4.7				
29-Mar-23	0:00	1,440	2,032.15	4				66.6%	66.6%	4.3				
30-Mar-23	0:00	1,440	2,038.15	4				66.6%	66.6%	4.0				
31-Mar-23	0:00	1,440	2,045.05	5				66.6%	66.6%	4.7				
1-Apr-23	0:00	1,440	2,051.95	5	218.80			66.6%	66.6%	4.7	147.5	66.6	5	6.5
2-Apr-23	0:00	1,440	2,056.74	3				66.7%	66.6%	3.2				
3-Apr-23	0:00	1,440	2,060.74	3				66.7%	66.7%	2.7				
4-Apr-23	0:00	1,440	2,066.18	4				66.8%	66.7%	3.7				
5-Apr-23	0:00	1,440	2,070.27	3				66.6%	66.8%	2.8				
6-Apr-23	0:00	1,440	2,074.08	3				66.7%	66.6%	2.6				
7-Apr-23	0:00	1,440	2,078.05	3				66.7%	66.7%	2.7				
8-Apr-23	0:00	1,440	2,082.05	4				66.7%	66.7%	2.7				
9-Apr-23	0:00	1,440	2,087.05	5				66.7%	66.7%	3.4				
10-Apr-23	0:00	1,440	2,090.97	3				66.7%	66.7%	2.6				
11-Apr-23	0:00	1,440	2,093.97	3				66.7%	66.7%	2.0				
12-Apr-23	0:00	1,440	2,098.68	3				66.7%	66.7%	3.2				
13-Apr-23	0:00	1,440	2,101.68	3				66.8%	66.7%	2.0				
14-Apr-23	0:00	1,440	2,104.68	3				66.8%	66.8%	2.0				
15-Apr-23	0:00	1,440	2,109.68	5				66.8%	66.8%	3.4				
16-Apr-23	0:00	1,440	2,112.68	3				66.8%	66.8%	2.0				
17-Apr-23	0:00	1,440	2,117.33	3				66.6%	66.8%	3.1				
18-Apr-23	0:00	1,440	2,121.33	4				66.8%	66.6%	2.7				

CRMC Bioenergy Biogas Flow Rate from SCADA													
Date	Time	Minutes in Period	Totalizer Reading KSCF	scfm	Tot KSCF in month	% Methane			Heat valued per time period, MMBtu	Tot Heat value in month, MMBtu	Average methane content, %	Biogas flow rate, ave scfm	Biogas flow rate 50% methane, ave scfm
19-Apr-23	0:00	1,440	2,125.33	4	129.58			66.8%	66.8%	2.7			
20-Apr-23	0:00	1,440	2,131.88	5				66.8%	66.8%	4.4			
21-Apr-23	0:00	1,440	2,136.26	3				66.8%	66.8%	3.0			
22-Apr-23	0:00	1,440	2,145.53	6				66.7%	66.8%	6.3			
23-Apr-23	0:00	1,440	2,150.53	5				66.7%	66.7%	3.4			
24-Apr-23	0:00	1,440	2,154.53	4				66.7%	66.7%	2.7			
25-Apr-23	0:00	1,440	2,159.53	5				66.7%	66.7%	3.4			
26-Apr-23	0:00	1,440	2,162.53	3				66.7%	66.7%	2.0			
27-Apr-23	0:00	1,440	2,166.53	4				66.7%	66.7%	2.7			
28-Apr-23	0:00	1,440	2,169.53	3				66.7%	66.7%	2.0			
29-Apr-23	0:00	1,440	2,172.53	3				66.7%	66.7%	2.0			
30-Apr-23	0:00	1,440	2,176.53	4				66.7%	66.7%	2.7			
1-May-23	0:00	1,440	2,181.53	5				66.7%	66.7%	3.4	66.7	3	4.0
1-May-23	0:00	-	542.54		Reset								
2-May-23	0:00	1,440	548.54	6				66.8%	66.7%	4.1			
3-May-23	0:00	1,440	552.54	4				66.8%	66.8%	2.7			
4-May-23	0:00	1,440	557.54	5				66.8%	66.8%	3.4			
5-May-23	0:00	1,440	560.85	3				66.5%	66.8%	2.2			
6-May-23	0:00	1,440	567.72	7				66.5%	66.5%	4.6			
7-May-23	0:00	1,440	571.72	4				66.5%	66.5%	2.7			
8-May-23	0:00	1,440	574.72	3				66.8%	66.5%	2.0			
9-May-23	0:00	1,440	578.38	4				66.5%	66.8%	2.5			
10-May-23	0:00	1,440	581.88	4				66.8%	66.5%	2.4			
11-May-23	0:00	1,440	584.44	3				66.9%	66.8%	1.7			
12-May-23	0:00	1,440	587.06	3				67.2%	66.9%	1.8			
13-May-23	0:00	1,440	594.82	8				67.2%	67.2%	5.3			
14-May-23	0:00	1,440	609.20	14				67.2%	67.2%	9.8			
15-May-23	0:00	1,440	610.71	2				67.2%	67.2%	1.0			
16-May-23	0:00	1,440	616.82	6				67.0%	67.2%	4.1			
17-May-23	0:00	1,440	622.64	6				66.8%	67.0%	3.9			
18-May-23	0:00	1,440	632.19	10				66.5%	66.8%	6.4			
19-May-23	0:00	1,440	642.77	11				66.3%	66.5%	7.1			
20-May-23	0:00	1,440	650.56	8				66.3%	66.3%	5.2			
21-May-23	0:00	1,440	655.62	5				66.3%	66.3%	3.4			
22-May-23	0:00	1,440	661.86	6				66.3%	66.3%	4.2			
23-May-23	0:00	1,440	671.51	10				66.5%	66.3%	6.5			
24-May-23	0:00	1,440	684.68	13				66.7%	66.5%	8.9			
25-May-23	0:00	1,440	693.87	9				66.4%	66.7%	6.2			
26-May-23	0:00	1,440	703.23	9				67.1%	66.4%	6.3			
27-May-23	0:00	1,440	708.24	5				67.1%	67.1%	3.4			
28-May-23	0:00	1,440	711.41	3				67.1%	67.1%	2.2			
29-May-23	0:00	1,440	715.09	4				67.1%	67.1%	2.5			
30-May-23	0:00	1,440	719.27	4				67.4%	67.1%	2.8			
31-May-23	0:00	1,440	722.07	3				67.4%	67.4%	1.9			
1-Jun-23	0:00	1,440	727.00	5	184.46			67.4%	67.4%	3.4	66.8	4	5.5
2-Jun-23	0:00	1,440	732.10	5				67.5%	67.4%	3.5			
3-Jun-23	0:00	1,440	737.29	5				67.0%	67.5%	3.5			
4-Jun-23	0:00	1,440	742.57	5				67.0%	67.0%	3.6			
5-Jun-23	0:00	1,440	748.07	6				66.8%	67.0%	3.7			
6-Jun-23	0:00	1,440	753.66	6				66.8%	66.8%	3.8			
7-Jun-23	0:00	1,440	759.34	6				66.9%	66.8%	3.8			
8-Jun-23	0:00	1,440	765.11	6				67.2%	66.9%	3.9			
9-Jun-23	0:00	1,440	770.97	6				67.3%	67.2%	4.0			
10-Jun-23	0:00	1,440	776.92	6				67.3%	67.3%	4.1			
11-Jun-23	0:00	1,440	782.92	6				67.3%	67.3%	4.1			
12-Jun-23	0:00	1,440	789.12	6				67.1%	67.3%	4.2			

CRMC Bioenergy Biogas Flow Rate from SCADA														
		Minutes	Totalizer Reading,	scfm	Tot KSCF	% Methane			Heat valued	Tot Heat value	Average methane	Biogas flow	Biogas flow rate	
Date	Time	in Period	KSCF		in month	Month	End	Start	per time period,	in month,	content,	rate,	50% methane,	
									MMBtu	MMBtu	%	ave scfm	ave scfm	
13-Jun-23	0:00	1,440	795.42	6			67.5%	67.1%	4.3					
14-Jun-23	0:00	1,440	802.42	7			67.3%	67.5%	4.8					
15-Jun-23	0:00	1,440	807.92	6			67.5%	67.3%	3.8					
16-Jun-23	0:00	1,440	814.02	6			67.3%	67.5%	4.2					
17-Jun-23	0:00	1,440	820.42	6			67.3%	67.3%	4.4					
18-Jun-23	0:00	1,440	825.42	5			67.3%	67.3%	3.4					
19-Jun-23	0:00	1,440	830.62	5			67.4%	67.3%	3.5					
20-Jun-23	0:00	1,440	836.02	5			67.1%	67.4%	3.7					
21-Jun-23	0:00	1,440	844.02	8			67.3%	67.1%	5.4					
22-Jun-23	0:00	1,440	851.02	7			67.1%	67.3%	4.8					
23-Jun-23	0:00	1,440	858.52	8			67.3%	67.1%	5.1					
24-Jun-23	0:00	1,440	864.62	6			66.7%	67.3%	4.1					
25-Jun-23	0:00	1,440	869.71	5			67.1%	66.7%	3.4					
26-Jun-23	0:00	1,440	875.71	6			67.1%	67.1%	4.1					
27-Jun-23	0:00	1,440	881.21	6			67.1%	67.1%	3.7					
28-Jun-23	0:00	1,440	888.21	7			67.1%	67.1%	4.8					
29-Jun-23	0:00	1,440	893.91	6			67.3%	67.1%	3.9					
30-Jun-23	0:00	1,440	898.41	5			66.7%	67.3%	3.1					
1-Jul-23	0:00	1,440	903.91	6	176.91		60.0%	66.7%	3.5	120.1	67.1	4	5.5	
2-Jul-23	0:00	1,440	903.91	-			50.0%	60.0%	(0.0)					
3-Jul-23	0:00	1,440	906.26	2			40.0%	50.0%	1.1					
4-Jul-23	0:00	1,440	906.67	0			30.0%	40.0%	0.1					
5-Jul-23	0:00	1,440	906.67	-			21.0%	30.0%	-					
6-Jul-23	0:00	1,440	907.60	1			22.0%	21.0%	0.2					
7-Jul-23	0:00	1,440	907.60	-			23.0%	22.0%	-					
8-Jul-23	0:00	1,440	907.60	-			25.0%	23.0%	-					
9-Jul-23	0:00	1,440	908.44	1			27.0%	25.0%	0.2					
10-Jul-23	0:00	1,440	908.44	-			28.0%	27.0%	-					
11-Jul-23	0:00	1,440	908.44	-			30.0%	28.0%	-					
12-Jul-23	0:00	1,440	908.44	-			31.0%	30.0%	-					
13-Jul-23	0:00	1,440	908.44	-			32.0%	31.0%	-					
14-Jul-23	0:00	1,440	910.07	2			32.0%	32.0%	0.5					
15-Jul-23	0:00	1,440	910.07	-			32.0%	32.0%	-					
16-Jul-23	0:00	1,440	910.07	-			32.0%	32.0%	-					
17-Jul-23	0:00	1,440	910.07	-			32.0%	32.0%	-					
18-Jul-23	0:00	1,440	910.07	-			32.0%	32.0%	-					
19-Jul-23	0:00	1,440	912.54	2			32.0%	32.0%	0.8					
20-Jul-23	0:00	1,440	912.54	-			32.0%	32.0%	-					
21-Jul-23	0:00	1,440	913.08	1			32.0%	32.0%	0.2					
22-Jul-23	0:00	1,440	913.08	-			32.0%	32.0%	-					
23-Jul-23	0:00	1,440	913.08	-			32.0%	32.0%	-					
24-Jul-23	0:00	1,440	914.31	1			32.0%	32.0%	0.4					
25-Jul-23	0:00	1,440	914.31	-			32.0%	32.0%	-					
26-Jul-23	0:00	1,440	914.31	-			32.0%	32.0%	-					
27-Jul-23	0:00	1,440	914.31	-			32.0%	32.0%	-					
28-Jul-23	0:00	1,440	914.31	-			32.0%	32.0%	-					
29-Jul-23	0:00	1,440	914.31	-			32.0%	32.0%	-					
30-Jul-23	0:00	1,440	914.31	-			32.0%	32.0%	-					
31-Jul-23	0:00	1,440	915.90	2			32.0%	32.0%	0.5					
1-Aug-23	0:00	1,440	915.90	-	11.99		32.0%	32.0%	-	4.1	33.4	0	0.2	
OPERATIONS OF ANAEROBIC DIGESTER														

Exhibit 6:

Calibration of the LFG and biogas flow rates,
composition meters, other instrumentation for the periods.

