MONITORING REPORT #2018 FOR THE GREATER NEW BEDFORD LFG UTILIZATION PROJECT DARTMOUTH, MASSACHUSETTS

FOR VERIFICATION PERIOD JANUARY 1, 2019 THROUGH SEPTEMBER 30, 2019

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CommonWealth Resource Management Corporation

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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 of time 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 destructed 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 56,788 metric tons of CO_2e for the verification period January 1, 2019 through September 30, 2019.

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

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1.4 Other Entities Involved in the Project

None

1.5 Project Start Date

January 1, 2002

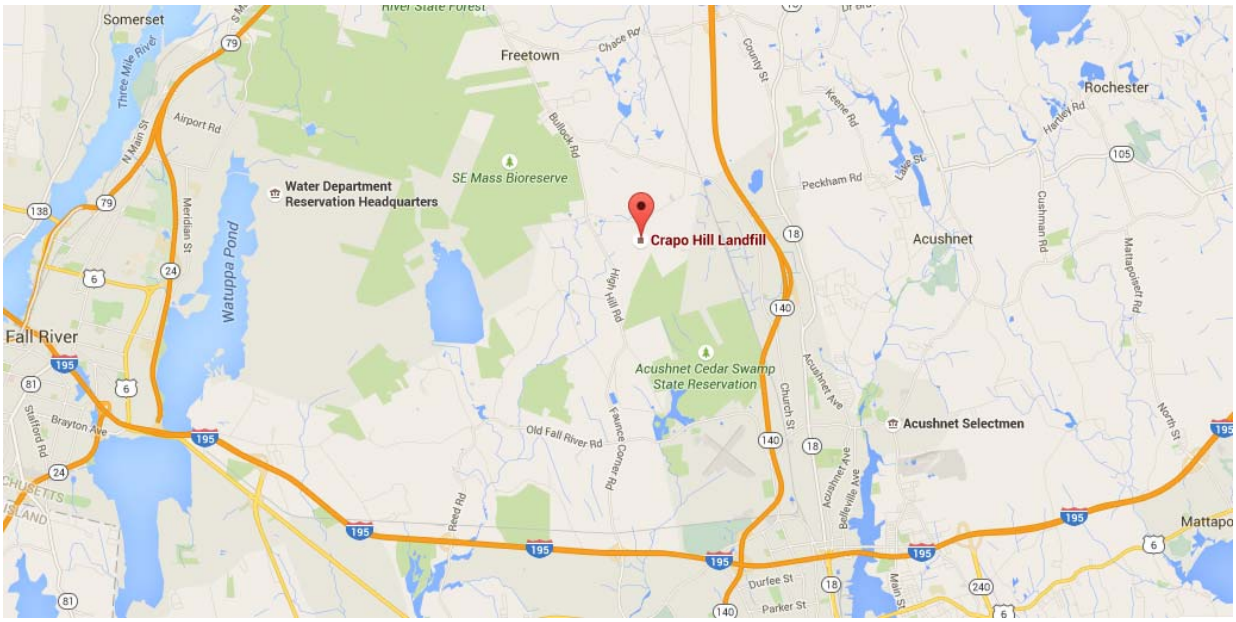
1.6 Project Crediting Period

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

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

1.7 Project Location

The Project is at the Crapo Hill Landfill located west of Samuel Barnet 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 Other Programs

- Emission Trading Programs and Other Binding Limits: Not Applicable.
- Other Forms of Environmental Credit: None. The Project has not sought or received another form of GHG-related environmental credit for the direct methane emissions reductions that result from the destruction of methane by the Project.
- 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.
- 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, 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.

1.10 Sustainable Development

The project is a renewable energy project that supports sustainable development in the United States.

2 IMPLEMENTATION STATUS

2.1 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 very limited operation during the current verification period and no emission reductions are claimed from flaring.

2.2 Deviations

2.2.1 Methodology Deviations

The following methodology deviations were previously validated and approved for the Project:

- 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.

Additional deviations from the latest methodology are:

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. his 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 two times each month. 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 $F_{CH4,BL,y}$ 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 v3.7, Section 3.5.1.
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 v3.7, Section 3.5.1.

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

2.2.2 Project Description Deviations

None.

2.3 Grouped Project

Not Applicable.

2.4 Safeguards

2.4.1 No Net Harm

None.

2.4.2 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.

3 DATA AND PARAMETERS

3.1 Data and Parameters Available at Validation

4 DATA / PARAMETER	OX_{top_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	GWP_{CH4}
Data unit	T CO_2e / t CH_4
Description	Global warming potential of methane
Source of data	IPCC – Fourth Assessment Report
Value applied:	25
Justification of choice of data or description of measurement methods and procedures applied	Updated from 21 to 25 pursuant to (1) the re-validation report dated May 16, 2016, and (2) the VCS approval of updated global warming potentials provided in the IPCC's Fourth Assessment Report (Sections 3.15.3 and 4.8.3).
Purpose of Data	Calculation of baseline emissions
Comments	No comments

Data / Parameter	Regulatory requirements
Data unit	Not applicable
Description	Regulatory requirements applicable to the Landfill and Project
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:	VCS
Value applied:	50
Purpose of the data:	Baseline and emissions reductions
Any comment:	None

Data / Parameter	Fuel Use by the Emergency Generator
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

3.2 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, %
Monitoring equipment:	California Analytical 602P, Serial # S07002

Data Unit / Parameter:	Methane content of gas (LFG and biogas)
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.
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
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	Thermocouple

Data Unit / Parameter:	Temperature of gas (LFG and biogas) to engines
procedures to be applied:	
Frequency of monitoring/recording:	Continuous
Value monitored:	Temperature
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
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:	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
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 at totalization of biogas volume
Value monitored:	Methane concentration, %
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:	None

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
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:	None

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
Monitoring equipment:	Thermocouple, Omega or equivalent
QA/QC procedures to be applied:	Field calibrated using thermometer.
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:	None

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

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:	None

Data Unit / Parameter:	Volume of LFG to the flare
Data unit:	Standard cubic feet per minute
Description:	Quantity of landfill gas combusted in 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
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	Twice a month (approximately every two weeks)

monitoring/recording	
Value applied:	5% was used in the ex-ante calculation based on data June 2013 through September 2019
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.
Value applied	0.260 tonnes CO2/MWh
Monitoring equipment	None
QA/QC procedures to be applied	None
Purpose of data	Calculation of project emissions
Calculation method	570.90 lbs CO2/MWH*0.454545455 kg/lbs*0.001 tonnes/kg = 0.260 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
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	None

procedures to be applied	
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
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: 0 MWh/year based on 2019 usage
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:	$FC_{Diesel,y}$
Data unit:	Gallons/year
Description:	Amount of diesel consumed by the emergency generator
Source of data:	Run time log
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 2019 usage, the engine ran for 55.7 hours. Using a conservative assumption that the engine operated at ¾ 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:	NCV_{diesel}
Data unit:	MMBtu/ gallon
Description:	Energy content of the 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 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
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 CO2,Diesel,y
Data unit:	t CO2 /MMBtu
Description:	CO2 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 CO2 /MMBtu
Monitoring equipment:	N/A
QA/QC procedures to be applied:	N/A
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.

3.3 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.

3.3.1 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 on the basis of 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

Typically, a trained operator balances the landfill gas collection wellfield. During balancing the system, the operator measures and records the methane content, carbon dioxide content, oxygen content, landfill gas flow rate, landfill gas temperature, static pressure, and balance gas content. 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.

3.3.2 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.

3.3.3 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.

3.3.4 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 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.

4 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

4.1 Baseline Emissions

See attached Exhibits 1 through 4.

4.2 Project Emissions

See attached Exhibits 1 through 4.

4.3 Leakage

See attached Exhibits 1 through 4.

4.4 Net GHG Emission Reductions and Removals

See attached Exhibits 1 through 4.

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
2019 (January 1 – September 30)	56,788	0	0	56,788
Total	56,788	0	0	56,788

APPENDIX A: SEE ATTACHED EXHIBITS 1 THROUGH 7.

1. Exhibit 1 summarizes the emission reductions credits in CO2 equivalent tons in accordance with Project Methodology from January 1, 2019 through September 30, 2019.

2. Exhibit 2 provides gas totalizer readings, and methane content readings for the period January 1, 2019 through September 30, 2019, and calculations using the verification protocols under the VCS to obtain emission reductions from methane oxidation during energy generation.

3. Exhibit 3 provides LFG totalizer readings, and methane content readings for the periods from January 1, 2019 through September 30, 2019, and calculations using the verification protocols under the VCS to obtain emission reductions from methane oxidation during flaring.

4. Exhibit 4 provides 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 (UNFCCC) under the Clean Development Mechanism (CDM).

5. Exhibit 5 is a compilation of the field data logs recording the total gas volumes and methane content readings for the identified reporting period.

6. Exhibit 6 documents calibration of the LFG and biogas flow rates and composition meters for the periods.

7. Exhibit 7 provides Attestation Statement

Exhibit 1

The emission reductions credits in CO2 equivalent tons in accordance with Project Methodology from January 1, 2019 through September 30, 2019.

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	50.0%
Methane, molecular weight	16
Pounds per metric ton	2,205
Gas constant (scf per lb-mole)	385
Global Warming Potential (GWP) methane	25

Summary results

	Unit	
Electricity generation		
Start date		1-Jan-19
End date		30-Sep-19
Methane delivered	scf	137,750,032
Emission Reductions	metric tons CO2e	**64,906**
Flaring		
Start date		1-Jan-19
End date		30-Sep-19
Methane delivered	scf	-
Emission Reductions	metric tons CO2e	**-**
Subtotal		
Methane delivered	scf	137,750,032
Emission Reductions	metric tons CO2e	**64,906**
Deductions		
Oxidation potential	metric tons CO2e	6,491
District Initial System	metric tons CO2e	1,623
Electricity use utility and diesel backup	metric tons CO2e	5
Total		
Emission Reductions eligible under VCS program	metric tons CO2e	**56,788**

Exhibit 2

Gas totalizer readings, and methane content readings for the period January 1, 2019 through September 30, 2019, 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
Pounds to metric ton	2,205
Gas constant, scf per lb-mole	385

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 3, October 19, 2016, v3.6

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-19													
1-Jan-19	31-Jan-19	14,592	-	14,592	14,418,639	14,418,639	272	272	100.0%	272	272	25	6,794	6,794
1-Feb-19	28-Feb-19	27,850	14,592	13,258	13,100,792	27,519,431	247	519	100.0%	247	519	25	6,173	12,967
1-Mar-19	31-Mar-19	42,794	27,850	14,944	14,766,798	42,286,229	278	797	100.0%	278	797	25	6,958	19,925
1-Apr-19	30-Apr-19	57,068	42,794	14,274	14,104,743	56,390,972	266	1,063	100.0%	266	1,063	25	6,646	26,571
1-May-19	31-May-19	73,467	57,068	16,399	16,204,545	72,595,517	305	1,368	100.0%	305	1,368	25	7,635	34,206
1-Jun-19	30-Jun-19	89,013	73,467	15,546	15,361,660	87,957,178	290	1,658	100.0%	290	1,658	25	7,238	41,444
1-Jul-19	31-Jul-19	105,574	89,013	16,561	16,364,625	104,321,802	308	1,966	100.0%	308	1,966	25	7,711	49,155
1-Aug-19	31-Aug-19	122,264	105,574	16,690	16,492,095	120,813,897	311	2,277	100.0%	311	2,277	25	7,771	56,926
1-Sep-19	30-Sep-19	139,403	122,264	17,139	16,936,135	137,750,032	319	2,596	100.0%	319	2,596	25	7,980	64,906
1-Oct-19	31-Oct-19	139,403	139,403	-	-	137,750,032	0	2,596	100.0%	-	2,596	25	-	64,906
1-Nov-19	30-Nov-19	139,403	139,403	-	-	137,750,032	0	2,596	100.0%	-	2,596	25	-	64,906
1-Dec-19	31-Dec-19	139,403	139,403	-	-	137,750,032	0	2,596	100.0%	-	2,596	25	-	64,906

Exhibit 3

LFG totalizer readings, and methane content readings for the periods from January 1, 2019 through September 30, 2019, 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
Pounds to metric ton	2,205
Gas constant, scf per lb-mole	385

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 3, October 19, 2016, v3.6

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-19			-												
1-Jan-19	31-Jan-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Feb-19	28-Feb-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Mar-19	31-Mar-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Apr-19	30-Apr-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-May-19	31-May-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Jun-19	30-Jun-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Jul-19	31-Jul-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Aug-19	31-Aug-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Sep-19	30-Sep-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Oct-19	31-Oct-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Nov-19	30-Nov-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-
1-Dec-19	31-Dec-19	-	-	-	-	-	0	0	50%	-	-	25	-	-	-	-

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 (UNFCCC) under the Clean Development Mechanism (CDM).

EXHIBIT 4
EX Ante Estimates of Annual Emissions Reductions

	Formula variables	Value used	Units	Source if appropriate
$ER_y = BE_y - PE_y$				
56,609	BE_y	see below	tCO2e/period	
	PE_y	4.79	tCO2e/period	See Electricity Tab + Emergency Generator Tab
$BE_y = BE_{CH4,y}$				
56,613	$BE_{CH4,y}$	see below	tCO2e/period	
$BE_{CH4,y} = ((1-OX_{top_layer}) \times F_{CH4,PJ,y} - F_{CH,BL,y}) \times GWP_{CH4}$				
56,613	OX_{top_layer}	0.1		ACM001 Methodology value
	GWP_{CH4}	25	tCO2e / tCH4	IPCC Value - 4th assessment report
	$F_{CH4,PJ,y}$	see below	t CH4/period	
	$F_{CH,BL,y}$	see below	t CH4/period	
$F_{CH4,PJ,y} = F_{CH4,flared,y} + F_{CH4,EL,y}$				
2,588	$F_{CH4,flared,y}$	0	t CH4/period	See Exhibit 3 tab
	$F_{CH4,EL,y}$	2588	t CH_4/period	See Exhibit 2 tab
$F_{CH4,BL,y} = F_{CH4,BL,sys,y}$				
$F_{CH4,BL,sys,y} = \%DistrictInitialSystem \times F_{CH4,PJ,y}$	%DistrictInitial System	5		See DistrictInitialSystemTab
65	$F_{CH4,PJ,y}$	see above	t CH4/period	
		50%	Methane oxidation efficiency for flare	

Supporting Information for Exhibit 4

Fossil Fuel Project Emissions

Emergency Generator - Diesel Use

Gallons of Diesel Consumed (1 year Actual)

468 FC_{Diesel} = Number of hours run * Gallons used/hour

$COEF_{Diesel,2015} = NCV_{Diesel,2015} * EF_{CO2,Diesel,2015}$

$COEF_{Diesel,2015}$ 0.010229 See inputs on USEPA Data Conversions Tab

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

$PE_{FC,2010}$ 4.79 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)
During 2019, the generator ran 55.7 hours (see log sheet)
The generator requires 8.4 gallons/hour running at 3/4 Load (see estimate fuel consumption)

55.7 hours* 8.4 gallons/hour
467.88 gallons

Supporting Information for Exhibit 4

Electricity Consumption Project Emissions

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

0.00 tCO2

Variable	Value	Units	Data Source
ECPJ,Grid, y	0	MWhr	See Eversource bill
FEEL,Grid,y	0.26	tonnes CO2/MWh	USEPA Conversions tab/eGrid data
TDLGrid,y	0.07	None	EIA Annual Energy Report 2011

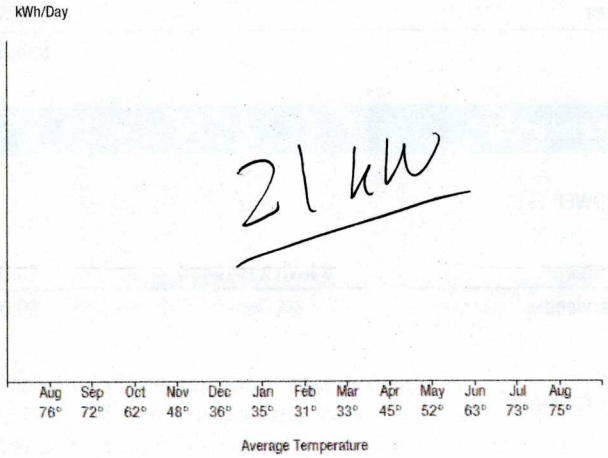
EVERSOURCE

Account Number: **2746 192 0012**
Statement Date: 08/20/19

Service Provided To:
MMONWLTH NB ENERGY LLC

Total Amount Due by 09/14/19	**$58.30**
Amount Due On 08/13/19	$158.71
Last Payment Received On 08/07/19	-$158.71
Balance Forward	$0.00
Total Current Charges	$58.30

Electric Usage History - Kilowatt Hours (kWh)



Electric Usage Summary

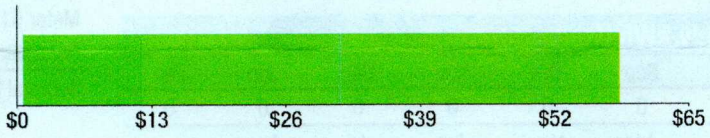
This month your average daily use was less than **0.1 kWh**

This month your usage stayed the same compared to same time last year.

Current Charges for Electricity

Supply
$0.00
Cost of electricity from PUBLIC POWER LLC

Delivery
$58.30
Cost to deliver electricity from Eversource



Your electric supplier is

PUBLIC POWER LLC
6469 102ND AVENUE NORTH
PINELLAS PARK, FL 33782
WWW.PPANDU.COM
888-354-4415

Billing for CITY OF NEW BEDFORD

PAID
CK NO 2614
DATE 8.26.19

News For You

Join us on Sunday, Sept. 8 at 8 a.m. on the Esplanade in Boston for the Mass General Cancer Center Eversource Amazing Race. The event supports the amazing work the Mass General Cancer Center does in our community every day. Visit Eversource.com to register, create a team and learn more.

Remit Payment To: Eversource, PO Box 56007, Boston, MA 02205-6007

EM_190813.TXT-112511-000002345

234

EM_190813.TXT-112513-000002345

EVERSOURCE

Account Number: **2746 192 0012**
Customer name key: COMM
Statement Date: 08/20/19
Service Provided To:
COMMONWLTH NB ENERGY LLC

Service Address: 300 SAMUEL-BARNET BLV CGN NEW BEDFRD MA 02745
Rate 33-GENERAL - ANNUAL Cycle 12
Service from 07/18/19 - 08/16/19 29 Days
Next read date on or about: Sep 17, 2019

Meter Number	Current Read	Previous Read	Current Usage	Reading Type
5120378	**0**	**0**	**0**	**Actual**

Current Demand = 21.0 KW

0 x Meter Constant of 2100 = 0 Billed Usage for 29 Days

Monthly kWh Use

Aug	Sep	Oct	Nov	Dec	Jan	Feb
0	0	0	0	0	0	0
Mar	**Apr**	**May**	**Jun**	**Jul**	**Aug**	
0	0	0	0	0	0	

Contact Information
Emergency: 800-592-2000
www.eversource.com
BusinessCenterMA@eversource.com
Pay by Phone: 888-783-6618
Customer Service: 800-340-9822

Total Amount Due by 09/14/19 $58.3

Electric Account Summary

Amount Due On 08/13/19	$15[illegible]
Last Payment Received On 08/07/19	-$158.71
Balance Forward	$0.00
Current Charges/Credits	
Electric Supply Services	$0.00
Delivery Services	$58.30
Total Current Charges	$58.30
Total Amount Due	$58.30

Total Charges for Electricity

Supplier (PUBLIC POWER LLC)
Meter 5120378

Generation Service Charge	0 kWh X 0.10430	$0.00
Subtotal Supplier Services		$0.00

Delivery
(Rate 33-GENERAL - ANNUAL)
Meter 5120378

Customer Charge		$6.00
Distribution Demand Charge		
1st 10	No Charge	$0.00
Over 10	11.0 KW X 5.03	$55.33
Primary Metering Discount		-$
Subtotal Delivery Services		$58.30
Total Cost of Electricity		**$58.30**

Total Current Charges **$58.30**

EM_190813.TXT-112512-000002345

EVERSOURCE

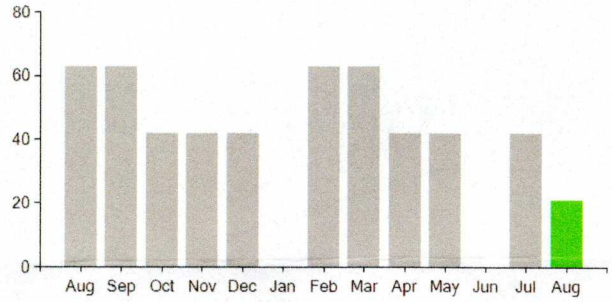
Account Number: **2746 192 0012**
Customer name key: COMM
Statement Date: 08/20/19
Service Provided To:
COMMONWLTH NB ENERGY LLC

Total Amount Due by 09/14/19 **$58.30**

Continued from previous page...

Demand Profile

Max. Demand



Important Messages About Your Account

DIGGING? STATE LAW REQUIRES YOU OR YOUR CONTRACTOR TO CALL DIG SAFE AT 811 AT LEAST THREE BUSINESS DAYS PRIOR TO DIGGING. FOR MORE INFORMATION VISIT DIGSAFE.COM. IMPORTANT SAFETY INFORMATION IS ALSO AVAILABLE IN THE "SAFETY" SECTION OF EVERSOURCE.COM.

Fossil Fuel Consumption

NCV Conversion

5.809	42	0.13831
mmBtu/bar	gallons/barrel	mmBtu/gallon

Emissions Factor

20.17	1E-15	1000000	3.666667	1E+12	0.000001	0.073957
Tg C/Qbtu	Qbtu/btu	btu/Mmbtu	g C02/g C	g/Tg	Tonnes/g	Tonnes CO2/Mmbtu

NCV Comparison to IPCC Values

0.13831	1000000	1.06E-06	0.001	0.26417	1.176471	1000000	45.35173
MMBtu/gal	Btu/MMBtu	GJ/Btu	TJ/GJ	gallons/lite	liter/kg	kg/Gg	TJ/Gg

IPCC Values state 41.4-43.3 TJ/Gg
This value is higher and therefore conservative.

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

637.9	0.454545455	0.001	0.289955
lbs CO2/M'	kg/lbs	tonnes/kg	tonnes CO2/MWh

eGRID Factor taken from NEWE region of eGRID2012 data

EMERGENCY GENERATOR RUNTIME LOG

	PRIOR TO RUNNING		AFTER SHUTTING DOWN			
DATE	TIME	RUN HRS	DATE	TIME	RUN HRS	REASON
27-Dec-18	955	244.6	27-Dec-18	1055	245.6	Generator Maint.
24-Apr-19	730	245.6	26-Apr-19	2000	301.3	Utility work

2019 Usage, Hours

301.3 - 245.6 = 55.7

Supporting Information for Exhibit 4

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

Month	LFG flow rate from District Initial System contained in Phase 1 area scfm @50% methane	LFG flow rate from District Total System, scfm @50% methane	District Initial System/Total
6-Jun-13	77	1,348	6%
6-Aug-13	82	1,225	7%
23-Aug-13	65	1,015	6%
6-Sep-13	60	1,003	6%
26-Sep-13	57	886	6%
11-Oct-13	65	1,056	6%
25-Oct-13	100	1,197	8%
15-Nov-13	50	1,095	5%
25-Nov-13	63	1,084	6%
11-Dec-13	50	1,094	5%
10-Jan-14	49	1,309	4%
29-Jan-14	58	1,371	4%
21-Mar-14	70	1,417	5%
25-Apr-14	93	1,327	7%
1-May-14	76	1,119	7%
15-May-14	51	1,039	5%
1-Jun-14	65	1,071	6%
15-Jun-14	45	1,016	4%
1-Jul-14	55	1,023	5%
1-Aug-14	56	1,091	5%
1-Sep-14	91	1,188	8%
15-Sep-14	48	1,055	5%
1-Oct-14	97	1,081	9%
1-Dec-14	65	1,086	6%
15-Dec-14	64	1,075	6%
1-Mar-15	50	1,019	5%
1-Apr-15	48	1,329	4%
15-Apr-15	90	1,183	8%
1-May-15	57	1,227	5%
14-May-15	35	1,090	3%
5-Jun-15	53	1,106	5%
9-Jun-15	38	1,101	3%
18-Jun-15	55	1,089	5%
29-Jul-15	101	1,194	8%
26-Aug-15	104	1,588	7%
4-Sep-15	41	1,306	3%
16-Sep-15	62	1,604	4%
13-Oct-15	63	1,305	5%
28-Oct-15	69	1,297	5%
15-Nov-15	100	1,534	7%
14-Jan-16	69	1,080	6%
19-Feb-16	30	1,150	3%
8-Mar-16	66	1,150	6%
13-Apr-16	64	1,000	6%
16-May-16	66	1,100	6%
Jul-16	57	1,100	5%
Aug-16	62	1,100	6%
Sep-16	65	1,100	6%
Oct-16	62	1,000	6%
Nov-16	62	1,000	6%
Dec-16	50	1,100	5%
Jan-17	50	1,100	5%
Feb-17	42	920	5%
Mar-17	42	920	5%
Apr-17	17	916	2%
May-17	25	850	3%
Jun-17	30	840	4%
Jul-17	30	820	4%
Aug-17	45	872	5%
Sep-17	51	778	7%
Oct-17	40	790	5%
Nov-17	32	830	4%
Dec-17	25	800	3%
Jan-18	45	1,009	4%
Feb-18	45	963	5%
Mar-18	45	915	5%
Apr-18	45	912	5%
May-18	45	808	6%
Jun-18	45	845	5%
Jul-18	45	897	5%
Aug-18	45	938	5%
Sep-18	45	893	5%
Oct-18	45	989	5%
Nov-18	45	1,017	4%
Dec-18	45	961	5%
Jan-19	45	869	5%
Feb-19	45	869	5%
Mar-19	45	878	5%
Apr-19	45	832	5%
May-19	45	916	5%
Jun-19	45	893	5%
Jul-19	45	920	5%
Aug-19	45	927	5%
Sep-19	45		
Oct-19	45		
Nov-19	45		
Dec-19	45		
Average			5%

Note: During 2019, the Initial District System consists of 9 remaining active wells measuring less than 5 cfm lower detection limit of each well. Assume worst conservative case of 5 cfm from each remaining well.

Exhibit 5

Compilation of the field data logs recording the total gas volumes and methane content readings for the identified reporting period.

JANUARY 2019																	
		Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
		1/1/2019	1/2/2019	1/3/2019	1/4/2019	1/5/2019	1/6/2019	1/7/2019	1/8/2019	1/9/2019	1/10/2019	1/11/2019	1/12/2019	1/13/2019	1/14/2019	1/15/2019	1/16/2019
LFG and Biogas Flow to the Engines (KSCF)		1,076	1,066	1,073	1,040	1,053	1,037	1,035	986	1,042	994	988	1,099	1,072	1,022	1,050	1,148
LFG and Biogas Flow to the Engines (MMBTU HHV)		540	523	545	519	520	502	497	507	548	519	512	540	517	505	529	585
LFG and Biogas Flow to the Flare (KSCF)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)		1,076	1,066	1,073	1,040	1,053	1,037	1,035	986	1,042	994	988	1,099	1,072	1,022	1,050	1,148
LFG and Biogas Total Flow (MMBTU HHV)		540	523	545	519	520	502	497	507	548	519	512	540	517	505	529	585
Average Methane Content (%)		49.6	48.5	50.2	49.3	48.8	47.8	47.5	50.8	51.9	51.6	51.2	48.5	47.7	48.9	49.8	50.3
Engine 1 Hours		24	24	24	24	24	24	24	18	24	24	24	24	24	12	13	24
Engine 2 Hours		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3 Hours		24	24	24	24	24	24	9	15	24	19	15	24	23	24	25	24
Engine 4 Hours		24	24	24	20	24	24	24	24	24	24	24	24	24	24	24	24
Generator 1 Power Output (kWhr)		14,092	13,236	13,236	15,136	13,236	13,232	17,468	12,776	14,180	13,448	14,416	13,236	12,516	5,816	7,472	14,764
Generator 2 Power Output (kWhr)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)		14,464	13,524	15,104	14,544	14,556	13,228	4,468	9,736	13,236	10,820	7,588	13,232	12,504	15,980	16,984	14,704
Generator 4 Power Output (kWhr)		13,192	13,200	13,200	10,592	13,224	13,224	17,452	18,164	13,216	13,732	15,480	13,212	12,492	15,932	16,984	14,736
Gross Power Output (kWhr)		41,582	39,823	41,442	40,214	40,977	39,639	39,319	40,613	40,576	37,863	37,364	39,547	37,375	37,518	41,301	44,165
Net Power Output (kWhr)		39,840	37,960	39,548	38,392	39,128	37,764	37,580	38,888	38,680	36,040	35,676	37,708	35,616	35,836	39,636	42,344
Power Sold as metered by NStar, (kWhr)		39,826	38,017	39,564	38,402	39,095	37,761	37,600	38,875	38,669	36,108	35,714	37,744	35,681	35,905	39,637	42,310
Offgrid RECs (kWhr)		1,742	1,863	1,894	1,822	1,850	1,874	1,739	1,725	1,896	1,823	1,688	1,840	1,758	1,681	1,666	1,821
Calculated Performance Results																	
Daily																	
Power output (kW average when running)																	
Generator 1		587	552	552	631	552	551	728	710	591	560	601	552	522	485	575	615
Generator 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3		603	564	629	606	607	551	496	649	552	569	506	551	544	666	679	613
Generator 4		550	550	550	530	551	551	727	757	551	572	645	551	521	664	708	614
Power output (kW average over 24-hrs)																	
Facility Gross		1,733	1,659	1,727	1,676	1,707	1,652	1,638	1,692	1,691	1,578	1,557	1,648	1,557	1,563	1,721	1,840
Facility Net		1,660	1,582	1,648	1,600	1,630	1,574	1,566	1,620	1,612	1,502	1,487	1,571	1,484	1,493	1,652	1,764
In-plant load		73	78	79	76	77	78	72	72	79	76	70	77	73	70	69	76
Daily availability factor																	
Facility		75%	75%	75%	71%	75%	75%	59%	59%	75%	70%	66%	75%	74%	63%	65%	75%
Engine 1		100%	100%	100%	100%	100%	100%	100%	75%	100%	100%	100%	100%	100%	50%	54%	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%	38%	63%	100%	79%	63%	100%	96%	100%	104%	100%
Engine 4		100%	100%	100%	83%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																	
Facility		53%	50%	52%	51%	52%	50%	50%	51%	51%	48%	47%	50%	47%	47%	52%	56%
Engine 1		71%	67%	67%	76%	67%	67%	88%	86%	72%	68%	73%	67%	63%	59%	70%	75%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		73%	68%	76%	73%	74%	67%	60%	79%	67%	69%	61%	67%	66%	81%	82%	74%
Engine 4		67%	67%	67%	64%	67%	67%	88%	92%	67%	69%	78%	67%	63%	80%	86%	74%
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	186	210	234	258	282	306	318	331	355
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	153	168	192	211	226	250	273	297	322	346
Engine 4		24	48	72	92	116	140	164	188	212	236	260	284	308	332	356	380
Engine operating run hours total from 0 hours																	
Engine 1	103,250	103,274	103,298	103,322	103,346	103,370	103,394	103,418	103,436	103,460	103,484	103,508	103,532	103,556	103,568	103,581	103,605
Engine 2	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054	95,054
Engine 3	131,891	131,915	131,939	131,963	131,987	132,011	132,035	132,044	132,059	132,083	132,102	132,117	132,141	132,164	132,188	132,213	132,237
Engine 4	98,026	98,050	98,074	98,098	98,118	98,142	98,166	98,190	98,214	98,238	98,262	98,286	98,310	98,334	98,358	98,382	98,406
Cumulative availability, %	January, 2019 @ 00:00 hours																
Engine 1		100%	100%	100%	100%	100%	100%	100%	97%	97%	98%	98%	98%	98%	95%	92%	92%
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%	91%	88%	89%	88%	86%	87%	88%	88%	89%	90%
Engine 4		100%	100%	100%	96%	97%	97%	98%	98%	98%	98%	98%	99%	99%	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		587	1,139	1,690	2,321	2,872	3,424	4,152	4,861	5,452	6,012	6,613	7,165	7,686	8,171	8,746	9,361
Engine 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3		603	1,166	1,796	2,402	3,008	3,559	4,056	4,705	5,256	5,826	6,332	6,883	7,427	8,092	8,772	9,384
Engine 4		550	1,100	1,650	2,179	2,730	3,281	4,008	4,765	5,316	5,888	6,533	7,084	7,604	8,268	8,976	9,590
Cumulative capacity factor, %																	
Engine 1		71%	69%	68%	70%	70%	69%	72%	74%	73%	73%	73%	72%	72%	71%	71%	71%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		73%	71%	73%	73%	73%	72%	70%	71%	71%	71%	70%	70%	69%	70%	71%	71%
Engine 4		67%	67%	67%	66%	66%	66%	69%	72%	72%	71%	72%	72%	71%	72%	73%	73%