Landfill Gas Flow Calculation										
Crapo Hill Landfill, New Bedford/Dartmouth, Massachusetts										
Note: Calculation of volumetric flow of LFG through a pipe using a pitot tube and manometer.										
	Engine 1, kW	600	800	810	800	800	810	-	-	-
	Engine 2, kW	600	-	-	-	-	-	800	800	815
	Engine 3, kW	650	800	810	750	800	810	700	780	815
	Engine 4, kW	650	800	800	745	800	810	750	800	810
	Gross, kW	2,500	2,400	2,420	2,295	2,400	2,430	2,250	2,380	2,440
MEASURING INSTRUMENT:	Pitot Tube:	160	160	160	160	160	160	160	160	160
	Manometer:	Dwyer Mark II	Dwyer Mark II	Dwyer Mark II	Dwyer Mark II	Dwyer Mark II	Dwyer Mark II	Dwyer Mark II	Dwyer Mark II	Dwyer Mark II
DATE OF MEASUREMENT:		9-Jan-23	9-Feb-23	7-Mar-23	6-Apr-23	3-May-23	6-Jun-23	11-Jul-23	8-Aug-23	7-Sep-23
TIME OF MEASUREMENT:		11:30	13:00	13:30	13:00	12:00	13:00	13:00	11:30	12:30
PARAMETERS	UNITS	VALUES	VALUES	VALUES	VALUES	VALUES	VALUES	VALUES	VALUES	VALUES
Pipe dimensions										
Inside Diameter	inches	10.420	10.420	10.420	10.420	10.420	10.420	10.420	10.420	10.420
Area of cross section	square feet	0.5922	0.5922	0.5922	0.5922	0.5922	0.5922	0.5922	0.5922	0.5922
Flow Calculation										
Kp	pitot tube constant	ft/sec[(lb/lb-mole)(in. Hg)/(R)(in H20)]^1/2	85.49	85.49	85.49	85.49	85.49	85.49	85.49	85.49
Cp	Pitot tube coefficient	dimensionless	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
dP	Average velocity pressure of stack gas	in H20	0.216	0.220	0.216	0.201	0.236	0.203	0.197	0.200
Blower Inlet										
Ts	Stack temperature	Degrees Fahrenheit	54	56	58	61	65	75	80	84
		Degrees Rankine	514	516	518	521	525	535	540	544
Pg	Stack static pressure	inch H20	-61	-60	-59	-58	-58	-59	-56	-56.5
		inch Hg	(4.49)	(4.41)	(4.34)	(4.27)	(4.27)	(4.34)	(4.12)	(4.16)
Ps	Absolute stack gas pressure	inch Hg	25.21	25.84	25.38	25.67	25.22	25.04	25.58	25.55
Blower Outlet										
Ts	Stack temperature	Degrees Fahrenheit	114	120	121	137	119	118	110	115
		Degrees Rankine	574	580	581	597	579	578	570	575
Pg	Stack static pressure	inch H20	62.6	60.9	59.5	58.1	59.5	60.9	66.4	66.4
		inch Hg	4.60	4.48	4.38	4.28	4.38	4.48	4.89	4.89
		psig	2.26	2.20	2.15	2.10	2.15	2.20	2.40	2.40
Pbar	Barometric pressure	inch Hg	29.70	30.25	29.72	29.94	29.49	29.38	29.70	29.71
Ps	Absolute stack gas pressure	inch Hg	34.30	34.73	34.10	34.22	33.87	33.86	34.59	34.55
Ms	Molecular weight of stack gas, wet	lb/lb-mole	27.47	27.24	27.45	27.39	27.16	27.30	26.80	27.13
Vs	Average stack gas velocity	feet per second	34.2	34.3	34.2	33.0	36.3	34.1	33.3	33.9
Qact	Volumetric Flow	actual cubic feet per minute	1,215	1,220	1,216	1,173	1,291	1,212	1,185	1,203
Qstd	Volumetric Flow at actual methane content	standard cubic feet per minute *	1,052	1,078	1,052	1,020	1,094	1,001	990	997
Qstd corr	Volumetric Flow at 50% methane	standard cubic feet per minute **	1,125	1,190	1,125	1,077	1,226	1,093	1,058	1,065
Ht HHV	Heat input	MMBtu per hour HHV	34.17	36.13	34.16	32.69	37.21	33.18	32.11	34.46
Ht LHV	Heat input	MMBtu per hour LHV	30.76	32.53	30.75	29.43	33.49	29.87	28.90	29.10
	Methane Content	%, vol/vol wet	53.50%	55.20%	53.50%	52.80%	56.00%	54.60%	53.40%	56.10%
Diff. between pitot tube and orifice reading:			-1.0%	-1.8%	-0.8%	-0.5%	-0.8%	0.6%	0.7%	-2.0%
FACILITY ORIFICE FLOW METER										
dP	Delta pressure across orifice plate	inches H20	8.30	8.70	8.40	8.00	9.20	7.50	7.00	7.00
Qact	Volumetric Flow	acfm	1,007	1,039	1,023	1,013	1,069	963	918	918
Qstd	Volumetric Flow at actual methane content	standard cubic feet per minute *	1,062	1,098	1,059	1,025	1,103	995	983	1,032
Qstd	Volumetric Flow at 50% methane	standard cubic feet per minute **	1,137	1,212	1,134	1,082	1,236	1,087	1,050	1,050
Ht HHV	Heat input	MMBtu per hour HHV	34.51	36.79	34.42	32.86	37.51	32.99	31.88	31.89
Ht LHV	Heat input	MMBtu per hour LHV	31.07	33.11	30.98	29.58	33.77	29.70	28.70	28.71
* Standard conditions are corrected to 68 degrees F and 29.92 in Hg at actual methane content. ** Standard conditions corrected to 50 % methane content. Input values are in blue or bold. Calculated output values are in black or not bold.										
Calculation Formulas:										
$Vs = Kp \cdot Cp \cdot (\sqrt{dP}) \cdot \sqrt{Ts / (Ps \cdot Ms)}$ $Qact = Vs \cdot A \cdot 60$ $Qstd = Qact \cdot Tstd / Ts \cdot Ps / Pstd$ $Flow, ACFM = 96.3221 \cdot \sqrt{Qact} \cdot \sqrt{((460 + Temperature) / (2.703 \cdot (Pressure + 14.7)))}$										
Conversions and constants										
13.5958' in H20/in Hg 1 PSI = 2.036 in HG 1 PSI = 27.68 in WG Tstd = 528 degrees R Pstd = 29.92 in Hg Methane heat content = 1,012 BTU per scf HHV Methane heat content = 911 BTU per scf LHV										

Landfill Gas Flow Measurements									
Crapo Hill Landfill, New Bedford/Dartmouth, Massachusetts									
Measurements by	TY, EN	TY, EN	TY, EN	TY, BG	TY, BG	TY, EN	TY, EN	TY, EN	TY, EN
Date	9-Jan-23	9-Feb-23	7-Mar-23	6-Apr-23	3-May-23	6-Jun-23	11-Jul-23	8-Aug-23	7-Sep-23
Time	11:30	13:00	13:30	13:00	12:00	13:00	13:00	11:30	12:30
Flow valve									
Pipe inside diameter, inches	10.42	10.42	10.42	10.42	10.42	10.42	10.42	10.42	10.42
Ambient Temperature, F	30	38	44	60	52	65	85	86	96
Barometric Pressure, In Hg	29.70	30.25	29.72	29.94	29.49	29.38	29.70	29.66	29.71
Blower Inlet Temperature, F	54	56	58	61	65	75	80	84	84
Outlet Temperature, F	114	120	121	137	119	118	110	115	109.2
Blower Inlet Pressure (SP), In H2O	-61	-60	-59	-58	-58	-59	-56	-56	-56.5
Blower Outlet Pressure, PSIG	2.26	2.20	2.15	2.10	2.15	2.20	2.40	2.40	2.40
Blower Outlet Pressure, In H2O	62.56	60.90	59.51	58.13	59.51	60.90	66.43	66.43	66.43
Measurement									
Manometer									
Pitot Tube									
Velocity Pressure (dP)									
Point									
1	0.21	0.21	0.21	0.17	0.23	0.17	0.19	0.19	0.18
2	0.22	0.22	0.22	0.20	0.24	0.22	0.19	0.20	0.20
3	0.22	0.22	0.22	0.21	0.24	0.21	0.20	0.21	0.19
4	0.23	0.23	0.23	0.21	0.25	0.21	0.21	0.21	0.21
5	0.23	0.23	0.23	0.21	0.25	0.21	0.21	0.21	0.21
6	0.23	0.23	0.23	0.22	0.25	0.21	0.21	0.21	0.21
7	0.23	0.23	0.23	0.21	0.25	0.20	0.20	0.21	0.21
8	0.22	0.22	0.22	0.20	0.24	0.21	0.19	0.20	0.20
9	0.15	0.19	0.15	0.18	0.17	0.19	0.17	0.19	0.19
Average	0.216	0.220	0.216	0.201	0.236	0.203	0.197	0.203	0.200
Gas Composition									
Compound, %v/v									
Methane (CH4)	53.5%	55.2%	53.5%	52.8%	56.0%	54.6%	53.4%	56.1%	53.4%
Carbon dioxide (CO2)	37.6%	37.5%	37.6%	36.7%	38.0%	38.3%	37.7%	37.0%	37.0%
Oxygen (O2)	0.38%	0.30%	0.38%	0.60%	0.30%	0.25%	0.47%	0.30%	0.61%
Balance gas	8.50%	7.00%	8.50%	9.94%	5.70%	6.85%	8.42%	6.60%	9.00%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Moisture (H2O) (included in balance gas)	1.4%	1.5%	1.6%	1.8%	2.1%	2.9%	3.4%	4.0%	4.0%
Molecular weight, lb/lb-mole wet	27.47	27.24	27.45	27.39	27.16	27.30	27.30	26.80	27.13

Measurements by				TY, EN	TY, EN	TY, EN	TY, BG	TY, BG	TY, EN	TY, EN	TY, EN	TY, EN
Date				9-Jan-23	9-Feb-23	7-Mar-23	6-Apr-23	3-May-23	6-Jun-23	11-Jul-23	8-Aug-23	7-Sep-23
Time				11:30	13:00	13:30	13:00	12:00	13:00	13:00	11:30	12:30
Pressure and Temperature Measurements												
Facility Flow Measurement Point												
	Facility Pressure monitor, inches WG			2.3	2.2	2.2	2.1	2.2	2.2	2.4	2.4	2.4
		Measurement Type	Gauge									
	Independent Pressure monitor, inches WG			2.3	2.2	2.2	2.1	2.2	2.2	2.4	2.4	2.4
		Measurement Type	Manometer									
	Difference in Pressure, %			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjusted Pressure, in WG			2.3	2.2	2.2	2.1	2.2	2.2	2.4	2.4	2.4
	Facility Temperature monitor, F			114	120	121	137	119	118	110	115	109
	Facility Temperature monitor, R			574	580	581	597	579	578	570	575	569
		Measurement Type	Gauge									
	Independent Temperature monitor, F			114	119	121	137	120	119	110	115	110
	Facility Temperature monitor, R			574	579	581	597	580	579	570	575	570
		Measurement Type	Thermometer									
	Difference in Temperature, %			0.0%	-0.2%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%	0.1%
	Adjusted Temperature, F			114	119	121	137	120	119	110	115	110
Calibration Flow Measurement Point												
	Facility Pressure monitor, inches WG			-61	-60	-59	-58	-58	-59	-56	-56	-57
		Measurement Type	Transducer									
	Independent Pressure monitor, inches WG			-61	-60	-59	-58	-58	-59	-56	-56	-57
		Measurement Type	Manometer									
	Difference in Pressure, %			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjusted Pressure, in WG			-61	-60	-59	-58	-58	-59	-56	-56	-57
	Facility Temperature monitor, F			54	56	58	61	65	75	80	84	84
	Facility Temperature monitor, R			514	516	518	521	525	535	540	544	544
		Measurement Type	Gauge									
	Independent Temperature monitor, F			54	58	58	60	64	75	79	84	84
	Facility Temperature monitor, R			514	518	518	520	524	535	539	544	544
		Measurement Type	thermometer									
	Difference in Temperature, %			0.0%	0.4%	0.0%	-0.2%	-0.2%	0.0%	-0.2%	0.0%	0.0%
	Adjusted Temperature, F			54	56	58	61	65	75	80	84	84

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‘California Analytical’ Analyzer Calibration Results
California Analytical Instrument, Model 602P NDIR, Serial #S07002

Month: Jan-23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
1/2/23	1/6/23	62 F	54%	53.62%	53.42%	-0.02%	51.90%	53.48%
1/9/23	1/13/23	64 F	54%	53.60%	52.37%	0.01%	52.93%	52.43%
1/16/23	1/20/23	62 F	54%	53.62%	53.20%	-0.01%	52.11%	53.23%
1/23/23	1/27/23	65 F	54%	53.58%	52.87%	-0.01%	52.60%	52.95%

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Month: Feb. 23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
1/30/23	2/3/23	62 F	54%	53.60%	52.67%	0.00%	52.82%	52.70%
2/6/23	2/10/23	60 F	54%	53.65%	54.06%	0.00%	51.62%	54.34%
2/13/23	2/17/23	56 F	54%	53.69%	53.84%	0.01%	55.15%	53.54%
2/20/23	2/24/23	62 F	54%	53.60%	51.67%	0.04%	54.56%	51.60%

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Month: Mar-23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
2/27/23	3/3/23	56 F	54.0%	53.69%	50.85%	-0.01%	52.86%	50.95%
3/6/23	3/10/23	59 F	54.0%	53.66%	52.67%	0.00%	53.45%	52.66%
3/13/23	3//17/23	61 F	54.0%	53.63%	50.57%	-0.02%	53.37%	50.77%
3/20/23	3/24/23	60 F	54.6%	54.24%	49.59%	-0.03%	54.61%	49.93%
3/27/23	3/31/23	62 F	54.6%	54.22%	50.35%	-0.01%	55.31%	50.25%

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California Analytical Instrument, Model 602P NDIR, Serial #S07002

Month: Apr-23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
4/3/23	4/5/23	68 F	54.6%	54.14%	52.86%	-0.02%	53.09%	52.83%
4/10/23	4/14/23	68 F	54.6%	54.14%	52.32%	-0.02%	52.31%	52.28%
4/17/23	4/21/23	67 F	54.6%	54.15%	53.31%	-0.01%	56.02%	53.18%
4/24/23	4/28/23	67 F	54.6%	54.15%	55.12%	0.02%	55.03%	55.05%

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‘California Analytical’ Analyzer Calibration Results
California Analytical Instrument, Model 602P NDIR, Serial #S07002

Month: May-23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
5/1/23	5/5/23	67 F	54.6%	54.15%	54.18%	0.02%	53.30%	54.45%
5/8/23	5/12/23	67 F	54.6%	54.15%	53.42%	-0.01%	56.11%	53.32%
5/15/23	5/19/23	66 F	54.6%	54.17%	54.18%	0.00%	54.98%	53.73%
5/22/23	5/26/23	73 F	54.6%	54.06%	54.35%	-0.01%	53.38%	54.42%

CommonWealth New Bedford Energy, LLC
 Greater New Bedford LFG Utilization Project
 300 Samuel Barnett Blvd.
 New Bedford, Massachusetts
 (508) 985-0923

‘California Analytical’ Analyzer Calibration Results
California Analytical Instrument, Model 602P NDIR, Serial #S07002

Month: Jun-23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
5/29/23	6/2/23	73 F	54.6%	54.06%	53.57%	0.02%	52.30%	53.80%
6/5/23	6/9/23	76 F	54.6%	54.01%	53.91%	0.01%	53.45%	53.97%
6/12/23	6/16/23	78 F	54.6%	53.97%	54.06%	0.00%	53.94%	54.09%
6/19/23	6/23/23	73 F	54.6%	54.06%	54.31%	0.01%	54.94%	54.36%
6/26/23	6/30/23	75 F	54.6%	54.02%	54.18%	-0.01%	54.04%	54.06%

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Month: Jul-23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
7/3/23	7/7/23	78 F	54.6%	53.97%	53.37%	0.02%	53.33%	53.41%
7/10/23	7/14/23	77 F	54.6%	53.99%	54.42%	0.00%	54.36%	54.31%
7/17/23	7/21/23	79 F	54.6%	53.95%	54.44%	0.00%	53.76%	54.34%
7/24/23	7/28/23	78 F	54.6%	53.97%	54.09%	0.00%	53.90%	54.11%

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California Analytical Instrument, Model 602P NDIR, Serial #S07002

Month: Aug-23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
7/31/23	8/4/23	79 F	54.6%	53.95%	53.73%	0.01%	54.20%	53.63%
8/7/23	8/10/23	79 F	54.6%	53.95%	53.82%	0.00%	54.31%	53.80%
8/14/23	8/18/23	79 F	54.6%	53.95%	54.44%	-0.02%	54.18%	54.39%
8/21/23	8/25/23	78 F	54.6%	53.97%	55.32%	-0.01%	54.65%	55.28%

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‘California Analytical’ Analyzer Calibration Results
California Analytical Instrument, Model 602P NDIR, Serial #S07002