	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
	1/1/2019	1/2/2019	1/3/2019	1/4/2019	1/5/2019	1/6/2019	1/7/2019	1/8/2019	1/9/2019	1/10/2019	1/11/2019	1/12/2019	1/13/2019	1/14/2019	1/15/2019	1/16/2019
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	284	356	428	485	542	614	681	744	816	887	947	1,009	1,081
Cumulative Availability, %	75.0%	75.0%	75.0%	74.0%	74.2%	74.3%	72.2%	70.6%	71.1%	70.9%	70.5%	70.8%	71.1%	70.5%	70.1%	70.4%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	41,582	81,405	122,847	163,061	204,038	243,677	282,996	323,609	364,185	402,048	439,412	478,959	516,334	553,852	595,153	639,318
Cumulative Capacity Factor	52.5%	51.4%	51.7%	51.5%	51.5%	51.3%	51.0%	51.1%	51.1%	50.8%	50.4%	50.4%	50.1%	50.0%	50.1%	50.5%
Cumulative fuel input, MMBtu HHV	540	1,063	1,609	2,127	2,647	3,149	3,646	4,153	4,701	5,220	5,732	6,272	6,789	7,294	7,823	8,408
Cumulative gross output, kWhr	41,582	81,405	122,847	163,061	204,038	243,677	282,996	323,609	364,185	402,048	439,412	478,959	516,334	553,852	595,153	639,318
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	11,697	11,818	11,847	11,613	11,426	11,389	11,386	11,231	12,153	12,349	12,338	12,285	12,459	12,122	11,530	11,916
Daily heat rate, Btu/kWe gross HHV	12,994	13,128	13,161	12,901	12,692	12,652	12,648	12,476	13,501	13,718	13,706	13,647	13,841	13,466	12,808	13,237
Cumulative heat rate, Btu/kWe gross LHV	11,697	11,756	11,787	11,744	11,680	11,633	11,598	11,552	11,619	11,688	11,743	11,788	11,837	11,856	11,833	11,839
Cumulative heat rate, Btu/kWe gross HHV	12,994	13,059	13,094	13,046	12,975	12,922	12,884	12,833	12,907	12,984	13,045	13,095	13,149	13,170	13,145	13,152
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	72	144	216	284	356	428	485	542	614	681	744	816	887	947	1,009	1,081
Cumulative Availability, %	75.0%	75.0%	75.0%	74.0%	74.2%	74.3%	72.2%	70.6%	71.1%	70.9%	70.5%	70.8%	71.1%	70.5%	70.1%	70.4%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	41,582	81,405	122,847	163,061	204,038	243,677	282,996	323,609	364,185	402,048	439,412	478,959	516,334	553,852	595,153	639,318
Cumulative Capacity Factor	52.5%	51.4%	51.7%	51.5%	51.5%	51.3%	51.0%	51.1%	51.1%	50.8%	50.4%	50.4%	50.1%	50.0%	50.1%	50.5%
Cumulative fuel input, MMBtu HHV	540	1,063	1,609	2,127	2,647	3,149	3,646	4,153	4,701	5,220	5,732	6,272	6,789	7,294	7,823	8,408
Cumulative gross output, kWhr	41,582	81,405	122,847	163,061	204,038	243,677	282,996	323,609	364,185	402,048	439,412	478,959	516,334	553,852	595,153	639,318
Cumulative heat rate, Btu/kWe gross LHV	11,697	11,756	11,787	11,744	11,680	11,633	11,598	11,552	11,619	11,688	11,743	11,788	11,837	11,856	11,833	11,839
Cumulative heat rate, Btu/kWe gross HHV	12,994	13,059	13,094	13,046	12,975	12,922	12,884	12,833	12,907	12,984	13,045	13,095	13,149	13,170	13,145	13,152
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	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
Date	1/1/2019	1/2/2019	1/3/2019	1/4/2019	1/5/2019	1/6/2019	1/7/2019	1/8/2019	1/9/2019	1/10/2019	1/11/2019	1/12/2019	1/13/2019	1/14/2019	1/15/2019	1/16/2019
Hour																
1	1,791	1,575	1,682	1,575	1,576	1,572	1,570	1,575	1,626	1,575	1,216	1,573	1,573	1,431	1,573	1,728
2	1,791	1,575	1,591	1,575	1,576	1,573	1,572	1,580	1,625	1,574	1,217	1,572	1,574	1,431	1,571	1,729
3	1,790	1,574	1,742	1,575	1,576	1,571	1,571	1,578	1,625	1,573	1,215	1,575	1,573	1,431	1,571	1,727
4	1,789	1,574	1,658	1,576	1,575	1,575	1,571	1,579	1,625	1,574	1,217	1,571	1,570	1,430	1,570	1,726
5	1,791	1,573	1,719	1,573	1,596	1,576	1,571	1,580	1,625	1,574	1,217	1,576	1,572	1,431	1,568	1,726
6	1,791	1,573	1,744	1,574	1,696	1,575	1,570	1,579	1,624	1,573	1,216	1,575	1,570	1,429	1,568	1,725
7	1,791	1,572	1,654	1,573	1,696	1,575	1,571	1,580	1,624	1,574	1,216	1,573	1,572	1,431	1,569	1,726
8	1,654	1,573	1,658	1,575	1,696	1,575	1,571	1,581	1,627	1,575	1,217	1,574	1,572	1,432	1,572	1,728
9	1,624	1,567	1,694	1,547	1,694	1,575	1,425	1,402	1,623	1,565	1,210	1,572	1,576	1,420	1,564	1,685
10	1,627	1,563	1,684	1,478	1,696	1,574	1,561	1,285	1,617	1,561	1,207	1,572	1,470	1,423	1,562	1,715
11	1,627	1,567	1,689	1,576	1,696	1,574	1,569	1,571	1,619	1,561	1,384	1,565	1,429	1,429	1,564	1,809
12	1,626	1,568	1,687	1,576	1,695	1,574	1,573	1,564	1,619	1,565	1,761	1,567	1,431	1,411	1,660	1,817
13	1,629	1,569	1,690	1,580	1,696	1,574	1,574	1,561	1,620	1,568	1,787	1,572	1,434	1,532	1,743	1,887
14	1,628	1,569	1,692	1,644	1,696	1,575	1,577	1,566	1,618	1,567	1,790	1,575	1,436	1,556	1,723	1,926
15	1,624	1,570	1,690	1,769	1,695	1,572	1,574	1,631	1,619	1,570	1,786	1,573	1,436	1,564	1,723	1,944
16	1,623	1,710	1,690	1,696	1,640	1,573	1,572	1,862	1,620	1,570	1,788	1,573	1,436	1,561	1,722	1,933
17	1,620	1,586	1,575	1,698	1,576	1,574	1,575	1,780	1,621	1,576	1,764	1,573	1,434	1,571	1,726	1,722
18	1,577	1,576	1,571	1,696	1,576	1,573	1,575	1,744	1,621	1,570	1,741	1,573	1,434	1,572	1,725	1,725
19	1,572	1,575	1,574	1,680	1,575	1,573	1,574	1,745	1,613	1,572	1,680	1,573	1,432	1,567	1,725	1,725
20	1,574	1,574	1,576	1,572	1,576	1,573	1,576	1,745	1,572	1,422	1,622	1,573	1,432	1,570	1,729	1,722
21	1,571	1,572	1,577	1,575	1,575	1,572	1,574	1,741	1,571	1,212	1,621	1,572	1,431	1,572	1,727	1,721
22	1,572	1,575	1,576	1,572	1,573	1,571	1,579	1,742	1,569	1,212	1,621	1,572	1,432	1,571	1,726	1,722
23	1,572	1,705	1,576	1,573	1,575	1,572	1,579	1,684	1,572	1,212	1,622	1,576	1,431	1,569	1,728	1,721
24	1,572	1,582	1,575	1,574	1,574	1,570	1,576	1,620	1,574	1,213	1,599	1,574	1,431	1,571	1,728	1,721
TOTAL	39,826	38,017	39,564	38,402	39,095	37,761	37,600	38,875	38,669	36,108	35,714	37,744	35,681	35,905	39,637	42,310
Cumulative Output Sold, kWhr	39,826	77,843	117,407	155,809	194,904	232,665	270,265	309,140	347,809	383,917	419,631	457,375	493,056	528,961	568,598	610,908
Transformer and line efficiency	100.0%	100.2%	100.0%	100.0%	99.9%	100.0%	100.1%	100.0%	100.0%	100.2%	100.1%	100.1%	100.2%	100.2%	100.0%	99.9%
Hourly average	1,659	1,584	1,649	1,600	1,629	1,573	1,567	1,620	1,611	1,505	1,488	1,573	1,487	1,496	1,652	1,763

JANUARY 2019																		
	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday			
	1/17/2019	1/18/2019	1/19/2019	1/20/2019	1/21/2019	1/22/2019	1/23/2019	1/24/2019	1/25/2019	1/26/2019	1/27/2019	1/28/2019	1/29/2019	1/30/2019	1/31/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	1,137	1,184	1,166	1,128	1,001	997	1,092	598	612	1,036	1,047	1,015	1,051	1,045	988	31,877	2,006	29,871
LFG and Biogas Flow to the Engine	569	601	580	594	524	521	557	308	310	503	502	491	524	525	494	16,011	1,419	14,592
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	420	378	-	-	-	-	-	-	798	8.9%	91%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	216	192	-	-	-	-	-	-	408		
LFG and Biogas Total Flow (KSCF)	1,137	1,184	1,166	1,128	1,001	997	1,092	1,018	990	1,036	1,047	1,015	1,051	1,045	988	32,675		
LFG and Biogas Total Flow (MMBT	569	601	580	594	524	521	557	524	502	503	502	491	524	525	494	16,419		
Average Methane Content (%)	49.4	50.2	49.1	52.1	51.7	51.7	50.4	50.9	50.1	48.0	47.3	47.9	49.3	49.7	49.4	49.7		
Engine 1 Hours	24	24	24	24	17	15	24	24	15	24	24	24	24	24	24	690		
Engine 2 Hours	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1		
Engine 3 Hours	24	24	24	24	24	24	24	24	14	24	24	19	24	24	24	691		
Engine 4 Hours	24	24	24	24	18	23	24	24	15	24	24	24	24	24	9	709		
Generator 1 Power Output (kWhr)	14,900	16,036	15,032	15,032	11,500	8,232	15,140	8,404	8,236	13,232	13,232	14,440	13,668	13,900	17,448	406,692		
Generator 2 Power Output (kWhr)	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	8		
Generator 3 Power Output (kWhr)	14,500	15,192	15,004	15,420	16,916	17,528	15,116	8,524	7,684	13,216	13,216	10,124	14,128	13,624	17,448	412,312		
Generator 4 Power Output (kWhr)	14,784	15,592	15,556	16,040	8,472	13,216	15,088	8,516	8,632	13,228	13,224	15,264	13,648	14,296	4,520	418,108		
Gross Power Output (kWhr)	44,128	46,833	45,557	46,477	36,716	38,870	45,379	25,466	24,579	39,669	39,685	39,833	41,466	41,796	39,299	1,235,071		
Net Power Output (kWhr)	42,284	44,932	43,676	44,616	35,104	37,300	43,592	24,488	23,568	38,024	37,948	38,124	39,780	40,116	37,568	1,181,756		
Power Sold as metered by NStar, (I	42,250	44,839	43,608	44,541	35,148	37,330	43,524	24,452	23,568	38,016	37,929	38,114	39,748	40,099	37,598	1,181,672	CRMCB inplant	
Offgrid RECs (kWhr)	1,843	1,902	1,881	1,861	1,611	1,570	1,787	978	1,011	1,645	1,737	1,709	1,686	1,680	1,731	53,314	12,818	
Calculated Performance Results																	24%	
Daily																	of total in-plant	
Power output (kW average whe																	power	
Generator 1	621	668	626	626	676	549	631	350	549	551	551	602	570	579	727			
Generator 2	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-			
Generator 3	604	633	625	643	705	730	630	355	549	551	551	533	589	568	727			
Generator 4	616	650	648	668	471	575	629	355	575	551	551	636	569	596	502			
Power output (kW average ove																		
Facility Gross	1,839	1,951	1,898	1,937	1,530	1,620	1,891	1,061	1,024	1,653	1,654	1,660	1,728	1,742	1,637			
Facility Net	1,762	1,872	1,820	1,859	1,463	1,554	1,816	1,020	982	1,584	1,581	1,589	1,658	1,672	1,565			
In-plant load	77	79	78	78	67	65	74	41	42	69	72	71	70	70	72			
Daily availability factor																		
Facility	75%	75%	75%	75%	61%	66%	75%	75%	46%	75%	75%	70%	75%	75%	59%			
Engine 1	100%	100%	100%	100%	71%	63%	100%	100%	63%	100%	100%	100%	100%	100%	100%			
Engine 2	0%	0%	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	100%	100%	100%	100%	100%	100%	100%	100%	58%	100%	100%	79%	100%	100%	100%			
Engine 4	100%	100%	100%	100%	75%	96%	100%	100%	63%	100%	100%	100%	100%	100%	38%			
Daily capacity factor																		
Facility	56%	59%	58%	59%	46%	49%	57%	32%	31%	50%	50%	50%	52%	53%	50%			
Engine 1	75%	81%	76%	76%	82%	67%	76%	42%	67%	67%	67%	73%	69%	70%	88%			
Engine 2	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	73%	77%	76%	78%	85%	89%	76%	43%	67%	67%	67%	65%	71%	69%	88%			
Engine 4	75%	79%	79%	81%	57%	70%	76%	43%	70%	67%	67%	77%	69%	72%	61%			
Cumulative by engine																		
Engine operating run hours in th																		
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672	696	720	720			
Engine 1	379	403	427	451	468	483	507	531	546	570	594	618	642	666	666			
Engine 2	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1			
Engine 3	370	394	418	442	466	490	514	538	552	576	600	619	643	667	667			
Engine 4	404	428	452	476	494	517	541	565	580	604	628	652	676	700	685			
Engine operating run hours tota																		
Engine 1	103,629	103,653	103,677	103,701	103,718	103,733	103,757	103,781	103,796	103,820	103,844	103,868	103,892	103,916	103,916			
Engine 2	95,054	95,054	95,054	95,054	95,054	95,055	95,055	95,055	95,055	95,055	95,055	95,055	95,055	95,055	95,055			
Engine 3	132,261	132,285	132,309	132,333	132,357	132,381	132,405	132,429	132,443	132,467	132,491	132,510	132,534	132,558	132,558			
Engine 4	98,430	98,454	98,478	98,502	98,520	98,543	98,567	98,591	98,606	98,630	98,654	98,678	98,702	98,726	98,711			
Cumulative availability, %																		
Engine 1	93%	93%	94%	94%	93%	91%	92%	92%	91%	91%	92%	92%	92%	93%	93%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	91%	91%	92%	92%	92%	93%	93%	93%	92%	92%	93%	92%	92%	93%	93%			
Engine 4	99%	99%	99%	99%	98%	98%	98%	98%	97%	97%	97%	97%	97%	97%	95%			
Engine cumulative gross output																		
Max cumulative capacity or	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	24,750			
Engine 1	9,982	10,650	11,276	11,902	12,579	13,128	13,758	14,109	14,658	15,209	15,760	16,362	16,932	17,511	17,659			
Engine 2	-	-	-	-	-	8	8	8	8	8	8	8	8	8	8			
Engine 3	9,989	10,622	11,247	11,889	12,594	13,324	13,954	14,309	14,858	15,409	15,960	16,492	17,081	17,649	17,808			
Engine 4	10,206	10,855	11,503	12,172	12,642	13,217	13,846	14,201	14,776	15,327	15,878	16,514	17,083	17,679	17,585			
Cumulative capacity factor, %																		
Engine 1	71%	72%	72%	72%	73%	72%	73%	71%	71%	71%	71%	71%	71%	71%	71%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	71%	72%	72%	72%	73%	73%	74%	72%	72%	72%	72%	71%	71%	71%	72%			
Engine 4	73%	73%	73%	74%	73%	73%	73%	72%	72%	71%	71%	71%	71%	71%	71%			

	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday			
	1/17/2019	1/18/2019	1/19/2019	1/20/2019	1/21/2019	1/22/2019	1/23/2019	1/24/2019	1/25/2019	1/26/2019	1/27/2019	1/28/2019	1/29/2019	1/30/2019	1/31/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month																		
Max cumulative available engi	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	2,880			
Actual cumulative engine run h	1,153	1,225	1,297	1,369	1,428	1,491	1,563	1,635	1,679	1,751	1,823	1,890	1,962	2,034	2,019			
Cumulative Availability, %	70.6%	70.9%	71.1%	71.3%	70.8%	70.6%	70.8%	71.0%	70.0%	70.2%	70.3%	70.3%	70.5%	70.6%	70.1%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000	2,376,000			
Actual cumulative gross output,	683,446	730,279	775,836	822,313	859,029	897,899	943,278	968,744	993,323	1,032,992	1,072,677	1,112,510	1,153,976	1,195,772	1,193,275			
Cumulative Capacity Factor	50.8%	51.2%	51.6%	51.9%	51.6%	51.5%	51.8%	51.0%	50.2%	50.2%	50.2%	50.2%	50.2%	50.3%	50.2%			
Cumulative fuel input, MMBtu h	8,977	9,578	10,157	10,752	11,276	11,797	12,354	12,662	12,972	13,475	13,976	14,468	14,992	15,517	15,486			
Cumulative gross output, kWhr	683,446	730,279	775,836	822,313	859,029	897,899	943,278	968,744	993,323	1,032,992	1,072,677	1,112,510	1,153,976	1,195,772	1,193,275			
Heat Rate																		
Daily heat rate, Btu/kWe gross	11,597	11,554	11,453	11,511	12,852	12,073	11,046	10,877	11,365	11,411	11,379	11,103	11,377	11,317	11,313			
Daily heat rate, Btu/kWe gross	12,883	12,835	12,723	12,787	14,277	13,411	12,271	12,083	12,625	12,676	12,641	12,334	12,639	12,572	12,568			
Cumulative heat rate, Btu/kWe	11,823	11,806	11,785	11,770	11,816	11,827	11,790	11,766	11,756	11,742	11,729	11,707	11,695	11,682	11,682			
Cumulative heat rate, Btu/kWe	13,134	13,115	13,092	13,075	13,126	13,138	13,097	13,070	13,059	13,044	13,029	13,005	12,991	12,977	12,977			
Cumulative by Facility starting C																		
Max cumulative available engi	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	2,880			
Actual cumulative engine run h	1,153	1,225	1,297	1,369	1,428	1,491	1,563	1,635	1,679	1,751	1,823	1,890	1,962	2,034	2,019			
Cumulative Availability, %	70.6%	70.9%	71.1%	71.3%	70.8%	70.6%	70.8%	71.0%	70.0%	70.2%	70.3%	70.3%	70.5%	70.6%	70.1%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000	2,376,000			
Actual cumulative gross output,	683,446	730,279	775,836	822,313	859,029	897,899	943,278	968,744	993,323	1,032,992	1,072,677	1,112,510	1,153,976	1,195,772	1,193,275			
Cumulative Capacity Factor	50.8%	51.2%	51.6%	51.9%	51.6%	51.5%	51.8%	51.0%	50.2%	50.2%	50.2%	50.2%	50.2%	50.3%	50.2%			
Cumulative fuel input, MMBtu h	8,977	9,578	10,157	10,752	11,276	11,797	12,354	12,662	12,972	13,475	13,976	14,468	14,992	15,517	15,486			
Cumulative gross output, kWhr	683,446	730,279	775,836	822,313	859,029	897,899	943,278	968,744	993,323	1,032,992	1,072,677	1,112,510	1,153,976	1,195,772	1,193,275			
Cumulative heat rate, Btu/kWe	11,823	11,806	11,785	11,770	11,816	11,827	11,790	11,766	11,756	11,742	11,729	11,707	11,695	11,682	11,682			
Cumulative heat rate, Btu/kWe	13,134	13,115	13,092	13,075	13,126	13,138	13,097	13,070	13,059	13,044	13,029	13,005	12,991	12,977	12,977			
Service																		
Engine 1																		
Engine 2								Eversource Grid outage										
Engine 3								Due to storm										
Engine 4																		
Oil - oil and filter change																		
Service - plugs, air filter, valve insp																		
Precipitation																		
NSTAR Power Reports	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday			
Date	1/17/2019	1/18/2019	1/19/2019	1/20/2019	1/21/2019	1/22/2019	1/23/2019	1/24/2019	1/25/2019	1/26/2019	1/27/2019	1/28/2019	1/29/2019	1/30/2019	1/31/2019	TOTAL		
Hour																		
1	1,723	1,849	1,816	1,818	1,813	1,157	1,872	1,804	-	1,585	1,579	1,581	1,647	1,692	1,575			
2	1,723	1,847	1,817	1,843	1,803	1,160	1,874	1,804	-	1,585	1,580	1,580	1,646	1,735	1,575			
3	1,718	1,848	1,819	1,854	1,291	1,159	1,873	1,801	-	1,584	1,580	1,578	1,655	1,732	1,575			
4	1,686	1,847	1,817	1,865	1,291	1,157	1,874	1,802	-	1,584	1,579	1,577	1,644	1,732	1,574			
5	1,681	1,848	1,818	1,869	1,293	1,156	1,873	1,805	-	1,585	1,579	1,576	1,660	1,735	1,573			
6	1,682	1,847	1,816	1,886	1,291	1,158	1,871	1,807	-	1,584	1,579	1,576	1,626	1,735	1,566			
7	1,684	1,847	1,817	1,916	1,292	1,158	1,872	1,805	-	1,583	1,579	1,579	1,621	1,732	1,564			
8	1,687	1,847	1,817	1,916	1,292	1,262	1,871	1,806	-	1,585	1,580	1,579	1,612	1,685	1,560			
9	1,696	1,837	1,816	1,916	1,693	1,338	1,779	1,844	-	1,585	1,578	1,118	1,599	1,640	1,432			
10	1,716	1,900	1,816	1,916	1,092	1,369	1,686	1,842	1,018	1,586	1,580	1,414	1,639	1,624	1,562			
11	1,719	1,888	1,818	1,879	1,114	1,682	1,696	1,848	1,740	1,588	1,581	1,509	1,653	1,631	1,573			
12	1,718	1,861	1,817	1,867	1,140	1,439	1,773	1,847	1,588	1,587	1,582	1,527	1,658	1,634	1,571			
13	1,719	1,840	1,817	1,868	1,155	1,562	1,784	1,849	1,583	1,588	1,582	1,533	1,657	1,662	1,576			
14	1,720	1,855	1,818	1,869	1,676	1,647	1,799	788	1,256	1,589	1,581	1,542	1,597	1,681	1,578			
15	1,764	1,854	1,817	1,867	1,915	1,895	1,799	-	1,710	1,586	1,581	1,774	1,609	1,679	1,577			
16	1,796	1,856	1,817	1,852	1,828	1,915	1,798	-	1,776	1,586	1,582	1,673	1,711	1,679	1,576			
17	1,803	1,876	1,818	1,820	1,755	1,928	1,804	-	1,698	1,585	1,582	1,681	1,734	1,681	1,579			
18	1,801	1,966	1,816	1,820	1,736	1,927	1,804	-	1,676	1,584	1,580	1,683	1,680	1,675	1,573			
19	1,798	1,964	1,817	1,818	1,721	1,882	1,803	-	1,586	1,583	1,579	1,679	1,683	1,677	1,571			
20	1,888	1,919	1,817	1,818	1,719	1,876	1,804	-	1,586	1,581	1,582	1,678	1,683	1,658	1,576			
21	1,928	1,887	1,817	1,815	1,715	1,878	1,805	-	1,589	1,580	1,581	1,676	1,680	1,629	1,575			
22	1,891	1,866	1,816	1,813	1,220	1,878	1,803	-	1,587	1,578	1,580	1,676	1,683	1,618	1,574			
23	1,865	1,869	1,817	1,819	1,154	1,875	1,803	-	1,588	1,578	1,581	1,662	1,686	1,577	1,572			
24	1,844	1,821	1,817	1,817	1,149	1,872	1,804	-	1,587	1,577	1,582	1,663	1,685	1,576	1,571			
TOTAL	42,250	44,839	43,608	44,541	35,148	37,330	43,524	24,452	23,568	38,016	37,929	38,114	39,748	40,099	37,598			
Cumulative Output Sold, kV	653,158	697,997	741,605	786,146	821,294	858,624	902,148	926,600	950,168	988,184	1,026,113	1,064,227	1,103,975	1,144,074	1,181,672			
Transformer and line efficienc	99.9%	99.8%	99.8%	99.8%	100.1%	100.1%	99.8%	99.9%	100.0%	100.0%	99.9%	100.0%	99.9%	100.0%	100.1%			
Hourly average	1,760	1,868	1,817	1,856	1,465	1,555	1,814	1,019	982	1,584	1,580	1,588	1,656	1,671	1,567			

FEBRUARY 2019																	
		Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		2/1/2019	2/2/2019	2/3/2019	2/4/2019	2/5/2019	2/6/2019	2/7/2019	2/8/2019	2/9/2019	2/10/2019	2/11/2019	2/12/2019	2/13/2019	2/14/2019	2/15/2019	2/16/2019
LFG and Biogas Flow to the Engines (KSCF)		989	1,027	1,028	1,011	981	966	1,009	1,034	930	981	984	1,024	981	958	1,026	1,012
LFG and Biogas Flow to the Engines (MMBTU HHV)		504	524	519	509	499	504	519	534	478	498	507	517	519	509	533	525
LFG and Biogas Flow to the Flare (KSCF)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)		989	1,027	1,028	1,011	981	966	1,009	1,034	930	981	984	1,024	981	958	1,026	1,012
LFG and Biogas Total Flow (MMBTU HHV)		504	524	519	509	499	504	519	534	478	498	507	517	519	509	533	525
Average Methane Content (%)		50.4	50.4	49.9	49.8	50.3	51.5	50.8	51.0	50.8	50.1	50.9	49.9	52.3	52.5	51.3	51.3
Engine 1 Hours		24	24	24	24	24	23	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	22	16	24	24
Engine 4 Hours		15	24	24	24	24	15	24	24	12	14	16	24	24	24	24	24
Generator 1 Power Output (kWhr)		16,220	14,776	14,964	15,404	15,320	14,672	14,740	14,672	15,164	15,996	16,580	14,084	15,436	15,324	14,900	15,212
Generator 2 Power Output (kWhr)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)		16,476	14,740	14,248	13,812	13,816	15,848	15,212	13,816	15,440	15,864	16,988	13,820	13,716	10,296	15,364	14,952
Generator 4 Power Output (kWhr)		8,992	14,476	13,788	13,780	13,784	9,168	14,400	14,292	6,372	7,568	8,496	14,376	14,372	15,260	15,868	16,140
Gross Power Output (kWhr)		41,607	43,935	42,956	42,931	42,860	39,611	44,365	42,784	36,884	39,387	42,008	42,201	43,474	40,823	46,109	46,305
Net Power Output (kWhr)		39,880	42,216	41,244	41,216	41,152	38,068	42,592	41,028	35,408	37,844	40,384	40,480	41,772	39,280	44,392	44,592
Power Sold as metered by NStar, (kWhr)		39,879	42,179	41,205	41,204	41,121	38,081	42,521	40,960	35,458	37,850	40,362	40,506	41,739	39,250	44,303	44,491
Offgrid RECs (kWhr)		1,727	1,717	1,712	1,715	1,710	1,543	1,772	1,756	1,477	1,542	1,624	1,721	1,700	1,545	1,717	1,713
Calculated Performance Results																	
Daily																	
Power output (kW average when running)																	
Generator 1		676	616	624	642	638	638	614	611	632	667	691	587	643	639	621	634
Generator 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3		687	614	594	576	576	660	634	576	643	661	708	576	623	644	640	623
Generator 4		599	603	575	574	574	611	600	596	531	541	531	599	599	636	661	673
Power output (kW average over 24-hrs)																	
Facility Gross		1,734	1,831	1,790	1,789	1,786	1,650	1,849	1,783	1,537	1,641	1,750	1,758	1,811	1,701	1,921	1,929
Facility Net		1,662	1,759	1,719	1,717	1,715	1,586	1,775	1,710	1,475	1,577	1,683	1,687	1,741	1,637	1,850	1,858
In-plant load		72	72	71	71	71	64	74	73	62	64	68	72	71	64	72	71
Daily availability factor																	
Facility		66%	75%	75%	75%	75%	65%	75%	75%	63%	65%	67%	75%	73%	67%	75%	75%
Engine 1		100%	100%	100%	100%	100%	96%	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%	92%	67%	100%	100%
Engine 4		63%	100%	100%	100%	100%	63%	100%	100%	50%	58%	67%	100%	100%	100%	100%	100%
Daily capacity factor																	
Facility		53%	55%	54%	54%	54%	50%	56%	54%	47%	50%	53%	53%	55%	52%	58%	58%
Engine 1		82%	75%	76%	78%	77%	77%	74%	74%	77%	81%	84%	71%	78%	77%	75%	77%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		83%	74%	72%	70%	70%	80%	77%	70%	78%	80%	86%	70%	76%	78%	78%	76%
Engine 4		73%	73%	70%	70%	70%	74%	73%	72%	64%	66%	64%	73%	73%	77%	80%	82%
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	143	167	191	215	239	263	287	311	335	359	383
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	310	326	350	374
Engine 4		15	39	63	87	111	126	150	174	186	200	216	240	264	288	312	336
Engine operating run hours total from 0 hours																	
Engine 1	98,673	98,697	98,721	98,745	98,769	98,793	98,816	98,840	98,864	98,888	98,912	98,936	98,960	98,984	99,008	99,032	99,056
Engine 2	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011
Engine 3	95,209	95,233	95,257	95,281	95,305	95,329	95,353	95,377	95,401	95,425	95,449	95,473	95,497	95,519	95,535	95,559	95,583
Engine 4	92,670	92,685	92,709	92,733	92,757	92,781	92,796	92,820	92,844	92,856	92,870	92,886	92,910	92,934	92,958	92,982	93,006
Cumulative availability, %	February, 2019 @ 00:00 hours																
Engine 1		100%	100%	100%	100%	100%	99%	99%	99%	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%	99%	97%	97%	97%
Engine 4		63%	81%	88%	91%	93%	88%	89%	91%	86%	83%	82%	83%	85%	86%	87%	88%
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		676	1,292	1,915	2,557	3,195	3,833	4,447	5,059	5,690	6,357	7,048	7,635	8,278	8,916	9,537	10,171
Engine 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3		687	1,301	1,894	2,470	3,046	3,706	4,340	4,915	5,559	6,220	6,928	7,503	8,127	8,770	9,410	10,033
Engine 4		599	1,203	1,777	2,351	2,926	3,537	4,137	4,732	5,263	5,804	6,335	6,934	7,533	8,169	8,830	9,502
Cumulative capacity factor, %																	
Engine 1		82%	78%	77%	77%	77%	77%	77%	77%	77%	77%	78%	77%	77%	77%	77%	77%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		83%	79%	77%	75%	74%	75%	75%	74%	75%	75%	76%	76%	76%	76%	76%	76%
Engine 4		73%	73%	72%	71%	71%	71%	72%	72%	71%	70%	70%	70%	70%	71%	71%	72%

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	2/1/2019	2/2/2019	2/3/2019	2/4/2019	2/5/2019	2/6/2019	2/7/2019	2/8/2019	2/9/2019	2/10/2019	2/11/2019	2/12/2019	2/13/2019	2/14/2019	2/15/2019	2/16/2019
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	63	135	207	279	351	413	485	557	617	679	743	815	885	949	1,021	1,093
Cumulative Availability, %	65.6%	70.3%	71.9%	72.7%	73.1%	71.7%	72.2%	72.5%	71.4%	70.7%	70.4%	70.7%	70.9%	70.6%	70.9%	71.2%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	41,607	85,542	128,498	171,429	214,289	253,900	298,265	341,049	377,933	417,320	459,328	501,529	545,003	585,826	631,935	678,240
Cumulative Capacity Factor	52.5%	54.0%	54.1%	54.1%	54.1%	53.4%	53.8%	53.8%	53.0%	52.7%	52.7%	52.8%	52.9%	52.8%	53.2%	53.5%
Cumulative fuel input, MMBtu HHV	504	1,029	1,547	2,056	2,555	3,059	3,578	4,112	4,590	5,088	5,594	6,112	6,631	7,140	7,673	8,198
Cumulative gross output, kWhr	41,607	85,542	128,498	171,429	214,289	253,900	298,265	341,049	377,933	417,320	459,328	501,529	545,003	585,826	631,935	678,240
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	10,913	10,738	10,868	10,677	10,483	11,447	10,531	11,225	11,673	11,373	10,862	11,037	10,747	11,220	10,406	10,210
Daily heat rate, Btu/kWe gross HHV	12,123	11,929	12,073	11,861	11,645	12,716	11,698	12,470	12,968	12,634	12,067	12,260	11,938	12,464	11,560	11,342
Cumulative heat rate, Btu/kWe gross LHV	10,913	10,823	10,838	10,798	10,735	10,846	10,799	10,853	10,933	10,974	10,964	10,970	10,952	10,971	10,930	10,881
Cumulative heat rate, Btu/kWe gross HHV	12,123	12,023	12,040	11,995	11,925	12,048	11,996	12,056	12,145	12,191	12,180	12,186	12,167	12,187	12,141	12,087
Cumulative by Facility starting Calendar Year																
Max cumulative available engine run hours	2,976	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
Actual cumulative engine run hours	2,082	2,154	2,226	2,298	2,370	2,432	2,504	2,576	2,636	2,698	2,762	2,834	2,904	2,968	3,040	3,112
Cumulative Availability, %	70.0%	70.1%	70.3%	70.4%	70.5%	70.4%	70.5%	70.6%	70.4%	70.3%	70.2%	70.3%	70.3%	70.3%	70.4%	70.5%
Max cumulative gross output, kWhr	2,455,200	2,534,400	2,613,600	2,692,800	2,772,000	2,851,200	2,930,400	3,009,600	3,088,800	3,168,000	3,247,200	3,326,400	3,405,600	3,484,800	3,564,000	3,643,200
Actual cumulative gross output, kWhr	1,234,882	1,278,817	1,321,773	1,364,704	1,407,564	1,447,175	1,491,540	1,534,324	1,571,208	1,610,595	1,652,603	1,694,804	1,738,278	1,779,101	1,825,210	1,871,515
Cumulative Capacity Factor	50.3%	50.5%	50.6%	50.7%	50.8%	50.8%	50.9%	51.0%	50.9%	50.8%	50.9%	51.0%	51.0%	51.1%	51.2%	51.4%
Cumulative fuel input, MMBtu HHV	15,990	16,514	17,033	17,542	18,041	18,545	19,064	19,597	20,076	20,573	21,080	21,597	22,116	22,625	23,158	23,683
Cumulative gross output, kWhr	1,234,882	1,278,817	1,321,773	1,364,704	1,407,564	1,447,175	1,491,540	1,534,324	1,571,208	1,610,595	1,652,603	1,694,804	1,738,278	1,779,101	1,825,210	1,871,515
Cumulative heat rate, Btu/kWe gross LHV	11,656	11,625	11,600	11,571	11,538	11,536	11,506	11,498	11,502	11,499	11,483	11,471	11,453	11,448	11,422	11,392
Cumulative heat rate, Btu/kWe gross HHV	12,949	12,914	12,886	12,854	12,817	12,814	12,781	12,773	12,777	12,774	12,756	12,743	12,723	12,717	12,688	12,655
Service																
Engine 1																
Engine 2															**District obtains ATO for Cell #**	
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	2/1/2019	2/2/2019	2/3/2019	2/4/2019	2/5/2019	2/6/2019	2/7/2019	2/8/2019	2/9/2019	2/10/2019	2/11/2019	2/12/2019	2/13/2019	2/14/2019	2/15/2019	2/16/2019
Hour																
1	1,570	1,721	1,727	1,727	1,726	1,650	1,828	1,748	1,654	1,705	1,580	1,678	1,752	1,194	1,820	1,861
2	1,577	1,726	1,728	1,725	1,725	1,460	1,831	1,749	1,647	1,705	1,580	1,678	1,751	1,199	1,868	1,867
3	1,575	1,725	1,726	1,724	1,726	1,243	1,829	1,754	1,240	1,654	1,582	1,677	1,750	1,199	1,806	1,871
4	1,575	1,724	1,725	1,727	1,724	1,246	1,829	1,750	1,238	1,707	1,584	1,677	1,750	1,196	1,798	1,870
5	1,574	1,725	1,725	1,726	1,723	1,247	1,828	1,753	1,241	1,706	1,584	1,678	1,753	1,197	1,871	1,870
6	1,575	1,724	1,715	1,727	1,714	1,246	1,818	1,753	1,239	1,705	1,582	1,677	1,753	1,197	1,867	1,870
7	1,574	1,724	1,652	1,726	1,704	1,243	1,780	1,751	1,241	1,682	1,583	1,676	1,751	1,197	1,854	1,873
8	1,574	1,725	1,655	1,726	1,725	1,245	1,824	1,699	1,247	1,634	1,581	1,677	1,750	1,197	1,798	1,874
9	1,567	1,724	1,668	1,724	1,722	1,354	1,818	1,674	1,247	1,635	1,754	1,670	1,714	1,500	1,195	1,874
10	1,607	1,709	1,725	1,686	1,666	1,857	1,774	1,674	1,249	1,647	1,827	1,677	1,674	1,829	1,942	1,873
11	1,676	1,728	1,727	1,653	1,704	1,585	1,750	1,722	1,251	1,412	1,826	1,677	1,682	1,843	1,943	1,876
12	1,245	1,749	1,727	1,653	1,724	1,475	1,751	1,748	1,252	1,250	1,775	1,678	1,750	1,872	1,917	1,804
13	1,870	1,791	1,726	1,702	1,727	1,832	1,750	1,744	1,251	1,474	1,749	1,675	1,811	1,873	1,870	1,912
14	1,847	1,802	1,727	1,725	1,728	1,835	1,750	1,749	1,253	1,776	1,432	1,675	1,823	1,873	1,883	1,880
15	1,797	1,802	1,725	1,724	1,728	1,769	1,752	1,704	1,482	1,786	1,536	1,676	1,824	1,899	1,943	1,877
16	1,796	1,801	1,726	1,725	1,728	1,257	1,748	1,677	1,787	1,701	1,822	1,679	1,822	1,943	1,933	1,875
17	1,798	1,801	1,725	1,730	1,731	1,744	1,751	1,682	1,786	1,246	1,824	1,684	1,827	1,944	1,873	1,874
18	1,745	1,799	1,725	1,730	1,730	1,824	1,747	1,678	1,782	1,246	1,815	1,681	1,820	1,870	1,876	1,869
19	1,720	1,800	1,725	1,727	1,730	1,825	1,737	1,677	1,778	1,286	1,748	1,681	1,821	1,874	1,874	1,832
20	1,725	1,798	1,727	1,720	1,727	1,825	1,680	1,668	1,775	1,566	1,750	1,680	1,821	1,871	1,875	1,798
21	1,724	1,796	1,727	1,722	1,723	1,827	1,702	1,650	1,704	1,583	1,746	1,702	1,821	1,871	1,874	1,796
22	1,724	1,795	1,727	1,725	1,688	1,831	1,748	1,651	1,706	1,582	1,746	1,750	1,822	1,868	1,873	1,796
23	1,723	1,762	1,724	1,725	1,649	1,831	1,749	1,651	1,706	1,583	1,678	1,751	1,503	1,872	1,876	1,798
24	1,721	1,728	1,721	1,725	1,649	1,830	1,747	1,654	1,702	1,579	1,678	1,752	1,194	1,872	1,874	1,801
				-												
TOTAL	39,879	42,179	41,205	41,204	41,121	38,081	42,521	40,960	35,458	37,850	40,362	40,506	41,739	39,250	44,303	44,491
Cumulative Output Sold, kWhr	39,879	82,058	123,263	164,467	205,588	243,669	286,190	327,150	362,608	400,458	440,820	481,326	523,065	562,315	606,618	651,109
Transformer and line efficiency	100.0%	99.9%	99.9%	100.0%	99.9%	100.0%	99.8%	99.8%	100.1%	100.0%	99.9%	100.1%	99.9%	99.9%	99.8%	99.8%
Hourly average	1,662	1,757	1,717	1,717	1,713	1,587	1,772	1,707	1,477	1,577	1,682	1,688	1,739	1,635	1,846	1,854

FEBRUARY 2019															
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday			
	2/17/2019	2/18/2019	2/19/2019	2/20/2019	2/21/2019	2/22/2019	2/23/2019	2/24/2019	2/25/2019	2/26/2019	2/27/2019	2/28/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	1,026	1,043	1,052	1,044	1,013	1,042	1,030	1,026	972	1,049	1,061	1,028	28,327	1,708	26,619
LFG and Biogas Flow to the Engine	517	532	520	518	529	526	520	546	488	528	530	516	14,468	1,210	13,258
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	-	-	-	-	-	-	8.4%	92%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF	1,026	1,043	1,052	1,044	1,013	1,042	1,030	1,026	972	1,049	1,061	1,028	28,327		
LFG and Biogas Total Flow (MMBT	517	532	520	518	529	526	520	546	488	528	530	516	14,468		
Average Methane Content (%)	49.8	50.4	48.8	49.0	51.6	49.9	49.9	52.6	49.6	49.7	49.4	49.7	50.5		
Engine 1 Hours	24	24	24	24	24	24	24	24	22	24	24	24	669		
Engine 2 Hours	-	-	-	-	-	-	-	-	-	-	-	-	-		
Engine 3 Hours	24	24	24	24	24	24	24	24	22	24	24	23	659		
Engine 4 Hours	24	24	24	24	24	23	24	24	22	24	24	24	621		
Generator 1 Power Output (kWhr)	14,616	14,872	14,780	14,980	15,212	14,580	15,332	15,612	13,400	15,124	15,376	14,652	422,000		
Generator 2 Power Output (kWhr)	-	-	-	-	-	-	-	-	-	-	-	-	-		
Generator 3 Power Output (kWhr)	15,748	15,484	14,368	14,572	15,100	14,992	15,544	15,580	14,236	14,492	14,388	14,216	413,128		
Generator 4 Power Output (kWhr)	14,208	15,184	14,116	14,680	15,096	15,224	13,832	15,404	14,260	14,908	14,372	14,312	376,728		
Gross Power Output (kWhr)	44,538	45,504	43,172	44,164	45,404	44,826	44,750	46,632	41,869	44,398	44,005	43,087	1,210,589		
Net Power Output (kWhr)	42,864	43,792	41,404	42,396	43,688	43,084	43,040	44,904	40,236	42,612	42,228	41,316	1,163,112		
Power Sold as metered by NStar, (	42,978	43,724	41,393	42,367	43,603	43,022	42,994	44,891	40,208	42,614	42,240	41,337	1,162,480	CRMCB inplant	
Offgrid RECs (kWhr)	1,680	1,711	1,769	1,768	1,716	1,743	1,709	1,728	1,633	1,786	1,777	1,771	47,482	10,208	
Calculated Performance Results														21%	
Daily														of total in-plant	
Power output (kW average whe														power	
Generator 1	609	620	616	624	634	608	639	651	609	630	641	611			
Generator 2	-	-	-	-	-	-	-	-	-	-	-	-			
Generator 3	656	645	599	607	629	625	648	649	647	604	600	618			
Generator 4	592	633	588	612	629	662	576	642	648	621	599	596			
Power output (kW average ove															
Facility Gross	1,856	1,896	1,799	1,840	1,892	1,868	1,865	1,943	1,745	1,850	1,834	1,795			
Facility Net	1,786	1,825	1,725	1,767	1,820	1,795	1,793	1,871	1,677	1,776	1,760	1,722			
In-plant load	70	71	74	74	72	73	71	72	68	74	74	74			
Daily availability factor															
Facility	75%	75%	75%	75%	75%	74%	75%	75%	69%	75%	75%	74%			
Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	92%	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%	92%	100%	100%	96%			
Engine 4	100%	100%	100%	100%	100%	96%	100%	100%	92%	100%	100%	100%			
Daily capacity factor															
Facility	56%	57%	55%	56%	57%	57%	57%	59%	53%	56%	56%	54%			
Engine 1	74%	75%	75%	76%	77%	74%	77%	79%	74%	76%	78%	74%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	80%	78%	73%	74%	76%	76%	79%	79%	78%	73%	73%	75%			
Engine 4	72%	77%	71%	74%	76%	80%	70%	78%	79%	75%	73%	72%			
Cumulative by engine															
Engine operating run hours in tl															
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672			
Engine 1	407	431	455	479	503	527	551	575	597	621	645	669			
Engine 2	0	0	0	0	0	0	0	0	0	0	0	0			
Engine 3	398	422	446	470	494	518	542	566	588	612	636	659			
Engine 4	360	384	408	432	456	479	503	527	549	573	597	621			
Engine operating run hours tota															
Engine 1	99,080	99,104	99,128	99,152	99,176	99,200	99,224	99,248	99,270	99,294	99,318	99,342			
Engine 2	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011			
Engine 3	95,607	95,631	95,655	95,679	95,703	95,727	95,751	95,775	95,797	95,821	95,845	95,868			
Engine 4	93,030	93,054	93,078	93,102	93,126	93,149	93,173	93,197	93,219	93,243	93,267	93,291			
Cumulative availability, %															
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	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%			
Engine 4	88%	89%	89%	90%	90%	91%	91%	91%	92%	92%	92%	92%			
Engine cumulative gross output															
Max cumulative capacity or	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	10,780	11,400	12,015	12,640	13,273	13,881	14,520	15,170	15,779	16,410	17,050	17,661			
Engine 2	-	-	-	-	-	-	-	-	-	-	-	-			
Engine 3	10,690	11,335	11,933	12,541	13,170	13,794	14,442	15,091	15,738	16,342	16,942	17,560			
Engine 4	10,094	10,727	11,315	11,927	12,556	13,218	13,794	14,436	15,084	15,705	16,304	16,900			
Cumulative capacity factor, %															
Engine 1	77%	77%	77%	77%	77%	76%	77%	77%	77%	77%	77%	76%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%			
Engine 4	72%	72%	72%	72%	72%	73%	73%	73%	73%	73%	73%	73%			

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday			
	2/17/2019	2/18/2019	2/19/2019	2/20/2019	2/21/2019	2/22/2019	2/23/2019	2/24/2019	2/25/2019	2/26/2019	2/27/2019	2/28/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month															
Max cumulative available engi	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 h	1,165	1,237	1,309	1,381	1,453	1,524	1,596	1,668	1,734	1,806	1,878	1,949			
Cumulative Availability, %	71.4%	71.6%	71.8%	71.9%	72.1%	72.2%	72.3%	72.4%	72.3%	72.4%	72.5%	72.5%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600			
Actual cumulative gross output,	722,778	768,282	811,454	855,618	901,022	945,848	990,598	1,037,230	1,079,099	1,123,497	1,167,502	1,210,589			
Cumulative Capacity Factor	53.7%	53.9%	53.9%	54.0%	54.2%	54.3%	54.4%	54.6%	54.5%	54.6%	54.6%	54.6%			
Cumulative fuel input, MMBtu h	8,715	9,247	9,767	10,285	10,814	11,340	11,860	12,406	12,894	13,421	13,952	14,468			
Cumulative gross output, kWhr	722,778	768,282	811,454	855,618	901,022	945,848	990,598	1,037,230	1,079,099	1,123,497	1,167,502	1,210,589			
Heat Rate															
Daily heat rate, Btu/kWe gross	10,458	10,524	10,841	10,558	10,482	10,559	10,458	10,548	10,486	10,699	10,850	10,789			
Daily heat rate, Btu/kWe gross	11,617	11,691	12,043	11,729	11,644	11,730	11,618	11,717	11,648	11,886	12,053	11,985			
Cumulative heat rate, Btu/kWe	10,855	10,835	10,835	10,821	10,804	10,792	10,777	10,767	10,756	10,754	10,757	10,759			
Cumulative heat rate, Btu/kWe	12,058	12,036	12,037	12,021	12,002	11,989	11,972	11,961	11,948	11,946	11,950	11,951			
Cumulative by Facility starting C															
Max cumulative available engi	4,512	4,608	4,704	4,800	4,896	4,992	5,088	5,184	5,280	5,376	5,472	5,568			
Actual cumulative engine run h	3,184	3,256	3,328	3,400	3,472	3,543	3,615	3,687	3,753	3,825	3,897	3,968			
Cumulative Availability, %	70.6%	70.7%	70.7%	70.8%	70.9%	71.0%	71.0%	71.1%	71.1%	71.1%	71.2%	71.3%			
Max cumulative gross output, k	3,722,400	3,801,600	3,880,800	3,960,000	4,039,200	4,118,400	4,197,600	4,276,800	4,356,000	4,435,200	4,514,400	4,593,600			
Actual cumulative gross output,	1,916,053	1,961,557	2,004,729	2,048,893	2,094,297	2,139,123	2,183,873	2,230,505	2,272,374	2,316,772	2,360,777	2,403,864			
Cumulative Capacity Factor	51.5%	51.6%	51.7%	51.7%	51.8%	51.9%	52.0%	52.2%	52.2%	52.2%	52.3%	52.3%			
Cumulative fuel input, MMBtu h	24,201	24,733	25,253	25,771	26,299	26,825	27,345	27,892	28,379	28,907	29,437	29,954			
Cumulative gross output, kWhr	1,916,053	1,961,557	2,004,729	2,048,893	2,094,297	2,139,123	2,183,873	2,230,505	2,272,374	2,316,772	2,360,777	2,403,864			
Cumulative heat rate, Btu/kWe	11,370	11,350	11,339	11,323	11,304	11,289	11,272	11,257	11,242	11,232	11,225	11,217			
Cumulative heat rate, Btu/kWe	12,631	12,609	12,597	12,578	12,558	12,540	12,521	12,505	12,489	12,477	12,469	12,461			
Service															
Engine 1															
Engine 2	6					Check KO for vacuum surge									
Engine 3						Install New Call out system									
Engine 4															
Oil - oil and filter change															
Service - plugs, air filter, valve insp															
Precipitation															
NSTAR Power Reports	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday			
Date	2/17/2019	2/18/2019	2/19/2019	2/20/2019	2/21/2019	2/22/2019	2/23/2019	2/24/2019	2/25/2019	2/26/2019	2/27/2019	2/28/2019	TOTAL		
Hour															
1	1,797	1,833	1,701	1,748	1,870	1,833	1,755	1,804	1,876	1,914	1,719	1,819			
2	1,798	1,849	1,700	1,748	1,873	1,827	1,785	1,806	1,876	1,821	1,719	1,819			
3	1,799	1,849	1,697	1,748	1,874	1,825	1,802	1,874	1,874	1,816	1,719	1,820			
4	1,796	1,847	1,697	1,747	1,872	1,824	1,801	1,874	1,876	1,814	1,719	1,773			
5	1,766	1,809	1,697	1,749	1,873	1,826	1,802	1,875	1,876	1,817	1,720	1,762			
6	1,777	1,852	1,701	1,747	1,872	1,802	1,801	1,875	1,873	1,770	1,716	1,770			
7	1,773	1,872	1,700	1,748	1,871	1,776	1,799	1,873	1,872	1,765	1,717	1,723			
8	1,775	1,874	1,697	1,749	1,873	1,776	1,778	1,876	1,874	1,727	1,721	1,721			
9	1,778	1,873	1,695	1,747	1,871	1,766	1,755	1,876	1,865	1,719	1,718	1,715			
10	1,779	1,875	1,698	1,698	1,324	1,737	1,756	1,876	1,824	1,736	1,721	1,716			
11	1,779	1,871	1,547	1,477	1,216	1,464	1,756	1,877	1,818	1,819	1,726	1,719			
12	1,779	1,875	1,793	1,852	1,873	1,386	1,758	1,877	1,816	1,819	1,726	1,719			
13	1,781	1,873	1,772	1,818	1,872	1,874	1,804	1,878	1,817	1,818	1,819	1,721			
14	1,782	1,874	1,772	1,772	1,872	1,874	1,805	1,881	1,815	1,817	1,823	1,223			
15	1,779	1,831	1,772	1,774	1,735	1,873	1,804	1,879	1,813	1,817	1,819	1,655			
16	1,780	1,800	1,769	1,772	1,876	1,873	1,804	1,878	1,817	1,820	1,821	1,600			
17	1,853	1,799	1,747	1,777	1,878	1,873	1,804	1,879	1,822	1,760	1,783	1,853			
18	1,827	1,800	1,751	1,775	1,874	1,870	1,804	1,878	1,224	1,723	1,753	1,791			
19	1,777	1,799	1,748	1,773	1,868	1,822	1,803	1,878	-	1,723	1,817	1,768			
20	1,777	1,767	1,746	1,774	1,874	1,823	1,804	1,878	62	1,721	1,742	1,758			
21	1,778	1,702	1,746	1,776	1,872	1,824	1,805	1,876	1,553	1,718	1,818	1,723			
22	1,833	1,752	1,749	1,864	1,871	1,825	1,802	1,875	2,018	1,718	1,816	1,722			
23	1,836	1,746	1,748	1,866	1,876	1,827	1,804	1,875	2,014	1,721	1,769	1,724			
24	1,779	1,702	1,750	1,868	1,873	1,822	1,803	1,873	1,933	1,721	1,819	1,723			
TOTAL	42,978	43,724	41,393	42,367	43,603	43,022	42,994	44,891	40,208	42,614	42,240	41,337			
Cumulative Output Sold, kV	694,087	737,811	779,204	821,571	865,174	908,196	951,190	996,081	1,036,289	1,078,903	1,121,143	1,162,480			
Transformer and line efficienc	100.3%	99.8%	100.0%	99.9%	99.8%	99.9%	99.9%	100.0%	99.9%	100.0%	100.0%	100.1%			
Hourly average	1,791	1,822	1,725	1,765	1,817	1,793	1,791	1,870	1,675	1,776	1,760	1,722			

MARCH 2019																	
											DLST						
	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	3/1/2019	3/2/2019	3/3/2019	3/4/2019	3/5/2019	3/6/2019	3/7/2019	3/8/2019	3/9/2019	3/10/2019	3/11/2019	3/12/2019	3/13/2019	3/14/2019	3/15/2019	3/16/2019
LFG and Biogas Flow to the Engines (KSCF)	1,048	1,015	1,022	989	984	1,063	1,022	1,035	987	987	1,006	1,017	1,011	1,015	982	992
LFG and Biogas Flow to the Engines (MMBTU HHV)	521	519	517	493	505	544	517	525	515	515	533	529	517	524	515	522
LFG and Biogas Flow to the Flare (KSCF)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)	1,048	1,015	1,022	989	984	1,063	1,022	1,035	987	987	1,006	1,017	1,011	1,015	982	992
LFG and Biogas Total Flow (MMBTU HHV)	521	519	517	493	505	544	517	525	515	515	533	529	517	524	515	522
Average Methane Content (%)	49.1	50.5	49.9	49.3	50.7	50.5	49.9	50.1	51.6	51.6	52.3	51.4	50.5	51.0	51.8	52.0
Engine 1 Hours	24	24	24	22	24	24	24	24	24	23	24	24	22	24	24	23
Engine 2 Hours	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Engine 3 Hours	25	24	24	22	23	24	24	24	24	23	24	24	24	24	24	24
Engine 4 Hours	24	24	24	23	24	24	24	24	20	23	24	24	24	24	24	24
Generator 1 Power Output (kWhr)	14,448	14,676	14,432	13,544	14,428	14,472	14,556	13,616	14,236	14,368	14,144	13,840	12,468	13,848	14,912	13,064
Generator 2 Power Output (kWhr)	-	-	-	-	-	-	-	-	-	-	-	-	516	-	-	-
Generator 3 Power Output (kWhr)	14,408	14,384	14,388	13,664	13,844	13,808	13,808	13,900	14,304	14,936	15,588	15,420	14,120	13,816	13,816	14,084
Generator 4 Power Output (kWhr)	14,380	14,364	14,364	13,852	15,072	14,364	13,784	13,108	8,824	13,376	14,380	14,384	15,224	15,548	15,408	14,840
Gross Power Output (kWhr)	43,172	43,418	43,163	41,118	43,332	42,558	42,060	40,545	37,267	42,733	44,165	43,708	42,347	43,242	44,130	41,925
Net Power Output (kWhr)	41,416	41,712	41,444	39,468	41,604	40,840	40,300	38,840	35,648	41,100	42,472	42,000	40,660	41,532	42,432	40,340
Power Sold as metered by NStar, (kWhr)	41,362	41,650	41,385	39,409	41,570	40,858	40,318	38,847	35,693	41,029	42,381	41,926	40,603	41,462	42,369	40,370
Offgrid RECs (kWhr)	1,754	1,706	1,719	1,651	1,727	1,718	1,761	1,704	1,619	1,633	1,693	1,707	1,688	1,710	1,697	1,588
Calculated Performance Results																
Daily																
Power output (kW average when running)																
Generator 1	602	612	601	616	601	603	607	567	593	625	589	577	567	577	621	568
Generator 2	-	-	-	-	-	-	-	-	-	-	-	-	258	-	-	-
Generator 3	576	599	600	621	602	575	575	579	596	649	650	643	588	576	576	587
Generator 4	599	599	599	602	628	599	574	546	441	582	599	599	634	648	642	618
Power output (kW average over 24-hrs)																
Facility Gross	1,799	1,809	1,798	1,713	1,806	1,773	1,753	1,689	1,553	1,781	1,840	1,821	1,764	1,802	1,839	1,747
Facility Net	1,726	1,738	1,727	1,645	1,734	1,702	1,679	1,618	1,485	1,713	1,770	1,750	1,694	1,731	1,768	1,681
In-plant load	73	71	72	69	72	72	73	71	67	68	71	71	70	71	71	66
Daily availability factor																
Facility	76%	75%	75%	70%	74%	75%	75%	75%	71%	72%	75%	75%	75%	75%	75%	74%
Engine 1	100%	100%	100%	92%	100%	100%	100%	100%	100%	96%	100%	100%	92%	100%	100%	96%
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	0%	0%	0%
Engine 3	104%	100%	100%	92%	96%	100%	100%	100%	100%	96%	100%	100%	100%	100%	100%	100%
Engine 4	100%	100%	100%	96%	100%	100%	100%	100%	83%	96%	100%	100%	100%	100%	100%	100%
Daily capacity factor																
Facility	55%	55%	54%	52%	55%	54%	53%	51%	47%	54%	56%	55%	53%	55%	56%	53%
Engine 1	73%	74%	73%	75%	73%	73%	74%	69%	72%	76%	71%	70%	69%	70%	75%	69%
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	31%	0%	0%	0%
Engine 3	70%	73%	73%	75%	73%	70%	70%	70%	72%	79%	79%	78%	71%	70%	70%	71%
Engine 4	73%	73%	73%	73%	76%	73%	70%	66%	53%	70%	73%	73%	77%	79%	78%	75%
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	94	118	142	166	190	214	237	261	285	307	331	355	378
Engine 2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
Engine 3	25	49	73	95	118	142	166	190	214	237	261	285	309	333	357	381
Engine 4	24	48	72	95	119	143	167	191	211	234	258	282	306	330	354	378
Engine operating run hours total from 0 hours																
Engine 1 98,673	98,697	98,721	98,745	98,767	98,791	98,815	98,839	98,863	98,887	98,910	98,934	98,958	98,980	99,004	99,028	99,051
Engine 2 91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,011	91,013	91,013	91,013	91,013
Engine 3 95,209	95,234	95,258	95,282	95,304	95,327	95,351	95,375	95,399	95,423	95,446	95,470	95,494	95,518	95,542	95,566	95,590
Engine 4 92,670	92,694	92,718	92,742	92,765	92,789	92,813	92,837	92,861	92,881	92,904	92,928	92,952	92,976	93,000	93,024	93,048
Cumulative availability, % March, 2019 @ 00:00 hours																
Engine 1	100%	100%	100%	98%	98%	99%	99%	99%	99%	99%	99%	99%	98%	99%	99%	98%
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%
Engine 3	104%	102%	101%	99%	98%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
Engine 4	100%	100%	100%	99%	99%	99%	99%	99%	98%	98%	98%	98%	98%	98%	98%	98%
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	602	1,214	1,815	2,430	3,032	3,635	4,241	4,808	5,402	6,026	6,616	7,192	7,759	8,336	8,957	9,525
Engine 2	-	-	-	-	-	-	-	-	-	-	-	-	258	258	258	258
Engine 3	576	1,176	1,775	2,396	2,998	3,573	4,149	4,728	5,324	5,973	6,623	7,265	7,854	8,429	9,005	9,592
Engine 4	599	1,198	1,796	2,398	3,026	3,625	4,199	4,745	5,187	5,768	6,367	6,967	7,601	8,249	8,891	9,509
Cumulative capacity factor, %																
Engine 1	73%	74%	73%	74%	73%	73%	73%	73%	73%	73%	73%	73%	72%	72%	72%	72%
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%
Engine 3	70%	71%	72%	73%	73%	72%	72%	72%	72%	72%	73%	73%	73%	73%	73%	73%
Engine 4	73%	73%	73%	73%	73%	73%	73%	72%	70%	70%	70%	70%	71%	71%	72%	72%

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	3/1/2019	3/2/2019	3/3/2019	3/4/2019	3/5/2019	3/6/2019	3/7/2019	3/8/2019	3/9/2019	3/10/2019	3/11/2019	3/12/2019	3/13/2019	3/14/2019	3/15/2019	3/16/2019
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	73	145	217	284	355	427	499	571	639	708	780	852	924	996	1,068	1,139
Cumulative Availability, %	76.0%	75.5%	75.3%	74.0%	74.0%	74.1%	74.3%	74.3%	74.0%	73.8%	73.9%	74.0%	74.0%	74.1%	74.2%	74.2%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	43,172	86,590	129,753	170,871	214,203	256,761	298,821	339,366	376,633	419,366	463,531	507,239	549,586	592,828	636,958	678,883
Cumulative Capacity Factor	54.5%	54.7%	54.6%	53.9%	54.1%	54.0%	53.9%	53.6%	52.8%	53.0%	53.2%	53.4%	53.4%	53.5%	53.6%	53.6%
Cumulative fuel input, MMBtu HHV	521	1,040	1,557	2,050	2,555	3,098	3,615	4,140	4,655	5,170	5,703	6,231	6,748	7,272	7,787	8,308
Cumulative gross output, kWhr	43,172	86,590	129,753	170,871	214,203	256,761	298,821	339,366	376,633	419,366	463,531	507,239	549,586	592,828	636,958	678,883
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	10,864	10,763	10,776	10,795	10,489	11,496	11,059	11,647	12,447	10,855	10,856	10,885	10,988	10,904	10,497	11,204
Daily heat rate, Btu/kWe gross HHV	12,068	11,956	11,971	11,992	11,652	12,771	12,285	12,939	13,827	12,059	12,059	12,092	12,206	12,113	11,661	12,446
Cumulative heat rate, Btu/kWe gross LHV	10,864	10,813	10,801	10,799	10,737	10,863	10,890	10,981	11,126	11,098	11,075	11,059	11,053	11,042	11,005	11,017
Cumulative heat rate, Btu/kWe gross HHV	12,068	12,012	11,998	11,997	11,927	12,067	12,098	12,198	12,359	12,329	12,303	12,285	12,279	12,267	12,225	12,238
Cumulative by Facility starting Calendar Year																
Max cumulative available engine run hours	5,664	5,760	5,856	5,952	6,048	6,144	6,240	6,336	6,432	6,528	6,624	6,720	6,816	6,912	7,008	7,104
Actual cumulative engine run hours	4,041	4,113	4,185	4,252	4,323	4,395	4,467	4,539	4,607	4,676	4,748	4,820	4,892	4,964	5,036	5,107
Cumulative Availability, %	71.3%	71.4%	71.5%	71.4%	71.5%	71.5%	71.6%	71.6%	71.6%	71.6%	71.7%	71.7%	71.8%	71.8%	71.9%	71.9%
Max cumulative gross output, kWhr	4,672,800	4,752,000	4,831,200	4,910,400	4,989,600	5,068,800	5,148,000	5,227,200	5,306,400	5,385,600	5,464,800	5,544,000	5,623,200	5,702,400	5,781,600	5,860,800
Actual cumulative gross output, kWhr	2,447,036	2,490,454	2,533,617	2,574,735	2,618,067	2,660,625	2,702,685	2,743,230	2,780,497	2,823,230	2,867,395	2,911,103	2,953,450	2,996,692	3,040,822	3,082,747
Cumulative Capacity Factor	52.4%	52.4%	52.4%	52.4%	52.5%	52.5%	52.5%	52.5%	52.4%	52.4%	52.5%	52.5%	52.5%	52.6%	52.6%	52.6%
Cumulative fuel input, MMBtu HHV	30,475	30,994	31,511	32,004	32,509	33,052	33,569	34,093	34,609	35,124	35,657	36,185	36,702	37,226	37,740	38,262
Cumulative gross output, kWhr	2,447,036	2,490,454	2,533,617	2,574,735	2,618,067	2,660,625	2,702,685	2,743,230	2,780,497	2,823,230	2,867,395	2,911,103	2,953,450	2,996,692	3,040,822	3,082,747
Cumulative heat rate, Btu/kWe gross LHV	11,211	11,203	11,196	11,189	11,178	11,183	11,181	11,188	11,205	11,199	11,194	11,189	11,187	11,182	11,173	11,173
Cumulative heat rate, Btu/kWe gross HHV	12,454	12,445	12,437	12,430	12,417	12,423	12,421	12,428	12,447	12,441	12,435	12,430	12,427	12,422	12,411	12,412
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	3/1/2019	3/2/2019	3/3/2019	3/4/2019	3/5/2019	3/6/2019	3/7/2019	3/8/2019	3/9/2019	3/10/2019	3/11/2019	3/12/2019	3/13/2019	3/14/2019	3/15/2019	3/16/2019
Hour																
1	1,722	1,725	1,726	1,724	1,728	1,724	1,650	1,651	1,486	1,435	1,824	1,753	1,684	1,725	1,728	1,735
2	1,722	1,726	1,728	1,725	1,729	1,724	1,650	1,653	1,482	1,826	1,800	1,753	1,682	1,727	1,797	1,786
3	1,722	1,725	1,725	1,741	1,726	1,724	1,705	1,653	1,466	1,827	1,754	1,757	1,681	1,731	1,802	1,721
4	1,721	1,725	1,724	1,774	1,727	1,723	1,699	1,651	1,469	1,820	1,756	1,757	1,681	1,730	1,801	1,716
5	1,722	1,727	1,725	191	1,729	1,724	1,655	1,653	1,456	1,756	1,753	1,754	1,680	1,729	1,751	1,711
6	1,722	1,725	1,725	-	1,729	1,724	1,653	1,651	1,447	1,751	1,756	1,756	1,681	1,730	1,731	1,712
7	1,721	1,724	1,722	1,151	1,727	1,721	1,652	1,651	1,450	1,750	1,754	1,757	1,682	1,728	1,731	1,712
8	1,723	1,727	1,725	2,016	1,694	1,725	1,652	1,653	1,566	1,751	1,754	1,756	1,681	1,729	1,728	1,712
9	1,721	1,725	1,726	2,016	1,653	1,652	1,648	1,649	1,571	1,753	1,750	1,746	1,614	1,723	1,722	1,714
10	1,723	1,726	1,723	1,939	1,609	1,657	1,650	1,653	1,525	1,755	1,750	1,747	1,643	1,730	1,724	1,717
11	1,723	1,728	1,724	1,884	1,237	1,679	1,652	1,324	1,503	1,756	1,753	1,749	1,473	1,726	1,758	1,708
12	1,724	1,734	1,726	1,863	1,627	1,730	1,671	910	1,489	1,757	1,754	1,751	1,673	1,723	1,796	1,713
13	1,723	1,776	1,725	1,825	1,870	1,726	1,722	1,873	1,499	1,826	1,750	1,752	1,731	1,725	1,793	1,688
14	1,723	1,773	1,724	1,818	1,868	1,726	1,723	1,867	1,504	1,829	1,755	1,753	1,727	1,723	1,767	1,659
15	1,726	1,775	1,724	1,819	1,825	1,727	1,724	1,797	1,476	1,828	1,817	1,755	1,726	1,727	1,795	1,661
16	1,724	1,773	1,723	1,819	1,796	1,725	1,724	1,796	1,457	1,826	1,828	1,754	1,727	1,727	1,784	1,438
17	1,729	1,767	1,723	1,808	1,800	1,725	1,726	1,804	1,436	1,827	1,799	1,759	1,728	1,727	1,785	1,226
18	1,721	1,725	1,723	1,777	1,798	1,724	1,726	1,796	1,287	1,827	1,760	1,760	1,732	1,730	1,786	1,645
19	1,724	1,725	1,723	1,778	1,798	1,726	1,720	1,541	1,463	1,826	1,758	1,755	1,733	1,734	1,785	1,814
20	1,725	1,725	1,723	1,779	1,795	1,668	1,717	1,539	1,829	1,827	1,752	1,747	1,728	1,732	1,787	1,777
21	1,726	1,723	1,723	1,769	1,797	1,653	1,652	1,521	1,780	1,826	1,750	1,755	1,731	1,728	1,787	1,733
22	1,726	1,721	1,724	1,731	1,795	1,651	1,649	1,522	1,567	1,824	1,751	1,732	1,730	1,727	1,785	1,714
23	1,724	1,724	1,725	1,731	1,787	1,651	1,648	1,527	1,243	1,826	1,752	1,684	1,725	1,725	1,729	1,678
24	1,725	1,726	1,726	1,731	1,726	1,649	1,650	1,512	1,242	-	1,751	1,684	1,730	1,726	1,717	1,680
				-												
TOTAL	41,362	41,650	41,385	39,409	41,570	40,858	40,318	38,847	35,693	41,029	42,381	41,926	40,603	41,462	42,369	40,370
Cumulative Output Sold, kWhr	41,362	83,012	124,397	163,806	205,376	246,234	286,552	325,399	361,092	402,121	444,502	486,428	527,031	568,493	610,862	651,232
Transformer and line efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	100.0%	100.1%	99.8%	99.8%	99.8%	99.9%	99.8%	99.9%	100.1%
Hourly average	1,723	1,735	1,724	1,642	1,732	1,702	1,680	1,619	1,487	1,710	1,766	1,747	1,692	1,728	1,765	1,682