Month: Sep-23		Methane (% v/v) measurements						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
8/28/23	9/1/23	77 F	54.6%	53.99%	54.18%	0.02%	55.17%	54.12%
9/4/23	9/9/23	79 F	54.6%	53.95%	54.48%	-0.02%	54.37%	54.45%
9/11/23	9/15/23	78 F	54.6%	53.97%	55.57%	0.01%	53.44%	55.49%
9/18/23	9/22/23	76 F	54.6%	54.01%	54.43%	0.00%	55.58%	54.52%
9/25/23	9/29/23	73 F	54.6%	54.06%	56.49%	-0.01%	53.39%	56.41%

Biogas Flow Measurements									
Q =sqrt(dP/[Ss *(T + 460)/(K ² *D ⁴ * P * 16590)])									
		SCADA Reading				SCADA Reading	P	P	
		Pre-calibration	Measured	Measured	Difference between	Post-calibration	static	static	T
Month	Date	flow rate, scfm	dP, inch WG	flow rate, scfm	Measured and SCADA, %	flow rate, scfm	pressure	pressure	temperature
							inch WG	psia	F
Jan-23	9-Jan-23	5.0	0.005	4.9	2.6%	5	6	14.92	85
Feb-23	9-Feb-23	11.0	0.026	11.1	-0.9%	11	6	14.92	85
Mar-23	7-Mar-23	5.0	0.005	4.9	2.6%	5	6	14.92	85
Apr-23	6-Apr-23	3.0	0.002	3.1	-2.7%	3	6	14.92	85
May-23	3-May-23	4.0	0.0032	3.9	2.6%	4	6	14.92	85
Jun-23	6-Jun-23	6.0	0.007	5.8	4.0%	6	6	14.92	85
Jul-23	11-Jul-23	0.0	0	0.0	0.0%	0	6	14.92	85
Aug-23	8-Aug-23	Operation discontinued							
Sep-23	7-Sep-23	Operation discontinued							

CRMC Bioenergy LLC							
Biogas Calibrations							
METHANE CONFIRMATIONS/CALIBRATIONS							
		SCADA Reading		Measured		SCADA Reading	
		Pre-calibration	Calibration	Calibration	Difference between	Post-calibration	
Month	Date	Methane, %	Methane, %	Methane, %	Measured and SCADA, %	Methane, %	
Jan-23	9-Jan-23	70.0%	50.0%	50.4%	-0.8%	70.0%	
Feb-23	9-Feb-23	66.6%	50.0%	50.0%	0.0%	66.6%	
Mar-23	7-Mar-23	66.6%	50.0%	50.2%	-0.4%	66.6%	
Apr-23	6-Apr-23	66.6%	50.0%	49.6%	0.8%	66.6%	
May-23	3-May-23	66.8%	50.0%	49.8%	0.4%	66.8%	
Jun-23	6-Jun-23	66.8%	50.0%	49.2%	1.6%	66.8%	
Jul-23	11-Jul-23	29.0%	50.0%	50.0%	0.0%	29.0%	
Aug-23	8-Aug-23	Operation discontinued					
Sep-23	7-Sep-23	Operation discontinued					
PRESSURE AND TEMPERATURE CONFIRMATION/CALIBRATION							
		P	P			T	
		static	calibration		T	calibration	
		pressure	static pressure		temperature	temperature	
Month	Date	inch WG	inch WG	Adjustment	F	F	Adjustment
Jan-23	9-Jan-23	6	6	None	85	85	None
Feb-23	9-Feb-23	6	6	None	85	85	None
Mar-23	7-Mar-23	6	6	None	85	85	None
Apr-23	6-Apr-23	6	6	None	85	85	None
May-23	3-May-23	6	6	None	85	85	None
Jun-23	6-Jun-23	6	6	None	85	85	None
Jul-23	11-Jul-23	6	6	None	85	85	None
Aug-23	8-Aug-23	Operation discontinued					
Sep-23	7-Sep-23	Operation discontinued					

Exhibit 7:
Attestation Statement

Attestation Statement

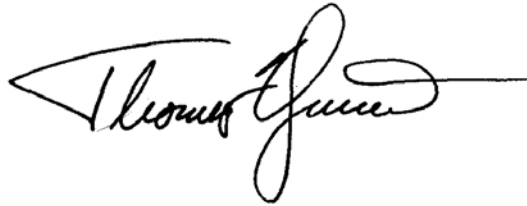
As an officer of Commonwealth New Bedford Energy LLC (CNBE) I hereby certify that the verified carbon units (VCUs) verified under the verified carbon standard (VCS) for the period January 1, 2023 through September 30, 2023 from the Project Activity will be registered on the VERRA Registry only.

Thomas Yeransian

Name

Principal of Commonwealth Resource Management Corporation,
Member of Commonwealth New Bedford Energy LLC

Title

A handwritten signature in black ink, appearing to read "Thomas Yeransian", with a long horizontal flourish extending to the right.

Signature

Date: October 31, 2023

Exhibit 8:

Permits and Other Regulatory Documentation

1. Amended Final Air Quality Operation Permit (Renewal) Issued August 3, 2022.
2. NMOC Emission Rate Report, September 7, 2023. The NMOC Emission Report demonstrates that the NMOCs emissions continue to be below the NSPS applicability threshold and therefore the Crapo Hill Landfill is not subject to the requirements of NSPS.



Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Bethany A. Card
Secretary

Martin Suuberg
Commissioner

AMENDED FINAL AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("Department" or "MassDEP") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

ISSUED TO ["the Permittee"]:

CommonWealth New Bedford Energy, LLC
1 Bornheimer Place
Scarborough, ME 04074

INFORMATION RELIED UPON:

Application No. 17-AQ14/12-000003-APP
Application No. 4B04015
Approval No. SE-13-020
Application No. 22-AQ11-0002-AMD
ePlace Authorization No.: AQ-14-0000105

FACILITY LOCATION:

CommonWealth New Bedford Energy, LLC
300 Samuel Barnet Boulevard
Dartmouth, MA

FACILITY IDENTIFYING NUMBERS:

AQ ID: 1200624
FMF FAC No.: 402936
FMF RO No.: 402937

NATURE OF BUSINESS:

Electric Power Generation

Standard Industrial Classification (SIC): 4911
North American Industrial Classification System (NAICS): 221117

RESPONSIBLE OFFICIAL:

Name: Mr. Thomas Yeransian
Title: Principal of CommonWealth Resource Management Corporation, Managing Member of CommonWealth New Bedford Energy

FACILITY CONTACT PERSON:

Name: Mr. Thomas Yeransian
Title: Principal
Phone: (508) 339-3074
Email: tyeransian@crmcx.com
Fax: (508) 339-1326

This Operating Permit shall expire on July 23, 2025.

For the Department of Environmental Protection

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Permit Chief, Bureau of Air and Waste

August 3, 2022

Date

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SPECIAL CONDITIONS FOR OPERATING PERMIT

1. PERMITTED ACTIVITIES

In accordance with the provisions of 310 CMR 7.00:Appendix C and applicable rules and regulations, the Permittee is authorized to operate air emission units as shown in Table 1 and exempt, and insignificant activities as described in 310 CMR 7.00:Appendix C(5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this Permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this Permit.

A. DESCRIPTION OF FACILITY AND OPERATIONS

CommonWealth New Bedford Energy, LLC, (CNBE) operates the Greater New Bedford LFG Utilization Project, a landfill gas (LFG) to energy, electric power generation facility (“Facility”) located at the Crapo Hill Landfill in Dartmouth, Massachusetts, with a United States Postal Service mailing address of 300 Samuel Barnet Boulevard, New Bedford MA 02745. The facility is a Major Source, as defined in 310 CMR 7.00: Appendix C, of Carbon Monoxide (CO), and therefore subject to the 310 CMR 7.00: Appendix C: Operating Permit and Compliance Program, and the requirement to obtain an Operating Permit. The approved operation consists of up to five (5) identical LFG-fired reciprocating engine/generator sets. The reciprocating engines are Caterpillar Model 3516 engines. Each engine/generator set has a nominal output rating of approximately 825 kW of electricity, and a maximum output rating of 900 kW of electricity. The engines are housed in a generation building. Each engine has a separate exhaust stack, which discharges through the generation building roof at an exhaust height of 30 feet above ground.

The primary fuel supplied to the Facility is LFG generated from the Crapo Hill Landfill, which is owned and operated by the Greater New Bedford Regional Refuse Management District (District). A small quantity of digester gas supplements the LFG fuel supplied to the Facility. CRMC Bioenergy LLC owns and operates an anaerobic digestion facility that is located adjacent to the Facility and supplies the digester gas to CNBE. The anaerobic digestion facility operates in accordance with MassDEP Air Quality Plan Approval SE-13-020, Transmittal X254662, dated September 26, 2013. Both the Facility and anaerobic digestion facility are located on property leased from the District.

As part of the Operating Permit (OP) renewal process, MassDEP evaluated the relationship between the District and CNBE, to determine if the parties were under common control for purposes of implementing the Title V Operating Permit program. Based on a review of the case-specific facts, factors, and circumstances, and informal guidance documents and determination letters from the United States Environmental Protection Agency, MassDEP determined that the District and CNBE do not meet the criteria for common control, and therefore, the two entities should continue to be considered separate sources.

MassDEP also evaluated the relationship between CRMC Bioenergy LLC and CNBE and has determined that CRMC Bioenergy LLC and CNBE meet the criteria for common control for purposes of implementing the Title V Operating Permit program. This anaerobic digester system is identified as Emission Unit No. 8 (EU-8) in this Operating Permit.

Other equipment associated with Emission Unit Nos. 1 through 5 (EU-1 through EU-5) includes a LFG production system which conditions the LFG with a knockout drum, 2 (redundant) blowers, a

cooler, and a coalescing filter. The condensate from the conditioned LFG drains into the Landfill's leachate collection system for disposal. The engines are serviced by a closed-loop lubricating oil system that consists of a 2,000-gallon virgin oil tank and a 2,000-gallon waste oil tank. Each engine is cooled by a glycol/water mix that is run through a radiator outside of the building.

The key parameters that govern the facility operation are monitored and recorded through a supervisory control and data acquisition (SCADA) system. This electronic operator interface system allows for remote access to facility operations and is the main monitoring/recordkeeping tool. In addition, the operation of the engine-generators is controlled by General Electric Fanuc programmable logic controllers (PLCs) located in the switchgear for each engine. Controls include air-to-fuel ratio control, load control, electric generation controls and protective relays. The operation and control of the motors are by variable frequency drives (VFDs). The VFDs operate motors that drive the LFG blowers, the cooler, the engine room ventilation fans, and the radiators.

The facility also maintains a cold cleaning degreaser-parts washer identified as Emission Unit No. 6 (EU-6). The parts washer is subject to and operated in accordance with 310 CMR 7.03(8) and 310 CMR 7.18(8)(a).

The OP renewal application includes the addition of Emission Unit No. 7 (EU-7). EU7 is an emergency reciprocating internal combustion engine (RICE) which operates an emergency engine generator, fires No.2 fuel oil, and is rated at 150 kilowatts of power generation output. The unit was installed on November 13, 2014, and is subject to the requirements of 310 CMR 7.26(42) *Emergency Engines and Turbines*, 40 CFR 60 Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63 Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

CNBE is considered an Area Source for Hazardous Air Pollutants (HAPs). The facility has proposed to restrict facility-wide HAP emissions to less than twenty-five (25) tons per year (aggregate total HAPs) and less than ten (10 tons per year (any Single HAP). The four (4) existing engines (EU-1, EU-2, EU-3, and EU-4) were installed prior to June 12, 2006. EU-1, EU-2, EU-3, EU-4 are subject to requirements for existing, non-emergency, non-black start, LFG-fired, stationary, spark ignited, reciprocating internal combustion engines (RICE) at 40 CFR Part 63, Subpart ZZZZ. The facility is approved for the installation of one (1) additional engine (EU-5). At the time of installation of EU-5, the Permittee shall notify MassDEP, evaluate the installation according to applicable State and Federal regulations (such as, but not limited to 40 CFR Part 63 Subpart ZZZZ, and 40 CFR Part 60 Subpart JJJJ), and propose to modify the Operating Permit as necessary. The facility does not currently have any emission units subject to requirements at 40 CFR Part 64, Compliance Assurance Monitoring (CAM).

A list of any exempt activities shall be maintained as indicated in Section 3, Table 2. Operating Permit Section 4, Tables 3, 4, 5, and 6 list the facility emission limits along with monitoring, testing, record-keeping and reporting requirements. Operating Permit Section 4, Table 7 lists regulations that are not applicable to the facility at this time.

The Permittee is subject to the requirements of Greenhouse Gas Emissions Reporting as defined by MassDEP in 310 CMR 7.71(3)(a).

This Amended Final Air Quality Operating Permit, amends Final Air Quality Operating Permit issued by MassDEP on July 23, 2020, as a result of a change in the Permittee's mailing address.

2. EMISSION UNIT IDENTIFICATION

The following emission units (Table 1) are subject to and regulated by this Operating Permit:

Table 1			
EU	Description of EU	EU Design Capacity	Pollution Control Device (PCD)
EU-1 through EU-5 ^(note 1)	Caterpillar Model No. 3516, Internal Combustion Engine	10.07 MMBtu/hr (maximum energy input) 900 kilowatts (maximum generator output)	None
EU-6	Parts Washer (Cold Cleaning Degreaser)	Meets design specifications at 310 CMR 7.18(8)(a)3.	None
EU-7	Emergency Generator Kohler Model 150REOZJF Date of Installation: 2014	Maximum heat rate input 1.725MMBtu/hr Fuel: No. 2 Fuel Oil	None
EU-8	Anaerobic Digestion System	100,000 gallon digester capacity	None

Table 1 Key:

MMBtu/hr = Million British thermal units per hour
CMR = Code of Massachusetts Regulations

EU = Emission Unit
No. = number

Table 1 Note:

(1) Facility currently consists of four (4) identical Caterpillar Engines which are identified in this Operating Permit as EU-1, EU-2, EU-3 and EU-4. EU-5 has not yet been installed.