MARCH 2019																			
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
	3/17/2019	3/18/2019	3/19/2019	3/20/2019	3/21/2019	3/22/2019	3/23/2019	3/24/2019	3/25/2019	3/26/2019	3/27/2019	3/28/2019	3/29/2019	3/30/2019	3/31/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	1,017	1,017	1,040	1,013	1,017	998	986	995	987	1,003	1,018	1,008	998	990	984	31,245	1,749	29,495
LFG and Biogas Flow to the Engine	521	516	530	526	538	559	533	521	518	518	517	518	523	514	522	16,183	1,239	14,944
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7%	92%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF)	1,017	1,017	1,040	1,013	1,017	998	986	995	987	1,003	1,018	1,008	998	990	984	31,245		
LFG and Biogas Total Flow (MMBT	521	516	530	526	538	559	533	521	518	518	517	518	523	514	522	16,183		
Average Methane Content (%)	50.7	50.2	50.4	51.3	52.2	55.3	53.5	51.8	51.8	51.0	50.2	50.8	51.8	51.3	52.4	51.2		
Engine 1 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	738		
Engine 2 Hours	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2		
Engine 3 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	741		
Engine 4 Hours	24	23	24	24	24	24	24	24	24	24	24	24	24	24	24	737		
Generator 1 Power Output (kWhr)	14,440	14,192	14,172	14,180	14,352	15,264	13,496	13,828	14,752	14,820	13,480	14,112	14,364	13,232	14,280	438,016		
Generator 2 Power Output (kWhr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	516		
Generator 3 Power Output (kWhr)	13,812	13,980	14,148	15,004	15,004	15,572	14,204	13,220	13,228	13,224	13,228	13,224	13,224	13,220	13,220	435,800		
Generator 4 Power Output (kWhr)	13,776	13,388	13,396	14,032	14,956	15,520	15,532	15,536	15,336	15,192	15,192	15,188	15,188	15,184	15,184	447,872		
Gross Power Output (kWhr)	42,001	41,537	41,681	43,162	44,265	46,359	43,204	42,557	43,259	43,184	41,806	42,460	42,710	41,597	42,662	1,321,327		
Net Power Output (kWhr)	40,352	39,828	40,004	41,464	42,548	44,692	41,616	40,964	41,544	41,468	40,112	40,784	41,024	40,024	41,056	1,269,288		
Power Sold as metered by NStar, (	40,318	39,826	39,997	41,445	42,514	44,609	41,574	40,940	41,533	41,456	40,131	40,788	41,013	39,996	41,011	1,268,383	CRMCB inplant	
Offgrid RECs (kWhr)	1,649	1,710	1,677	1,697	1,716	1,668	1,588	1,592	1,715	1,716	1,694	1,676	1,686	1,573	1,606	52,038	11,196	
Calculated Performance Results																	22%	
Daily																	of total in-plant	
Power output (kW average whe																	power	
Generator 1	602	591	591	591	598	636	562	576	615	618	562	588	599	551	595			
Generator 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Generator 3	576	583	590	625	625	649	592	551	551	551	551	551	551	551	551			
Generator 4	574	582	558	585	623	647	647	647	639	633	633	633	633	633	633			
Power output (kW average ove																		
Facility Gross	1,750	1,731	1,737	1,798	1,844	1,932	1,800	1,773	1,802	1,799	1,742	1,769	1,780	1,733	1,778			
Facility Net	1,681	1,660	1,667	1,728	1,773	1,862	1,734	1,707	1,731	1,728	1,671	1,699	1,709	1,668	1,711			
In-plant load	69	71	70	71	72	69	66	66	71	72	71	70	70	66	67			
Daily availability factor																		
Facility	75%	74%	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%			
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%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Daily capacity factor																		
Facility	53%	52%	53%	54%	56%	59%	55%	54%	55%	55%	53%	54%	54%	53%	54%			
Engine 1	73%	72%	72%	72%	72%	77%	68%	70%	75%	75%	68%	71%	73%	67%	72%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	70%	71%	71%	76%	76%	79%	72%	67%	67%	67%	67%	67%	67%	67%	67%			
Engine 4	70%	71%	68%	71%	76%	78%	78%	78%	77%	77%	77%	77%	77%	77%	77%			
Cumulative by engine																		
Engine operating run hours in tl																		
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672	696	720	720			
Engine 1	402	426	450	474	498	522	546	570	594	618	642	666	690	714	714			
Engine 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Engine 3	405	429	453	477	501	525	549	573	597	621	645	669	693	717	717			
Engine 4	402	425	449	473	497	521	545	569	593	617	641	665	689	713	713			
Engine operating run hours tota																		
Engine 1	99,075	99,099	99,123	99,147	99,171	99,195	99,219	99,243	99,267	99,291	99,315	99,339	99,363	99,387	99,387			
Engine 2	91,013	91,013	91,013	91,013	91,013	91,013	91,013	91,013	91,013	91,013	91,013	91,013	91,013	91,013	91,013			
Engine 3	95,614	95,638	95,662	95,686	95,710	95,734	95,758	95,782	95,806	95,830	95,854	95,878	95,902	95,926	95,926			
Engine 4	93,072	93,095	93,119	93,143	93,167	93,191	93,215	93,239	93,263	93,287	93,311	93,335	93,359	93,383	93,383			
Cumulative availability, %																		
Engine 1	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	99%	99%	99%	99%	99%	99%	99%	99%	100%	100%	100%	100%	100%	100%	100%			
Engine 4	99%	98%	98%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%			
Engine cumulative gross output																		
Max cumulative capacity or	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	24,750			
Engine 1	10,127	10,718	11,309	11,900	12,498	13,134	13,696	14,272	14,887	15,504	16,066	16,654	17,253	17,804	17,848			
Engine 2	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258			
Engine 3	10,167	10,750	11,339	11,965	12,590	13,239	13,830	14,381	14,932	15,483	16,035	16,586	17,137	17,687	17,687			
Engine 4	10,083	10,665	11,223	11,808	12,431	13,078	13,725	14,372	15,011	15,644	16,277	16,910	17,543	18,176	18,176			
Cumulative capacity factor, %																		
Engine 1	72%	72%	72%	72%	72%	72%	72%	72%	72%	72%	72%	72%	72%	72%	72%			
Engine 2	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%			
Engine 3	72%	72%	72%	73%	73%	73%	73%	73%	72%	72%	72%	72%	72%	71%	71%			
Engine 4	72%	72%	72%	72%	72%	72%	72%	73%	73%	73%	73%	73%	73%	73%	73%			

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
	3/17/2019	3/18/2019	3/19/2019	3/20/2019	3/21/2019	3/22/2019	3/23/2019	3/24/2019	3/25/2019	3/26/2019	3/27/2019	3/28/2019	3/29/2019	3/30/2019	3/31/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month																		
Max cumulative available engi	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	2,880			
Actual cumulative engine run h	1,211	1,282	1,354	1,426	1,498	1,570	1,642	1,714	1,786	1,858	1,930	2,002	2,074	2,146	2,146			
Cumulative Availability, %	74.2%	74.2%	74.2%	74.3%	74.3%	74.3%	74.4%	74.4%	74.4%	74.4%	74.5%	74.5%	74.5%	74.5%	74.5%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000	2,376,000			
Actual cumulative gross output,	720,884	762,421	804,102	847,264	891,529	937,888	981,092	1,023,649	1,066,908	1,110,092	1,151,898	1,194,358	1,237,068	1,278,665	1,279,730			
Cumulative Capacity Factor	53.5%	53.5%	53.4%	53.5%	53.6%	53.8%	53.9%	53.9%	53.9%	53.9%	53.9%	53.9%	53.9%	53.8%	53.9%			
Cumulative fuel input, MMBtu H	8,830	9,346	9,876	10,402	10,940	11,499	12,032	12,553	13,071	13,589	14,106	14,624	15,148	15,662	15,669			
Cumulative gross output, kWhr	720,884	762,421	804,102	847,264	891,529	937,888	981,092	1,023,649	1,066,908	1,110,092	1,151,898	1,194,358	1,237,068	1,278,665	1,279,730			
Heat Rate																		
Daily heat rate, Btu/kWe gross	11,171	11,185	11,455	10,970	10,937	10,847	11,114	11,029	10,775	10,792	11,135	10,989	11,030	11,123	11,006			
Daily heat rate, Btu/kWe gross	12,409	12,425	12,725	12,187	12,150	12,049	12,346	12,252	11,970	11,988	12,369	12,207	12,252	12,357	12,226			
Cumulative heat rate, Btu/kWe	11,026	11,035	11,056	11,052	11,046	11,036	11,040	11,039	11,029	11,019	11,024	11,022	11,023	11,026	11,022			
Cumulative heat rate, Btu/kWe	12,248	12,258	12,282	12,277	12,271	12,260	12,264	12,263	12,251	12,241	12,246	12,244	12,245	12,248	12,244			
Cumulative by Facility starting C																		
Max cumulative available engi	7,200	7,296	7,392	7,488	7,584	7,680	7,776	7,872	7,968	8,064	8,160	8,256	8,352	8,448	8,448			
Actual cumulative engine run h	5,179	5,250	5,322	5,394	5,466	5,538	5,610	5,682	5,754	5,826	5,898	5,970	6,042	6,114	6,114			
Cumulative Availability, %	71.9%	72.0%	72.0%	72.0%	72.1%	72.1%	72.1%	72.2%	72.2%	72.2%	72.3%	72.3%	72.3%	72.4%	72.4%			
Max cumulative gross output, k	5,940,000	6,019,200	6,098,400	6,177,600	6,256,800	6,336,000	6,415,200	6,494,400	6,573,600	6,652,800	6,732,000	6,811,200	6,890,400	6,969,600	6,969,600			
Actual cumulative gross output,	3,124,748	3,166,285	3,207,966	3,251,128	3,295,393	3,341,752	3,384,956	3,427,513	3,470,772	3,513,956	3,555,762	3,598,222	3,640,932	3,682,529	3,683,594			
Cumulative Capacity Factor	52.6%	52.6%	52.6%	52.6%	52.7%	52.7%	52.8%	52.8%	52.8%	52.8%	52.8%	52.8%	52.8%	52.8%	52.9%			
Cumulative fuel input, MMBtu H	38,783	39,299	39,830	40,356	40,894	41,452	41,986	42,507	43,025	43,543	44,060	44,578	45,101	45,615	45,623			
Cumulative gross output, kWhr	3,124,748	3,166,285	3,207,966	3,251,128	3,295,393	3,341,752	3,384,956	3,427,513	3,470,772	3,513,956	3,555,762	3,598,222	3,640,932	3,682,529	3,683,594			
Cumulative heat rate, Btu/kWe	11,173	11,173	11,177	11,174	11,171	11,166	11,166	11,164	11,159	11,155	11,154	11,152	11,151	11,151	11,149			
Cumulative heat rate, Btu/kWe	12,412	12,412	12,416	12,413	12,409	12,404	12,404	12,402	12,396	12,391	12,391	12,389	12,387	12,387	12,385			
Service																		
Engine 1																		
Engine 2																		
Engine 3																		
Engine 4																		
Oil - oil and filter change																		
Service - plugs, air filter, valve insp																		
Precipitation																		
NSTAR Power Reports	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
Date	3/17/2019	3/18/2019	3/19/2019	3/20/2019	3/21/2019	3/22/2019	3/23/2019	3/24/2019	3/25/2019	3/26/2019	3/27/2019	3/28/2019	3/29/2019	3/30/2019	3/31/2019	TOTAL		
Hour																		
1	1,677	1,678	1,658	1,653	1,802	1,807	1,776	1,676	1,723	1,744	1,660	1,713	1,715	1,667	1,687			
2	1,678	1,676	1,659	1,653	1,800	1,806	1,777	1,675	1,682	1,749	1,660	1,712	1,712	1,661	1,715			
3	1,676	1,677	1,660	1,658	1,734	1,806	1,778	1,678	1,737	1,749	1,663	1,712	1,714	1,662	1,715			
4	1,678	1,677	1,658	1,656	1,756	1,806	1,779	1,681	1,685	1,749	1,664	1,713	1,716	1,664	1,715			
5	1,680	1,675	1,656	1,655	1,800	1,807	1,774	1,680	1,750	1,747	1,662	1,710	1,713	1,661	1,713			
6	1,680	1,676	1,657	1,657	1,791	1,807	1,779	1,679	1,704	1,749	1,662	1,702	1,714	1,664	1,715			
7	1,681	1,676	1,658	1,654	1,728	1,804	1,779	1,679	1,711	1,704	1,662	1,664	1,712	1,665	1,716			
8	1,679	1,634	1,657	1,650	1,725	1,806	1,777	1,681	1,674	1,723	1,663	1,662	1,712	1,662	1,715			
9	1,680	1,574	1,587	1,649	1,717	1,942	1,778	1,680	1,670	1,697	1,656	1,656	1,706	1,664	1,713			
10	1,680	1,537	1,579	1,648	1,721	1,946	1,773	1,683	1,758	1,656	1,656	1,660	1,703	1,668	1,713			
11	1,683	1,624	1,611	1,650	1,718	1,945	1,683	1,684	1,743	1,722	1,657	1,660	1,706	1,669	1,716			
12	1,685	1,724	1,651	1,715	1,720	1,946	1,743	1,685	1,742	1,733	1,661	1,663	1,710	1,668	1,716			
13	1,685	1,704	1,656	1,776	1,722	1,916	1,734	1,714	1,741	1,736	1,663	1,699	1,710	1,671	1,718			
14	1,684	1,684	1,656	1,772	1,766	1,911	1,764	1,782	1,739	1,735	1,663	1,710	1,708	1,668	1,717			
15	1,685	1,687	1,716	1,790	1,798	1,896	1,686	1,734	1,744	1,736	1,662	1,711	1,711	1,670	1,717			
16	1,684	1,658	1,728	1,798	1,800	1,877	1,745	1,758	1,745	1,736	1,663	1,715	1,708	1,670	1,717			
17	1,683	1,664	1,733	1,801	1,798	1,877	1,693	1,723	1,751	1,739	1,669	1,716	1,717	1,668	1,717			
18	1,682	1,664	1,734	1,806	1,803	1,879	1,684	1,776	1,753	1,740	1,669	1,716	1,716	1,669	1,718			
19	1,676	1,661	1,732	1,804	1,802	1,873	1,681	1,733	1,751	1,737	1,667	1,719	1,714	1,669	1,717			
20	1,675	1,652	1,724	1,800	1,801	1,873	1,677	1,713	1,750	1,735	1,701	1,715	1,713	1,667	1,715			
21	1,676	1,658	1,667	1,798	1,800	1,873	1,678	1,721	1,747	1,738	1,710	1,718	1,716	1,668	1,715			
22	1,675	1,655	1,654	1,800	1,804	1,793	1,678	1,679	1,745	1,737	1,712	1,717	1,716	1,668	1,690			
23	1,676	1,654	1,652	1,800	1,805	1,799	1,678	1,747	1,743	1,705	1,712	1,711	1,686	1,667	1,660			
24	1,680	1,657	1,654	1,802	1,803	1,814	1,680	1,699	1,745	1,660	1,714	1,714	1,665	1,666	1,661			
TOTAL	40,318	39,826	39,997	41,445	42,514	44,609	41,574	40,940	41,533	41,456	40,131	40,788	41,013	39,996	41,011			
Cumulative Output Sold, kV	691,550	731,376	771,373	812,818	855,332	899,941	941,515	982,455	1,023,988	1,065,444	1,105,575	1,146,363	1,187,376	1,227,372	1,268,383			
Transformer and line efficienc	99.9%	100.0%	100.0%	100.0%	99.9%	99.8%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	99.9%	0.0%		
Hourly average	1,680	1,659	1,667	1,727	1,771	1,859	1,732	1,706	1,731	1,727	1,672	1,700	1,709	1,667	1,709	1,705		

APRIL 2019																	
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
		4/1/2019	4/2/2019	4/3/2019	4/4/2019	4/5/2019	4/6/2019	4/7/2019	4/8/2019	4/9/2019	4/10/2019	4/11/2019	4/12/2019	4/13/2019	4/14/2019	4/15/2019	4/16/2019
LFG and Biogas Flow to the Engines (KSCF)		983	1,001	978	977	1,004	978	989	982	970	969	994	975	988	976	956	968
LFG and Biogas Flow to the Engines (MMBTU HHV)		509	515	526	511	520	521	519	533	531	529	528	519	535	531	520	531
LFG and Biogas Flow to the Flare (KSCF)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)		983	1,001	978	977	1,004	978	989	982	970	969	994	975	988	976	956	968
LFG and Biogas Total Flow (MMBTU HHV)		509	515	526	511	520	521	519	533	531	529	528	519	535	531	520	531
Average Methane Content (%)		51.1	50.8	53.1	51.7	51.2	52.6	51.9	53.7	54.1	53.9	52.5	52.5	53.5	53.8	53.8	54.2
Engine 1 Hours		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	23
Engine 2 Hours		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Engine 3 Hours		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	16
Engine 4 Hours		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Generator 1 Power Output (kWhr)		13,924	14,440	14,512	13,792	14,124	13,844	14,252	15,032	15,028	14,672	14,032	14,012	14,592	14,440	14,140	14,928
Generator 2 Power Output (kWhr)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,044
Generator 3 Power Output (kWhr)		13,224	13,804	14,780	13,296	13,220	14,908	13,268	14,192	15,000	14,996	14,380	15,000	14,996	15,000	14,689	9,264
Generator 4 Power Output (kWhr)		13,920	13,528	14,736	14,948	14,956	14,956	14,904	14,956	14,956	14,956	14,952	14,956	14,948	14,948	14,638	15,856
Gross Power Output (kWhr)		40,981	41,686	44,003	41,979	42,232	43,691	42,400	44,162	44,969	44,603	43,317	43,926	44,535	44,381	43,462	43,159
Net Power Output (kWhr)		39,320	40,020	42,328	40,352	40,604	42,140	40,860	42,532	43,328	42,968	41,680	42,224	42,980	42,868	41,980	41,636
Power Sold as metered by NStar, (kWhr)		39,344	40,037	42,278	40,370	40,599	42,069	40,922	42,475	43,267	42,908	41,646	42,175	42,891	42,773	41,887	41,562
Offgrid RECs (kWhr)		1,661	1,666	1,675	1,627	1,629	1,550	1,545	1,631	1,641	1,635	1,636	1,702	1,556	1,513	1,482	1,523
Calculated Performance Results																	
Daily																	
Power output (kW average when running)																	
Generator 1		580	602	605	575	589	577	594	626	626	611	585	584	608	602	589	649
Generator 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	435
Generator 3		551	575	616	554	551	621	553	591	625	625	599	625	625	625	612	579
Generator 4		580	564	614	623	623	623	621	623	623	623	623	623	623	623	610	661
Power output (kW average over 24-hrs)																	
Facility Gross		1,708	1,737	1,833	1,749	1,760	1,820	1,767	1,840	1,874	1,858	1,805	1,830	1,856	1,849	1,811	1,798
Facility Net		1,638	1,668	1,764	1,681	1,692	1,756	1,703	1,772	1,805	1,790	1,737	1,759	1,791	1,786	1,749	1,735
In-plant load		69	69	70	68	68	65	64	68	68	68	68	71	65	63	62	63
Daily availability factor																	
Facility		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	73%
Engine 1		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%
Engine 3		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	67%
Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																	
Facility		52%	53%	56%	53%	53%	55%	54%	56%	57%	56%	55%	55%	56%	56%	55%	54%
Engine 1		70%	73%	73%	70%	71%	70%	72%	76%	76%	74%	71%	71%	74%	73%	71%	79%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	53%
Engine 3		67%	70%	75%	67%	67%	75%	67%	72%	76%	76%	73%	76%	76%	76%	74%	70%
Engine 4		70%	68%	74%	75%	76%	76%	75%	76%	76%	76%	76%	76%	75%	75%	74%	80%
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	383
Engine 2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Engine 3		24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	376
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	105,479	105,503	105,527	105,551	105,575	105,599	105,623	105,647	105,671	105,695	105,719	105,743	105,767	105,791	105,815	105,839	105,862
Engine 2	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,045	95,052
Engine 3	101,323	101,347	101,371	101,395	101,419	101,443	101,467	101,491	101,515	101,539	101,563	101,587	101,611	101,635	101,659	101,683	101,699
Engine 4	100,267	100,291	100,315	100,339	100,363	100,387	100,411	100,435	100,459	100,483	100,507	100,531	100,555	100,579	100,603	100,627	100,651
Cumulative availability, %	April, 2019 @ 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%	2%
Engine 3		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	98%
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		580	1,182	1,787	2,361	2,950	3,527	4,120	4,747	5,373	5,984	6,569	7,153	7,761	8,362	8,952	9,601
Engine 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	435
Engine 3		551	1,126	1,742	2,296	2,847	3,468	4,021	4,612	5,237	5,862	6,461	7,086	7,711	8,336	8,948	9,527
Engine 4		580	1,144	1,758	2,381	3,004	3,627	4,248	4,871	5,494	6,117	6,740	7,364	7,986	8,609	9,219	9,880
Cumulative capacity factor, %																	
Engine 1		70%	72%	72%	72%	72%	71%	71%	72%	72%	73%	72%	72%	72%	72%	72%	73%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%
Engine 3		67%	68%	70%	70%	69%	70%	70%	70%	71%	71%	71%	72%	72%	72%	72%	72%
Engine 4		70%	69%	71%	72%	73%	73%	74%	74%	74%	74%	74%	74%	74%	75%	74%	75%

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
	4/1/2019	4/2/2019	4/3/2019	4/4/2019	4/5/2019	4/6/2019	4/7/2019	4/8/2019	4/9/2019	4/10/2019	4/11/2019	4/12/2019	4/13/2019	4/14/2019	4/15/2019	4/16/2019
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	1,150
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%	74.9%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	40,981	82,667	126,670	168,649	210,881	254,572	296,972	341,134	386,103	430,706	474,023	517,949	562,484	606,865	650,327	693,486
Cumulative Capacity Factor	51.7%	52.2%	53.3%	53.2%	53.3%	53.6%	53.6%	53.8%	54.2%	54.4%	54.4%	54.5%	54.6%	54.7%	54.7%	54.7%
Cumulative fuel input, MMBtu HHV	509	1,023	1,549	2,060	2,580	3,101	3,620	4,154	4,685	5,213	5,741	6,260	6,794	7,326	7,846	8,377
Cumulative gross output, kWhr	40,981	82,667	126,670	168,649	210,881	254,572	296,972	341,134	386,103	430,706	474,023	517,949	562,484	606,865	650,327	693,486
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	11,172	11,115	10,753	10,960	11,082	10,732	11,027	10,873	10,634	10,668	10,971	10,626	10,804	10,775	10,774	11,080
Daily heat rate, Btu/kWe gross HHV	12,411	12,347	11,945	12,175	12,311	11,922	12,250	12,078	11,813	11,851	12,187	11,804	12,002	11,969	11,969	12,308
Cumulative heat rate, Btu/kWe gross LHV	11,172	11,143	11,007	10,996	11,013	10,965	10,974	10,961	10,923	10,896	10,903	10,880	10,874	10,866	10,860	10,874
Cumulative heat rate, Btu/kWe gross HHV	12,411	12,379	12,228	12,215	12,234	12,180	12,190	12,176	12,134	12,104	12,112	12,086	12,079	12,071	12,064	12,079
Cumulative by Facility starting Calendar Year																
Max cumulative available engine run hours	8,544	8,640	8,736	8,832	8,928	9,024	9,120	9,216	9,312	9,408	9,504	9,600	9,696	9,792	9,888	9,984
Actual cumulative engine run hours	6,186	6,258	6,330	6,402	6,474	6,546	6,618	6,690	6,762	6,834	6,906	6,978	7,050	7,122	7,194	7,264
Cumulative Availability, %	72.4%	72.4%	72.5%	72.5%	72.5%	72.5%	72.6%	72.6%	72.6%	72.6%	72.7%	72.7%	72.7%	72.7%	72.8%	72.8%
Max cumulative gross output, kWhr	7,048,800	7,128,000	7,207,200	7,286,400	7,365,600	7,444,800	7,524,000	7,603,200	7,682,400	7,761,600	7,840,800	7,920,000	7,999,200	8,078,400	8,157,600	8,236,800
Actual cumulative gross output, kWhr	3,724,575	3,766,261	3,810,264	3,852,243	3,894,475	3,938,166	3,980,566	4,024,728	4,069,697	4,114,300	4,157,617	4,201,543	4,246,078	4,290,459	4,333,921	4,377,080
Cumulative Capacity Factor	52.8%	52.8%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	53.0%	53.0%	53.0%	53.0%	53.1%	53.1%	53.1%	53.1%
Cumulative fuel input, MMBtu HHV	46,131	46,646	47,172	47,683	48,203	48,724	49,243	49,776	50,308	50,836	51,364	51,883	52,417	52,948	53,469	54,000
Cumulative gross output, kWhr	3,724,575	3,766,261	3,810,264	3,852,243	3,894,475	3,938,166	3,980,566	4,024,728	4,069,697	4,114,300	4,157,617	4,201,543	4,246,078	4,290,459	4,333,921	4,377,080
Cumulative heat rate, Btu/kWe gross LHV	11,150	11,149	11,145	11,143	11,142	11,137	11,136	11,133	11,128	11,123	11,121	11,116	11,113	11,109	11,106	11,106
Cumulative heat rate, Btu/kWe gross HHV	12,386	12,385	12,380	12,378	12,377	12,372	12,371	12,368	12,362	12,356	12,354	12,348	12,345	12,341	12,337	12,337
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	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Date	4/1/2019	4/2/2019	4/3/2019	4/4/2019	4/5/2019	4/6/2019	4/7/2019	4/8/2019	4/9/2019	4/10/2019	4/11/2019	4/12/2019	4/13/2019	4/14/2019	4/15/2019	4/16/2019
Hour																
1	1,664	1,631	1,729	1,728	1,657	1,727	1,730	1,733	1,805	1,807	1,728	1,727	1,804	1,806	1,804	1,810
2	1,663	1,632	1,728	1,668	1,652	1,780	1,677	1,732	1,803	1,804	1,729	1,726	1,803	1,804	1,804	1,814
3	1,663	1,628	1,731	1,657	1,653	1,803	1,689	1,732	1,804	1,806	1,730	1,727	1,804	1,805	1,803	1,810
4	1,667	1,629	1,730	1,655	1,655	1,803	1,730	1,732	1,804	1,807	1,729	1,727	1,805	1,764	1,803	1,810
5	1,663	1,632	1,728	1,656	1,652	1,801	1,729	1,731	1,803	1,803	1,730	1,725	1,804	1,732	1,804	1,809
6	1,664	1,629	1,730	1,656	1,655	1,803	1,726	1,732	1,804	1,803	1,729	1,726	1,805	1,774	1,804	1,812
7	1,662	1,633	1,731	1,657	1,658	1,803	1,658	1,732	1,805	1,805	1,730	1,727	1,805	1,801	1,804	1,769
8	1,662	1,632	1,730	1,655	1,658	1,801	1,657	1,730	1,802	1,803	1,723	1,725	1,804	1,733	395	1,741
9	1,638	1,623	1,744	1,647	1,649	1,744	1,661	1,726	1,793	1,741	1,652	1,717	1,806	1,733	226	1,728
10	1,578	1,629	1,791	1,650	1,652	1,732	1,663	1,728	1,799	1,727	1,668	1,721	1,795	1,733	1,958	1,732
11	1,617	1,630	1,791	1,652	1,652	1,732	1,659	1,740	1,798	1,773	1,727	1,717	1,758	1,782	2,016	1,800
12	1,627	1,631	1,795	1,656	1,654	1,735	1,687	1,801	1,800	1,775	1,724	1,718	1,762	1,788	2,015	1,801
13	1,627	1,665	1,801	1,728	1,716	1,737	1,729	1,802	1,803	1,797	1,725	1,719	1,736	1,734	1,978	1,800
14	1,627	1,675	1,797	1,726	1,726	1,736	1,727	1,799	1,801	1,796	1,725	1,750	1,808	1,802	1,962	1,799
15	1,631	1,675	1,802	1,727	1,728	1,736	1,728	1,804	1,804	1,801	1,729	1,795	1,807	1,788	1,875	1,404
16	1,632	1,678	1,801	1,728	1,729	1,737	1,733	1,800	1,806	1,801	1,730	1,796	1,807	1,747	1,878	1,195
17	1,637	1,678	1,807	1,736	1,734	1,735	1,733	1,804	1,808	1,806	1,786	1,802	1,805	1,810	1,881	1,423
18	1,635	1,728	1,806	1,735	1,734	1,735	1,735	1,804	1,807	1,808	1,802	1,805	1,806	1,807	1,882	1,498
19	1,634	1,730	1,803	1,735	1,729	1,735	1,735	1,805	1,805	1,804	1,806	1,806	1,775	1,807	1,882	1,821
20	1,632	1,730	1,796	1,697	1,728	1,732	1,732	1,803	1,803	1,801	1,800	1,804	1,731	1,804	1,881	1,839
21	1,627	1,733	1,728	1,658	1,732	1,731	1,732	1,799	1,804	1,796	1,764	1,804	1,729	1,804	1,882	1,839
22	1,630	1,727	1,729	1,653	1,732	1,731	1,681	1,801	1,801	1,785	1,728	1,804	1,733	1,804	1,887	1,839
23	1,632	1,729	1,727	1,654	1,732	1,730	1,659	1,800	1,800	1,729	1,726	1,803	1,798	1,807	1,849	1,836
24	1,632	1,730	1,723	1,656	1,732	1,730	1,732	1,805	1,805	1,730	1,726	1,804	1,801	1,804	1,814	1,833
				#REF!												
TOTAL	39,344	40,037	42,278	#REF!	40,599	42,069	40,922	42,475	43,267	42,908	41,646	42,175	42,891	42,773	41,887	41,562
Cumulative Output Sold, kWhr	39,344	79,381	121,659	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Transformer and line efficiency	100.1%	100.0%	99.9%	#REF!	100.0%	99.8%	100.2%	99.9%	99.9%	99.9%	99.9%	99.9%	99.8%	99.8%	99.8%	99.8%
Hourly average	1,639	1,668	1,762	#REF!	1,692	1,753	1,705	1,770	1,803	1,788	1,735	1,757	1,787	1,782	1,745	1,732