3. IDENTIFICATION OF EXEMPT ACTIVITIES

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C(5)(h):

Table 2	
Description of Current Exempt Activities	Reason
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the Permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the MassDEP's Regional Office. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00: Appendix C(5)(h)

Table 2 Key:

MassDEP = Massachusetts Department of Environmental Protection

CMR = Code of Massachusetts Regulations

4. APPLICABLE REQUIREMENTS

A. OPERATIONAL AND/OR PRODUCTION EMISSION LIMITS AND RESTRICTIONS

The Permittee is subject to the limits/restrictions as contained in Table 3 below:

Table 3					
EU	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No.
1,2,3,4,5 (per engine) (Note 2)	Landfill Gas/ Digester Gas	NO _x	N/A	0.166 lb/MMBtu	4B04015 SE-13-020
				0.60 g/bhp-hr	
				0.62 TPM	
				7.32 TPY ^(Note 1)	
		CO	N/A	0.83 lb/MMBtu	
				3.11 TPM	
				36.61 TPY ^(Note 1)	
		NMOC	N/A	0.083 lb/MMBtu	
				0.31 TPM	
				3.66 TPY ^(Note 1)	
		VOC	N/A	0.083 lb/MMBtu	
				0.31 TPM	
				3.66 TPY ^(Note 1)	
		PM/PM ₁₀ /PM _{2.5}	N/A	0.06 lb/MMBtu	
				0.21 TPM	
				2.40 TPY ^(Note 1)	
		SO ₂	LFG H ₂ S ≤ 200 ppm _v	0.064 lb/MMBtu	
				0.24 TPM	
				2.81 TPY ^(Note 1)	
1,2,3,4	Landfill Gas/ Digester Gas	HAP ^(Note 6)	Change oil and filter every 1440 hours of operation or annually ^(Note 3) , whichever comes first; Inspect spark plugs every 1440 hours of operation or annually, whichever comes first; and Inspect all hoses and belts every 1440 hours of operation or annually, whichever comes first, and replace as necessary.	40 CFR Part 63, Subpart ZZZZ §§ 63.6603(a), 63.6625(j) and Table 2d	
			At all times operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for	40 CFR Part 63, Subpart ZZZZ § 63.6605(a) and (b)	

Table 3						
EU	Fuel/Raw Material	Pollutant	Operational and/or Production Limits		Emissions Limits/Standards	Applicable Regulation and/or Approval No.
1,2,3,4	Landfill Gas/ Digested Gas	HAP ^(Note 6)	minimizing emissions.			
			i. Operate and maintain the stationary RICE according to the manufacturer’s emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.			40 CFR Part 63, Subpart ZZZZ § 63.6625(e) and Table 6
			Minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.			40 CFR Part 63, Subpart ZZZZ § 63.6625(h) and Table 2d
1,2,3,4,5 (Combined) (Note 4)	Landfill Gas/ Digester Gas	NO _x	See heat input limit below	3.10 TPM	4B04015 SE-13-020	
				36.6 TPY ^(Note 1)		
		CO	See heat input limit below	15.5 TPM		
				183.0 TPY ^(Note 1)		
		VOC	See heat input limit below	1.55 TPM		
				18.3 TPY ^(Note 1)		
		NMOC	See heat input limit below	1.55 TPM		
				18.3 TPY ^(Note 1)		
			Operate each EU at all times when the collected LFG is routed to the EU	Each EU shall reduce NMOC emissions by 98% by weight, or reduce the stack NMOC concentration to < 20 ppm _{vd} , as hexane, at 3% O ₂		
		PM/PM ₁₀ /PM _{2.5}	See heat input limit below	1.05 TPM		
				12.2 TPY ^(Note 1)		
		SO ₂	See heat input limit below	1.20 TPM		
				14.0 TPY ^(Note 1)		
All	Maximum heat input of LFG/DG shall not exceed 37,460 MMBtu per month	N/A				
	Maximum heat input of LFG/DG shall not exceed 440,925 MMBtu in any consecutive 12 month period	N/A				
1,2,3,4,5	Landfill Gas/ Digester Gas	Visible Emissions	Stack emissions shall not exceed 0% opacity (no visible emissions), with the exception of up to five (5) minutes during startup. During startup visible emissions shall comply with the provisions of 310 CMR 7.06.			4B04015 SE-13-020
6	Non-halogenated solvent	VOC	Solvent consumption < 100 gallons per month per unit	Operating procedures identified at 310 CMR 7.18(8)(e); and design features and specifications identified at 310 CMR		310 CMR 7.03(8) 310 CMR 7.18(8)(a) 310 CMR 7.18(8)(e)

Table 3

EU	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No.
				7.18(8)(a)	
7	No 2. Fuel Oil	All	≤ 100 hours per calendar year for maintenance and testing as recommended by the manufacturer; and As part of the above, ≤ 50 hours per calendar year for non-emergency situations; and During an emergency		310 CMR 7.26(42)(d)1.a.
			Affected source must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII, for compression ignition engines		40 CFR Part 63, Subpart ZZZZ § 63.6590(c) 310 CMR 7.26(42)(d)1.b.
		NMHC + NO _x	As noted below	4.0 g/kW-hr	40 CFR Part 60, Subpart IIII § 60.4211(a) and (c) § 60.4205(b) § 60.4202(a)(2)
		CO	As noted below	3.5 g/kW-hr	
		PM	As noted below	0.20 g/kW-hr	
		Sulfur in fuel	N/A	≤ 0.0015 percent	310 CMR 7.26(42)(c) 310 CMR 7.05(1)(a)1.: Table 1
		All	N/A	Shall comply with applicable Emission limits set by US EPA for non-road engines (40 CFR 89).	310 CMR 7.26(42)(b)
			Operate and maintain engine and control device according to manufacturer's emission-related written instructions. <i>See Table 4, Proviso No. 19</i>		40 CFR Part 60, Subpart IIII § 60.4211(a)(1) and (2)
			Limited to operation as noted at § 60.4211(f) for emergency stationary ICE. <i>See Table 4, Provisos Nos. 16, 17, & 18</i>		40 CFR Part 60 Subpart IIII 310 CMR 7.26(42)(d)1.
		Smoke	N/A	< No. 1 of Chart ⁽¹⁾ , except $\geq$ No. 1 to < No. 2 of Chart for ≤ 6 minutes during any one hour, no time to equal or exceed No. 2 of the Chart.	310 CMR 7.26(42)(d)5. 310 CMR 7.06(1)(a)

Table 3					
EU	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No.
7	No 2. Fuel Oil	Opacity	N/A	$\leq 20\%$ except $>20\%$ to $\leq 40\%$ for ≤ 2 minutes during any 1 hour	310 CMR 7.26(42)(d)5. 310 CMR 7.06(1)(b)
		Sound		Constructed, located, operated and maintained to comply with 310 CMR 7.10	310 CMR 7.26(42)(d)2. 310 CMR 7.10 (State Only Requirement)
		All	Limited to stack height and Emission dispersion requirements. <i>See Table 4 Proviso No. 21</i>	N/A	310 CMR 7.26(42)(d)3.a.
8	Digester Gas	N/A	3,000 gallons of feedstock per day based on a 90 day rolling average	N/A	SE-13-020
Facility-wide	All	Greenhouse Gas (Note 5)	N/A	N/A	310 CMR 7.71 (State Only Requirement)
	All	Any Single HAP	N/A	< 10 TPY	17-AQ14/12-000003-APP
		Total HAP		< 25 TPY	

Table 3 Key:

Btu = British thermal units
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CO = Carbon Monoxide
DG = Digester Gas
EU = Emission Unit
g/bhp-hr = grams per brake horsepower for one hour (engine output)
g/kW-hr = grams per kilowatt for one hour (engine output)
HAP = Hazardous Air Pollutant as listed in the 1990 Clean Air Act Amendments, Section 112(b)
H₂S = Hydrogen Sulfide
HAP = Hazardous Air Pollutant(s)
ICE = Internal Combustion Engine
lb/MMBtu = pound per Million British thermal units
LFG = Landfill Gas
MMBtu = Million Btu
N/A = Not Applicable
No. = Number
Nos. = Numbers
NMHC = Non-Methane HydroCarbons
NMOC = Non-Methane Organic Compounds

NO_x = Nitrogen Oxides
 O₂ = Oxygen
 PM = Total Particulate Matter
 PM_{2.5} = Particulate Matter less than or equal to 2.5 microns in diameter
 PM₁₀ = Particulate Matter less than or equal to 10 microns in diameter
 ppm_v = Parts per million, by volume
 ppm_{vd} = parts per million, by volume, dry basis
 RICE = Reciprocating Internal Combustion Engine
 SO₂ = Sulfur Dioxide
 TPM = Tons Per Month
 TPY = Tons Per consecutive 12-month period ¹
 VOC = Volatile Organic Compound
 % = Percent
 ≥ = Greater than or equal to
 < = Less than
 ≤ = Less than or equal to
 + = added to
 § = Section
 §§ = Sections

Table 3 Foot Notes:

1. To calculate the amount of a consecutive 12 month rolling period take the current calendar month amount and add it to the previous 11 calendar months total amount.
2. Emission limits listed are for individual emission units.
3. Sources have the option to utilize an oil analysis program as described in § 63.6625(j) in order to extend the specified oil change requirement in Table 2d of this subpart.
4. Emission limits and Heat Input limits represent a combined total for up to five emission units.
5. Greenhouse Gas means any chemical or physical substance that is emitted into the air and that MassDEP may reasonably anticipate will cause or contribute to climate change including, but not limited to: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).
6. Hazardous Air Pollutants are as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b).
7. Chart means the Ringelmann Scale for grading the density of smoke, as published by the United States Bureau of Mines and as referred to in the Bureau of Mines Information Circular No. 8333, or any smoke inspection guide approved by the MassDEP.

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to the monitoring/testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10) and applicable requirements contained in Table 3:

Table 4	
EU	Monitoring And Testing Requirements
EU-1 EU-2 EU-3 EU-4	1. In accordance with Plan Approval No. 4B04015, one operable oxygen analyzer shall be maintained on-site and record shall be maintained of the stack outlet oxygen (O ₂) levels at least once per week on each engine.
	2. As applicable, and in lieu of oil change required in Table 3, analyze engine oil for Total Acid Number, viscosity, and percent water content as specified at 40 CFR §63.6625(j).
	3. In accordance with Plan Approval No. 4B04015, each engine/generator set shall be continuously monitored for run time and kW produced.
	4. In accordance with Plan Approval No. 4B04015, a LFG flow recorder shall be maintained so that an on-site record of the total volume of LFG (scf) fired by the five (5) engine/generator sets will be available by date and time period.
	5. In accordance with Plan Approval No. 4B04015, the heat input of LFG (Btu) fired in each EU shall be determined by gas chromatograph and/or field measurements for each month and for each consecutive 12-month period.
	6. In accordance with 310 CMR 7.00: Appendix C(9)(b)2., monitor the H ₂ S concentration (ppm _v) of the LFG to be combusted on a monthly basis. The sampling shall be conducted using a protocol and test method(s) that are approved by MassDEP.
	7. In accordance with 310 CMR 7.00: Appendix C(9)(b)2., perform monthly visible emissions observations of each engine exhaust, in accordance with 40 CFR Part 60, Appendix A, Method 22, for a time period no less than fifteen (15) minutes while the engines are in operation.
	8. In accordance with Plan Approval No. 4B04015, the ability of the facility to maintain emission rates at or below approved levels shall be demonstrated to the MassDEP in the future if deemed necessary. Compliance testing, if requested by MassDEP, shall be conducted in accordance with MassDEP's "Guideline for Source Emission Testing" and test methods and procedures contained in 40 CFR Part 60, Appendix A.
EU-5	9. In accordance with Plan Approval No. 4B04015, the facility shall be constructed to accommodate the emission testing requirements contained in 40 CFR Part 60, Appendix A.
	10. In accordance with Plan Approval No. 4B04015, emission testing shall be performed to determine compliance with approved CO, NMOC and NO _x emission limits. Emission testing shall be completed within ninety (90) days from the date the engine commences LFG burning after startup of the facility.
	11. Upon installation the Permittee shall conduct, as applicable, monitoring and performance testing required at 40 CFR Part 60 and 40 CFR Part 63.
	12. In accordance with Plan Approval No. 4B04015, a NO _x /CO optimization/minimization diagnostic emission test program shall be conducted prior to emission testing.

Table 4

EU	Monitoring And Testing Requirements
EU-6	13. In accordance with 310 CMR 7.18(8)(h), Persons subject to 310 CMR 7.18(8) shall, upon request of the MassDEP, perform or have performed test to demonstrate compliance. Testing shall be conducted in accordance with a method approved by the MassDEP and USEPA.
EU-7	14. In accordance with 40 CFR 60.4206, the Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205(b) and 60.4202(a)(2) over the entire life of the engine.
	15. In accordance with 310 CMR 7.26(42)(d)1.c., and 40 CFR 60.4209(a), the Permittee must install a non-turn-back hour counter. The non-turn-back hour counter shall be operated and maintained in good working order.
	16. In accordance with 40 CFR 60.4211(f)(1), the Permittee may operate the emergency stationary ICE for emergency situations with no time limit.
	17. In accordance with 40 CFR 60.4211(f)(2)(i), the Permittee may operate the emergency stationary ICE for any combination of the purposes specified below for a maximum of 100 hours per calendar year. (i) Emergency Stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
EU-7	18. In accordance with 40 CFR 60.4211(f)(3), the Permittee may operate the Emergency stationary ICE for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2)(i) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per year for nonemergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (i) The 50 hours per year for nonemergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: <i>A. The Engine is dispatched by the local balancing authority or local transmission and distribution system operator;</i> <i>B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.</i> <i>C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or Guidelines.</i> <i>D. The power is provided only to the facility itself or to support the local transmission and distribution system.</i> <i>E. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.</i>

Table 4

EU	Monitoring And Testing Requirements
EU-7	19. In accordance with 310 CMR 7.26(42)(e)2., MassDEP may require emission or other monitoring to assure compliance with the requirements of 310 CMR 7.26(42).
	20. In accordance with 310 CMR 7.26(42)(e)3., any testing when required shall comply with the following: a) Tests to certify compliance with emission limitations must be performed in accordance with EPA reference Methods, California Air Resources Board Methods approved by EPA, or equivalent methods as approved by MassDEP and EPA. b) Particulate matter from liquid fuel reciprocating engines shall be determined using Method 8178 D2 of the International Organization for Standardization. c) MassDEP may require emission or other testing to assure compliance with the emission limitations or fuel requirements.
	21. In accordance with 310 CMR 7.26(42)(d)3.a., the engine shall utilize an exhaust stack that discharges so as to not cause a condition of air pollution (310 CMR 7.01(1)). Exhaust stacks shall be configured to discharge the combustion gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted combustion gases. Any emission impacts of exhaust stacks upon sensitive receptors including, but not limited to, people, windows and doors that open, and building fresh air intakes shall be minimized by employing good air pollution control engineering practices. Such practices include without limitation: i) Avoiding locations that may be subject to downwash of the exhaust; and ii) Installing stack(s) of sufficient height in locations that will prevent and minimize flue gas impacts upon sensitive receptors.
EU-8	22. In accordance with Plan Approval SE-13-020, the Permittee shall continuously monitor the pressure in the Blending and Mixing tank to ensure it is maintained at a negative pressure at all times.
	23. In accordance with Plan Approval SE-13-020, the Permittee shall continuously monitor the biogas production rate of the anaerobic digestion system.
	24. In accordance with Plan Approval SE-13-020, if and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13.
Facility-wide	25. In accordance with Plan Approval No. 4B04015 and 310 CMR 7.12, monitor operations such that information may be compiled for the annual preparation of a Source Registration/Emission Statement.
	26. In accordance with AQ14/12-000003-APP, the Permittee shall monitor so that comprehensive and accurate records are maintained onsite to demonstrate compliance with the facility-wide HAP emission limits contained in Table 3. Monitor so that records are compiled for actual emissions of all HAPs emitted for each calendar month and for each consecutive twelve-month period and compiled no later than the 15 th day following each month.
	27. In accordance with 310 CMR 7.13(1) Any person owning, leasing, operating or controlling a facility for which the MassDEP has determined that stack testing is necessary to ascertain compliance with the MassDEP's regulations or design approval provisos shall cause such stack testing: a) to be conducted by a person knowledgeable in stack testing, b) to be conducted in accordance with procedures contained in a test protocol which has been approved by the MassDEP, c) to be conducted in the presence of a representative of the MassDEP when such is deemed necessary, and d) to be summarized and submitted to the MassDEP with analysis and report within such time as agreed to in the approved test protocol.

Table 4	
EU	Monitoring And Testing Requirements
Facility-wide	28. In accordance with 310 CMR 7.13(2) Any person having control of a facility relative to which the MassDEP determines that stack testing (to ascertain the mass emission rates of air contaminants emitted under various operating conditions) is necessary for the purposes of regulatory enforcement or determination of regulatory compliance shall cooperate with the MassDEP to provide: a) entrance to a location suitable for stack sampling, b) sampling ports at locations where representative samples may be obtained, c) tagging and ladders to support personnel and equipment for performing the tests, d) a suitable power source at the sampling location for the operation of sampling equipment, and e) such other reasonable facilities as may be requested by the MassDEP.
	29. In accordance with 310 CMR 7.00: Appendix C (9)(b), the Permittee shall; a) comply with all emissions monitoring and analysis procedures or test methods required under the applicable requirements, including those promulgated pursuant to 42 U.S.C. 7401, §§ 504(a) and 504(b) or 114(a)(3); b) if the applicable requirement does not require periodic testing or instrumental or non-instrumental monitoring (which may consist of record keeping designed to serve as monitoring), then the Permittee shall perform periodic monitoring sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit. Such monitoring requirements shall assure the use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Record keeping provisions may be sufficient to meet the requirements; and c) comply with requirements concerning the use, maintenance and installation of monitoring equipment or methods as the MassDEP deems appropriate.
	30. In accordance with 310 CMR 7.71(1) and Appendix C(9), the Permittee shall establish and maintain data systems or record keeping practices (e.g. fuel use records, SF₆ usage documentation, Continuous Emissions Monitoring System) for greenhouse gas emissions to ensure compliance with the reporting provisions of M.G.L. c. 21N, the Climate Protection and Green Economy Act, St. 2008, c. 298, § 6. (State Only Requirement)

Table 4 Key:

Btu= British thermal units
c. = chapter
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CO = Carbon Monoxide
e.g. = for example
EU = Emission Unit
HAP = Hazardous Air Pollutant, as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b)
H₂S = Hydrogen Sulfide
ICE = Internal Combustion Engine
kW = kiloWatt
LFG = Landfill Gas
M.G.L. = Massachusetts General Law
NERC = North American Electric Reliability Corporation
NMOC = Non-Methane Organic Compound
NO_x = Nitrogen Oxides
No. = Number
O₂ = Oxygen
ppm_v = parts per million, by volume
scf = standard cubic foot
SF₆ = Sulfur Hexafluoride
SI = Spark Ignition
U.S.C. = United States Code
USEPA = United States Environmental Protection Agency
§ = Section
§§ = Sections

Table 5	
EU	Record Keeping Requirements
EU-1 EU-2 EU-3 EU-4 EU-5	1. In accordance with Plan Approval No. 4B04015, a record of stack oxygen levels, as determined at least weekly during operation, shall be maintained for each engine.
	2. In accordance with Plan Approval No. 4B04015, a copy of the NO _x /CO optimization/minimization program report for each engine shall be maintained on-site.
	3. In accordance with Plan Approval No. 4B04015, a record of the volume of LFG (scf) fired in each engine/generator set for each month and for each consecutive 12 month period shall be maintained on-site. This record shall take into account the total volume of LFG fired by the combined engine/generator sets, and the individual engine/generator set run time and amount of electricity produced.
	4. In accordance with Plan Approval No. 4B04015, the heat input of LFG (Btu) fired in the engine/generator sets for each month and consecutive 12 month period shall be maintained on-site.
	5. In accordance with Plan Approval No. 4B04015, a record of NO _x , CO, NMOC, VOC, PM, and SO ₂ monthly and consecutive 12 month period emission rate records for each engine/generator set shall be maintained on-site.
	6. In accordance with Plan Approval No. 4B04015, a copy of the Standard Operating and Maintenance Procedures for all subject equipment shall be maintained on-site.
	7. In accordance with Plan Approval No. 4B04015, an operation log, or other record keeping system, shall be maintained on-site at a level of detail sufficient to document that the Operation and Emission Limits in Table 3 are not exceeded.
	8. In accordance with 310 CMR 7.00: Appendix C(10)(b), maintain records of the monthly H ₂ S monitoring results to include H ₂ S concentration (ppm _v) in LFG and the corresponding SO ₂ emission calculations.
	9. In accordance with 310 CMR 7.00: Appendix C(10)(b), maintain records of the monthly visible emissions observations to include date and time period of the observations, the result of observations with respect to visible emissions, and a description of the facility operations at the time of the observation.
	10. In accordance with Plan Approval No. 4B04015, all operating and monitoring records, including emission test reports, shall be maintained for the life of the facility; the five most recent years of data/records shall be maintained on-site.
	11. In accordance with 40 CFR 63.6655(a)(2), maintain records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment.
	12. In accordance with 40 CFR 63.6655(a)(5), maintain records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
	13. In accordance with 40 CFR 63.6655(d), maintain records of manufacturer's emission-related operation and maintenance instructions; or the facility maintenance plan, if developed as allowed at 40 CFR 63, Subpart ZZZZ, Table 6.

Table 5	
EU	Record Keeping Requirements
EU-1 EU-2 EU-3 EU-4 EU-5	14. In accordance with 40 CFR 63.6655(d) and (e), maintain records of the maintenance (and monitoring as specified at §63.6625(j), if applicable) conducted on the stationary RICE in order to demonstrate that the RICE was operated and maintained according the requirements of 40 CFR 63, Subpart ZZZZ, Table 2d and Table 6.
EU-6	15. In accordance with 310 CMR 7.03(6) and 7.18(8)(g), prepare and maintain records sufficient to demonstrate continuous compliance as stated in 310 CMR 7.18(8)(f) and with the monthly solvent usage restriction in 310 CMR 7.03(8). Records shall include, but are not limited to: identity, quantity, formulation and density of solvent(s) used and waste solvent(s) generated.
EU-7	16. In accordance with 310 CMR 7.26(42)(f), the Permittee shall maintain records described in 310 CMR 7.26(42)(f)1. through 4. Such records shall be maintained on site or for remote locations, at the closest facility where records can be maintained and shall be made available to MassDEP or its designee upon request. The owner or operator shall certify that records are accurate and true in accordance with 310 CMR 7.01(2)(a) through (c). 1) Information on equipment type, make and model, and rated power output; 2) A log of operations, including date, time and duration of operation and reason for each start per 310 CMR 7.26(42)(d)1., fuel type and supplier; 3) Purchase orders, invoices, and other documents to substantiate information in the log; 4) Copies of certificates and documents from the manufacturer related to certificates.
EU-8	17. In accordance with Plan Approval SE-13-020, the Permittee shall continuously record the pressure in the Blending and Mixing tank to document it is maintained at negative pressure at all times.
	18. In accordance with Plan Approval SE-13-020, the Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. These records shall be compiled no later than the 15 th day following each month.
	19. In accordance with Plan Approval SE-13-020, the Permittee shall maintain records of monitoring and testing as required by Table 4.
	20. In accordance with Plan Approval SE-13-020, the Permittee shall maintain a copy of the most up-to-date SOMP for the EU(s) approved herein on-site.
	21. In accordance with Plan Approval SE-13-020, the Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	22. In accordance with Plan Approval SE-13-020, the Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
Facility-wide	23. In accordance with 310 CMR 7.71 (6) (b) and (c), the Permittee shall keep on site at the facility documents of the methodology and data used to quantify emissions for a period of 5 years from the date the document is created. The Permittee shall make these documents available to MassDEP upon request. (State Only Requirement).

Table 5	
EU	Record Keeping Requirements
Facility-wide	24. In accordance with AQ14/12-000003-APP, the Permittee shall maintain comprehensive and accurate records onsite to demonstrate compliance with the facility-wide HAP emission limits contained in Table 3. A record of all HAPs emitted for each calendar month and for each consecutive twelve-month period shall be maintained on-site. These records shall be compiled no later than the 15 th day following each month.
	25. In accordance with Plan Approval No. 4B04015, a record keeping system shall be established and maintained on-site. All records shall be maintained up-to-date such that the year-to-date information is readily available for MassDEP examination. Record keeping shall, at a minimum, include: a) a record of routine maintenance activities performed on emission unit control and monitoring equipment including, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed; and b) a record of all malfunctions on emission unit control and monitoring equipment shall include, at a minimum: the date and time the malfunctions occurred; a description of the malfunctions and the corrective actions taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed and the emission unit returned to compliance. All records shall be kept on-site for five (5) years and shall be made available to MassDEP personnel upon request.
	26. In accordance with 310 CMR 7.12, maintain records to facilitate compilation of data for the required Source Registration submittal.
	27. In accordance with 310 CMR 7.12(3)(c), copies of Source Registration and other information supplied to MassDEP, to comply with 310 CMR 7.12, shall be retained by the facility owner/operator for five years from the date of submittal.
	28. In accordance with Plan Approval SE-13-020, the Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

Table 5 Key:

Btu = British thermal units
CFR= Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CO = Carbon Monoxide
EU = Emission Unit
HAP = Hazardous air pollutant, as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b)
H₂S = Hydrogen Sulfide
LFG = Landfill Gas
MassDEP = Massachusetts Department of Environmental Protection
NMOC = Non-Methane organic compounds
NO_x = Nitrogen Oxides
No.= Number
PM = Particulate Matter
ppm_v = parts per million, by volume
RICE = Reciprocating Internal Combustion Engine
scf = standard cubic foot
SO₂ = Sulfur Dioxide
VOC = Volatile Organic Compounds
§= Section

Table 6	
EU	Reporting Requirements
EU-1 EU-2 EU-3 EU-4 EU-5	1. In accordance with Plan Approval No. 4B04015, revisions to the Final Standard Operating and Maintenance Procedures shall be submitted to the MassDEP within seven (7) days from their initial use.
	2. In accordance with Plan Approval No. 4B04015, the MassDEP's Permit Chief for the Bureau of Air and Waste at this office must be notified by telephone or electronic mail within 24 hours, and with written notification within ten (10) days, after occurrence of any upsets or malfunctions to the facility equipment, air pollution control equipment, or monitoring equipment which result in an excess emission to the air and/or a condition of air pollution.
	3. In accordance with Plan Approval No. 4B04015, notification to the MassDEP, in writing, shall be made within 10 days from the date that EU-5 commences LFG or digester gas burning.
	4. In accordance with Plan Approval 4B04015 and 310 CMR 7.12, the Permittee shall submit a Source Registration/Emission Statement Form to MassDEP on an annual basis.
	5. In accordance with Plan Approval No. 4B04015, a stack test protocol shall be submitted to the MassDEP at least 30 days prior to the commencing of compliance testing. The final emission report shall be submitted to the MassDEP within 30 days from completion of on-site testing.
Facility-wide	6. In accordance with 310 CMR 7.13(1) and 7.13(2), if determined by MassDEP that stack testing is necessary to ascertain compliance with the Department's regulations or design approval provisos, the Permittee shall cause such stack testing to be summarized and submitted to MassDEP as prescribed in the agreed to pretest protocol.
	7. In accordance with 310 CMR 7.00: Appendix C(10)(c)., the Permittee shall report a summary of all monitoring data and related supporting information to MassDEP at least every six months (January 30 and July 30 of each calendar year).
	8. In accordance with General Condition 10 of this Permit, the Permittee shall submit the Annual Compliance report to MassDEP and USEPA by January 30 of each year.
	9. In accordance with 310 CMR 7.00: Appendix C (10)(f), the Permittee shall promptly report to the MassDEP all instances of deviations from permit requirements. This report shall include the deviation itself, including those attributable to upset conditions as defined in the permit, the probable cause of the deviation, and any corrective actions or preventative measures taken.
	10. Submit Annual Compliance report to MassDEP and USEPA by January 30 of each year and as required by General Condition 10 of this Permit.
	11. In accordance with 310 CMR 7.00: Appendix C (10)(h), all required reports must be certified by a responsible official consistent with 310 CMR 7.00: Appendix C (5)(c).
	12. Unless otherwise noted ^(Note 1) , all notifications and reporting required by this Operating Permit shall be sent to: Department of Environmental Protection Bureau of Air and Waste Southeast Regional Office 20 Riverside Drive Lakeville, MA 02347 ATTN: Chief, Air Permitting Telephone: (508) 946-2770 Electronic mail address: sero.air@mass.gov
	13. In accordance with 310 CMR 7.71(5), the Permittee shall electronically submit and certify by April 15 th of each year a greenhouse gas emissions report to MassDEP. (State Only Requirement).

Table 6 Key:

EU = Emission Unit
 CMR = CMR = Code of Massachusetts Regulations
 MassDEP = Massachusetts Department of Environmental Protection
 USEPA = United States Environmental Protection Agency
 No. = Number
 LFG = Landfill Gas

Table 6 Note:

(1) The annual Source Registration/Emission Statement shall be submitted to the MassDEP office specified in the instructions.

C. GENERAL APPLICABLE REQUIREMENTS

The Permittee shall comply with all generally applicable requirements contained in 310 CMR 7.00 et seq. and 310 CMR 8.00 et. seq., when subject.