APRIL 2019																	
	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday			
	4/17/2019	4/18/2019	4/19/2019	4/20/2019	4/21/2019	4/22/2019	4/23/2019	4/24/2019	4/25/2019	4/26/2019	4/27/2019	4/28/2019	4/29/2019	4/30/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	936	977	958	952	948	954	953	309	105	939	915	942	957	969	27,503	770	26,734
LFG and Biogas Flow to the Engine	506	525	522	517	513	522	525	171	58	522	516	513	511	524	14,820	545	14,274
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	441	580	-	-	-	-	-	1,020	3.7%	96%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	248	326	-	-	-	-	-	574		
LFG and Biogas Total Flow (KSCF)	936	977	958	952	948	954	953	749	684	939	915	942	957	969	28,523		
LFG and Biogas Total Flow (MMBT	506	525	522	517	513	522	525	419	383	522	516	513	511	524	15,393		
Average Methane Content (%)	53.4	53.1	53.8	53.6	53.5	54.1	54.4	55.2	55.4	55.0	55.7	53.8	52.7	53.4	53.3		
Engine 1 Hours	24	24	24	24	24	24	24	8	8	24	24	24	24	24	687		
Engine 2 Hours	19	24	24	24	24	24	24	8	8	15	19	24	24	9	277		
Engine 3 Hours	1	-	-	-	-	-	-	-	-	10	-	-	-	16	403		
Engine 4 Hours	24	24	24	24	24	24	24	8	8	24	24	24	24	24	688		
Generator 1 Power Output (kWhr)	16,968	17,032	16,696	16,000	16,116	17,056	17,520	5,500	1,800	16,464	16,280	16,176	15,988	15,168	434,528		
Generator 2 Power Output (kWhr)	8,700	9,680	9,700	9,704	9,700	9,688	9,684	3,028	870	5,864	7,408	9,688	9,668	3,476	109,902		
Generator 3 Power Output (kWhr)	44	-	-	-	-	-	-	-	-	5,564	144	-	-	9,420	239,189		
Generator 4 Power Output (kWhr)	15,572	16,084	16,712	16,704	16,708	17,036	17,532	5,480	2,000	16,636	16,908	15,632	16,268	15,916	442,302		
Gross Power Output (kWhr)	41,402	42,849	43,120	42,415	42,541	43,787	44,774	14,021	4,670	44,724	40,775	41,547	41,958	44,010	1,226,079		
Net Power Output (kWhr)	39,868	41,212	41,468	40,792	40,932	42,096	43,064	13,508	4,600	43,044	39,356	40,052	40,380	42,444	1,180,636		
Power Sold as metered by NStar, (I	39,808	41,183	41,450	40,777	40,910	42,089	43,029	13,525	4,591	42,949	39,318	39,993	40,329	42,363	1,179,517	CRMCB inplant	
Offgrid RECs (kWhr)	1,534	1,638	1,652	1,623	1,608	1,691	1,711	513	70	1,680	1,419	1,495	1,578	1,566	45,450	8,998	
Calculated Performance Results																20%	
Daily																of total in-plant	
Power output (kW average whe																power	
Generator 1	707	710	696	667	672	711	730	688	225	686	678	674	666	632			
Generator 2	458	403	404	404	404	404	404	379	109	391	390	404	403	386			
Generator 3	44	-	-	-	-	-	-	-	-	556	-	-	-	589			
Generator 4	649	670	696	696	696	710	731	685	250	693	705	651	678	663			
Power output (kW average ove																	
Facility Gross	1,725	1,785	1,797	1,767	1,773	1,824	1,866	584	195	1,864	1,699	1,731	1,748	1,834			
Facility Net	1,661	1,717	1,728	1,700	1,706	1,754	1,794	563	192	1,794	1,640	1,669	1,683	1,769			
In-plant load	64	68	69	68	67	70	71	21	3	70	59	62	66	65			
Daily availability factor																	
Facility	71%	75%	75%	75%	75%	75%	75%	25%	25%	76%	70%	75%	75%	76%			
Engine 1	100%	100%	100%	100%	100%	100%	100%	33%	33%	100%	100%	100%	100%	100%			
Engine 2	79%	100%	100%	100%	100%	100%	100%	33%	33%	63%	79%	100%	100%	38%			
Engine 3	4%	0%	0%	0%	0%	0%	0%	0%	0%	42%	0%	0%	0%	67%			
Engine 4	100%	100%	100%	100%	100%	100%	100%	33%	33%	100%	100%	100%	100%	100%			
Daily capacity factor																	
Facility	52%	54%	54%	54%	54%	55%	57%	18%	6%	56%	51%	52%	53%	56%			
Engine 1	86%	86%	84%	81%	81%	86%	88%	83%	27%	83%	82%	82%	81%	77%			
Engine 2	56%	49%	49%	49%	49%	49%	49%	46%	13%	47%	47%	49%	49%	47%			
Engine 3	5%	0%	0%	0%	0%	0%	0%	0%	0%	67%	0%	0%	0%	71%			
Engine 4	79%	81%	84%	84%	84%	86%	89%	83%	30%	84%	85%	79%	82%	80%			
Cumulative by engine																	
Engine operating run hours in th																	
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
Engine 1	407	431	455	479	503	527	551	559	567	591	615	639	663	687			
Engine 2	26	50	74	98	122	146	170	178	186	201	220	244	268	277			
Engine 3	377	377	377	377	377	377	377	377	377	387	387	387	387	403			
Engine 4	408	432	456	480	504	528	552	560	568	592	616	640	664	688			
Engine operating run hours tota																	
Engine 1	105,886	105,910	105,934	105,958	105,982	106,006	106,030	106,038	106,046	106,070	106,094	106,118	106,142	106,166			
Engine 2	95,071	95,095	95,119	95,143	95,167	95,191	95,215	95,223	95,231	95,246	95,265	95,289	95,313	95,322			
Engine 3	101,700	101,700	101,700	101,700	101,700	101,700	101,700	101,700	101,700	101,710	101,710	101,710	101,710	101,726			
Engine 4	100,675	100,699	100,723	100,747	100,771	100,795	100,819	100,827	100,835	100,859	100,883	100,907	100,931	100,955			
Cumulative availability, %																	
Engine 1	100%	100%	100%	100%	100%	100%	100%	97%	95%	95%	95%	95%	95%	95%			
Engine 2	6%	12%	16%	20%	24%	28%	31%	31%	31%	32%	34%	36%	39%	38%			
Engine 3	92%	87%	83%	79%	75%	71%	68%	65%	63%	62%	60%	58%	56%	56%			
Engine 4	100%	100%	100%	100%	100%	100%	100%	97%	95%	95%	95%	95%	95%	96%			
Engine cumulative gross output																	
Max cumulative capacity or	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	10,308	11,017	11,713	12,380	13,051	13,762	14,492	15,179	15,404	16,090	16,769	17,443	18,109	18,741			
Engine 2	893	1,296	1,700	2,105	2,509	2,912	3,316	3,694	3,803	4,194	4,584	4,988	5,390	5,777			
Engine 3	9,571	9,571	9,571	9,571	9,571	9,571	9,571	9,571	9,571	10,127	10,127	10,127	10,127	10,716			
Engine 4	10,529	11,199	11,895	12,591	13,287	13,997	14,728	15,413	15,663	16,356	17,060	17,712	18,389	19,053			
Cumulative capacity factor, %																	
Engine 1	73%	74%	75%	75%	75%	76%	76%	77%	75%	75%	75%	76%	76%	76%			
Engine 2	6%	9%	11%	13%	14%	16%	17%	19%	18%	20%	21%	22%	23%	23%			
Engine 3	68%	64%	61%	58%	55%	53%	50%	48%	46%	47%	45%	44%	42%	43%			
Engine 4	75%	75%	76%	76%	77%	77%	78%	78%	76%	76%	77%	77%	77%	77%			

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday			
	4/17/2019	4/18/2019	4/19/2019	4/20/2019	4/21/2019	4/22/2019	4/23/2019	4/24/2019	4/25/2019	4/26/2019	4/27/2019	4/28/2019	4/29/2019	4/30/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month																	
Max cumulative available engi	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 h	1,218	1,290	1,362	1,434	1,506	1,578	1,650	1,674	1,698	1,771	1,838	1,910	1,982	2,055			
Cumulative Availability, %	74.6%	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%	72.7%	70.8%	71.0%	70.9%	71.1%	71.2%	71.4%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000			
Actual cumulative gross output,	734,888	777,737	820,857	863,272	905,813	949,600	994,374	1,008,395	1,013,065	1,057,789	1,098,564	1,140,111	1,182,069	1,226,079			
Cumulative Capacity Factor	54.6%	54.6%	54.5%	54.5%	54.5%	54.5%	54.6%	53.1%	51.2%	51.4%	51.4%	51.4%	51.5%	51.6%			
Cumulative fuel input, MMBtu h	8,883	9,408	9,929	10,446	10,959	11,481	12,006	12,177	12,235	12,757	13,273	13,786	14,296	14,820			
Cumulative gross output, kWhr	734,888	777,737	820,857	863,272	905,813	949,600	994,374	1,008,395	1,013,065	1,057,789	1,098,564	1,140,111	1,182,069	1,226,079			
Heat Rate																	
Daily heat rate, Btu/kWe gross	11,006	11,021	10,891	10,964	10,860	10,734	10,555	10,953	11,161	10,513	11,392	11,104	10,953	10,708			
Daily heat rate, Btu/kWe gross	12,226	12,243	12,099	12,180	12,064	11,924	11,726	12,167	12,398	11,678	12,655	12,335	12,167	11,895			
Cumulative heat rate, Btu/kWe	10,881	10,889	10,889	10,893	10,891	10,884	10,869	10,870	10,872	10,857	10,876	10,885	10,887	10,881			
Cumulative heat rate, Btu/kWe	12,088	12,096	12,096	12,100	12,099	12,091	12,074	12,076	12,077	12,060	12,082	12,091	12,094	12,087			
Cumulative by Facility starting C																	
Max cumulative available engi	10,080	10,176	10,272	10,368	10,464	10,560	10,656	10,752	10,848	10,944	11,040	11,136	11,232	11,328			
Actual cumulative engine run h	7,332	7,404	7,476	7,548	7,620	7,692	7,764	7,788	7,812	7,885	7,952	8,024	8,096	8,169			
Cumulative Availability, %	72.7%	72.8%	72.8%	72.8%	72.8%	72.8%	72.9%	72.4%	72.0%	72.0%	72.0%	72.1%	72.1%	72.1%			
Max cumulative gross output, k	8,316,000	8,395,200	8,474,400	8,553,600	8,632,800	8,712,000	8,791,200	8,870,400	8,949,600	9,028,800	9,108,000	9,187,200	9,266,400	9,345,600			
Actual cumulative gross output,	4,418,482	4,461,331	4,504,451	4,546,866	4,589,407	4,633,194	4,677,968	4,691,989	4,696,659	4,741,383	4,782,158	4,823,705	4,865,663	4,909,673			
Cumulative Capacity Factor	53.1%	53.1%	53.2%	53.2%	53.2%	53.2%	53.2%	52.9%	52.5%	52.5%	52.5%	52.5%	52.5%	52.5%			
Cumulative fuel input, MMBtu h	54,506	55,031	55,552	56,069	56,582	57,104	57,629	57,800	57,858	58,380	58,896	59,408	59,919	60,442			
Cumulative gross output, kWhr	4,418,482	4,461,331	4,504,451	4,546,866	4,589,407	4,633,194	4,677,968	4,691,989	4,696,659	4,741,383	4,782,158	4,823,705	4,865,663	4,909,673			
Cumulative heat rate, Btu/kWe	11,105	11,104	11,102	11,101	11,098	11,095	11,090	11,089	11,089	11,084	11,087	11,087	11,086	11,082			
Cumulative heat rate, Btu/kWe	12,336	12,335	12,333	12,331	12,329	12,325	12,319	12,319	12,319	12,313	12,316	12,316	12,315	12,311			
Service																	
Engine 1																	
Engine 2								Eversource Scheduled Outage									
Engine 3	Issues with E-3.	Replaced ProAct.	EGS?					Flare On	Flare On								
Engine 4																	
Oil - oil and filter change																	
Service - plugs, air filter, valve insp																	
Precipitation																	
NSTAR Power Reports	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday			
Date	4/17/2019	4/18/2019	4/19/2019	4/20/2019	4/21/2019	4/22/2019	4/23/2019	4/24/2019	4/25/2019	4/26/2019	4/27/2019	4/28/2019	4/29/2019	4/30/2019	TOTAL		
Hour																	
1	1,716	1,668	1,735	1,715	1,730	1,732	1,800	1,801	-	1,804	1,389	1,699	1,641	1,714			
2	1,766	1,737	1,731	1,728	1,729	1,729	1,797	1,799	-	1,801	1,251	1,636	1,638	1,713			
3	1,717	1,667	1,732	1,726	1,697	1,729	1,799	1,797	-	1,804	1,251	1,639	1,639	1,713			
4	1,718	1,745	1,736	1,729	1,731	1,732	1,798	1,798	-	1,795	1,252	1,641	1,639	1,715			
5	1,717	1,720	1,734	1,700	1,729	1,730	1,797	1,800	-	1,723	1,250	1,639	1,638	1,714			
6	1,718	1,669	1,734	1,731	1,730	1,730	1,799	1,798	-	1,725	1,405	1,640	1,639	1,714			
7	1,718	1,675	1,735	1,686	1,690	1,732	1,798	1,802	-	1,726	1,789	1,640	1,640	1,716			
8	1,714	1,712	1,734	1,715	1,733	1,731	1,795	930	-	1,738	1,786	1,641	1,641	1,673			
9	1,704	1,647	1,727	1,674	1,690	1,722	1,742	-	-	1,795	1,787	1,698	1,632	1,694			
10	1,637	1,707	1,724	1,675	1,698	1,690	1,788	-	-	1,800	1,788	1,715	1,631	1,750			
11	1,340	1,740	1,722	1,670	1,718	1,720	1,774	-	-	1,797	1,789	1,713	1,650	1,802			
12	1,338	1,724	1,722	1,687	1,664	1,724	1,787	-	-	1,797	1,787	1,713	1,701	1,806			
13	1,378	1,726	1,727	1,681	1,734	1,728	1,793	-	-	1,796	1,789	1,670	1,702	1,807			
14	1,338	1,727	1,726	1,679	1,690	1,726	1,791	-	-	1,749	1,787	1,638	1,701	1,802			
15	1,472	1,728	1,728	1,692	1,728	1,750	1,791	-	-	1,623	1,787	1,640	1,742	1,804			
16	1,725	1,726	1,728	1,705	1,668	1,801	1,792	-	-	1,810	1,721	1,639	1,776	1,812			
17	1,769	1,732	1,732	1,715	1,677	1,801	1,796	-	-	1,833	1,716	1,656	1,710	1,825			
18	1,787	1,733	1,732	1,701	1,706	1,798	1,797	-	-	1,834	1,716	1,715	1,712	1,824			
19	1,788	1,735	1,732	1,690	1,695	1,797	1,798	-	-	1,834	1,716	1,715	1,712	1,827			
20	1,787	1,734	1,732	1,702	1,680	1,795	1,797	-	-	1,833	1,713	1,714	1,708	1,826			
21	1,787	1,734	1,689	1,640	1,686	1,796	1,797	-	-	1,834	1,713	1,672	1,709	1,818			
22	1,712	1,732	1,726	1,716	1,705	1,798	1,801	-	981	1,833	1,714	1,641	1,711	1,767			
23	1,733	1,734	1,731	1,690	1,672	1,798	1,800	-	1,806	1,832	1,711	1,641	1,708	1,764			
24	1,729	1,731	1,701	1,730	1,730	1,800	1,802	-	1,804	1,833	1,711	1,638	1,709	1,763			
TOTAL	39,808	41,183	41,450	40,777	40,910	42,089	43,029	13,525	4,591	42,949	39,318	39,993	40,329	42,363			
Cumulative Output Sold, kV	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!			
Transformer and line efficienc	99.8%	99.9%	100.0%	100.0%	99.9%	100.0%	99.9%	100.1%	99.8%	99.8%	99.9%	99.9%	99.9%	99.8%	0.0%		
Hourly average	1,659	1,716	1,727	1,699	1,705	1,754	1,793	564	191	1,790	1,638	1,666	1,680	1,765	#REF!		

MAY 2019																	
		Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
		5/1/2019	5/2/2019	5/3/2019	5/4/2019	5/5/2019	5/6/2019	5/7/2019	5/8/2019	5/9/2019	5/10/2019	5/11/2019	5/12/2019	5/13/2019	5/14/2019	5/15/2019	5/16/2019
LFG and Biogas Flow to the Engines (KSCF)		975	1,046	1,058	1,076	1,066	1,042	1,058	1,071	1,079	1,063	1,055	1,066	1,068	1,053	1,047	1,040
LFG and Biogas Flow to the Engines (MMBTU HHV)		521	550	546	558	554	543	544	546	544	545	545	550	558	555	548	542
LFG and Biogas Flow to the Flare (KSCF)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)		975	1,046	1,058	1,076	1,066	1,042	1,058	1,071	1,079	1,063	1,055	1,066	1,068	1,053	1,047	1,040
LFG and Biogas Total Flow (MMBTU HHV)		521	550	546	558	554	543	544	546	544	545	545	550	558	555	548	542
Average Methane Content (%)		52.8	52.0	51.0	51.3	51.3	51.5	50.8	50.3	49.8	50.7	51.0	51.0	51.6	52.1	51.8	51.5
Engine 1 Hours		24	24	24	24	24	24	24	24	24	24	24	23	25	24	24	24
Engine 2 Hours		-	-	-	-	-	-	1	-	-	-	11	24	24	13	-	-
Engine 3 Hours		24	24	24	24	24	23	22	22	24	24	10	-	-	12	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)		14,352	15,780	15,624	15,608	15,608	15,780	15,600	16,080	15,612	16,676	16,508	16,536	17,364	16,452	15,024	14,768
Generator 2 Power Output (kWhr)		-	-	-	-	-	-	-	-	-	-	5,108	10,852	10,852	5,292	-	-
Generator 3 Power Output (kWhr)		15,664	16,484	16,228	16,372	15,588	13,440	12,584	12,736	13,216	13,224	5,288	-	-	7,148	15,000	15,568
Generator 4 Power Output (kWhr)		14,772	15,528	15,708	15,556	15,560	15,956	16,536	16,124	15,536	15,532	16,596	16,748	16,748	16,240	14,976	15,536
Gross Power Output (kWhr)		44,793	47,816	47,584	47,561	46,777	45,173	44,724	44,959	44,340	45,436	43,530	44,229	45,069	45,192	45,017	45,890
Net Power Output (kWhr)		43,172	46,104	45,844	45,844	45,092	43,476	43,020	43,220	42,648	43,720	41,856	42,588	43,300	43,504	43,412	44,212
Power Sold as metered by NStar, (kWhr)		43,071	45,990	45,726	45,722	44,983	43,388	42,944	43,145	42,569	43,631	41,779	42,566	43,250	43,427	43,299	44,091
Offgrid RECs (kWhr)		1,621	1,712	1,741	1,717	1,685	1,697	1,705	1,737	1,693	1,716	1,674	1,640	1,770	1,687	1,606	1,677
Calculated Performance Results																	
Daily																	
Power output (kW average when running)																	
Generator 1		598	658	651	650	650	658	650	670	651	695	688	719	695	686	626	615
Generator 2		-	-	-	-	-	-	-	-	-	-	464	452	452	407	-	-
Generator 3		653	687	676	682	650	584	572	579	551	551	529	-	-	596	625	649
Generator 4		616	647	655	648	648	665	689	672	647	647	692	698	698	677	624	647
Power output (kW average over 24-hrs)																	
Facility Gross		1,866	1,992	1,983	1,982	1,949	1,882	1,864	1,873	1,848	1,893	1,814	1,843	1,878	1,883	1,876	1,912
Facility Net		1,799	1,921	1,910	1,910	1,879	1,812	1,793	1,801	1,777	1,822	1,744	1,775	1,804	1,813	1,809	1,842
In-plant load		68	71	73	72	70	71	71	72	71	72	70	68	74	70	67	70
Daily availability factor																	
Facility		75%	75%	75%	75%	75%	74%	74%	73%	75%	75%	72%	74%	76%	76%	75%	75%
Engine 1		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%	104%	100%	100%	100%
Engine 2		0%	0%	0%	0%	0%	0%	4%	0%	0%	0%	46%	100%	100%	54%	0%	0%
Engine 3		100%	100%	100%	100%	100%	96%	92%	92%	100%	100%	42%	0%	0%	50%	100%	100%
Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																	
Facility		57%	60%	60%	60%	59%	57%	56%	57%	56%	57%	55%	56%	57%	57%	57%	58%
Engine 1		72%	80%	79%	79%	79%	80%	79%	81%	79%	84%	83%	87%	84%	83%	76%	75%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	56%	55%	55%	49%	0%	0%
Engine 3		79%	83%	82%	83%	79%	71%	69%	70%	67%	67%	64%	0%	0%	72%	76%	79%
Engine 4		75%	78%	79%	79%	79%	81%	84%	81%	78%	78%	84%	85%	85%	82%	76%	78%
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	287	312	336	360	384
Engine 2		0	0	0	0	0	0	1	1	1	1	12	36	60	73	73	73
Engine 3		24	48	72	96	120	143	165	187	211	235	245	245	245	257	281	305
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	106,161	106,185	106,209	106,233	106,257	106,281	106,305	106,329	106,353	106,377	106,401	106,425	106,448	106,473	106,497	106,521	106,545
Engine 2	95,308	95,308	95,308	95,308	95,308	95,308	95,308	95,309	95,309	95,309	95,309	95,320	95,344	95,368	95,381	95,381	95,381
Engine 3	101,732	101,756	101,780	101,804	101,828	101,852	101,875	101,897	101,919	101,943	101,967	101,977	101,977	101,977	101,989	102,013	102,037
Engine 4	100,948	100,972	100,996	101,020	101,044	101,068	101,092	101,116	101,140	101,164	101,188	101,212	101,236	101,260	101,284	101,308	101,332
Cumulative availability, %	May, 2019 @ 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%	1%	1%	0%	0%	5%	13%	19%	22%	20%	19%
Engine 3		100%	100%	100%	100%	100%	99%	98%	97%	98%	98%	93%	85%	79%	76%	78%	79%
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		598	1,256	1,907	2,557	3,207	3,865	4,515	5,185	5,835	6,530	7,218	7,937	8,631	9,317	9,943	10,558
Engine 2		-	-	-	-	-	-	-	-	-	-	464	917	1,369	1,776	1,776	1,776
Engine 3		653	1,340	2,016	2,698	3,347	3,932	4,504	5,083	5,633	6,184	6,713	6,713	6,713	7,309	7,934	8,582
Engine 4		616	1,263	1,917	2,565	3,214	3,878	4,567	5,239	5,887	6,534	7,225	7,923	8,621	9,298	9,922	10,569
Cumulative capacity factor, %																	
Engine 1		72%	76%	77%	77%	78%	78%	78%	79%	79%	79%	80%	80%	80%	81%	80%	80%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	9%	13%	15%	14%	13%
Engine 3		79%	81%	81%	82%	81%	79%	78%	77%	76%	75%	74%	68%	63%	63%	64%	65%
Engine 4		75%	77%	77%	78%	78%	78%	79%	79%	79%	79%	80%	80%	80%	80%	80%	80%

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
	5/1/2019	5/2/2019	5/3/2019	5/4/2019	5/5/2019	5/6/2019	5/7/2019	5/8/2019	5/9/2019	5/10/2019	5/11/2019	5/12/2019	5/13/2019	5/14/2019	5/15/2019	5/16/2019
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	431	502	572	644	716	785	856	929	1,002	1,074	1,146
Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	74.8%	74.7%	74.5%	74.5%	74.6%	74.3%	74.3%	74.4%	74.6%	74.6%	74.6%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	44,793	92,609	140,193	187,754	234,531	279,704	324,428	369,387	413,727	459,163	502,693	546,922	591,991	637,183	682,200	728,090
Cumulative Capacity Factor	56.6%	58.5%	59.0%	59.3%	59.2%	58.9%	58.5%	58.3%	58.0%	58.0%	57.7%	57.5%	57.5%	57.5%	57.4%	57.5%
Cumulative fuel input, MMBtu HHV	521	1,071	1,617	2,175	2,729	3,272	3,815	4,361	4,904	5,449	5,994	6,544	7,102	7,657	8,205	8,747
Cumulative gross output, kWhr	44,793	92,609	140,193	187,754	234,531	279,704	324,428	369,387	413,727	459,163	502,693	546,922	591,991	637,183	682,200	728,090
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	10,460	10,358	10,331	10,563	10,656	10,819	10,939	10,922	11,040	10,798	11,262	11,186	11,147	11,061	10,964	10,624
Daily heat rate, Btu/kWe gross HHV	11,620	11,507	11,477	11,734	11,837	12,018	12,152	12,133	12,264	11,995	12,511	12,426	12,383	12,288	12,180	11,802
Cumulative heat rate, Btu/kWe gross LHV	10,460	10,408	10,382	10,428	10,473	10,529	10,586	10,627	10,671	10,683	10,734	10,770	10,799	10,817	10,827	10,814
Cumulative heat rate, Btu/kWe gross HHV	11,620	11,562	11,533	11,584	11,634	11,696	11,759	11,805	11,854	11,868	11,924	11,964	11,996	12,017	12,028	12,013
Cumulative by Facility starting Calendar Year																
Max cumulative available engine run hours	11,424	11,520	11,616	11,712	11,808	11,904	12,000	12,096	12,192	12,288	12,384	12,480	12,576	12,672	12,768	12,864
Actual cumulative engine run hours	8,241	8,313	8,385	8,457	8,529	8,600	8,671	8,741	8,813	8,885	8,954	9,025	9,098	9,171	9,243	9,315
Cumulative Availability, %	72.1%	72.2%	72.2%	72.2%	72.2%	72.2%	72.3%	72.3%	72.3%	72.3%	72.3%	72.3%	72.3%	72.4%	72.4%	72.4%
Max cumulative gross output, kWhr	9,424,800	9,504,000	9,583,200	9,662,400	9,741,600	9,820,800	9,900,000	9,979,200	10,058,400	10,137,600	10,216,800	10,296,000	10,375,200	10,454,400	10,533,600	10,612,800
Actual cumulative gross output, kWhr	4,954,466	5,002,282	5,049,866	5,097,427	5,144,204	5,189,377	5,234,101	5,279,060	5,323,400	5,368,836	5,412,366	5,456,595	5,501,664	5,546,856	5,591,873	5,637,763
Cumulative Capacity Factor	52.6%	52.6%	52.7%	52.8%	52.8%	52.8%	52.9%	52.9%	52.9%	53.0%	53.0%	53.0%	53.0%	53.1%	53.1%	53.1%
Cumulative fuel input, MMBtu HHV	60,963	61,513	62,059	62,617	63,171	63,714	64,257	64,803	65,347	65,892	66,436	66,986	67,544	68,099	68,648	69,189
Cumulative gross output, kWhr	4,954,466	5,002,282	5,049,866	5,097,427	5,144,204	5,189,377	5,234,101	5,279,060	5,323,400	5,368,836	5,412,366	5,456,595	5,501,664	5,546,856	5,591,873	5,637,763
Cumulative heat rate, Btu/kWe gross LHV	11,077	11,070	11,063	11,058	11,054	11,052	11,051	11,050	11,050	11,048	11,050	11,051	11,052	11,052	11,051	11,048
Cumulative heat rate, Btu/kWe gross HHV	12,305	12,297	12,289	12,284	12,280	12,278	12,277	12,275	12,275	12,273	12,275	12,276	12,277	12,277	12,276	12,272
Service																
Engine 1																
Engine 2																
Engine 3						Shut down - wiring	Shut down - wiring	Shut down - wiring			Shut down - wiring		Trouble shooting wiring issues.			
Engine 4														David assist Ray.		
Oil - oil and filter change														Finds multiple frayed wires		
Service - plugs, air filter, valve inspection and adjustment														in wiring harness. Repaired and E3 put back in service.		
Precipitation																
NSTAR Power Reports	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
Date	5/1/2019	5/2/2019	5/3/2019	5/4/2019	5/5/2019	5/6/2019	5/7/2019	5/8/2019	5/9/2019	5/10/2019	5/11/2019	5/12/2019	5/13/2019	5/14/2019	5/15/2019	5/16/2019
Hour																
1	1,765	1,880	1,874	1,923	1,873	1,876	1,851	1,852	1,778	1,779	1,823	1,758	1,810	1,804	1,804	1,806
2	1,765	1,878	1,872	1,921	1,873	1,873	1,850	1,819	1,778	1,779	1,823	1,755	1,808	1,802	1,802	1,805
3	1,769	1,879	1,872	1,922	1,873	1,876	1,851	1,787	1,777	1,815	1,823	1,757	1,809	1,804	1,802	1,807
4	1,768	1,878	1,877	1,922	1,873	1,875	1,852	1,853	1,778	1,826	1,822	1,757	1,809	1,803	1,808	1,806
5	1,721	1,878	1,876	1,923	1,874	1,875	1,849	1,834	1,773	1,825	1,819	1,756	1,807	1,802	1,806	1,806
6	1,711	1,877	1,877	1,921	1,873	1,874	1,850	1,823	1,778	1,826	1,774	1,758	1,810	1,804	1,807	1,808
7	1,712	1,880	1,878	1,923	1,875	1,876	1,851	1,854	1,780	1,825	1,777	1,760	1,809	1,803	1,807	1,808
8	1,711	1,877	1,876	1,922	1,875	1,872	1,850	1,796	1,778	1,824	1,777	1,759	1,808	1,780	1,808	1,806
9	1,695	1,886	1,863	1,922	1,873	1,866	1,770	1,776	1,767	1,821	1,776	1,760	1,803	1,813	1,801	1,796
10	1,700	1,905	1,868	1,922	1,874	1,869	1,767	1,570	1,767	1,821	1,598	1,761	1,801	1,826	1,799	1,793
11	1,702	1,873	1,869	1,922	1,875	1,867	1,590	1,478	1,767	1,818	1,338	1,760	1,799	1,825	1,798	1,793
12	1,717	1,901	1,974	1,921	1,876	1,849	1,393	1,892	1,763	1,819	1,330	1,759	1,794	1,822	1,802	1,796
13	1,787	1,943	1,964	1,921	1,877	1,693	1,733	1,797	1,768	1,819	1,452	1,762	1,792	1,733	1,803	1,854
14	1,761	1,953	1,963	1,920	1,876	1,442	1,668	1,635	1,763	1,817	1,813	1,758	1,793	1,873	1,802	1,868
15	1,793	2,026	1,923	1,920	1,876	1,324	1,403	1,817	1,767	1,815	1,842	1,763	1,794	1,873	1,801	1,868
16	1,953	2,006	1,917	1,918	1,877	1,463	1,842	1,861	1,770	1,816	1,848	1,764	1,795	1,808	1,802	1,869
17	1,898	1,970	1,924	1,872	1,876	1,804	1,919	1,869	1,777	1,823	1,847	1,760	1,803	1,809	1,806	1,875
18	1,878	1,970	1,923	1,873	1,877	1,903	1,920	1,870	1,778	1,824	1,841	1,804	1,800	1,807	1,806	1,874
19	1,880	1,974	1,925	1,872	1,876	1,924	1,886	1,851	1,779	1,825	1,803	1,808	1,799	1,809	1,806	1,876
20	1,878	1,972	1,922	1,872	1,872	1,922	1,849	1,822	1,776	1,822	1,805	1,810	1,798	1,807	1,806	1,873
21	1,876	1,927	1,923	1,870	1,872	1,914	1,850	1,823	1,778	1,823	1,778	1,810	1,801	1,806	1,806	1,875
22	1,876	1,907	1,923	1,874	1,869	1,847	1,849	1,822	1,777	1,823	1,757	1,809	1,803	1,806	1,806	1,876
23	1,876	1,874	1,922	1,872	1,872	1,852	1,850	1,824	1,775	1,823	1,755	1,810	1,803	1,804	1,805	1,877
24	1,879	1,876	1,921	1,874	1,876	1,852	1,851	1,820	1,777	1,823	1,758	1,808	1,802	1,804	1,806	1,876
TOTAL	43,071	45,990	45,726	45,722	44,983	43,388	42,944	43,145	42,569	43,631	41,779	42,566	43,250	43,427	43,299	44,091
Cumulative Output Sold, kWhr	43,071	89,061	134,787	180,509	225,492	268,880	311,824	354,969	397,538	441,169	482,948	525,514	568,764	612,191	655,490	699,581
Transformer and line efficiency	99.8%	99.8%	99.7%	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.9%	99.9%	99.8%	99.7%	99.7%
Hourly average	1,795	1,916	1,905	1,905	1,874	1,808	1,789	1,798	1,774	1,818	1,741	1,774	1,802	1,809	1,804	1,837

MAY 2019																			
	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday			
	5/17/2019	5/18/2019	5/19/2019	5/20/2019	5/21/2019	5/22/2019	5/23/2019	5/24/2019	5/25/2019	5/26/2019	5/27/2019	5/28/2019	5/29/2019	5/30/2019	5/31/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	1,089	1,075	1,083	1,045	1,086	1,062	1,054	1,024	1,026	1,042	1,041	1,035	1,029	1,029	1,027	32,610	605	32,006
LFG and Biogas Flow to the Engine	566	545	546	546	557	528	535	530	519	537	535	535	539	539	540	16,843	444	16,399
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6%	97%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF	1,089	1,075	1,083	1,045	1,086	1,062	1,054	1,024	1,026	1,042	1,041	1,035	1,029	1,029	1,027	32,610		
LFG and Biogas Total Flow (MMBT	566	545	546	546	557	528	535	530	519	537	535	535	539	539	540	16,843		
Average Methane Content (%)	51.3	50.1	49.8	51.6	50.6	49.1	50.2	51.2	50.0	50.9	50.8	51.1	51.7	51.7	52.0	51.0		
Engine 1 Hours	24	24	24	23	24	24	24	24	24	24	24	24	24	24	24	743		
Engine 2 Hours	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73		
Engine 3 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	665		
Engine 4 Hours	24	24	24	23	24	24	24	24	24	24	24	24	24	24	24	743		
Generator 1 Power Output (kWhr)	14,832	14,436	14,432	14,096	15,112	14,256	14,632	14,500	14,432	14,432	14,432	14,524	14,664	14,664	14,820	471,636		
Generator 2 Power Output (kWhr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32,104		
Generator 3 Power Output (kWhr)	16,056	16,184	16,188	15,552	16,192	15,732	15,988	16,056	15,816	16,188	15,744	15,580	16,196	16,196	16,192	428,400		
Generator 4 Power Output (kWhr)	16,132	14,868	14,356	14,696	14,992	14,372	14,372	14,356	14,356	14,360	14,384	14,748	14,356	14,356	14,504	472,860		
Gross Power Output (kWhr)	47,034	45,444	44,949	44,324	46,297	44,319	44,975	44,869	44,541	44,954	44,578	44,852	45,165	45,165	45,498	1,405,054		
Net Power Output (kWhr)	45,336	43,792	43,280	42,600	44,544	42,636	43,316	43,204	42,904	43,240	42,868	43,220	43,588	43,588	43,824	1,352,952		
Power Sold as metered by NStar, (	45,216	43,699	43,187	42,515	44,457	42,549	43,239	43,116	42,804	43,129	42,797	43,151	43,505	43,918	43,722	1,350,585	CRMCB inplant	
Offgrid RECs (kWhr)	1,698	1,652	1,670	1,724	1,752	1,684	1,658	1,666	1,637	1,714	1,710	1,632	1,577	1,577	1,674	52,103	7,351	
Calculated Performance Results																	14%	
Daily																	of total in-plant	
Power output (kW average whe																	power	
Generator 1	618	602	601	613	630	594	610	604	601	601	601	605	611	611	618			
Generator 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Generator 3	669	674	675	648	675	656	666	669	659	675	656	649	675	675	675			
Generator 4	672	620	598	639	625	599	599	598	598	598	599	615	598	598	604			
Power output (kW average ove																		
Facility Gross	1,960	1,894	1,873	1,847	1,929	1,847	1,874	1,870	1,856	1,873	1,857	1,869	1,882	1,882	1,896			
Facility Net	1,889	1,825	1,803	1,775	1,856	1,777	1,805	1,800	1,788	1,802	1,786	1,801	1,816	1,816	1,826			
In-plant load	71	69	70	72	73	70	69	69	68	71	71	68	66	66	70			
Daily availability factor																		
Facility	75%	75%	75%	73%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
Engine 1	100%	100%	100%	96%	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%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Daily capacity factor																		
Facility	59%	57%	57%	56%	58%	56%	57%	57%	56%	57%	56%	57%	57%	57%	57%			
Engine 1	75%	73%	73%	74%	76%	72%	74%	73%	73%	73%	73%	73%	74%	74%	75%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	81%	82%	82%	79%	82%	79%	81%	81%	80%	82%	80%	79%	82%	82%	82%			
Engine 4	81%	75%	73%	77%	76%	73%	73%	73%	73%	73%	73%	74%	73%	73%	73%			
Cumulative by engine																		
Engine operating run hours in tl																		
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672	696	720	720			
Engine 1	408	432	456	479	503	527	551	575	599	623	647	671	695	719	719			
Engine 2	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73			
Engine 3	329	353	377	401	425	449	473	497	521	545	569	593	617	641	641			
Engine 4	408	432	456	479	503	527	551	575	599	623	647	671	695	719	719			
Engine operating run hours tota																		
Engine 1	106,569	106,593	106,617	106,640	106,664	106,688	106,712	106,736	106,760	106,784	106,808	106,832	106,856	106,880	106,880			
Engine 2	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381			
Engine 3	102,061	102,085	102,109	102,133	102,157	102,181	102,205	102,229	102,253	102,277	102,301	102,325	102,349	102,373	102,373			
Engine 4	101,356	101,380	101,404	101,427	101,451	101,475	101,499	101,523	101,547	101,571	101,595	101,619	101,643	101,667	101,667			
Cumulative availability, %																		
Engine 1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Engine 2	18%	17%	16%	15%	14%	14%	13%	13%	12%	12%	11%	11%	10%	10%	10%			
Engine 3	81%	82%	83%	84%	84%	85%	86%	86%	87%	87%	88%	88%	89%	89%	89%			
Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Engine cumulative gross output																		
Max cumulative capacity or	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	24,750			
Engine 1	11,176	11,778	12,379	12,992	13,622	14,216	14,825	15,429	16,031	16,632	17,233	17,839	18,450	19,061	19,067			
Engine 2	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776	1,776			
Engine 3	9,251	9,926	10,600	11,248	11,923	12,578	13,245	13,914	14,573	15,247	15,903	16,552	17,227	17,902	17,902			
Engine 4	11,241	11,861	12,459	13,098	13,722	14,321	14,920	15,518	16,116	16,715	17,314	17,928	18,527	19,125	19,131			
Cumulative capacity factor, %																		
Engine 1	80%	79%	79%	79%	79%	78%	78%	78%	78%	78%	77%	77%	77%	77%	77%			
Engine 2	13%	12%	11%	11%	10%	10%	9%	9%	9%	8%	8%	8%	7%	7%	7%			
Engine 3	66%	67%	68%	68%	69%	69%	70%	70%	71%	71%	71%	72%	72%	72%	72%			
Engine 4	80%	80%	79%	79%	79%	79%	79%	78%	78%	78%	78%	78%	77%	77%	77%			

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday			
	5/17/2019	5/18/2019	5/19/2019	5/20/2019	5/21/2019	5/22/2019	5/23/2019	5/24/2019	5/25/2019	5/26/2019	5/27/2019	5/28/2019	5/29/2019	5/30/2019	5/31/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month																		
Max cumulative available engi	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	2,880			
Actual cumulative engine run h	1,218	1,290	1,362	1,432	1,504	1,576	1,648	1,720	1,792	1,864	1,936	2,008	2,080	2,152	2,152			
Cumulative Availability, %	74.6%	74.7%	74.7%	74.6%	74.6%	74.6%	74.6%	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000	2,376,000			
Actual cumulative gross output,	775,124	820,568	865,517	909,841	956,138	1,000,457	1,045,432	1,090,301	1,134,842	1,179,796	1,224,374	1,269,226	1,314,391	1,359,556	1,359,889			
Cumulative Capacity Factor	57.6%	57.6%	57.5%	57.4%	57.5%	57.4%	57.4%	57.4%	57.3%	57.3%	57.3%	57.2%	57.2%	57.2%	57.2%			
Cumulative fuel input, MMBtu h	9,312	9,857	10,403	10,949	11,506	12,034	12,569	13,099	13,618	14,155	14,690	15,225	15,764	16,303	16,304			
Cumulative gross output, kWhr	775,124	820,568	865,517	909,841	956,138	1,000,457	1,045,432	1,090,301	1,134,842	1,179,796	1,224,374	1,269,226	1,314,391	1,359,556	1,359,889			
Heat Rate																		
Daily heat rate, Btu/kWe gross	10,823	10,794	10,935	11,079	10,828	10,727	10,712	10,635	10,497	10,747	10,804	10,740	10,737	10,737	10,686			
Daily heat rate, Btu/kWe gross	12,023	11,991	12,147	12,307	12,029	11,916	11,900	11,814	11,661	11,939	12,001	11,930	11,927	11,927	11,871			
Cumulative heat rate, Btu/kWe	10,815	10,814	10,820	10,833	10,832	10,828	10,823	10,815	10,803	10,801	10,801	10,798	10,796	10,794	10,793			
Cumulative heat rate, Btu/kWe	12,014	12,013	12,020	12,034	12,033	12,028	12,023	12,014	12,000	11,998	11,998	11,996	11,993	11,991	11,989			
Cumulative by Facility starting C																		
Max cumulative available engi	12,960	13,056	13,152	13,248	13,344	13,440	13,536	13,632	13,728	13,824	13,920	14,016	14,112	14,208	14,208			
Actual cumulative engine run h	9,387	9,459	9,531	9,601	9,673	9,745	9,817	9,889	9,961	10,033	10,105	10,177	10,249	10,321	10,321			
Cumulative Availability, %	72.4%	72.4%	72.5%	72.5%	72.5%	72.5%	72.5%	72.5%	72.6%	72.6%	72.6%	72.6%	72.6%	72.6%	72.6%			
Max cumulative gross output, k	10,692,000	10,771,200	10,850,400	10,929,600	11,008,800	11,088,000	11,167,200	11,246,400	11,325,600	11,404,800	11,484,000	11,563,200	11,642,400	11,721,600	11,721,600			
Actual cumulative gross output,	5,684,797	5,730,241	5,775,190	5,819,514	5,865,811	5,910,130	5,955,105	5,999,974	6,044,515	6,089,469	6,134,047	6,178,899	6,224,064	6,269,229	6,269,562			
Cumulative Capacity Factor	53.2%	53.2%	53.2%	53.2%	53.3%	53.3%	53.3%	53.4%	53.4%	53.4%	53.4%	53.4%	53.5%	53.5%	53.5%			
Cumulative fuel input, MMBtu h	69,755	70,300	70,846	71,391	71,948	72,476	73,011	73,541	74,061	74,598	75,133	75,668	76,206	76,745	76,746			
Cumulative gross output, kWhr	5,684,797	5,730,241	5,775,190	5,819,514	5,865,811	5,910,130	5,955,105	5,999,974	6,044,515	6,089,469	6,134,047	6,178,899	6,224,064	6,269,229	6,269,562			
Cumulative heat rate, Btu/kWe	11,046	11,044	11,043	11,043	11,042	11,039	11,037	11,034	11,030	11,028	11,026	11,024	11,022	11,020	11,019			
Cumulative heat rate, Btu/kWe	12,270	12,268	12,267	12,268	12,266	12,263	12,260	12,257	12,253	12,250	12,248	12,246	12,244	12,242	12,241			
Service																		
Engine 1																		
Engine 2				District Header Install		District Header Install												
Engine 3																		
Engine 4																		
Oil - oil and filter change																		
Service - plugs, air filter, valve insp																		
Precipitation																		
NSTAR Power Reports	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday			
Date	5/17/2019	5/18/2019	5/19/2019	5/20/2019	5/21/2019	5/22/2019	5/23/2019	5/24/2019	5/25/2019	5/26/2019	5/27/2019	5/28/2019	5/29/2019	5/30/2019	5/31/2019	TOTAL		
Hour																		
1	1,878	1,876	1,802	1,799	1,881	1,804	1,809	1,867	1,804	1,804	1,805	1,739	1,859	1,807	1,878			
2	1,874	1,873	1,800	1,798	1,880	1,804	1,808	1,805	1,805	1,804	1,804	1,739	1,850	1,807	1,878			
3	1,877	1,873	1,802	1,798	1,880	1,804	1,808	1,804	1,805	1,804	1,806	1,739	1,816	1,807	1,828			
4	1,879	1,876	1,802	1,800	1,880	1,804	1,807	1,804	1,805	1,805	1,808	1,804	1,857	1,807	1,879			
5	1,879	1,871	1,801	1,799	1,880	1,804	1,807	1,805	1,805	1,805	1,809	1,781	1,807	1,807	1,823			
6	1,880	1,871	1,801	1,800	1,884	1,804	1,807	1,805	1,777	1,804	1,810	1,738	1,807	1,806	1,806			
7	1,879	1,871	1,802	1,865	1,883	1,804	1,808	1,806	1,731	1,804	1,806	1,740	1,808	1,807	1,808			
8	1,879	1,804	1,800	1,870	1,880	1,801	1,806	1,802	1,732	1,804	1,733	1,738	1,807	1,807	1,805			
9	1,874	1,801	1,797	1,798	1,825	1,757	1,802	1,789	1,730	1,802	1,729	1,729	1,794	1,796	1,792			
10	1,870	1,801	1,799	1,790	1,817	1,492	1,796	1,788	1,728	1,799	1,722	1,747	1,796	1,799	1,791			
11	1,868	1,797	1,798	1,789	1,861	1,137	1,747	1,792	1,745	1,790	1,783	1,786	1,800	1,800	1,790			
12	1,530	1,794	1,799	1,789	1,863	1,933	1,727	1,795	1,785	1,784	1,795	1,791	1,800	1,797	1,812			
13	1,942	1,795	1,800	1,428	1,865	1,879	1,724	1,795	1,785	1,784	1,796	1,795	1,801	1,816	1,856			
14	1,937	1,795	1,798	730	1,863	1,856	1,786	1,794	1,785	1,783	1,796	1,798	1,800	1,871	1,361			
15	1,940	1,794	1,798	1,281	1,863	1,842	1,794	1,794	1,785	1,790	1,796	1,799	1,800	1,871	1,918			
16	1,941	1,797	1,798	1,824	1,862	1,793	1,794	1,792	1,789	1,790	1,797	1,801	1,801	1,871	1,919			
17	1,945	1,800	1,799	1,947	1,865	1,796	1,794	1,795	1,795	1,791	1,797	1,883	1,807	1,876	1,872			
18	1,944	1,801	1,799	1,947	1,865	1,801	1,799	1,796	1,798	1,792	1,797	1,873	1,825	1,877	1,870			
19	1,943	1,802	1,801	1,947	1,859	1,804	1,805	1,803	1,800	1,796	1,798	1,874	1,851	1,876	1,873			
20	1,944	1,802	1,799	1,946	1,800	1,804	1,824	1,803	1,801	1,797	1,798	1,876	1,805	1,832	1,809			
21	1,887	1,800	1,798	1,945	1,800	1,807	1,874	1,767	1,802	1,797	1,763	1,876	1,803	1,807	1,825			
22	1,876	1,803	1,798	1,949	1,800	1,807	1,805	1,733	1,804	1,798	1,732	1,833	1,802	1,827	1,880			
23	1,875	1,801	1,798	1,948	1,800	1,808	1,833	1,779	1,804	1,800	1,781	1,828	1,803	1,873	1,842			
24	1,875	1,801	1,798	1,928	1,801	1,804	1,875	1,803	1,804	1,802	1,736	1,844	1,806	1,874	1,807			
TOTAL	45,216	43,699	43,187	42,515	44,457	42,549	43,239	43,116	42,804	43,129	42,797	43,151	43,505	43,918	43,722			
Cumulative Output Sold, kV	744,797	788,496	831,683	874,198	918,655	961,204	1,004,443	1,047,559	1,090,363	1,133,492	1,176,289	1,219,440	1,262,945	1,306,863	1,350,585			
Transformer and line efficienc	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.7%	99.8%	99.8%	99.8%	100.8%	99.8%			
Hourly average	1,884	1,821	1,799	1,771	1,852	1,773	1,802	1,797	1,784	1,797	1,783	1,798	1,813	1,830	1,822			

JUNE 2019																	
		Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		6/1/2019	6/2/2019	6/3/2019	6/4/2019	6/5/2019	6/6/2019	6/7/2019	6/8/2019	6/9/2019	6/10/2019	6/11/2019	6/12/2019	6/13/2019	6/14/2019	6/15/2019	6/16/2019
LFG and Biogas Flow to the Engines (KSCF)		1,019	1,014	1,004	990	1,038	1,025	1,009	1,005	1,017	1,000	1,011	1,023	1,019	1,008	997	1,014
LFG and Biogas Flow to the Engines (MMBTU HHV)		534	532	524	517	545	543	528	519	523	524	538	536	544	538	526	542
LFG and Biogas Flow to the Flare (KSCF)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)		1,019	1,014	1,004	990	1,038	1,025	1,009	1,005	1,017	1,000	1,011	1,023	1,019	1,008	997	1,014
LFG and Biogas Total Flow (MMBTU HHV)		534	532	524	517	545	543	528	519	523	524	538	536	544	538	526	542
Average Methane Content (%)		51.7	51.8	51.6	51.6	51.9	52.3	51.8	51.0	50.8	51.7	52.6	51.8	52.8	52.8	52.1	52.8
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	23	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)		14,532	14,432	15,052	14,272	15,444	15,072	14,564	14,788	15,280	15,340	14,624	15,076	15,616	15,024	14,776	14,932
Generator 2 Power Output (kWhr)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)		16,184	16,192	15,020	14,980	16,172	16,172	16,172	14,952	14,368	15,256	16,188	16,192	16,192	15,840	16,192	16,192
Generator 4 Power Output (kWhr)		14,376	14,376	15,116	15,628	14,980	15,240	14,356	14,356	14,352	15,216	16,008	14,356	15,432	15,632	14,356	14,352
Gross Power Output (kWhr)		45,094	44,981	45,175	44,849	46,482	46,372	44,952	43,968	43,872	45,748	46,818	45,591	47,248	46,505	45,287	45,457
Net Power Output (kWhr)		43,516	43,416	43,516	43,220	44,752	44,552	43,268	42,412	42,332	43,996	45,044	43,908	45,628	44,824	43,628	43,844
Power Sold as metered by NStar, (kWhr)		43,410	43,302	43,397	43,149	44,700	44,498	43,235	42,373	42,287	43,917	44,912	43,801	45,511	44,697	43,528	43,755
Offgrid RECs (kWhr)		1,577	1,565	1,659	1,629	1,731	1,819	1,684	1,556	1,540	1,753	1,773	1,684	1,619	1,681	1,659	1,613
Calculated Performance Results																	
Daily																	
Power output (kW average when running)																	
Generator 1		606	601	627	595	644	628	607	616	637	639	609	628	651	626	616	622
Generator 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3		674	675	626	624	674	674	674	623	599	636	675	675	675	689	675	675
Generator 4		599	599	630	651	624	635	598	598	598	634	667	598	643	651	598	598
Power output (kW average over 24-hrs)																	
Facility Gross		1,879	1,874	1,882	1,869	1,937	1,932	1,873	1,832	1,828	1,906	1,951	1,900	1,969	1,938	1,887	1,894
Facility Net		1,813	1,809	1,813	1,801	1,865	1,856	1,803	1,767	1,764	1,833	1,877	1,830	1,901	1,868	1,818	1,827
In-plant load		66	65	69	68	72	76	70	65	64	73	74	70	68	70	69	67
Daily availability factor																	
Facility		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	74%	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%	96%	100%	100%
Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Daily capacity factor																	
Facility		57%	57%	57%	57%	59%	59%	57%	56%	55%	58%	59%	58%	60%	59%	57%	57%
Engine 1		73%	73%	76%	72%	78%	76%	74%	75%	77%	77%	74%	76%	79%	76%	75%	75%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		82%	82%	76%	76%	82%	82%	82%	76%	73%	77%	82%	82%	82%	83%	82%	82%
Engine 4		73%	73%	76%	79%	76%	77%	73%	73%	72%	77%	81%	73%	78%	79%	73%	72%
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	335	359	383
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	106,872	106,896	106,920	106,944	106,968	106,992	107,016	107,040	107,064	107,088	107,112	107,136	107,160	107,184	107,208	107,232	107,256
Engine 2	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,381
Engine 3	102,364	102,388	102,412	102,436	102,460	102,484	102,508	102,532	102,556	102,580	102,604	102,628	102,652	102,676	102,699	102,723	102,747
Engine 4	101,659	101,683	101,707	101,731	101,755	101,779	101,803	101,827	101,851	101,875	101,899	101,923	101,947	101,971	101,995	102,019	102,043
Cumulative availability, %	June 1, 2019 @ 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		606	1,207	1,834	2,429	3,072	3,700	4,307	4,923	5,560	6,199	6,808	7,437	8,087	8,713	9,329	9,951
Engine 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3		674	1,349	1,975	2,599	3,273	3,947	4,621	5,244	5,842	6,478	7,152	7,827	8,502	9,190	9,865	10,540
Engine 4		599	1,198	1,828	2,479	3,103	3,738	4,336	4,935	5,533	6,167	6,834	7,432	8,075	8,726	9,324	9,922
Cumulative capacity factor, %																	
Engine 1		73%	73%	74%	74%	74%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		82%	82%	80%	79%	79%	80%	80%	79%	79%	79%	79%	79%	79%	80%	80%	80%
Engine 4		73%	73%	74%	75%	75%	76%	75%	75%	75%	75%	75%	75%	75%	76%	75%	75%

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	6/1/2019	6/2/2019	6/3/2019	6/4/2019	6/5/2019	6/6/2019	6/7/2019	6/8/2019	6/9/2019	6/10/2019	6/11/2019	6/12/2019	6/13/2019	6/14/2019	6/15/2019	6/16/2019
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	1,007	1,079	1,151
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%	74.9%	74.9%	74.9%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	45,094	90,075	135,250	180,099	226,581	272,953	317,905	361,873	405,745	451,493	498,311	543,902	591,150	637,655	682,942	728,399
Cumulative Capacity Factor	56.9%	56.9%	56.9%	56.8%	57.2%	57.4%	57.3%	57.1%	56.9%	57.0%	57.2%	57.2%	57.4%	57.5%	57.5%	57.5%
Cumulative fuel input, MMBtu HHV	534	1,065	1,589	2,106	2,651	3,194	3,722	4,242	4,765	5,289	5,827	6,363	6,907	7,446	7,971	8,513
Cumulative gross output, kWhr	45,094	90,075	135,250	180,099	226,581	272,953	317,905	361,873	405,745	451,493	498,311	543,902	591,150	637,655	682,942	728,399
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	10,650	10,637	10,450	10,369	10,559	10,537	10,580	10,634	10,735	10,305	10,350	10,583	10,370	10,422	10,450	10,725
Daily heat rate, Btu/kWe gross HHV	11,831	11,816	11,608	11,519	11,729	11,705	11,753	11,813	11,926	11,447	11,498	11,757	11,520	11,577	11,608	11,915
Cumulative heat rate, Btu/kWe gross LHV	10,650	10,643	10,579	10,527	10,533	10,534	10,540	10,552	10,572	10,545	10,526	10,531	10,518	10,511	10,507	10,521
Cumulative heat rate, Btu/kWe gross HHV	11,831	11,823	11,752	11,694	11,701	11,702	11,709	11,722	11,744	11,714	11,693	11,699	11,684	11,677	11,672	11,687
Cumulative by Facility starting Calendar Year																
Max cumulative available engine run hours	14,304	14,400	14,496	14,592	14,688	14,784	14,880	14,976	15,072	15,168	15,264	15,360	15,456	15,552	15,648	15,744
Actual cumulative engine run hours	10,393	10,465	10,537	10,609	10,681	10,753	10,825	10,897	10,969	11,041	11,113	11,185	11,257	11,328	11,400	11,472
Cumulative Availability, %	72.7%	72.7%	72.7%	72.7%	72.7%	72.7%	72.7%	72.8%	72.8%	72.8%	72.8%	72.8%	72.8%	72.8%	72.9%	72.9%
Max cumulative gross output, kWhr	11,800,800	11,880,000	11,959,200	12,038,400	12,117,600	12,196,800	12,276,000	12,355,200	12,434,400	12,513,600	12,592,800	12,672,000	12,751,200	12,830,400	12,909,600	12,988,800
Actual cumulative gross output, kWhr	6,314,656	6,359,637	6,404,812	6,449,661	6,496,143	6,542,515	6,587,467	6,631,435	6,675,307	6,721,055	6,767,873	6,813,464	6,860,712	6,907,217	6,952,504	6,997,961
Cumulative Capacity Factor	53.5%	53.5%	53.6%	53.6%	53.6%	53.6%	53.7%	53.7%	53.7%	53.7%	53.7%	53.8%	53.8%	53.8%	53.9%	53.9%
Cumulative fuel input, MMBtu HHV	77,280	77,811	78,336	78,852	79,398	79,940	80,469	80,988	81,511	82,035	82,573	83,109	83,654	84,192	84,718	85,259
Cumulative gross output, kWhr	6,314,656	6,359,637	6,404,812	6,449,661	6,496,143	6,542,515	6,587,467	6,631,435	6,675,307	6,721,055	6,767,873	6,813,464	6,860,712	6,907,217	6,952,504	6,997,961
Cumulative heat rate, Btu/kWe gross LHV	11,017	11,014	11,010	11,006	11,002	10,999	10,996	10,994	10,992	10,988	10,983	10,980	10,976	10,973	10,969	10,968
Cumulative heat rate, Btu/kWe gross HHV	12,238	12,235	12,231	12,226	12,222	12,219	12,215	12,213	12,211	12,206	12,201	12,198	12,193	12,189	12,185	12,183
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	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	6/1/2019	6/2/2019	6/3/2019	6/4/2019	6/5/2019	6/6/2019	6/7/2019	6/8/2019	6/9/2019	6/10/2019	6/11/2019	6/12/2019	6/13/2019	6/14/2019	6/15/2019	6/16/2019
Hour																
1	1,864	1,809	1,808	1,809	1,875	1,872	1,798	1,804	1,803	1,803	1,871	1,806	1,875	1,879	1,827	1,832
2	1,842	1,809	1,807	1,808	1,874	1,872	1,801	1,806	1,790	1,805	1,870	1,806	1,879	1,877	1,825	1,840
3	1,809	1,808	1,807	1,808	1,874	1,871	1,801	1,808	1,736	1,808	1,871	1,806	1,880	1,878	1,807	1,839
4	1,809	1,809	1,808	1,809	1,875	1,874	1,801	1,804	1,732	1,804	1,870	1,806	1,880	1,878	1,807	1,833
5	1,809	1,808	1,808	1,809	1,875	1,875	1,802	1,805	1,734	1,806	1,872	1,807	1,879	1,878	1,806	1,818
6	1,808	1,808	1,808	1,809	1,874	1,875	1,802	1,807	1,736	1,809	1,872	1,807	1,879	1,878	1,806	1,814
7	1,810	1,810	1,810	1,810	1,876	1,875	1,803	1,804	1,802	1,805	1,872	1,807	1,879	1,878	1,806	1,810
8	1,809	1,809	1,809	1,807	1,873	1,871	1,797	1,788	1,746	1,803	1,871	1,805	1,871	1,877	1,804	1,819
9	1,809	1,809	1,762	1,798	1,830	1,862	1,789	1,730	1,732	1,791	1,864	1,796	1,812	1,820	1,800	1,805
10	1,808	1,808	1,768	1,735	1,830	1,842	1,785	1,724	1,725	1,790	1,872	1,792	1,856	1,862	1,796	1,804
11	1,804	1,806	1,792	1,143	1,855	1,859	1,781	1,725	1,724	1,442	1,876	1,792	1,874	1,541	1,793	1,824
12	1,792	1,803	1,787	1,430	1,810	1,853	1,784	1,738	1,720	1,882	1,922	1,787	1,898	1,936	1,786	1,820
13	1,791	1,792	1,784	1,945	1,856	1,854	1,785	1,785	1,764	1,867	1,864	1,788	1,933	1,938	1,788	1,820
14	1,794	1,788	1,795	1,926	1,861	1,856	1,786	1,732	1,787	1,919	1,928	1,807	1,945	1,939	1,814	1,816
15	1,796	1,788	1,854	1,866	1,860	1,856	1,785	1,735	1,790	1,924	1,915	1,861	1,946	1,939	1,817	1,817
16	1,801	1,795	1,853	1,869	1,859	1,855	1,789	1,793	1,786	1,928	1,861	1,860	1,946	1,895	1,821	1,818
17	1,802	1,798	1,861	1,864	1,862	1,856	1,797	1,784	1,793	1,863	1,866	1,867	1,951	1,870	1,825	1,830
18	1,802	1,801	1,848	1,866	1,861	1,857	1,820	1,736	1,798	1,864	1,862	1,870	1,951	1,870	1,839	1,843
19	1,806	1,804	1,798	1,869	1,867	1,859	1,871	1,796	1,795	1,866	1,863	1,872	1,951	1,871	1,834	1,821
20	1,808	1,808	1,801	1,874	1,870	1,860	1,833	1,730	1,776	1,868	1,866	1,876	1,922	1,853	1,824	1,835
21	1,809	1,808	1,805	1,873	1,870	1,858	1,807	1,733	1,734	1,868	1,871	1,818	1,878	1,834	1,815	1,825
22	1,810	1,808	1,808	1,874	1,869	1,795	1,804	1,731	1,730	1,865	1,873	1,816	1,876	1,822	1,817	1,811
23	1,809	1,808	1,808	1,874	1,871	1,795	1,806	1,733	1,747	1,868	1,834	1,874	1,873	1,844	1,837	1,831
24	1,809	1,808	1,808	1,874	1,873	1,796	1,808	1,742	1,807	1,869	1,806	1,875	1,877	1,840	1,834	1,830
				-												
TOTAL	43,410	43,302	43,397	43,149	44,700	44,498	43,235	42,373	42,287	43,917	44,912	43,801	45,511	44,697	43,528	43,755
Cumulative Output Sold, kWhr	43,410	86,712	130,109	173,258	217,958	262,456	305,691	348,064	390,351	434,268	479,180	522,981	568,492	613,189	656,717	700,472
Transformer and line efficiency	99.8%	99.7%	99.7%	99.8%	99.9%	99.9%	99.9%	99.9%	99.9%	99.8%	99.7%	99.8%	99.7%	99.7%	99.8%	99.8%
Hourly average	1,809	1,804	1,808	1,798	1,863	1,854	1,801	1,766	1,762	1,830	1,871	1,825	1,896	1,862	1,814	1,823

JUNE 2019																	
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
	6/17/2019	6/18/2019	6/19/2019	6/20/2019	6/21/2019	6/22/2019	6/23/2019	6/24/2019	6/25/2019	6/26/2019	6/27/2019	6/28/2019	6/29/2019	6/30/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	992	965	984	995	975	966	985	983	976	981	979	1,043	1,003	1,012	30,030	483	29,548
LFG and Biogas Flow to the Engine	527	524	530	546	534	517	527	527	521	525	522	542	523	529	15,905	359	15,546
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3%	98%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF	992	965	984	995	975	966	985	983	976	981	979	1,043	1,003	1,012	30,030		
LFG and Biogas Total Flow (MMBT	527	524	530	546	534	517	527	527	521	525	522	542	523	529	15,905		
Average Methane Content (%)	52.5	53.7	53.2	54.2	54.1	52.9	52.8	53.0	52.8	52.9	52.7	51.3	51.5	51.6	52.3		
Engine 1 Hours	24	24	24	24	24	24	24	7	-	16	23	24	24	24	670		
Engine 2 Hours	-	-	-	-	-	-	-	16	24	24	24	14	-	-	102		
Engine 3 Hours	24	18	24	24	24	24	24	24	24	9	-	11	24	24	661		
Engine 4 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	720		
Generator 1 Power Output (kWhr)	14,332	16,292	15,032	15,488	14,972	14,652	14,916	4,668	-	9,888	17,152	16,500	14,432	14,432	421,580		
Generator 2 Power Output (kWhr)	-	-	-	-	-	-	-	6,864	11,428	11,448	11,752	7,048	-	-	48,540		
Generator 3 Power Output (kWhr)	15,856	11,736	16,196	16,192	16,184	16,196	16,196	16,788	17,952	6,460	-	6,600	16,204	16,196	441,020		
Generator 4 Power Output (kWhr)	15,072	16,408	16,128	16,124	16,112	14,772	14,352	16,024	16,148	17,284	17,400	16,992	16,116	15,704	462,768		
Gross Power Output (kWhr)	45,237	44,433	47,377	47,838	47,291	45,611	45,429	44,273	45,437	45,094	46,396	47,173	46,756	46,313	1,373,057		
Net Power Output (kWhr)	43,504	42,840	45,648	46,120	45,612	43,964	43,724	42,500	43,564	43,176	44,520	45,188	44,860	44,440	1,321,516		
Power Sold as metered by NStar, (	43,389	42,750	45,512	45,984	45,517	43,849	43,629	42,401	43,461	43,081	44,417	45,073	44,724	44,329	1,318,588	CRMCB inplant	
Offgrid RECs (kWhr)	1,733	1,594	1,728	1,719	1,679	1,647	1,706	1,773	1,873	1,918	1,876	1,985	1,896	1,873	51,542	7,419	
Calculated Performance Results																14%	
Daily																of total in-plant	
Power output (kW average whe																power	
Generator 1	597	679	626	645	624	611	622	667	-	618	746	688	601	601			
Generator 2	-	-	-	-	-	-	-	429	476	477	490	503	-	-			
Generator 3	661	652	675	675	674	675	675	700	748	718	-	600	675	675			
Generator 4	628	684	672	672	671	616	598	668	673	720	725	708	672	654			
Power output (kW average ove																	
Facility Gross	1,885	1,851	1,974	1,993	1,970	1,900	1,893	1,845	1,893	1,879	1,933	1,966	1,948	1,930			
Facility Net	1,813	1,785	1,902	1,922	1,901	1,832	1,822	1,771	1,815	1,799	1,855	1,883	1,869	1,852			
In-plant load	72	66	72	72	70	69	71	74	78	80	78	83	79	78			
Daily availability factor																	
Facility	75%	69%	75%	75%	75%	75%	75%	74%	75%	76%	74%	76%	75%	75%			
Engine 1	100%	100%	100%	100%	100%	100%	100%	29%	0%	67%	96%	100%	100%	100%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	67%	100%	100%	100%	58%	0%	0%			
Engine 3	100%	75%	100%	100%	100%	100%	100%	100%	100%	38%	0%	46%	100%	100%			
Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Daily capacity factor																	
Facility	57%	56%	60%	60%	60%	58%	57%	56%	57%	57%	59%	60%	59%	58%			
Engine 1	72%	82%	76%	78%	76%	74%	75%	81%	0%	75%	90%	83%	73%	73%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	52%	58%	58%	59%	61%	0%	0%			
Engine 3	80%	79%	82%	82%	82%	82%	82%	85%	91%	87%	0%	73%	82%	82%			
Engine 4	76%	83%	81%	81%	81%	75%	72%	81%	82%	87%	88%	86%	81%	79%			
Cumulative by engine																	
Engine operating run hours in tl																	
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
Engine 1	408	432	456	480	504	528	552	559	559	575	598	622	646	670			
Engine 2	0	0	0	0	0	0	0	16	40	64	88	102	102	102			
Engine 3	407	425	449	473	497	521	545	569	593	602	602	613	637	661			
Engine 4	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
Engine operating run hours tota																	
Engine 1	107,280	107,304	107,328	107,352	107,376	107,400	107,424	107,431	107,431	107,447	107,470	107,494	107,518	107,542			
Engine 2	95,381	95,381	95,381	95,381	95,381	95,381	95,381	95,397	95,421	95,445	95,469	95,483	95,483	95,483			
Engine 3	102,771	102,789	102,813	102,837	102,861	102,885	102,909	102,933	102,957	102,966	102,966	102,977	103,001	103,025			
Engine 4	102,067	102,091	102,115	102,139	102,163	102,187	102,211	102,235	102,259	102,283	102,307	102,331	102,355	102,379			
Cumulative availability, %																	
Engine 1	100%	100%	100%	100%	100%	100%	100%	97%	93%	92%	92%	93%	93%	93%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	3%	7%	10%	14%	15%	15%	14%			
Engine 3	100%	98%	98%	99%	99%	99%	99%	99%	99%	96%	93%	91%	92%	92%			
Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Engine cumulative gross output																	
Max cumulative capacity or	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	10,548	11,227	11,853	12,499	13,123	13,733	14,355	15,021	15,021	15,639	16,385	17,073	17,674	18,275			
Engine 2	-	-	-	-	-	-	-	429	905	1,382	1,872	2,375	2,375	2,375			
Engine 3	11,200	11,852	12,527	13,202	13,876	14,551	15,226	15,925	16,673	17,391	17,391	17,991	18,666	19,341			
Engine 4	10,550	11,234	11,906	12,578	13,249	13,865	14,463	15,130	15,803	16,523	17,248	17,956	18,628	19,282			
Cumulative capacity factor, %																	
Engine 1	75%	76%	76%	76%	76%	76%	76%	76%	73%	73%	74%	74%	74%	74%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	2%	4%	6%	8%	10%	10%	10%			
Engine 3	80%	80%	80%	80%	80%	80%	80%	80%	81%	81%	78%	78%	78%	78%			
Engine 4	75%	76%	76%	76%	76%	76%	76%	76%	77%	77%	77%	78%	78%	78%			