D. REQUIREMENTS NOT CURRENTLY APPLICABLE

The Permittee is currently not subject to the following requirements:

Table 7	
Regulation	Reason
310 CMR 7.16: Reduction of Single Occupant Commuter Vehicle Use	Facility is below employee threshold.
40 CFR Part 64: Compliance Assurance Monitoring	Facility has no subject emission units

Table 7 Key:

CFR = Code of Federal Regulations

CMR = Code of Massachusetts Regulations

5. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to and shall comply with the following special terms and conditions that are not contained in Table 3, 4, 5, and 6:

Table 8	
EU	Special Terms and Conditions
EU-5	1. In accordance with AQ14/12-000003-APP, at the time of installation of EU-5, the Permittee shall notify MassDEP, evaluate the installation according to applicable State and Federal regulations (such as, but not limited to 40 CFR Part 63 Subpart ZZZZ, and 40 CFR Part 60 Subpart JJJJ), and propose to modify the Operating Permit as necessary.
EU-7	2. In accordance with 310 CMR 7.26(42)(b)3., the Permittee shall obtain from the supplier a statement that a certificate of conformity has been obtained from the USEPA. Pursuant to 40 CFR 89.105 as in effect October 23, 1998, any engine certified under the USEPA non-road standards is automatically certified to operate as an emergency engine pursuant to 310 CMR 7.26(42).
EU-8	3. In accordance with Plan Approval SE-13-020, in the event that the engines at the facility are not operational, all digested gas from the anaerobic digester system shall be routed to the flare.
Facility-wide	4. Emission Units EU-1 through EU-5 construction shall be consistent with the Equipment and Design Schedule in Plan Approval Nos. 4B04015 and SE-13-020 as follows: <u>Engine/Electric Generator Sets</u> Manufacturer Caterpillar (or equiv.) Model No. 3516 (or equiv.) Max. Heat Input 10.07 MMBtu/hr/engine @ 900 kW Fuel Landfill Gas / Digester Gas Maximum Output 900 kW/generator Nominal Output 825 kW/generator Max. Stack Exit Temperature 960 °F Stack Material Steel Stack Height 30 feet above ground Stack Exit Diameter 12 inches Silencer Manufacturer EM Products (or equiv.) Silencer Model No. JCS12-X2608 (or equiv.) <u>Approximate Facility Location</u> UTM Coordinates 334925 East, 4620880 North (Zone 19) Latitude/Longitude North 41° 43' 28", West 70° 59'
	5. Emission units EU-1 through EU-4 are subject to the requirements of 40 CFR 63.1-15, Subpart A, "General Provisions" [as indicated in Table"8" to Subpart ZZZZ of 40 CFR 63] except §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), 63.9(g) and 63.9(h) as specified at § 63.6645(a)(5). Compliance with all applicable provisions therein is required.
	6. In accordance with Plan Approval No. 4B04015, there shall be no direct release or bypass of landfill gas from the facility to the ambient air.
	7. In accordance with Plan Approval No. 4B04015, sound impacts shall not exceed 10 dB(A) above background and shall not cause a puretone condition as defined in the MassDEP's DAQC Policy No. 90-001. (State Only Requirement)

Table 8	
EU	Special Terms and Conditions
Facility-wide	8. In accordance with Plan Approval No. 4B04015, MassDEP personnel shall be provided immediate access to the plant site, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
	9. In accordance with Plan Approval No. 4B04015, if any nuisance condition(s) should be generated by the operation of this facility, immediate appropriate steps shall be taken to abate the nuisance condition(s).

Table 8 Key:

CFR = Code of Federal Regulations
dB(A) = decibels weighted for the “A” scale
hr = hour
MMBtu = Million British Thermal Units
° = degrees
' = minutes
“ = seconds
°F = degrees Fahrenheit
@ = at
equiv. = equivalent

DAQC = Division of Air Quality Control
EU = Emission Unit
kW = kilowatt
No. = Number
UTM = Universal Transverse Mercator
§ = Section
§§ = Sections
USEPA = United States Environmental Protection Agency
CMR = Code of Massachusetts Regulations
max. = maximum

6. ALTERNATIVE OPERATING SCENARIOS

The Permittee did not request alternative operating scenarios in its Operating Permit application.

7. EMISSIONS TRADING

A. INTRA-FACILITY EMISSION TRADING

The Permittee did not request intra-facility emissions trading in its Operating Permit application.

B. INTER-FACILITY EMISSION TRADING

The Permittee did not request inter-facility emissions trading in its Operating Permit application.

8. COMPLIANCE SCHEDULE

The Permittee has indicated that the Facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the Permit term.

GENERAL CONDITIONS FOR OPERATING PERMIT

9. FEES

The Permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

10. COMPLIANCE CERTIFICATION

All documents submitted to the MassDEP shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the MassDEP's web site, <http://www.mass.gov/dep/air/approvals/aqforms.htm#op>.

A. Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this Operating Permit. The report shall be postmarked or delivered by January 30 to the MassDEP and to the Air Compliance Clerk, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- 1) the terms and conditions of the Permit that are the basis of the certification;
- 2) the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- 3) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- 4) any additional information required by the MassDEP to determine the compliance status of the source.

B. Semi-Annual Monitoring Summary Report and Certification

The Responsible Official shall certify, semi-annually on the calendar year, that the Facility is in compliance with the requirements of this Permit. The report shall be postmarked or delivered by January 30 and July 30 to MassDEP. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- 1) the terms and conditions of the Permit that are the basis of the certification;
- 2) the current compliance status during the reporting period;
- 3) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- 4) whether there were any deviations during the reporting period;
- 5) if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- 6) whether deviations in the reporting period were previously reported;
- 7) if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- 8) if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- 9) any additional information required by the MassDEP to determine the compliance status of the source.

11. NONCOMPLIANCE

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for Permit termination or revocation, or for denial of an Operating Permit renewal application by the MassDEP and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

12. PERMIT SHIELD

- A. This Facility has a permit shield provided that it operates in compliance with the terms and conditions of this Permit. Compliance with the terms and conditions of this Permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the Permittee's application and as identified in this Permit.

Where there is a conflict between the terms and conditions of this Permit and any earlier approval or Permit, the terms and conditions of this Permit control.

- B. The MassDEP has determined that the Permittee is not currently subject to the requirements listed in Section 4, Table 7.
- C. Nothing in this Permit shall alter or affect the following:
 - 1) the liability of the source for any violation of applicable requirements prior to or at the time of Permit issuance.
 - 2) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
 - 3) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

13. ENFORCEMENT

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.70, 7.71, 7.72, 7.74, 7.75 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A

All other terms and conditions contained in this Permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the MassDEP, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

14. PERMIT TERM

This Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date 5 years after issuance of this Permit.

Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this Permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

15. PERMIT RENEWAL

Upon the MassDEP's receipt of a complete and timely application for renewal, this Facility may continue to operate subject to final action by the MassDEP on the renewal application.

In the event the MassDEP has not taken final action on the Operating Permit renewal application prior to this Permit's expiration date, this Permit shall remain in effect until the MassDEP takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

16. REOPENING FOR CAUSE

This Permit may be modified, revoked, reopened, and reissued, or terminated for cause by the MassDEP and/or EPA. The responsible official of the Facility may request that the MassDEP terminate the facility's Operating Permit for cause. The MassDEP will reopen and amend this Permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the Permittee for an Operating Permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any Operating Permit condition.

17. DUTY TO PROVIDE INFORMATION

Upon the MassDEP's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall furnish to the MassDEP copies of records that the Permittee is required to retain by this Permit.

18. DUTY TO SUPPLEMENT

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the Facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The Permittee shall promptly, on discovery, report to the MassDEP a material error or omission in any records, reports, plans, or other documents previously provided to the MassDEP.

19. TRANSFER OF OWNERSHIP OR OPERATION

This Permit is not transferable by the Permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the Permit is necessary and provided that a written agreement containing a specific date for transfer of Permit responsibility, coverage and liability between current and new Permittee, has been submitted to the MassDEP.

20. PROPERTY RIGHTS

This Permit does not convey any property rights of any sort, or any exclusive privilege.

21. INSPECTION AND ENTRY

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of the MassDEP, and EPA to perform the following:

- A. Enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this Permit;
- B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- D. Sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the Operating Permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

22. PERMIT AVAILABILITY

The Permittee shall have available at the Facility, at all times, a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the Operating Permit, including any amendments or attachments thereto, upon request by the MassDEP or EPA.

23. SEVERABILITY CLAUSE

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

24. EMERGENCY CONDITIONS

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based¹ emission limitations specified in this Permit as a result of an emergency². In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. an emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- B. the permitted Facility was at the time being properly operated;
- C. during the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and
- D. the Permittee submitted notice of the emergency to the MassDEP within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Bureau of Waste Site Cleanup/Emergency Response, immediate notification to the appropriate parties should be made as required by law.

25. PERMIT DEVIATION

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this Permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6 of this Operating Permit shall supersede the following deviation reporting requirements, if applicable.

The Permittee shall report to the MassDEP's Regional Bureau of Air and Waste the following deviations from permit requirements, by telephone, by fax or by electronic mail (e-mail), within three (3) days of discovery of such deviation:

- A. Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.

¹ Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

² An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the Permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

- B. Exceedances of parameter limits established by this Operating Permit or other approvals, where the parameter limit is identified by the Permit or approval as surrogate for an emission limit.
- C. Exceedances of Permit operational limitations directly correlated to excess emissions.
- D. Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, this Operating Permit, or other approvals.
- E. Failure to perform QA/QC measures as required by this Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the MassDEP Bureau of Air and Waste Air Operating Permit Reporting Kit, which is available to the Permittee via the MassDEP's web site,

<http://www.mass.gov/dep/air/approvals/aqforms.htm#op>.

This report shall include the deviation, including those attributable to upset conditions as defined in the Permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone, fax or electronic mail (e-mail) within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Air and Waste within ten (10) days of discovery. For deviations, which do not require 3-day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

26. OPERATIONAL FLEXIBILITY

The Permittee is allowed to make changes at the Facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the Permit and in compliance with all applicable requirements provided the Permittee gives the EPA and the MassDEP written notice fifteen (15) days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(h) and (i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the Facility's Permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

27. MODIFICATIONS

- A. Administrative Amendments - The Permittee may make changes at the Facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- B. Minor Modifications - The Permittee may make changes at the Facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).

- C. Significant Modifications - The Permittee may make changes at the Facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- D. No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this Operating Permit. A revision to the Permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an Operating Permit revision under any other applicable requirement.

28. OZONE DEPLETING SUBSTANCES

This section contains air pollution control requirements that are applicable to this Facility, and the United States Environmental Protection Agency enforces these requirements.

- A. The Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - 1) All containers containing a class I or class II substance that is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR 82.106.
 - 2) The placement of the required warning statement must comply with the requirements of 40 CFR 82.108.
 - 3) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR 82.110.
 - 4) No person may modify, remove or interfere with the required warning statement except as described in 40 CFR 82.112.
- B. The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVAC) in Subpart B:
 - 1) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices of 40 CFR 82.156.
 - 2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment of 40 CFR 82.158.
 - 3) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - 4) Persons disposing of small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152) must comply with recordkeeping requirements of 40 CFR 82.166.
 - 5) Persons owning commercial or industrial process refrigeration equipment must comply with the

leak repair equipment requirements of 40 CFR 82.156.

- 6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- C. If the Permittee manufactures, transforms, imports or exports a class I or class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".
- D. If the Permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the Permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners". The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.
- E. The Permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program".

29. PREVENTION OF ACCIDENTAL RELEASES

This section contains air pollution control requirements that are applicable to this Facility and the United States Environmental Protection Agency enforces these requirements.

This Facility is subject to the requirements of the General Duty Clause, under 112(r)(1) of the CAA Amendments of 1990. This clause specifies that owners or operators of stationary sources producing, processing, handling or storing a chemical in any quantity listed in 40 CFR Part 68 or any other extremely hazardous substance have a general duty to identify hazards associated with these substances and to design, operate and maintain a safe facility, in order to prevent releases and to minimize the consequences of accidental releases which may occur.

APPEAL CONDITIONS FOR OPERATING PERMIT

This Permit is an action of the MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this Permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to the MassDEP's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the Facility must continue to comply with all existing federal and state applicable requirements to which the Facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the Facility shall not be in violation of the Act for operating without a Permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the Permit is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

The Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

The MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

September 7, 2023



Mr. Patrick Bird
Director, Air Branch
USEPA Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Re: NMOC Emission Rate Report for 2022
Crapo Hill Landfill, Dartmouth, Massachusetts
MassDEP Regulated Object Account #172448

Dear Mr. Bird:

On behalf of the Greater New Bedford Regional Refuse Management District (the District), Brown and Caldwell (BC) submits this letter report in accordance with the New Source Performance Standards (NSPS) for municipal solid waste (MSW) landfills contained in 40 CFR Part 60, Subpart XXX. Specifically, this letter report provides the uncontrolled emission rate of non-methane organic compounds (NMOCs) from the Crapo Hill Landfill for calendar year of 2022.

The NMOCs emission rate was determined in accordance with the methodology contained in 40 CFR Part 60, Subpart XXX. These NSPS regulations require calculation of the annual uncontrolled NMOCs emission rate for landfills that have a maximum landfill design capacity for waste disposal of greater than or equal to 2.5 million megagrams (Mg). The Crapo Hill Landfill triggered this threshold as shown in the design report submitted to USEPA and MassDEP by BC on behalf of the District dated March 26, 2019, provided as Attachment 1. The NSPS provides a three-tiered procedure for calculating uncontrolled NMOC emission rates. If the landfill is calculated to generate less than 34 Mg per year of uncontrolled NMOCs under any of the tiered procedures, then the landfill is not subject to the control, monitoring and most reporting requirements under the NSPS. Both Tier 1 and Tier 2 procedures were followed as described below.

In accordance with the Tier 1 methodology, the uncontrolled NMOC emission rate is calculated using a first order decay equation with default parameters, combined with site-specific waste acceptance rates, to estimate uncontrolled or pre-control NMOC emissions from the landfill. BC used the model developed by the USEPA called "Landfill Gas Emissions Model" (LandGEM), which incorporates the decay equation and default parameters with site-specific waste acceptance values input by the user. The default value for NMOCs concentration contained in landfill gas corrected to 50% methane content is 4,000 ppmv as hexane. Using the default value, the result of the Tier 1 procedure indicated uncontrolled NMOCs greater than the 34 Mg threshold. Based upon the Tier 1 result, the Tier 2 calculation that allows for measured site-specific NMOC concentrations to be input to the LandGEM model to estimate the landfill's emissions was performed.

In accordance with the Tier 2 methodology under 40 CFR Part 60, Subpart XXX, the following was performed.