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
	6/17/2019	6/18/2019	6/19/2019	6/20/2019	6/21/2019	6/22/2019	6/23/2019	6/24/2019	6/25/2019	6/26/2019	6/27/2019	6/28/2019	6/29/2019	6/30/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month																	
Max cumulative available engi	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 h	1,223	1,289	1,361	1,433	1,505	1,577	1,649	1,720	1,792	1,865	1,936	2,009	2,081	2,153			
Cumulative Availability, %	74.9%	74.6%	74.6%	74.6%	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%	74.7%	74.8%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000			
Actual cumulative gross output,	773,636	818,069	865,446	913,284	960,575	1,006,186	1,051,615	1,095,888	1,141,325	1,186,419	1,232,815	1,279,988	1,326,744	1,373,057			
Cumulative Capacity Factor	57.5%	57.4%	57.5%	57.7%	57.8%	57.7%	57.7%	57.7%	57.6%	57.6%	57.7%	57.7%	57.8%	57.8%			
Cumulative fuel input, MMBtu h	9,040	9,564	10,094	10,640	11,174	11,690	12,217	12,744	13,265	13,790	14,312	14,854	15,376	15,905			
Cumulative gross output, kWhr	773,636	818,069	865,446	913,284	960,575	1,006,186	1,051,615	1,095,888	1,141,325	1,186,419	1,232,815	1,279,988	1,326,744	1,373,057			
Heat Rate																	
Daily heat rate, Btu/kWe gross	10,489	10,624	10,061	10,273	10,161	10,194	10,435	10,715	10,322	10,484	10,134	10,335	10,062	10,275			
Daily heat rate, Btu/kWe gross	11,652	11,802	11,176	11,411	11,288	11,324	11,592	11,903	11,466	11,647	11,257	11,481	11,177	11,414			
Cumulative heat rate, Btu/kWe	10,519	10,525	10,499	10,487	10,471	10,459	10,458	10,468	10,462	10,463	10,451	10,446	10,433	10,428			
Cumulative heat rate, Btu/kWe	11,685	11,691	11,663	11,650	11,632	11,618	11,617	11,629	11,622	11,623	11,609	11,605	11,590	11,584			
Cumulative by Facility starting C																	
Max cumulative available engi	15,840	15,936	16,032	16,128	16,224	16,320	16,416	16,512	16,608	16,704	16,800	16,896	16,992	17,088			
Actual cumulative engine run h	11,544	11,610	11,682	11,754	11,826	11,898	11,970	12,041	12,113	12,186	12,257	12,330	12,402	12,474			
Cumulative Availability, %	72.9%	72.9%	72.9%	72.9%	72.9%	72.9%	72.9%	72.9%	72.9%	73.0%	73.0%	73.0%	73.0%	73.0%			
Max cumulative gross output, k	13,068,000	13,147,200	13,226,400	13,305,600	13,384,800	13,464,000	13,543,200	13,622,400	13,701,600	13,780,800	13,860,000	13,939,200	14,018,400	14,097,600			
Actual cumulative gross output,	7,043,198	7,087,631	7,135,008	7,182,846	7,230,137	7,275,748	7,321,177	7,365,450	7,410,887	7,455,981	7,502,377	7,549,550	7,596,306	7,642,619			
Cumulative Capacity Factor	53.9%	53.9%	53.9%	54.0%	54.0%	54.0%	54.1%	54.1%	54.1%	54.1%	54.1%	54.2%	54.2%	54.2%			
Cumulative fuel input, MMBtu h	85,786	86,311	86,840	87,386	87,920	88,437	88,963	89,490	90,011	90,536	91,059	91,600	92,123	92,651			
Cumulative gross output, kWhr	7,043,198	7,087,631	7,135,008	7,182,846	7,230,137	7,275,748	7,321,177	7,365,450	7,410,887	7,455,981	7,502,377	7,549,550	7,596,306	7,642,619			
Cumulative heat rate, Btu/kWe	10,964	10,962	10,956	10,952	10,947	10,942	10,939	10,937	10,934	10,931	10,926	10,922	10,917	10,913			
Cumulative heat rate, Btu/kWe	12,180	12,178	12,171	12,166	12,160	12,155	12,151	12,150	12,146	12,143	12,137	12,133	12,127	12,123			
Service																	
Engine 1								E-1 top-end overhaul									
Engine 2																	
Engine 3		Fuse blown from chaffed wires.								E-3 top-end overhaul							
Engine 4																	
Oil - oil and filter change																	
Service - plugs, air filter, valve insp																	
Precipitation																	
NSTAR Power Reports	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday			
Date	6/17/2019	6/18/2019	6/19/2019	6/20/2019	6/21/2019	6/22/2019	6/23/2019	6/24/2019	6/25/2019	6/26/2019	6/27/2019	6/28/2019	6/29/2019	6/30/2019	TOTAL		
Hour																	
1	1,818	1,876	1,917	1,894	1,929	1,875	1,808	1,841	1,819	1,811	1,873	1,919	1,866	1,865			
2	1,818	1,601	1,911	1,889	1,923	1,874	1,808	1,806	1,819	1,812	1,873	1,923	1,867	1,865			
3	1,829	1,297	1,878	1,878	1,930	1,878	1,808	1,806	1,819	1,812	1,872	1,924	1,867	1,865			
4	1,805	1,297	1,878	1,876	1,906	1,878	1,807	1,806	1,819	1,812	1,842	1,919	1,868	1,865			
5	1,805	1,299	1,878	1,878	1,898	1,879	1,807	1,807	1,819	1,812	1,801	1,854	1,867	1,866			
6	1,806	1,299	1,879	1,878	1,875	1,850	1,807	1,807	1,819	1,813	1,802	1,855	1,867	1,869			
7	1,805	1,299	1,879	1,878	1,902	1,808	1,807	1,807	1,818	1,813	1,804	1,854	1,867	1,869			
8	1,800	1,340	1,878	1,878	1,880	1,807	1,804	1,673	1,813	1,808	1,801	1,842	1,867	1,865			
9	1,788	1,955	1,867	1,869	1,874	1,804	1,799	1,764	1,805	1,570	1,795	1,767	1,864	1,862			
10	1,515	2,086	1,868	1,920	1,902	1,800	1,796	1,490	1,806	1,381	1,790	1,814	1,864	1,861			
11	1,248	2,036	1,902	1,942	1,942	1,833	1,792	829	1,805	1,535	1,796	1,871	1,863	1,856			
12	1,934	2,024	1,894	1,941	1,939	1,839	1,791	1,667	1,804	1,746	1,462	1,871	1,861	1,856			
13	1,876	1,988	1,905	1,927	1,939	1,820	1,787	1,808	1,805	1,834	1,836	1,869	1,860	1,862			
14	1,860	1,987	1,922	1,919	1,920	1,823	1,785	1,836	1,806	1,853	1,929	1,872	1,859	1,861			
15	1,860	1,926	1,913	1,938	1,869	1,820	1,824	1,873	1,807	1,854	1,866	1,876	1,860	1,862			
16	1,861	1,942	1,902	1,941	1,870	1,798	1,864	1,875	1,809	1,860	1,910	1,924	1,860	1,862			
17	1,866	1,949	1,921	1,933	1,877	1,840	1,864	1,879	1,805	1,866	1,912	1,929	1,861	1,863			
18	1,863	1,950	1,942	1,948	1,878	1,801	1,864	1,884	1,808	1,867	1,916	1,931	1,861	1,862			
19	1,864	1,949	1,914	1,947	1,877	1,798	1,811	1,884	1,810	1,868	1,920	1,927	1,861	1,819			
20	1,870	1,948	1,881	1,945	1,877	1,801	1,865	1,885	1,811	1,869	1,921	1,861	1,862	1,793			
21	1,872	1,917	1,875	1,942	1,877	1,802	1,809	1,885	1,810	1,869	1,924	1,880	1,861	1,793			
22	1,874	1,923	1,900	1,942	1,878	1,807	1,858	1,857	1,807	1,870	1,925	1,862	1,863	1,795			
23	1,876	1,941	1,906	1,945	1,877	1,807	1,821	1,814	1,807	1,872	1,924	1,864	1,864	1,796			
24	1,876	1,921	1,902	1,936	1,878	1,807	1,843	1,818	1,811	1,874	1,923	1,865	1,864	1,797			
TOTAL	43,389	42,750	45,512	45,984	45,517	43,849	43,629	42,401	43,461	43,081	44,417	45,073	44,724	44,329			
Cumulative Output Sold, kV	743,861	786,611	832,123	878,107	923,624	967,473	1,011,102	1,053,503	1,096,964	1,140,045	1,184,462	1,229,535	1,274,259	1,318,588			
Transformer and line efficienc	99.7%	99.8%	99.7%	99.7%	99.8%	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.8%			
Hourly average	1,808	1,781	1,896	1,916	1,897	1,827	1,818	1,767	1,811	1,795	1,851	1,878	1,864	1,847			

JULY 2019																	
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
		7/1/2019	7/2/2019	7/3/2019	7/4/2019	7/5/2019	7/6/2019	7/7/2019	7/8/2019	7/9/2019	7/10/2019	7/11/2019	7/12/2019	7/13/2019	7/14/2019	7/15/2019	7/16/2019
LFG and Biogas Flow to the Engines (KSCF)		1,031	1,036	1,022	1,037	1,036	1,015	1,010	1,001	1,044	1,040	1,044	1,027	1,018	983	1,005	1,072
LFG and Biogas Flow to the Engines (MMBTU HHV)		530	535	523	524	525	525	520	517	535	532	537	542	529	506	515	553
LFG and Biogas Flow to the Flare (KSCF)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)		1,031	1,036	1,022	1,037	1,036	1,015	1,010	1,001	1,044	1,040	1,044	1,027	1,018	983	1,005	1,072
LFG and Biogas Total Flow (MMBTU HHV)		530	535	523	524	525	525	520	517	535	532	537	542	529	506	515	553
Average Methane Content (%)		50.8	51.0	50.6	49.9	50.1	51.1	50.8	51.1	50.6	50.5	50.8	52.1	51.4	50.8	50.6	51.0
Engine 1 Hours		24	24	24	24	24	24	24	23	24	24	24	24	24	24	24	24
Engine 2 Hours		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3 Hours		24	24	24	24	24	24	24	23	24	24	24	24	24	24	24	24
Engine 4 Hours		24	24	24	24	24	24	24	23	24	23	24	24	24	24	24	24
Generator 1 Power Output (kWhr)		15,180	15,608	14,596	14,840	15,416	14,516	15,192	14,748	14,952	15,200	15,488	15,744	14,752	15,172	14,752	15,460
Generator 2 Power Output (kWhr)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)		16,204	16,204	16,208	14,924	14,404	14,404	14,396	13,824	16,200	16,224	16,204	16,296	16,204	15,040	14,392	14,404
Generator 4 Power Output (kWhr)		14,356	14,356	14,356	14,356	15,004	16,120	15,180	13,800	14,864	14,000	14,588	15,588	14,356	14,352	14,872	16,008
Gross Power Output (kWhr)		45,728	46,179	45,125	44,082	44,773	44,996	44,720	42,416	46,065	45,485	46,299	47,669	45,320	44,572	44,009	45,877
Net Power Output (kWhr)		43,828	44,244	43,204	42,204	42,876	43,092	42,856	40,620	44,144	43,552	44,308	45,704	43,448	42,676	42,108	43,900
Power Sold as metered by NStar, (kWhr)		43,709	44,105	43,100	42,122	42,812	43,011	42,766	40,525	44,038	43,443	44,171	45,569	43,329	42,578	42,043	43,797
Offgrid RECs (kWhr)		1,900	1,936	1,921	1,878	1,897	1,903	1,864	1,797	1,920	1,933	1,991	1,965	1,872	1,897	1,900	1,978
Calculated Performance Results																	
Daily																	
Power output (kW average when running)																	
Generator 1		633	650	608	618	642	605	633	641	623	633	645	656	615	632	615	644
Generator 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator 3		675	675	675	622	600	600	600	601	675	676	675	679	675	627	600	600
Generator 4		598	598	598	598	625	672	633	600	619	609	608	650	598	598	620	667
Power output (kW average over 24-hrs)																	
Facility Gross		1,905	1,924	1,880	1,837	1,866	1,875	1,863	1,767	1,919	1,895	1,929	1,986	1,888	1,857	1,834	1,912
Facility Net		1,826	1,844	1,800	1,759	1,787	1,796	1,786	1,693	1,839	1,815	1,846	1,904	1,810	1,778	1,755	1,829
In-plant load		79	81	80	78	79	79	78	75	80	81	83	82	78	79	79	82
Daily availability factor																	
Facility		75%	75%	75%	75%	75%	75%	75%	72%	75%	74%	75%	75%	75%	75%	75%	75%
Engine 1		100%	100%	100%	100%	100%	100%	100%	96%	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%	96%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 4		100%	100%	100%	100%	100%	100%	100%	96%	100%	96%	100%	100%	100%	100%	100%	100%
Daily capacity factor																	
Facility		58%	58%	57%	56%	57%	57%	56%	54%	58%	57%	58%	60%	57%	56%	56%	58%
Engine 1		77%	79%	74%	75%	78%	73%	77%	78%	76%	77%	78%	80%	75%	77%	75%	78%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		82%	82%	82%	75%	73%	73%	73%	73%	82%	82%	82%	82%	82%	76%	73%	73%
Engine 4		73%	73%	73%	73%	76%	81%	77%	73%	75%	74%	74%	79%	73%	72%	75%	81%
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	191	215	239	263	287	311	335	359	383
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	191	215	239	263	287	311	335	359	383
Engine 4		24	48	72	96	120	144	168	191	215	238	262	286	310	334	358	382
Engine operating run hours total from 0 hours																	
Engine 1	107,542	107,566	107,590	107,614	107,638	107,662	107,686	107,710	107,733	107,757	107,781	107,805	107,829	107,853	107,877	107,901	107,925
Engine 2	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483
Engine 3	103,025	103,049	103,073	103,097	103,121	103,145	103,169	103,193	103,216	103,240	103,264	103,288	103,312	103,336	103,360	103,384	103,408
Engine 4	102,379	102,403	102,427	102,451	102,475	102,499	102,523	102,547	102,570	102,594	102,617	102,641	102,665	102,689	102,713	102,737	102,761
Cumulative availability, %	July 1, 2019 @ 00:00 hours																
Engine 1		100%	100%	100%	100%	100%	100%	100%	99%	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%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 4		100%	100%	100%	100%	100%	100%	100%	99%	100%	99%	99%	99%	99%	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		633	1,283	1,891	2,509	3,152	3,757	4,390	5,031	5,654	6,287	6,932	7,588	8,203	8,835	9,450	10,094
Engine 2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine 3		675	1,350	2,026	2,648	3,248	3,848	4,448	5,049	5,724	6,400	7,075	7,754	8,429	9,056	9,655	10,256
Engine 4		598	1,196	1,795	2,393	3,018	3,690	4,322	4,922	5,541	6,150	6,758	7,407	8,006	8,604	9,223	9,890
Cumulative capacity factor, %																	
Engine 1		77%	78%	76%	76%	76%	76%	76%	76%	76%	76%	76%	77%	76%	76%	76%	76%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		82%	82%	82%	80%	79%	78%	77%	76%	77%	78%	78%	78%	79%	78%	78%	78%
Engine 4		73%	73%	73%	73%	73%	75%	75%	75%	75%	75%	74%	75%	75%	74%	75%	75%

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
	7/1/2019	7/2/2019	7/3/2019	7/4/2019	7/5/2019	7/6/2019	7/7/2019	7/8/2019	7/9/2019	7/10/2019	7/11/2019	7/12/2019	7/13/2019	7/14/2019	7/15/2019	7/16/2019
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	573	645	716	788	860	932	1,004	1,076	1,148
Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	74.6%	74.7%	74.6%	74.6%	74.7%	74.7%	74.7%	74.7%	74.7%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	45,728	91,907	137,032	181,114	225,887	270,883	315,603	358,019	404,084	449,569	495,868	543,537	588,857	633,429	677,438	723,315
Cumulative Capacity Factor	57.7%	58.0%	57.7%	57.2%	57.0%	57.0%	56.9%	56.5%	56.7%	56.8%	56.9%	57.2%	57.2%	57.1%	57.0%	57.1%
Cumulative fuel input, MMBtu HHV	530	1,064	1,587	2,111	2,636	3,160	3,680	4,197	4,732	5,264	5,801	6,342	6,872	7,377	7,892	8,445
Cumulative gross output, kWhr	45,728	91,907	137,032	181,114	225,887	270,883	315,603	358,019	404,084	449,569	495,868	543,537	588,857	633,429	677,438	723,315
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	10,426	10,421	10,435	10,690	10,556	10,495	10,457	10,981	10,455	10,519	10,439	10,226	10,516	10,213	10,524	10,853
Daily heat rate, Btu/kWe gross HHV	11,582	11,577	11,592	11,876	11,726	11,659	11,617	12,198	11,614	11,685	11,596	11,360	11,681	11,346	11,691	12,056
Cumulative heat rate, Btu/kWe gross LHV	10,426	10,423	10,427	10,491	10,504	10,503	10,496	10,554	10,542	10,540	10,531	10,504	10,505	10,484	10,487	10,510
Cumulative heat rate, Btu/kWe gross HHV	11,582	11,579	11,583	11,655	11,669	11,667	11,660	11,724	11,711	11,709	11,698	11,668	11,669	11,647	11,649	11,675
Cumulative by Facility starting Calendar Year																
Max cumulative available engine run hours	17,184	17,280	17,376	17,472	17,568	17,664	17,760	17,856	17,952	18,048	18,144	18,240	18,336	18,432	18,528	18,624
Actual cumulative engine run hours	12,546	12,618	12,690	12,762	12,834	12,906	12,978	13,047	13,119	13,190	13,262	13,334	13,406	13,478	13,550	13,622
Cumulative Availability, %	73.0%	73.0%	73.0%	73.0%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%
Max cumulative gross output, kWhr	14,176,800	14,256,000	14,335,200	14,414,400	14,493,600	14,572,800	14,652,000	14,731,200	14,810,400	14,889,600	14,968,800	15,048,000	15,127,200	15,206,400	15,285,600	15,364,800
Actual cumulative gross output, kWhr	7,688,347	7,734,526	7,779,651	7,823,733	7,868,506	7,913,502	7,958,222	8,000,638	8,046,703	8,092,188	8,138,487	8,186,156	8,231,476	8,276,048	8,320,057	8,365,934
Cumulative Capacity Factor	54.2%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.4%	54.4%	54.4%	54.4%	54.4%	54.4%
Cumulative fuel input, MMBtu HHV	93,181	93,716	94,239	94,762	95,287	95,812	96,331	96,849	97,384	97,915	98,452	98,994	99,523	100,029	100,543	101,096
Cumulative gross output, kWhr	7,688,347	7,734,526	7,779,651	7,823,733	7,868,506	7,913,502	7,958,222	8,000,638	8,046,703	8,092,188	8,138,487	8,186,156	8,231,476	8,276,048	8,320,057	8,365,934
Cumulative heat rate, Btu/kWe gross LHV	10,910	10,907	10,905	10,903	10,901	10,899	10,897	10,897	10,894	10,892	10,890	10,886	10,884	10,880	10,878	10,878
Cumulative heat rate, Btu/kWe gross HHV	12,120	12,117	12,113	12,112	12,110	12,107	12,105	12,105	12,102	12,100	12,097	12,093	12,091	12,087	12,084	12,084
Service																
Engine 1																
Engine 2								NStar outage								
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	7/1/2019	7/2/2019	7/3/2019	7/4/2019	7/5/2019	7/6/2019	7/7/2019	7/8/2019	7/9/2019	7/10/2019	7/11/2019	7/12/2019	7/13/2019	7/14/2019	7/15/2019	7/16/2019
Hour																
1	1,798	1,860	1,796	1,794	1,742	1,789	1,791	1,765	1,944	1,798	1,840	1,831	1,838	1,792	1,726	1,793
2	1,798	1,797	1,796	1,795	1,794	1,789	1,791	1,793	1,902	1,798	1,839	1,863	1,867	1,794	1,745	1,795
3	1,799	1,855	1,796	1,795	1,753	1,802	1,791	1,796	1,874	1,799	1,838	1,864	1,825	1,793	1,722	1,795
4	1,800	1,865	1,796	1,795	1,795	1,817	1,791	1,796	1,875	1,800	1,838	1,865	1,859	1,794	1,721	1,795
5	1,800	1,823	1,796	1,794	1,794	1,790	1,791	1,796	1,874	1,800	1,827	1,865	1,796	1,793	1,722	1,794
6	1,800	1,852	1,798	1,794	1,794	1,790	1,790	1,798	1,874	1,800	1,792	1,867	1,835	1,793	1,724	1,791
7	1,799	1,836	1,797	1,788	1,761	1,790	1,791	1,759	1,873	1,801	1,793	1,875	1,795	1,793	1,723	1,791
8	1,795	1,804	1,792	1,719	1,763	1,788	1,791	1,781	1,803	1,798	1,792	1,915	1,795	1,792	1,721	1,752
9	1,784	1,784	1,782	1,717	1,711	1,788	1,790	1,729	1,789	1,750	1,782	1,908	1,794	1,750	1,715	1,753
10	1,783	1,843	1,783	1,717	1,716	1,788	1,789	1,753	1,789	1,783	1,815	1,946	1,793	1,766	1,715	1,829
11	1,782	1,856	1,853	1,715	1,779	1,788	1,788	1,715	1,816	1,720	1,856	2,001	1,792	1,749	1,712	1,838
12	1,823	1,857	1,852	1,764	1,786	1,787	1,738	1,782	1,851	1,566	1,855	2,000	1,791	1,789	1,706	1,848
13	1,854	1,857	1,796	1,738	1,788	1,787	1,789	1,784	1,850	1,814	1,855	1,983	1,790	1,787	1,719	1,851
14	1,796	1,857	1,781	1,763	1,788	1,787	1,789	1,782	1,850	1,868	1,855	1,976	1,790	1,787	1,776	1,854
15	1,845	1,856	1,781	1,751	1,788	1,819	1,782	1,783	1,849	1,902	1,855	1,975	1,790	1,788	1,777	1,851
16	1,816	1,856	1,782	1,721	1,846	1,796	1,785	1,784	1,864	1,887	1,856	1,899	1,790	1,787	1,785	1,843
17	1,860	1,856	1,788	1,753	1,820	1,788	1,788	1,789	1,804	1,837	1,862	1,903	1,790	1,789	1,753	1,860
18	1,861	1,862	1,789	1,735	1,858	1,789	1,789	1,790	1,793	1,879	1,862	1,865	1,791	1,789	1,821	1,862
19	1,862	1,862	1,791	1,747	1,790	1,790	1,789	1,790	1,794	1,840	1,863	1,866	1,824	1,761	1,791	1,862
20	1,863	1,831	1,791	1,768	1,790	1,789	1,789	945	1,795	1,842	1,863	1,866	1,821	1,781	1,795	1,862
21	1,863	1,817	1,790	1,717	1,789	1,790	1,751	203	1,794	1,842	1,862	1,865	1,791	1,719	1,795	1,861
22	1,865	1,832	1,791	1,752	1,789	1,790	1,774	1,762	1,795	1,841	1,859	1,865	1,791	1,720	1,792	1,827
23	1,866	1,793	1,791	1,743	1,789	1,790	1,758	1,904	1,793	1,839	1,858	1,865	1,790	1,721	1,792	1,858
24	1,797	1,794	1,792	1,747	1,789	1,790	1,751	1,946	1,793	1,839	1,854	1,841	1,791	1,751	1,795	1,832
				-												
TOTAL	43,709	44,105	43,100	42,122	42,812	43,011	42,766	40,525	44,038	43,443	44,171	45,569	43,329	42,578	42,043	43,797
Cumulative Output Sold, kWhr	43,709	87,814	130,914	173,036	215,848	258,859	301,625	342,150	386,188	429,631	473,802	519,371	562,700	605,278	647,321	691,118
Transformer and line efficiency	99.7%	99.7%	99.8%	99.8%	99.9%	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.7%	99.8%	99.8%	99.8%
Hourly average	1,821	1,838	1,796	1,755	1,784	1,792	1,782	1,689	1,835	1,810	1,840	1,899	1,805	1,774	1,752	1,825

JULY 2019																		
	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday			
	7/17/2019	7/18/2019	7/19/2019	7/20/2019	7/21/2019	7/22/2019	7/23/2019	7/24/2019	7/25/2019	7/26/2019	7/27/2019	7/28/2019	7/29/2019	7/30/2019	7/31/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	1,056	1,074	1,082	1,056	1,048	1,072	1,058	1,066	1,064	1,061	1,071	1,043	1,068	1,050	1,041	32,332	487	31,845
LFG and Biogas Flow to the Engine	556	571	578	564	560	573	571	569	564	557	568	558	574	561	556	16,925	365	16,561
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2%	98%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF	1,056	1,074	1,082	1,056	1,048	1,072	1,058	1,066	1,064	1,061	1,071	1,043	1,068	1,050	1,041	32,332		
LFG and Biogas Total Flow (MMBT	556	571	578	564	560	573	571	569	564	557	568	558	574	561	556	16,925		
Average Methane Content (%)	52.1	52.5	52.8	52.8	52.8	52.8	53.4	52.8	52.4	51.9	52.3	52.9	53.1	52.8	52.8	51.7		
Engine 1 Hours	23	24	24	24	24	24	24	24	24	24	24	24	24	24	24	742		
Engine 2 Hours	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
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	742		
Generator 1 Power Output (kWhr)	14,944	16,028	15,600	14,484	14,816	14,720	15,524	14,768	15,064	15,224	14,428	14,428	15,020	14,436	15,224	466,324		
Generator 2 Power Output (kWhr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Generator 3 Power Output (kWhr)	15,100	15,808	16,196	16,200	16,196	16,200	16,200	16,204	16,200	16,108	15,944	15,944	15,952	15,820	14,404	484,008		
Generator 4 Power Output (kWhr)	16,120	15,860	16,124	16,128	14,968	15,096	15,376	16,124	15,692	15,476	15,876	15,880	15,880	15,212	15,148	471,116		
Gross Power Output (kWhr)	46,163	47,734	47,955	46,832	46,016	46,044	47,151	47,128	46,987	46,842	46,231	46,241	46,878	45,462	44,763	1,421,742		
Net Power Output (kWhr)	44,220	45,852	46,024	44,888	44,088	44,128	45,284	45,244	45,080	44,920	44,392	44,380	44,928	43,500	42,840	1,362,532		
Power Sold as metered by NStar, (	44,104	45,711	45,883	44,754	43,973	44,017	45,162	45,115	44,950	44,783	44,271	44,250	44,789	43,376	42,726	1,358,982	CRMCB inplant	
Offgrid RECs (kWhr)	1,943	1,881	1,932	1,944	1,928	1,915	1,867	1,884	1,907	1,922	1,839	1,861	1,950	1,962	1,923	59,210	8,532	
Calculated Performance Results																	14%	
Daily																	of total in-plant	
Power output (kW average whe																	power	
Generator 1	650	668	650	604	617	613	647	615	628	634	601	601	626	602	634			
Generator 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Generator 3	629	659	675	675	675	675	675	675	675	671	664	664	665	659	600			
Generator 4	672	661	672	672	624	629	641	672	654	645	662	662	662	634	631			
Power output (kW average ove																		
Facility Gross	1,923	1,989	1,998	1,951	1,917	1,919	1,965	1,964	1,958	1,952	1,926	1,927	1,953	1,894	1,865			
Facility Net	1,843	1,911	1,918	1,870	1,837	1,839	1,887	1,885	1,878	1,872	1,850	1,849	1,872	1,813	1,785			
In-plant load	81	78	80	81	80	80	78	79	79	80	77	78	81	82	80			
Daily availability factor																		
Facility	74%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
Engine 1	96%	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	58%	60%	61%	59%	58%	58%	60%	60%	59%	59%	58%	58%	59%	57%	57%			
Engine 1	79%	81%	79%	73%	75%	74%	78%	75%	76%	77%	73%	73%	76%	73%	77%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	76%	80%	82%	82%	82%	82%	82%	82%	82%	81%	81%	81%	81%	80%	73%			
Engine 4	81%	80%	81%	81%	76%	76%	78%	81%	79%	78%	80%	80%	80%	77%	77%			
Cumulative by engine																		
Engine operating run hours in tl																		
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672	696	720	720			
Engine 1	406	430	454	478	502	526	550	574	598	622	646	670	694	718	718			
Engine 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Engine 3	407	431	455	479	503	527	551	575	599	623	647	671	695	719	719			
Engine 4	406	430	454	478	502	526	550	574	598	622	646	670	694	718	718			
Engine operating run hours tota																		
Engine 1	107,948	107,972	107,996	108,020	108,044	108,068	108,092	108,116	108,140	108,164	108,188	108,212	108,236	108,260	108,260			
Engine 2	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483	95,483			
Engine 3	103,432	103,456	103,480	103,504	103,528	103,552	103,576	103,600	103,624	103,648	103,672	103,696	103,720	103,744	103,744			
Engine 4	102,785	102,809	102,833	102,857	102,881	102,905	102,929	102,953	102,977	103,001	103,025	103,049	103,073	103,097	103,097			
Cumulative availability, %																		
Engine 1	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%			
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%			
Engine cumulative gross output																		
Max cumulative capacity or	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	24,750			
Engine 1	10,744	11,412	12,062	12,665	13,282	13,896	14,543	15,158	15,786	16,420	17,021	17,622	18,248	18,850	18,882			
Engine 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Engine 3	10,885	11,543	12,218	12,893	13,568	14,243	14,918	15,593	16,268	16,939	17,604	18,268	18,933	19,592	19,533			
Engine 4	10,562	11,223	11,895	12,567	13,190	13,819	14,460	15,132	15,786	16,430	17,092	17,754	18,415	19,049	19,046			
Cumulative capacity factor, %																		
Engine 1	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%	76%	76%	76%	76%	76%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	78%	78%	78%	78%	78%	78%	79%	79%	79%	79%	79%	79%	79%	79%	79%			
Engine 4	75%	76%	76%	76%	76%	76%	76%	76%	77%	77%	77%	77%	77%	77%	77%			

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday			
	7/17/2019	7/18/2019	7/19/2019	7/20/2019	7/21/2019	7/22/2019	7/23/2019	7/24/2019	7/25/2019	7/26/2019	7/27/2019	7/28/2019	7/29/2019	7/30/2019	7/31/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month																		
Max cumulative available engi	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	2,880			
Actual cumulative engine run h	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	2,155			
Cumulative Availability, %	74.7%	74.7%	74.7%	74.7%	74.8%	74.8%	74.8%	74.8%	74.8%	74.8%	74.8%	74.8%	74.8%	74.8%	74.8%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000	2,376,000			
Actual cumulative gross output,	769,478	817,212	865,167	911,999	958,015	1,004,059	1,051,210	1,098,338	1,145,325	1,192,167	1,238,398	1,284,639	1,331,517	1,376,979	1,376,280			
Cumulative Capacity Factor	57.2%	57.3%	57.5%	57.6%	57.6%	57.6%	57.7%	57.8%	57.8%	57.9%	57.9%	57.9%	58.0%	58.0%	57.9%			
Cumulative fuel input, MMBtu H	9,001	9,572	10,150	10,714	11,274	11,847	12,418	12,988	13,552	14,109	14,677	15,235	15,809	16,369	16,365			
Cumulative gross output, kWhr	769,478	817,212	865,167	911,999	958,015	1,004,059	1,051,210	1,098,338	1,145,325	1,192,167	1,238,398	1,284,639	1,331,517	1,376,979	1,376,280			
Heat Rate																		
Daily heat rate, Btu/kWe gross	10,846	10,766	10,848	10,843	10,947	11,208	10,907	10,876	10,809	10,710	11,052	10,867	11,017	11,100	11,181			
Daily heat rate, Btu/kWe gross	12,049	11,960	12,051	12,045	12,161	12,451	12,116	12,082	12,008	11,897	12,277	12,072	12,238	12,331	12,421			
Cumulative heat rate, Btu/kWe	10,530	10,544	10,561	10,575	10,593	10,621	10,634	10,645	10,651	10,654	10,669	10,676	10,688	10,701	10,704			
Cumulative heat rate, Btu/kWe	11,698	11,713	11,732	11,748	11,768	11,799	11,813	11,825	11,832	11,835	11,851	11,859	11,873	11,888	11,890			
Cumulative by Facility starting C																		
Max cumulative available engi	18,720	18,816	18,912	19,008	19,104	19,200	19,296	19,392	19,488	19,584	19,680	19,776	19,872	19,968	19,968			
Actual cumulative engine run h	13,693	13,765	13,837	13,909	13,981	14,053	14,125	14,197	14,269	14,341	14,413	14,485	14,557	14,629	14,629			
Cumulative Availability, %	73.1%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.3%	73.3%	73.3%			
Max cumulative gross output, k	15,444,000	15,523,200	15,602,400	15,681,600	15,760,800	15,840,000	15,919,200	15,998,400	16,077,600	16,156,800	16,236,000	16,315,200	16,394,400	16,473,600	16,473,600			
Actual cumulative gross output,	8,412,097	8,459,831	8,507,786	8,554,618	8,600,634	8,646,678	8,693,829	8,740,957	8,787,944	8,834,786	8,881,017	8,927,258	8,974,136	9,019,598	9,018,899			
Cumulative Capacity Factor	54.5%	54.5%	54.5%	54.6%	54.6%	54.6%	54.6%	54.6%	54.7%	54.7%	54.7%	54.7%	54.7%	54.8%	54.7%			
Cumulative fuel input, MMBtu H	101,653	102,223	102,801	103,365	103,925	104,498	105,070	105,639	106,203	106,761	107,328	107,886	108,460	109,021	109,016			
Cumulative gross output, kWhr	8,412,097	8,459,831	8,507,786	8,554,618	8,600,634	8,646,678	8,693,829	8,740,957	8,787,944	8,834,786	8,881,017	8,927,258	8,974,136	9,019,598	9,018,899			
Cumulative heat rate, Btu/kWe	10,878	10,877	10,877	10,877	10,877	10,879	10,879	10,879	10,879	10,878	10,879	10,879	10,880	10,881	10,881			
Cumulative heat rate, Btu/kWe	12,084	12,083	12,083	12,083	12,083	12,085	12,086	12,086	12,085	12,084	12,085	12,085	12,086	12,087	12,088			
Service																		
Engine 1																		
Engine 2																		
Engine 3																		
Engine 4																		
Oil - oil and filter change																		
Service - plugs, air filter, valve insp																		
Precipitation																		
NSTAR Power Reports	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday			
Date	7/17/2019	7/18/2019	7/19/2019	7/20/2019	7/21/2019	7/22/2019	7/23/2019	7/24/2019	7/25/2019	7/26/2019	7/27/2019	7/28/2019	7/29/2019	7/30/2019	7/31/2019	TOTAL		
Hour																		
1	1,863	1,939	1,940	1,866	1,865	1,796	1,871	1,871	1,867	1,868	1,848	1,847	1,846	1,846	1,723			
2	1,854	1,939	1,940	1,918	1,864	1,796	1,870	1,870	1,867	1,868	1,847	1,848	1,847	1,845	1,777			
3	1,822	1,939	1,940	1,867	1,865	1,830	1,869	1,870	1,867	1,867	1,848	1,848	1,847	1,846	1,720			
4	1,862	1,939	1,909	1,867	1,865	1,805	1,868	1,871	1,869	1,867	1,847	1,848	1,847	1,846	1,782			
5	1,819	1,913	1,914	1,866	1,865	1,832	1,869	1,871	1,864	1,868	1,849	1,848	1,848	1,846	1,769			
6	1,853	1,867	1,917	1,867	1,865	1,795	1,868	1,870	1,798	1,867	1,851	1,848	1,847	1,845	1,721			
7	1,818	1,867	1,870	1,867	1,868	1,796	1,870	1,870	1,801	1,854	1,852	1,849	1,847	1,847	1,722			
8	1,811	1,867	1,876	1,866	1,863	1,795	1,871	1,870	1,799	1,796	1,850	1,847	1,848	1,846	1,721			
9	1,790	1,859	1,895	1,862	1,806	1,783	1,862	1,861	1,790	1,789	1,846	1,845	1,843	1,837	1,713			
10	1,853	1,858	1,935	1,861	1,789	1,717	1,864	1,859	1,855	1,798	1,845	1,844	1,840	1,828	1,722			
11	1,853	1,936	1,932	1,860	1,791	1,897	1,919	1,859	1,871	1,857	1,842	1,843	1,837	1,832	1,771			
12	1,857	1,881	1,931	1,859	1,839	1,861	1,866	1,859	1,930	1,856	1,836	1,831	1,896	1,830	1,796			
13	1,858	1,869	1,927	1,859	1,821	1,861	1,865	1,902	1,930	1,859	1,836	1,830	1,898	1,830	1,825			
14	1,857	1,869	1,928	1,858	1,854	1,859	1,909	1,926	1,929	1,859	1,836	1,832	1,894	1,795	1,788			
15	1,876	1,886	1,928	1,859	1,857	1,859	1,893	1,929	1,931	1,903	1,836	1,841	1,893	1,769	1,833			
16	1,929	1,928	1,929	1,860	1,813	1,859	1,880	1,932	1,880	1,901	1,836	1,842	1,896	1,770	1,833			
17	1,931	1,938	1,935	1,859	1,862	1,864	1,940	1,935	1,932	1,907	1,843	1,842	1,904	1,776	1,839			
18	1,929	1,940	1,936	1,860	1,854	1,865	1,942	1,870	1,923	1,909	1,845	1,845	1,905	1,779	1,842			
19	1,863	1,876	1,921	1,861	1,793	1,866	1,916	1,870	1,891	1,909	1,846	1,845	1,907	1,780	1,844			
20	1,828	1,887	1,903	1,862	1,793	1,868	1,871	1,871	1,886	1,908	1,846	1,846	1,907	1,782	1,844			
21	1,280	1,940	1,879	1,862	1,794	1,852	1,870	1,871	1,868	1,857	1,846	1,845	1,856	1,780	1,793			
22	1,817	1,920	1,866	1,862	1,796	1,823	1,869	1,871	1,868	1,848	1,846	1,845	1,845	1,781	1,782			
23	1,941	1,914	1,866	1,863	1,796	1,868	1,869	1,870	1,867	1,884	1,847	1,845	1,845	1,720	1,782			
24	1,940	1,940	1,866	1,863	1,795	1,870	1,871	1,867	1,867	1,884	1,847	1,846	1,846	1,720	1,784			
TOTAL	44,104	45,711	45,883	44,754	43,973	44,017	45,162	45,115	44,950	44,783	44,271	44,250	44,789	43,376	42,726			
Cumulative Output Sold, kV	735,222	780,933	826,816	871,570	915,543	959,560	1,004,722	1,049,837	1,094,787	1,139,570	1,183,841	1,228,091	1,272,880	1,316,256	1,358,982			
Transformer and line efficienc	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%	99.7%			
Hourly average	1,838	1,905	1,912	1,865	1,832	1,834	1,882	1,880	1,873	1,866	1,845	1,844	1,866	1,807	1,780			