- **Sampling:** In accordance with EPA Methods 3C and 25C, three samples of landfill gas were collected on September 18, 2019 from the landfill gas (LFG) collection system. The collection site is located prior to control, upstream of the flare station and LFG power generating facility. Three six-liter Summa canisters each at an initial vacuum of 25 inches of mercury were connected to a sampling port in the main LFG header. LFG samples were extracted at a flow rate of approximately 350 milliliters per minute over a 5-minute period. The Summa canisters were sent to Atmospheric Analysis & Consulting, Inc. (AAC) in Ventura, California for laboratory analysis. Results for the three samples were previously submitted in the October 2019 Tier 2 Report.
- **Analyses:** AAC conducted EPA method 3C analysis to determine the concentration of fixed gases including hydrogen, oxygen, nitrogen, carbon monoxide, carbon dioxide, and methane, and EPA Method 25C analysis to determine NMOCs (as carbon) concentration contained in the LFG prior to control.
- **Calculations:**
 - The site specific NMOC concentration results from EPA Method 25C were converted from carbon to hexane basis in accordance with 40 CFR Part 60.764 – “Test methods and procedures”. The average of three samples show uncontrolled NMOCs concentration is 83 ppmv, as hexane, corrected to 50-percent methane content in LFG. The fixed gases were used to correct the concentrations of NMOCs to 50-percent methane content in LFG. The uncorrected NMOC and fixed gases for each of the three samples are shown in the analytical laboratory report provided by AAC, which was previously provided in the October 2019 Tier 2 Report.
 - The site-specific NMOC concentration results reported in the October 2019 Tier 2 Report were used in the LandGEM Model, together with the USEPA recommended input values to calculate uncontrolled NMOC quantities contained in LFG in 2022. The USEPA recommended input values included waste input rates from 1995 through 2022, methane generation rate (k) of 0.05 year⁻¹, potential methane generation capacity (L₀) of 170 cubic meters of methane per Mg waste, and the site specific NMOC concentrations in landfill gas of 83 ppmv as hexane, and a methane content of LFG of 50%.
- The results of the calculations indicate the uncontrolled **NMOC emissions of 6.96 Mg for calendar year 2022** (see LandGEM report provided as Attachment 2).

As noted previously, because the uncontrolled NMOC emissions are below the 34 Mg per year threshold as calculated by the Tier 2 methodology, the Crapo Hill Landfill is not subject to the controls, monitoring and most of the reporting requirements under the NSPS for MSW landfills contained in 40 CFR Part 60, Subpart XXX. However, the District is subject to the requirement under the NSPS to recalculate and report the uncontrolled NMOC mass emission rate annually as provided in §60.767(b)(1) and retest the site-specific uncontrolled NMOC concentration every 5 years as required thereafter.

The site-specific uncontrolled NMOC concentration is scheduled to be re-determined through sampling of the LFG in 2024.

Please contact me directly at (978) 566-3885 with any questions.

Very truly yours,

Brown and Caldwell



Robert S. Magnusson, P.E.
Senior Principal Engineer

cc: Scott Alfonse, Executive Director, Greater New Bedford Regional Refuse
Management District
Thomas Yeransian, Commonwealth Resource Management Corporation
Mark Dakers, MassDEP Solid Waste
Thomas Cushing, MassDEP Air Quality

Attachments

1. March 2019 NSPS Design Report
2. USEPA LandGEM Report and Calculations

Attachment 1

March 26, 2019 NSPS Design Report

101 Industrial Park Road, Suite 205
Taunton, MA 02780
T: 508.923.0879

March 26, 2019



Director, Office of Ecosystem Protection
U. S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Re: Amended Design Capacity Report, Crapo Hill Landfill, Dartmouth, MA
40 CFR Part 60, Subparts WWW and XXX

Dear Sir or Madam:

The Greater New Bedford Regional Refuse Management District has recently received an operating permit (Authorization to Operate) from the Massachusetts Department of Environmental Protection that increases the design capacity of the Crapo Hill Sanitary Landfill. Identifying information is as follows:

Name and address of Landfill:

Crapo Hill Sanitary Landfill
300 Samuel Barnet Boulevard
New Bedford, MA 02745
508-998-5674

(Note: Landfill is located in Dartmouth, MA but the mail address is New Bedford, MA)

Name and address of Landfill owner and operator:

Greater New Bedford Regional Refuse Management District
300 Samuel Barnet Boulevard
New Bedford, MA 02745
508-763-5924
Scott Alfonse, Executive Director

Permits issued by the Massachusetts Department of Environmental Protection for the construction and operation of the Crapo Hill Landfill include the following:

- Solid Waste Facility Permit and Authorization to Construct Phase 1, January 26, 1993, approving 69.8 acres of sanitary landfill and specifically authorizing construction of 18.6 acre Phase 1.
- Authorization to Operate Phase 1, December 28, 1994.
- Landfill Major Modification, Phase 1 Grades, February 3, 2000, authorizing a re-configuration of the Phase 1 final elevations.
- Authorization to Construct New Phase of Permitted Landfill, July 12, 2000, authorizing construction of 10 acre Phase 2, Cells #1 and #2.
- Authorization to Operate Phase 2 Cells #1 and #2, April 22, 2002.
- Authorization to Construct New Phase of Permitted Landfill, December 15, 2006, authorizing construction of 9.5 acre Phase 2, Cells #3 and #4.
- Authorization to Operate Phase 2 Cells #3 and #4, September 8, 2008.

- Renewal of Authorization to Operate Phase 2, Cells #3 and #4, June 18, 2013
- Authorization to Construct New Phase of Permitted Landfill, October 23, 2014, authorizing construction of 12.13 acre Phase 2, Cells #5 and #6.
- Authorization to Operate Phase 2 Cell #5, March 8, 2016
- Authorization to Operate Phase 2 Cell #6, February 12, 2019

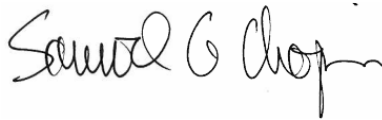
The total permitted waste disposal capacity of the landfill is 2,809,271 cubic meters. A calculation of this permitted capacity is attached. Also attached is a site locus map.

The Crapo Hill Landfill is currently provided with an active landfill gas collection and control system comprising 64 vertical extraction wells, approximately 30,000 feet of horizontal gas collectors, a 2,000 scfm open flare, and a landfill gas-fueled electric power generating plant. In addition, passive vent flares are used on the Landfill to provide localized landfill gas control. The landfill gas collection and control system is fully permitted by the Massachusetts Department of Environmental Protection.

Please contact Scott Alfonse, Executive Director, Greater New Bedford Regional Refuse Management District, or me at 508-819-1431 if you have any questions.

Very truly yours,

Brown and Caldwell



Samuel G. Chapin, P.E.
Managing Engineer

SGC

cc: Greater New Bedford Regional Refuse Management District

Attachments:
Site Locus Map
Design Capacity Calculation

Crapo Hill Landfill					
Dartmouth, MA					
Design Capacity					
Landfill Area	Volumes in cubic yards	Notes/Data Source			
Phase 1					
Gross Volume	1,286,000	Camp, Dresser & McKee Permit Documents			
Final Cover	63,243	2 foot thick over 19.6 acre slope area			
Net Usable Volume	1,222,757				
Daily and Intermediate Cover	330,144	Average 27% by volume over life of landfill			
Net Waste Volume	892,613				
Phase 1 Permit Modification					
Gross Volume	275,000	CGK Environmental calculation			
Final Cover		no increase in final cover			
Net Usable Volume	275,000				
Daily and Intermediate Cover	74,250	Average 27% by volume over life of landfill			
Net Waste Volume	200,750				
Phase 2 Cells #1 and #2					
Gross Volume	977,638	Brown and Caldwell digital modeling			
Final Cover	33,880	2 foot thick over 10.5 acre slope area			
Net Usable Volume	943,758				
Daily and Intermediate Cover	254,815	Average 27% by volume over life of landfill			
Net Waste Volume	688,943				
Phase 2 Cells #3 and #4					
Gross Volume	971,500	Brown and Caldwell digital modeling			
Final Cover	32,423	2 foot thick over 10.0 acre slope area			
Net Usable Volume	939,077				
Daily and Intermediate Cover	253,551	Average 27% by volume over life of landfill			
Net Waste Volume	685,526				
Phase 2 Cell #5					
Gross Volume	455,587	Brown and Caldwell digital modeling			
Final Cover	27,689	2 foot thick over 8.58 acre slope area			
Net Usable Volume	427,898				
Daily and Intermediate Cover	106,975	Average 25% by volume over life of landfill			
Net Waste Volume	320,924				
Phase 2 Cell #6					
Gross Volume	1,198,713	Brown and Caldwell digital modeling			
Final Cover	18,160	2 foot thick over 5.63 acre slope area			
Net Usable Volume	1,180,553				
Daily and Intermediate Cover	295,138	Average 25% by volume over life of landfill			
Net Waste Volume	885,415				
Total Waste Volume					
(Design Capacity)	3,674,170				
Waste Volume in cubic meters					
(Design Capacity)	2,809,271	1 cu. yd. = 0.7646 cu. meter			
Gross Volume, cubic yards	5,164,438				
Gross Volume, cubic meters	3,948,729				



BROWN AND CALDWELL

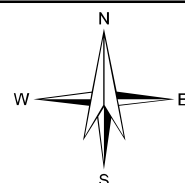
101 Industrial Park Road, Suite 205
Taunton, Massachusetts, 02780
Tel. (508) 923-0879 Fax. (508) 923-0894

Note: USGS Quad Maps obtained from MassGIS scanned 5-CDset, dated July 1996. All other data from MassGIS Data Viewer software, updated May 2009.

FIGURE 1 SITE LOCATION MAP

Crape Hill Sanitary Landfill
Dartmouth, Massachusetts

Prepared for:
Greater New Bedford Regional
Refuse Management District



0 500 1,000 2,000
Feet

Date: 05/2014

Project: 144674

Scale: 1" = 2000'

File: Site locus

Attachment 2

USEPA LandGEM Report and Calculations



Summary Report

Landfill Name or Identifier: Crapo Hill Landfill

Date: Thursday, August 24, 2023

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^n \sum_{j=0.1}^1 k L_o \left(\frac{M_i}{10} \right) e^{-k t_{ij}}$$

Where,

Q_{CH_4} = annual methane generation in the year of the calculation ($m^3/year$)

i = 1-year time increment

n = (year of the calculation) - (initial year of waste acceptance)

j = 0.1-year time increment

k = methane generation rate ($year^{-1}$)

L_o = potential methane generation capacity (m^3/Mg)

M_i = mass of waste accepted in the i^{th} year (Mg)

t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (decimal years, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at <http://www.epa.gov/ttnatw01/landfill/landflpg.html>.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for conventional landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review**LANDFILL CHARACTERISTICS**

Landfill Open Year **1995**
 Landfill Closure Year (with 80-year limit) **2022**
Actual Closure Year (without limit) **2022**
 Have Model Calculate Closure Year? **No**
 Waste Design Capacity **2,628,523** *megagrams*

MODEL PARAMETERS

Methane Generation Rate, k **0.050** *year⁻¹*
 Potential Methane Generation Capacity, L₀ **170** *m³/Mg*
 NMOC Concentration **83** *ppmv as hexane*
 Methane Content **50** *% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1: **NMOC**
 Gas / Pollutant #2:
 Gas / Pollutant #3:
 Gas / Pollutant #4:

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	(short tons/year)	(Mg)	(short tons)
1995	86,851	95,536	0	0
1996	99,742	109,716	86,851	95,536
1997	100,430	110,472	186,593	205,252
1998	104,169	114,585	287,022	315,724
1999	98,743	108,617	391,191	430,310
2000	105,423	115,966	489,934	538,927
2001	102,923	113,216	595,357	654,893
2002	104,326	114,758	698,280	768,108
2003	101,223	111,345	802,606	882,867
2004	103,152	113,467	903,829	994,212
2005	103,715	114,087	1,006,981	1,107,679
2006	96,234	105,858	1,110,696	1,221,766
2007	92,011	101,212	1,206,931	1,327,624
2008	85,929	94,522	1,298,942	1,428,836
2009	85,157	93,672	1,384,870	1,523,357
2010	89,291	98,220	1,470,027	1,617,030
2011	71,357	78,493	1,559,318	1,715,249
2012	90,124	99,136	1,630,674	1,793,742
2013	88,383	97,221	1,720,798	1,892,878
2014	84,675	93,143	1,809,181	1,990,099
2015	96,915	106,607	1,893,856	2,083,242
2016	92,629	101,892	1,990,772	2,189,849
2017	96,735	106,409	2,083,401	2,291,741
2018	95,786	105,365	2,180,136	2,398,150
2019	90,538	99,592	2,275,922	2,503,514
2020	89,306	98,237	2,366,460	2,603,106
2021	89,596	98,556	2,455,766	2,701,343
2022	83,161	91,477	2,545,362	2,799,898
2023	0	0	2,628,523	2,891,375
2024	0	0	2,628,523	2,891,375
2025	0	0	2,628,523	2,891,375
2026	0	0	2,628,523	2,891,375
2027	0	0	2,628,523	2,891,375
2028	0	0	2,628,523	2,891,375
2029	0	0	2,628,523	2,891,375
2030	0	0	2,628,523	2,891,375
2031	0	0	2,628,523	2,891,375
2032	0	0	2,628,523	2,891,375
2033	0	0	2,628,523	2,891,375
2034	0	0	2,628,523	2,891,375

Results

Year	NMOC					
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
1995	0	0	0	0	0	0
1996	4.295E-01	1.198E+02	8.051E-03	0.000E+00	0.000E+00	0.000E+00
1997	9.019E-01	2.516E+02	1.691E-02	0.000E+00	0.000E+00	0.000E+00
1998	1.355E+00	3.779E+02	2.539E-02	0.000E+00	0.000E+00	0.000E+00
1999	1.804E+00	5.032E+02	3.381E-02	0.000E+00	0.000E+00	0.000E+00
2000	2.204E+00	6.149E+02	4.131E-02	0.000E+00	0.000E+00	0.000E+00
2001	2.618E+00	7.304E+02	4.907E-02	0.000E+00	0.000E+00	0.000E+00
2002	2.999E+00	8.368E+02	5.622E-02	0.000E+00	0.000E+00	0.000E+00
2003	3.369E+00	9.399E+02	6.315E-02	0.000E+00	0.000E+00	0.000E+00
2004	3.705E+00	1.034E+03	6.946E-02	0.000E+00	0.000E+00	0.000E+00
2005	4.035E+00	1.126E+03	7.563E-02	0.000E+00	0.000E+00	0.000E+00
2006	4.351E+00	1.214E+03	8.156E-02	0.000E+00	0.000E+00	0.000E+00
2007	4.615E+00	1.287E+03	8.650E-02	0.000E+00	0.000E+00	0.000E+00
2008	4.845E+00	1.352E+03	9.081E-02	0.000E+00	0.000E+00	0.000E+00
2009	5.033E+00	1.404E+03	9.435E-02	0.000E+00	0.000E+00	0.000E+00
2010	5.209E+00	1.453E+03	9.764E-02	0.000E+00	0.000E+00	0.000E+00
2011	5.397E+00	1.506E+03	1.012E-01	0.000E+00	0.000E+00	0.000E+00
2012	5.486E+00	1.531E+03	1.028E-01	0.000E+00	0.000E+00	0.000E+00
2013	5.664E+00	1.580E+03	1.062E-01	0.000E+00	0.000E+00	0.000E+00
2014	5.825E+00	1.625E+03	1.092E-01	0.000E+00	0.000E+00	0.000E+00
2015	5.960E+00	1.663E+03	1.117E-01	0.000E+00	0.000E+00	0.000E+00
2016	6.149E+00	1.715E+03	1.153E-01	0.000E+00	0.000E+00	0.000E+00
2017	6.307E+00	1.759E+03	1.182E-01	0.000E+00	0.000E+00	0.000E+00
2018	6.478E+00	1.807E+03	1.214E-01	0.000E+00	0.000E+00	0.000E+00
2019	6.635E+00	1.851E+03	1.244E-01	0.000E+00	0.000E+00	0.000E+00
2020	6.760E+00	1.886E+03	1.267E-01	0.000E+00	0.000E+00	0.000E+00
2021	6.873E+00	1.917E+03	1.288E-01	0.000E+00	0.000E+00	0.000E+00
2022	6.980E+00	1.947E+03	1.308E-01	0.000E+00	0.000E+00	0.000E+00
2023	7.054E+00	1.967E+03	1.322E-01	0.000E+00	0.000E+00	0.000E+00
2024	6.707E+00	1.871E+03	1.257E-01	0.000E+00	0.000E+00	0.000E+00
2025	6.380E+00	1.780E+03	1.196E-01	0.000E+00	0.000E+00	0.000E+00
2026	6.068E+00	1.693E+03	1.138E-01	0.000E+00	0.000E+00	0.000E+00
2027	5.772E+00	1.610E+03	1.082E-01	0.000E+00	0.000E+00	0.000E+00
2028	5.491E+00	1.532E+03	1.029E-01	0.000E+00	0.000E+00	0.000E+00
2029	5.223E+00	1.457E+03	9.791E-02	0.000E+00	0.000E+00	0.000E+00
2030	4.968E+00	1.386E+03	9.313E-02	0.000E+00	0.000E+00	0.000E+00
2031	4.726E+00	1.318E+03	8.859E-02	0.000E+00	0.000E+00	0.000E+00
2032	4.496E+00	1.254E+03	8.427E-02	0.000E+00	0.000E+00	0.000E+00
2033	4.276E+00	1.193E+03	8.016E-02	0.000E+00	0.000E+00	0.000E+00
2034	4.068E+00	1.135E+03	7.625E-02	0.000E+00	0.000E+00	0.000E+00
2035	3.869E+00	1.079E+03	7.253E-02	0.000E+00	0.000E+00	0.000E+00
2036	3.681E+00	1.027E+03	6.899E-02	0.000E+00	0.000E+00	0.000E+00
2037	3.501E+00	9.768E+02	6.563E-02	0.000E+00	0.000E+00	0.000E+00
2038	3.330E+00	9.291E+02	6.243E-02	0.000E+00	0.000E+00	0.000E+00
2039	3.168E+00	8.838E+02	5.938E-02	0.000E+00	0.000E+00	0.000E+00
2040	3.013E+00	8.407E+02	5.649E-02	0.000E+00	0.000E+00	0.000E+00
2041	2.867E+00	7.997E+02	5.373E-02	0.000E+00	0.000E+00	0.000E+00
2042	2.727E+00	7.607E+02	5.111E-02	0.000E+00	0.000E+00	0.000E+00
2043	2.594E+00	7.236E+02	4.862E-02	0.000E+00	0.000E+00	0.000E+00
2044	2.467E+00	6.883E+02	4.625E-02	0.000E+00	0.000E+00	0.000E+00

NMOC Results
2022 6.96 Mg/yr

Exhibit 9:
RECs Agreements

This Confirmation Letter describes a transaction between Buyer and Seller for the sale, purchase and Delivery of Renewable Energy Certificates (“**RECs**”) pursuant to and in accordance with the terms of the Renewable Energy Certificate Purchase and Sale Agreement between the Parties dated December 4, 2019 (the “**Agreement**”) and constitutes part of and is subject to the terms and provisions of the Agreement. Provided, that, to the extent there is a conflict between a provision of the Agreement and this Confirmation Letter, the terms of this Confirmation Letter shall control for the purposes of this transaction.

Initially capitalized terms used and not otherwise defined herein are defined in the Agreement.

Basic Commercial Terms:

Trade Date:	June 22, 2023
Transaction Reference:	30839
Seller:	CommonWealth New Bedford Energy LLC
Buyer:	[REDACTED]
Facility:	Seller's choice
Eligible Renewable Resource Type:	Seller's choice
Geography:	Seller's choice
Minimum Online Date:	On or after January 1, 1998
Period Type [Generation, Reporting]:	Generation
Time Period:	January 01, 2023 - December 31, 2023
Product Quantity (REC):	750
Contract Price (\$/REC):	[REDACTED]

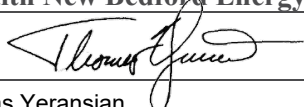
Product Specific Terms:

Applicable Standard(s):	MA Class I as defined in 225 CMR 14.00 (Class I)
Environmental Attributes retained by Seller, if any:	None except Seller shall retain full title to, interest, rights and claim over all environmental attributes associated with the destruction, by the Facility, of methane contained in the landfill gas or biogas.
Media Rights Conferred [yes, no]	No

Delivery Terms:

Delivery Date:	On or before June 1, 2024
Delivery Obligation [Firm, Unit Contingent, Project Contingent]:	Firm
Applicable Tracking System:	NEPOOL GIS
Buyer Tracking Account Name:	[REDACTED]
Attestation Form:	None - Tracking System only
Buyer Delivery Contact [Name, Email]:	Trade Operations, Settlements@[REDACTED]
Seller Delivery Contact [Name, Email]:	Thomas Yeransian, tyeransian@crmcx.com

The Parties agree to the transaction set forth herein and each Party represents that the person signing this Confirmation Letter on its behalf is authorized to execute on behalf of the Party for whom they sign.

[REDACTED]	CommonWealth New Bedford Energy LLC
Signature	Signature 
Name	Thomas Yeransian
	Managing Member
	July 5, 2023

Confirmation Letter #3

This Confirmation Letter describes a transaction between Buyer and Seller for the sale, purchase and Delivery of Renewable Energy Certificates (“**RECs**”) pursuant to and in accordance with the terms of the Renewable Energy Certificate Purchase and Sale Agreement between the Parties dated December 4, 2019 (the “**Agreement**”) and constitutes part of and is subject to the terms and provisions of the Agreement. Provided, that, to the extent there is a conflict between a provision of the Agreement and this Confirmation Letter, the terms of this Confirmation Letter shall control for the purposes of this transaction.

Initially capitalized terms used and not otherwise defined herein are defined in the Agreement.

Basic Commercial Terms:

Trade Date:	December 15, 2020
Transaction Reference:	16899
Seller:	CommonWealth New Bedford Energy LLC
Buyer:	[REDACTED]
Facility:	Seller's choice
Eligible Renewable Resource Type:	Seller's choice
Geography:	Seller's choice
Period Type [Generation, Reporting]:	Generation
Time Period:	January 01, 2023 - December 31, 2023
Product Quantity (REC):	2,500
Contract Price (\$/REC):	[REDACTED]

Product Specific Terms:

Applicable Standard(s):	Class III as defined in N.H. Rev. Stat. Ann. Sec. 362-F:1 et seq.; Class I as defined in Conn. Gen. Stat. § 16-245a et seq.; MA Class I as defined in 225 CMR 14.00 (Class I); Maine Class I as defined in CMR 65-407-311; Maine Class IA as defined in CMR 65-407-311
Environmental Attributes retained by Seller, if any:	None except Seller shall retain full title to, interest, rights and claim over all environmental attributes associated with the destruction, by the Facility, of methane contained in the landfill gas or biogas.
Media Rights Conferred [yes, no]	No

Delivery Terms:

Delivery Date:	On or before June 1, 2024
Delivery Obligation [Firm, Unit Contingent, Project Contingent]:	Firm
Applicable Tracking System:	NEPOOL GIS
Buyer Tracking Account Name:	[REDACTED]
Attestation Form:	None - Tracking System only
Buyer Delivery Contact [Name, Email]:	Trade Operations, Settlements@[REDACTED]
Seller Delivery Contact [Name, Email]:	Thomas Yeransian, tyeransian@crmex.com

The Parties agree to the transaction set forth herein and each Party represents that the person signing this Confirmation Letter on its behalf is authorized to execute on behalf of the Party for whom they sign.

[REDACTED]		CommonWealth New Bedford Energy LLC
Signature	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

REC CONFIRMATION

The purchase and sale (the “**Transaction**”) confirmed by this Confirmation is subject to the Terms and Conditions for the Sale and Purchase of Renewable Energy Credits, attached hereto as Exhibit A. Capitalized terms are defined in the Definitions section. *If you accept the terms of this Transaction, please sign below indicating your acceptance and send this Confirmation back to Sol Systems.*

Transaction

Transaction Date	April 17, 2023
Buyer	
Seller	CommonWealth New Bedford Energy, LLC
RECs	Renewable Energy Certificates that qualify for MA Class 1 & CT Class 1. (“ RECs ”).
Renewable Portfolio Standard(s)	The Connecticut Renewable Energy Standard as defined in Conn. Gen. Stat. § 16-245a et seq., as amended, including by amended by Public Act 13-303 and Conn. Gen Stat. § 16-1(a)(20), and all associated orders, rules, and regulations promulgated with respect thereto, as in effect on the date of this Transaction; The Massachusetts Renewable Energy Portfolio Standard as defined in M. G. L. ch 25A § 11F, as amended, and all associated orders, rules, and regulations promulgated with respect thereto, including 225 CMR 14.00 et seq. and 225 CMR 16.00 et seq., as in effect on the date of this Transaction. (“ RPS ”)
Vintage(s) (or Reporting Year(s))	2023
REC Quantity	10,000 Firm and 5,000 Unit Contingent
Contract Price	
System Location(s)	All systems identified herein will be part of the portfolio (the “ Systems ”): Not Applicable For avoidance of doubt, the specified volume of RECs must be produced from the specific Systems identified in the System Location(s) section of this Confirmation.
Delivery Date (or Annual Delivery Date)	On or before June 1, 2024
Delivery Obligation	Firm. With respect to Seller’s delivery obligation under this Confirmation, the term “ Firm ” means that Seller guarantees that it shall deliver the specified fixed volume of RECs for each applicable Reporting Year indicated to Buyer without excuse. Force Majeure shall not excuse performance of Seller’s Firm delivery obligation under the Transaction; and the term “ Unit Contingent ” means Sellers obligation to deliver the RECs shall be excused for any reason, including without

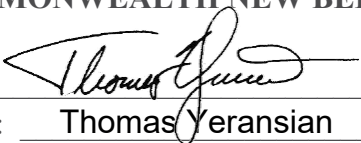
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	limitation, limited availability of landfill gas quantities supplied to the landfill gas-to-energy facility, disruptions in the availability of necessary operating equipment or supplies, and/or operating failures or other shutdowns of the local electric grid.
Delivery Method	The RECs shall be delivered via NEPOOL-GIS (" <i>Applicable Tracking System</i> ").
Notices to [REDACTED]	[REDACTED]
Notices to counterparty	CommonWealth New Bedford Energy, LLC (CNBE) Thomas Yeransian Principal, CommonWealth Resource Management Corporation Managing Member of CNBE 1 Bornheimer Place Scarborough, Maine 04074 Email: tyeransian@crmex.com Phone: (508) 339-3074

Upon receipt of this Confirmation, please ensure that the details are correct and that you accept this Transaction.

Accepted this [24] day of [April 2023] by:

COMMONWEALTH NEW BEDFORD ENERGY, LLC

By: 
 Name: Thomas Yeransian
 Title: Principal, CommonWealth Resource Management Corporation, Managing Member of CNBE

Ratified this [____] day of [____] by:

[REDACTED]
 [REDACTED]
 [REDACTED]

April 21, 2023

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EXHIBIT A
TERMS AND CONDITIONS FOR THE SALE AND PURCHASE
OF RENEWABLE ENERGY CREDITS

I. Transaction

- 1.1 Single Agreement. These terms and conditions ("***Terms and Conditions***") for the sale and purchase of RECs and the REC Confirmation to which these Terms and Conditions are attached (the "***Confirmation***") shall constitute a single integrated agreement between the Parties (the "***Agreement***").
- 1.2 Procedure. Subject to the Confirmation(s) and these Terms and Conditions, Seller shall sell to Buyer and Buyer shall purchase from Seller the specified RECs at the Contract Price ("***Purchased RECs***").
- 1.3 Confirmation and Binding Agreement. No Confirmation will be binding unless signed by both Parties.
- 1.4 Priority. In the event of any inconsistency between these Terms and Conditions and the Confirmation, the Confirmation will prevail for the purposes of the relevant Confirmation.

II. Transfer

- 2.1 Transfer of Purchased RECs and Title. Seller shall sell, transfer, convey and assign to Buyer all of Seller's right, title and interest to all Purchased RECs defined by the respective RPS, including the right to report the generation attribute of electrical energy output authorized under the RPS. Seller shall transfer the Purchased RECs to Buyer via the Applicable Tracking System, so that all rights, title to and interest in the Purchased RECs shall transfer from Seller to Buyer, free and clear of any claim of title or interest by any other person. Title and interest in the Purchased RECs shall transfer upon delivery to the Buyer's Account. Seller shall retain full title to, and interest, rights and claim over all environmental attributes associated with the destruction by the Commonwealth New Bedford Energy LLC landfill gas to energy facility, of methane contained in the landfill gas or biogas.
- 2.2 Annual Delivery Shortfall. On or before each Annual Delivery Date during the term of Seller's delivery obligations under this Agreement, Seller shall deliver to Buyer a number of RECs in an amount that is no less than the Firm volume quantity applicable for each Reporting Year. In the event that the Purchased RECs in any Reporting Year fail to reach the Firm volume quantity for such Reporting Year (the amount by which the Firm volume quantity exceeded the Purchased RECs, a "***Shortfall***"), then, within ten (10) business days of each Annual Delivery Date, Seller shall deliver to Buyer a quantity of RECs equal in type, character and amount, and which meet all other requirements pursuant to the RPS and this Agreement, as the Shortfall ("***Substitute RECs***"), and upon such delivery of Substitute RECs in full, Seller shall be deemed to have satisfied the Firm volume quantity requirement for the applicable Reporting Year. If Seller fails to deliver Substitute RECs within 15 business days, then Seller shall be obligated to pay to Buyer damages as set forth in Section 5.2(iv)(a).
- 2.3 Cooperation. In all cases, the Parties will cooperate and execute such documentation as is reasonably necessary to carry out the provisions of this Agreement and to allow Buyer to transact within the Applicable Tracking System for all Purchased RECs and other related procedural matters handled by the Applicable Tracking System. Without limiting the generality of the foregoing, Seller shall take all actions and execute and deliver all documents reasonably requested by Buyer to effectuate delivery of the Purchased RECs to Buyer or, if directed by Buyer, any designee of Buyer, including, if requested, the execution of a transfer certificate or certification. Seller further agrees to take any actions and execute and deliver any documents reasonably requested by Buyer to comply with the requirements of the RPS and the Applicable Tracking System, and any associated regulatory or administration obligations relating to the registration, verification, or certification of any Purchased RECs, and the transfer of the ownership of Purchased RECs from Seller