AUGUST 2019																	
		Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
		8/1/2019	8/2/2019	8/3/2019	8/4/2019	8/5/2019	8/6/2019	8/7/2019	8/8/2019	8/9/2019	8/10/2019	8/11/2019	8/12/2019	8/13/2019	8/14/2019	8/15/2019	8/16/2019
LFG and Biogas Flow to the Engines (KSCF)		1,065	1,051	1,043	1,024	1,048	1,029	1,016	1,027	1,029	1,030	1,045	1,051	1,018	1,034	1,057	1,065
LFG and Biogas Flow to the Engines (MMBTU HHV)		568	552	557	547	560	555	546	559	553	550	550	559	544	548	553	558
LFG and Biogas Flow to the Flare (KSCF)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)		1,065	1,051	1,043	1,024	1,048	1,029	1,016	1,027	1,029	1,030	1,045	1,051	1,018	1,034	1,057	1,065
LFG and Biogas Total Flow (MMBTU HHV)		568	552	557	547	560	555	546	559	553	550	550	559	544	548	553	558
Average Methane Content (%)		52.6	51.9	52.8	52.8	52.8	53.2	53.1	53.8	53.0	52.8	52.0	52.6	52.8	52.4	51.7	51.8
Engine 1 Hours		24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Engine 2 Hours		-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-
Engine 3 Hours		24	24	24	24	24	17	24	24	24	24	24	24	24	24	24	24
Engine 4 Hours		24	24	24	24	24	24	24	24	24	24	24	23	24	24	24	24
Generator 1 Power Output (kWhr)		14,820	14,760	15,136	14,744	15,116	15,680	14,436	14,044	14,452	14,828	14,428	14,180	14,704	14,436	14,532	14,432
Generator 2 Power Output (kWhr)		-	-	-	-	-	1,464	-	-	-	-	-	-	-	-	-	-
Generator 3 Power Output (kWhr)		14,400	14,392	14,396	14,396	14,388	10,880	16,204	16,204	16,092	14,404	14,392	15,032	14,608	15,100	15,212	16,212
Generator 4 Power Output (kWhr)		15,884	14,880	14,360	14,348	14,940	16,500	14,380	15,084	14,376	14,372	14,368	14,412	14,380	14,308	14,304	14,376
Gross Power Output (kWhr)		45,088	43,973	43,837	43,415	44,392	44,553	45,039	45,373	44,945	43,626	43,191	43,668	43,728	43,867	44,086	45,079
Net Power Output (kWhr)		43,192	42,108	42,000	41,600	42,532	42,676	43,136	43,476	43,052	41,836	41,400	41,800	41,872	42,004	42,180	43,152
Power Sold as metered by NStar, (kWhr)		43,087	42,030	41,930	41,569	42,459	42,591	43,031	43,369	42,954	41,740	41,312	41,709	41,791	41,911	42,088	43,085
Offgrid RECs (kWhr)		1,896	1,865	1,837	1,815	1,862	1,877	1,904	1,896	1,893	1,790	1,791	1,868	1,856	1,863	1,906	1,927
Calculated Performance Results																	
Daily																	
Power output (kW average when running)																	
Generator 1		618	615	631	614	630	653	602	585	602	618	601	591	613	602	606	601
Generator 2		-	-	-	-	-	293	-	-	-	-	-	-	-	-	-	-
Generator 3		600	600	600	600	600	640	675	675	671	600	600	626	609	629	634	676
Generator 4		662	620	598	598	623	688	599	629	599	599	599	627	599	596	596	599
Power output (kW average over 24-hrs)																	
Facility Gross		1,879	1,832	1,827	1,809	1,850	1,856	1,877	1,891	1,873	1,818	1,800	1,820	1,822	1,828	1,837	1,878
Facility Net		1,800	1,755	1,750	1,733	1,772	1,778	1,797	1,812	1,794	1,743	1,725	1,742	1,745	1,750	1,758	1,798
In-plant load		79	78	77	76	78	78	79	79	79	75	75	78	77	78	79	80
Daily availability factor																	
Facility		75%	75%	75%	75%	75%	73%	75%	75%	75%	75%	75%	74%	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%	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		100%	100%	100%	100%	100%	71%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%	100%	100%	100%	100%
Daily capacity factor																	
Facility		57%	56%	55%	55%	56%	56%	57%	57%	57%	55%	55%	55%	55%	55%	56%	57%
Engine 1		75%	75%	76%	74%	76%	79%	73%	71%	73%	75%	73%	72%	74%	73%	73%	73%
Engine 2		0%	0%	0%	0%	0%	35%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engine 3		73%	73%	73%	73%	73%	78%	82%	82%	81%	73%	73%	76%	74%	76%	77%	82%
Engine 4		80%	75%	73%	72%	75%	83%	73%	76%	73%	73%	73%	76%	73%	72%	72%	73%
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	5	5	5	5	5	5	5	5	5	5	5
Engine 3		24	48	72	96	120	137	161	185	209	233	257	281	305	329	353	377
Engine 4		24	48	72	96	120	144	168	192	216	240	264	287	311	335	359	383
Engine operating run hours total from 0 hours																	
Engine 1	108,260	108,284	108,308	108,332	108,356	108,380	108,404	108,428	108,452	108,476	108,500	108,524	108,548	108,572	108,596	108,620	108,644
Engine 2	95,483	95,483	95,483	95,483	95,483	95,483	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488
Engine 3	103,744	103,768	103,792	103,816	103,840	103,864	103,881	103,905	103,929	103,953	103,977	104,001	104,025	104,049	104,073	104,097	104,121
Engine 4	103,097	103,121	103,145	103,169	103,193	103,217	103,241	103,265	103,289	103,313	103,337	103,361	103,384	103,408	103,432	103,456	103,480
Cumulative availability, %	August 1, 2019 @ 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%	3%	3%	3%	2%	2%	2%	2%	2%	1%	1%	1%
Engine 3		100%	100%	100%	100%	100%	95%	96%	96%	97%	97%	97%	98%	98%	98%	98%	98%
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		618	1,233	1,863	2,478	3,107	3,761	4,362	4,947	5,550	6,167	6,769	7,359	7,972	8,574	9,179	9,780
Engine 2		-	-	-	-	-	293	293	293	293	293	293	293	293	293	293	293
Engine 3		600	1,200	1,800	2,399	2,999	3,639	4,314	4,989	5,660	6,260	6,860	7,486	8,095	8,724	9,358	10,033
Engine 4		662	1,282	1,880	2,478	3,101	3,788	4,387	5,016	5,615	6,214	6,812	7,439	8,038	8,634	9,230	9,829
Cumulative capacity factor, %																	
Engine 1		75%	75%	75%	75%	75%	76%	76%	75%	75%	75%	75%	74%	74%	74%	74%	74%
Engine 2		0%	0%	0%	0%	0%	6%	5%	4%	4%	4%	3%	3%	3%	3%	2%	2%
Engine 3		73%	73%	73%	73%	73%	74%	75%	76%	76%	76%	76%	76%	75%	76%	76%	76%
Engine 4		80%	78%	76%	75%	75%	77%	76%	76%	76%	75%	75%	75%	75%	75%	75%	74%

	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	8/1/2019	8/2/2019	8/3/2019	8/4/2019	8/5/2019	8/6/2019	8/7/2019	8/8/2019	8/9/2019	8/10/2019	8/11/2019	8/12/2019	8/13/2019	8/14/2019	8/15/2019	8/16/2019
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	430	502	574	646	718	790	861	933	1,005	1,077	1,149
Cumulative Availability, %	75.0%	75.0%	75.0%	75.0%	75.0%	74.7%	74.7%	74.7%	74.8%	74.8%	74.8%	74.7%	74.8%	74.8%	74.8%	74.8%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	45,088	89,061	132,898	176,313	220,705	265,258	310,297	355,670	400,615	444,241	487,432	531,100	574,828	618,695	662,781	707,860
Cumulative Capacity Factor	56.9%	56.2%	55.9%	55.7%	55.7%	55.8%	56.0%	56.1%	56.2%	56.1%	55.9%	55.9%	55.8%	55.8%	55.8%	55.9%
Cumulative fuel input, MMBtu HHV	568	1,120	1,677	2,224	2,784	3,338	3,884	4,444	4,996	5,546	6,096	6,655	7,199	7,747	8,299	8,858
Cumulative gross output, kWhr	45,088	89,061	132,898	176,313	220,705	265,258	310,297	355,670	400,615	444,241	487,432	531,100	574,828	618,695	662,781	707,860
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	11,330	11,306	11,434	11,348	11,354	11,204	10,915	11,096	11,066	11,345	11,465	11,528	11,191	11,237	11,290	11,149
Daily heat rate, Btu/kWe gross HHV	12,586	12,560	12,702	12,606	12,613	12,446	12,125	12,327	12,293	12,603	12,736	12,806	12,431	12,483	12,541	12,385
Cumulative heat rate, Btu/kWe gross LHV	11,330	11,319	11,357	11,355	11,354	11,329	11,269	11,247	11,227	11,238	11,258	11,281	11,274	11,271	11,272	11,264
Cumulative heat rate, Btu/kWe gross HHV	12,586	12,573	12,616	12,613	12,613	12,585	12,518	12,494	12,471	12,484	12,507	12,531	12,524	12,521	12,522	12,513
Cumulative by Facility starting Calendar Year																
Max cumulative available engine run hours	17,184	17,280	17,376	17,472	17,568	17,664	17,760	17,856	17,952	18,048	18,144	18,240	18,336	18,432	18,528	18,624
Actual cumulative engine run hours	12,546	12,618	12,690	12,762	12,834	12,904	12,976	13,048	13,120	13,192	13,264	13,335	13,407	13,479	13,551	13,623
Cumulative Availability, %	73.0%	73.0%	73.0%	73.0%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%	73.1%
Max cumulative gross output, kWhr	14,176,800	14,256,000	14,335,200	14,414,400	14,493,600	14,572,800	14,652,000	14,731,200	14,810,400	14,889,600	14,968,800	15,048,000	15,127,200	15,206,400	15,285,600	15,364,800
Actual cumulative gross output, kWhr	7,687,707	7,731,680	7,775,517	7,818,932	7,863,324	7,907,877	7,952,916	7,998,289	8,043,234	8,086,860	8,130,051	8,173,719	8,217,447	8,261,314	8,305,400	8,350,479
Cumulative Capacity Factor	54.2%	54.2%	54.2%	54.2%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%	54.3%
Cumulative fuel input, MMBtu HHV	93,219	93,771	94,328	94,875	95,435	95,990	96,536	97,095	97,648	98,197	98,748	99,307	99,850	100,398	100,951	101,509
Cumulative gross output, kWhr	7,687,707	7,731,680	7,775,517	7,818,932	7,863,324	7,907,877	7,952,916	7,998,289	8,043,234	8,086,860	8,130,051	8,173,719	8,217,447	8,261,314	8,305,400	8,350,479
Cumulative heat rate, Btu/kWe gross LHV	10,916	10,918	10,921	10,923	10,925	10,927	10,927	10,928	10,929	10,931	10,934	10,937	10,938	10,940	10,942	10,943
Cumulative heat rate, Btu/kWe gross HHV	12,126	12,128	12,131	12,134	12,137	12,138	12,138	12,139	12,140	12,143	12,146	12,150	12,151	12,153	12,155	12,156
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	8/1/2019	8/2/2019	8/3/2019	8/4/2019	8/5/2019	8/6/2019	8/7/2019	8/8/2019	8/9/2019	8/10/2019	8/11/2019	8/12/2019	8/13/2019	8/14/2019	8/15/2019	8/16/2019
Hour																
1	1,832	1,785	1,721	1,720	1,721	1,788	1,797	1,796	1,799	1,770	1,725	1,726	1,799	1,723	1,724	1,800
2	1,844	1,784	1,730	1,770	1,721	1,788	1,798	1,796	1,799	1,727	1,725	1,725	1,799	1,724	1,724	1,800
3	1,844	1,784	1,783	1,782	1,721	1,788	1,797	1,798	1,799	1,766	1,725	1,725	1,775	1,780	1,724	1,801
4	1,845	1,784	1,783	1,781	1,721	1,788	1,798	1,798	1,799	1,798	1,725	1,725	1,727	1,764	1,724	1,801
5	1,824	1,784	1,782	1,782	1,721	1,788	1,798	1,798	1,799	1,758	1,725	1,725	1,727	1,724	1,724	1,801
6	1,783	1,784	1,782	1,782	1,721	1,787	1,798	1,799	1,800	1,727	1,725	1,725	1,727	1,724	1,723	1,801
7	1,784	1,784	1,732	1,731	1,722	1,788	1,799	1,800	1,801	1,727	1,726	1,725	1,727	1,724	1,723	1,801
8	1,783	1,784	1,721	1,720	1,722	1,787	1,798	1,799	1,799	1,727	1,725	1,725	1,727	1,724	1,724	1,800
9	1,777	1,726	1,718	1,719	1,749	1,655	1,789	1,783	1,791	1,725	1,724	1,718	1,715	1,721	1,714	1,793
10	1,774	1,712	1,718	1,718	1,776	1,388	1,786	1,466	1,789	1,724	1,723	1,712	1,715	1,715	1,715	1,790
11	1,774	1,709	1,717	1,717	1,772	1,582	1,785	1,889	1,788	1,717	1,712	1,706	1,716	1,388	1,666	1,786
12	1,774	1,703	1,717	1,718	1,766	1,809	1,786	1,861	1,785	1,740	1,712	1,707	1,716	1,849	1,679	1,784
13	1,774	1,756	1,715	1,718	1,769	1,809	1,787	1,860	1,776	1,784	1,713	1,630	1,718	1,790	1,784	1,783
14	1,773	1,766	1,747	1,716	1,767	1,809	1,786	1,860	1,778	1,736	1,712	1,274	1,719	1,786	1,781	1,785
15	1,774	1,774	1,778	1,716	1,774	1,806	1,785	1,859	1,787	1,723	1,712	1,901	1,718	1,786	1,782	1,785
16	1,774	1,774	1,778	1,717	1,834	1,764	1,786	1,859	1,789	1,737	1,712	1,860	1,780	1,790	1,787	1,787
17	1,779	1,778	1,779	1,717	1,846	1,864	1,791	1,864	1,794	1,788	1,722	1,803	1,795	1,794	1,796	1,796
18	1,780	1,736	1,780	1,720	1,847	1,867	1,793	1,866	1,795	1,724	1,724	1,799	1,795	1,795	1,798	1,799
19	1,803	1,720	1,781	1,720	1,848	1,867	1,795	1,837	1,797	1,723	1,724	1,799	1,779	1,795	1,798	1,798
20	1,845	1,719	1,781	1,721	1,795	1,867	1,796	1,796	1,796	1,724	1,724	1,800	1,723	1,795	1,799	1,798
21	1,796	1,720	1,729	1,721	1,786	1,811	1,796	1,796	1,796	1,723	1,724	1,799	1,722	1,795	1,799	1,799
22	1,783	1,721	1,718	1,721	1,786	1,797	1,795	1,796	1,796	1,723	1,724	1,800	1,724	1,778	1,800	1,800
23	1,784	1,721	1,719	1,721	1,787	1,797	1,796	1,797	1,757	1,724	1,724	1,800	1,724	1,723	1,800	1,799
24	1,784	1,722	1,721	1,721	1,787	1,797	1,796	1,796	1,745	1,725	1,725	1,800	1,724	1,724	1,800	1,798
				-												
TOTAL	43,087	42,030	41,930	41,569	42,459	42,591	43,031	43,369	42,954	41,740	41,312	41,709	41,791	41,911	42,088	43,085
Cumulative Output Sold, kWhr	43,087	85,117	127,047	168,616	211,075	253,666	296,697	340,066	383,020	424,760	466,072	507,781	549,572	591,483	633,571	676,656
Transformer and line efficiency	99.8%	99.8%	99.8%	99.9%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%
Hourly average	1,795	1,751	1,747	1,732	1,769	1,775	1,793	1,807	1,790	1,739	1,721	1,738	1,741	1,746	1,754	1,795

AUGUST 2019																			
	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
	8/17/2019	8/18/2019	8/19/2019	8/20/2019	8/21/2019	8/22/2019	8/23/2019	8/24/2019	8/25/2019	8/26/2019	8/27/2019	8/28/2019	8/29/2019	8/30/2019	8/31/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	1,035	1,049	1,045	1,045	1,040	1,019	1,023	1,024	1,021	1,043	1,046	1,055	1,035	1,041	1,053	32,207	485	31,722
LFG and Biogas Flow to the Engine	542	550	548	548	548	542	537	535	533	547	548	561	554	551	552	17,054	363	16,690
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1%	98%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF)	1,035	1,049	1,045	1,045	1,040	1,019	1,023	1,024	1,021	1,043	1,046	1,055	1,035	1,041	1,053	32,207		
LFG and Biogas Total Flow (MMBT	542	550	548	548	548	542	537	535	533	547	548	561	554	551	552	17,054		
Average Methane Content (%)	51.8	51.8	51.8	51.8	52.1	52.5	51.9	51.6	51.5	51.8	51.8	52.5	52.9	52.3	51.8	52.3		
Engine 1 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	744		
Engine 2 Hours	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5		
Engine 3 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	737		
Engine 4 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	743		
Generator 1 Power Output (kWhr)	14,420	15,080	16,136	15,480	15,272	14,572	15,264	14,924	14,432	14,844	14,776	15,352	15,900	15,220	15,380	461,780		
Generator 2 Power Output (kWhr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,464		
Generator 3 Power Output (kWhr)	16,204	15,036	14,408	14,404	15,108	15,948	14,928	14,400	14,400	14,264	14,400	14,404	14,336	14,404	14,400	457,356		
Generator 4 Power Output (kWhr)	14,376	14,388	14,380	14,376	15,004	14,432	14,464	14,376	14,372	15,200	16,144	16,144	16,060	16,136	14,976	460,100		
Gross Power Output (kWhr)	45,066	44,585	44,967	44,308	45,443	44,974	44,703	43,725	43,262	44,379	45,402	46,000	46,394	45,813	44,842	1,381,723		
Net Power Output (kWhr)	43,172	42,672	42,916	42,288	43,376	42,876	42,700	41,816	41,392	42,444	43,428	43,972	44,320	43,744	42,856	1,321,988		
Power Sold as metered by NStar, (I	43,156	42,588	42,825	42,176	43,262	42,770	42,603	41,730	41,300	42,340	43,310	43,853	44,192	43,620	42,743	1,319,124	CRMCB inplant	
Offgrid RECs (kWhr)	1,896	1,912	2,051	2,019	2,068	2,098	2,002	1,910	1,870	1,935	1,974	2,028	2,074	2,069	1,986	59,738	8,692	
Calculated Performance Results																	15%	
Daily																	of total in-plant	
Power output (kW average whe																	power	
Generator 1	601	628	672	645	636	607	636	622	601	619	616	640	663	634	641			
Generator 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Generator 3	675	627	600	600	630	665	622	600	600	594	600	600	597	600	600			
Generator 4	599	600	599	599	625	601	603	599	599	633	673	673	669	672	624			
Power output (kW average ove																		
Facility Gross	1,878	1,858	1,874	1,846	1,893	1,874	1,863	1,822	1,803	1,849	1,892	1,917	1,933	1,909	1,868			
Facility Net	1,799	1,778	1,788	1,762	1,807	1,787	1,779	1,742	1,725	1,769	1,810	1,832	1,847	1,823	1,786			
In-plant load	79	80	85	84	86	87	83	80	78	81	82	85	86	86	83			
Daily availability factor																		
Facility	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%			
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	57%	56%	57%	56%	57%	57%	56%	55%	55%	56%	57%	58%	59%	58%	57%			
Engine 1	73%	76%	81%	78%	77%	74%	77%	75%	73%	75%	75%	78%	80%	77%	78%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	82%	76%	73%	73%	76%	81%	75%	73%	73%	72%	73%	73%	72%	73%	73%			
Engine 4	73%	73%	73%	73%	76%	73%	73%	73%	73%	77%	82%	82%	81%	81%	76%			
Cumulative by engine																		
Engine operating run hours in th																		
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672	696	720	720			
Engine 1	408	432	456	480	504	528	552	576	600	624	648	672	696	720	720			
Engine 2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Engine 3	401	425	449	473	497	521	545	569	593	617	641	665	689	713	713			
Engine 4	407	431	455	479	503	527	551	575	599	623	647	671	695	719	719			
Engine operating run hours tota																		
Engine 1	108,668	108,692	108,716	108,740	108,764	108,788	108,812	108,836	108,860	108,884	108,908	108,932	108,956	108,980	108,980			
Engine 2	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488			
Engine 3	104,145	104,169	104,193	104,217	104,241	104,265	104,289	104,313	104,337	104,361	104,385	104,409	104,433	104,457	104,457			
Engine 4	103,504	103,528	103,552	103,576	103,600	103,624	103,648	103,672	103,696	103,720	103,744	103,768	103,792	103,816	103,816			
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	98%	98%	98%	99%	99%	99%	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%			
Engine cumulative gross output																		
Max cumulative capacity or	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	24,750			
Engine 1	10,381	11,010	11,682	12,327	12,963	13,570	14,206	14,828	15,430	16,048	16,664	17,303	17,966	18,600	18,607			
Engine 2	293	293	293	293	293	293	293	293	293	293	293	293	293	293	293			
Engine 3	10,708	11,335	11,935	12,535	13,165	13,829	14,451	15,051	15,651	16,246	16,846	17,446	18,043	18,643	18,643			
Engine 4	10,428	11,028	11,627	12,226	12,851	13,452	14,055	14,654	15,253	15,886	16,559	17,231	17,901	18,573	18,525			
Cumulative capacity factor, %																		
Engine 1	74%	74%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%			
Engine 2	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%			
Engine 3	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%	75%	75%	75%			
Engine 4	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	75%	75%	75%	75%			

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
	8/17/2019	8/18/2019	8/19/2019	8/20/2019	8/21/2019	8/22/2019	8/23/2019	8/24/2019	8/25/2019	8/26/2019	8/27/2019	8/28/2019	8/29/2019	8/30/2019	8/31/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month																		
Max cumulative available engi	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	2,880			
Actual cumulative engine run h	1,221	1,293	1,365	1,437	1,509	1,581	1,653	1,725	1,797	1,869	1,941	2,013	2,085	2,157	2,157			
Cumulative Availability, %	74.8%	74.8%	74.8%	74.8%	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, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000	2,376,000			
Actual cumulative gross output,	752,926	797,511	842,478	886,786	932,229	977,203	1,021,906	1,065,631	1,108,893	1,153,272	1,198,674	1,244,674	1,291,068	1,336,881	1,335,910			
Cumulative Capacity Factor	55.9%	55.9%	56.0%	56.0%	56.1%	56.1%	56.1%	56.1%	56.0%	56.0%	56.1%	56.1%	56.2%	56.3%	56.2%			
Cumulative fuel input, MMBtu h	9,400	9,950	10,498	11,046	11,594	12,136	12,673	13,208	13,741	14,287	14,835	15,396	15,950	16,501	16,502			
Cumulative gross output, kWhr	752,926	797,511	842,478	886,786	932,229	977,203	1,021,906	1,065,631	1,108,893	1,153,272	1,198,674	1,244,674	1,291,068	1,336,881	1,335,910			
Heat Rate																		
Daily heat rate, Btu/kWe gross	10,832	11,103	10,964	11,134	10,863	10,851	10,816	11,010	11,080	11,089	10,867	10,971	10,753	10,833	11,083			
Daily heat rate, Btu/kWe gross	12,033	12,334	12,180	12,368	12,068	12,054	12,015	12,231	12,309	12,319	12,072	12,187	11,946	12,034	12,312			
Cumulative heat rate, Btu/kWe	11,239	11,231	11,217	11,213	11,196	11,180	11,164	11,158	11,155	11,152	11,141	11,135	11,121	11,111	11,120			
Cumulative heat rate, Btu/kWe	12,485	12,476	12,460	12,456	12,437	12,419	12,402	12,395	12,391	12,388	12,376	12,369	12,354	12,343	12,353			
Cumulative by Facility starting C																		
Max cumulative available engi	18,720	18,816	18,912	19,008	19,104	19,200	19,296	19,392	19,488	19,584	19,680	19,776	19,872	19,968	19,968			
Actual cumulative engine run h	13,695	13,767	13,839	13,911	13,983	14,055	14,127	14,199	14,271	14,343	14,415	14,487	14,559	14,631	14,631			
Cumulative Availability, %	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.2%	73.3%	73.3%	73.3%	73.3%			
Max cumulative gross output, k	15,444,000	15,523,200	15,602,400	15,681,600	15,760,800	15,840,000	15,919,200	15,998,400	16,077,600	16,156,800	16,236,000	16,315,200	16,394,400	16,473,600	16,473,600			
Actual cumulative gross output,	8,395,545	8,440,130	8,485,097	8,529,405	8,574,848	8,619,822	8,664,525	8,708,250	8,751,512	8,795,891	8,841,293	8,887,293	8,933,687	8,979,500	8,978,529			
Cumulative Capacity Factor	54.4%	54.4%	54.4%	54.4%	54.4%	54.4%	54.4%	54.4%	54.4%	54.4%	54.5%	54.5%	54.5%	54.5%	54.5%			
Cumulative fuel input, MMBtu h	102,051	102,601	103,149	103,697	104,245	104,788	105,325	105,859	106,392	106,939	107,487	108,047	108,602	109,153	109,154			
Cumulative gross output, kWhr	8,395,545	8,440,130	8,485,097	8,529,405	8,574,848	8,619,822	8,664,525	8,708,250	8,751,512	8,795,891	8,841,293	8,887,293	8,933,687	8,979,500	8,978,529			
Cumulative heat rate, Btu/kWe	10,942	10,943	10,943	10,944	10,944	10,943	10,943	10,943	10,944	10,944	10,944	10,944	10,943	10,943	10,944			
Cumulative heat rate, Btu/kWe	12,155	12,156	12,156	12,158	12,157	12,157	12,156	12,156	12,157	12,158	12,157	12,158	12,156	12,156	12,157			
Service																		
Engine 1																		
Engine 2																		
Engine 3																		
Engine 4																		
Oil - oil and filter change																		
Service - plugs, air filter, valve insp																		
Precipitation																		
NSTAR Power Reports	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
Date	8/17/2019	8/18/2019	8/19/2019	8/20/2019	8/21/2019	8/22/2019	8/23/2019	8/24/2019	8/25/2019	8/26/2019	8/27/2019	8/28/2019	8/29/2019	8/30/2019	8/31/2019	TOTAL		
Hour																		
1	1,799	1,799	1,796	1,791	1,794	1,789	1,786	1,793	1,721	1,724	1,811	1,808	1,864	1,801	1,807			
2	1,799	1,799	1,796	1,791	1,794	1,788	1,787	1,793	1,721	1,724	1,809	1,808	1,864	1,802	1,807			
3	1,799	1,799	1,796	1,791	1,793	1,788	1,790	1,793	1,721	1,723	1,810	1,808	1,862	1,806	1,806			
4	1,799	1,799	1,795	1,722	1,795	1,789	1,790	1,794	1,721	1,724	1,810	1,808	1,863	1,806	1,807			
5	1,799	1,798	1,795	1,722	1,796	1,789	1,791	1,794	1,722	1,724	1,811	1,804	1,864	1,806	1,807			
6	1,799	1,798	1,796	1,723	1,796	1,791	1,791	1,793	1,722	1,725	1,810	1,804	1,865	1,806	1,807			
7	1,800	1,798	1,796	1,723	1,796	1,791	1,791	1,771	1,722	1,725	1,811	1,808	1,865	1,807	1,807			
8	1,799	1,797	1,726	1,721	1,793	1,791	1,791	1,723	1,722	1,724	1,810	1,810	1,866	1,806	1,806			
9	1,799	1,743	1,782	1,710	1,717	1,122	1,786	1,721	1,721	1,718	1,800	1,800	1,858	1,796	1,749			
10	1,798	1,725	1,779	1,706	1,706	1,424	1,785	1,719	1,721	1,748	1,798	1,797	1,859	1,793	1,733			
11	1,798	1,721	1,780	1,707	1,707	2,011	1,750	1,712	1,719	1,760	1,791	1,799	1,634	1,793	1,727			
12	1,797	1,740	1,780	1,707	1,708	1,950	1,544	1,712	1,719	1,784	1,791	1,798	1,857	1,791	1,731			
13	1,796	1,791	1,781	1,720	1,708	1,921	1,785	1,713	1,718	1,780	1,796	1,797	1,853	1,801	1,729			
14	1,796	1,793	1,775	1,778	1,753	1,872	1,732	1,715	1,719	1,777	1,796	1,799	1,852	1,841	1,730			
15	1,796	1,792	1,775	1,776	1,876	1,850	1,785	1,714	1,719	1,574	1,800	1,837	1,852	1,844	1,785			
16	1,797	1,792	1,777	1,778	1,924	1,848	1,784	1,715	1,719	1,690	1,800	1,857	1,852	1,849	1,785			
17	1,798	1,793	1,783	1,784	1,906	1,853	1,790	1,717	1,721	1,838	1,806	1,864	1,858	1,858	1,787			
18	1,798	1,795	1,785	1,785	1,858	1,854	1,792	1,718	1,721	1,864	1,806	1,865	1,860	1,860	1,787			
19	1,799	1,795	1,785	1,787	1,859	1,818	1,791	1,720	1,722	1,865	1,807	1,863	1,860	1,859	1,787			
20	1,798	1,796	1,786	1,788	1,859	1,786	1,792	1,720	1,722	1,865	1,808	1,864	1,859	1,861	1,791			
21	1,798	1,736	1,789	1,789	1,857	1,786	1,792	1,720	1,721	1,856	1,807	1,864	1,813	1,815	1,792			
22	1,798	1,724	1,791	1,792	1,858	1,786	1,793	1,720	1,722	1,809	1,807	1,864	1,803	1,807	1,792			
23	1,799	1,724	1,790	1,792	1,821	1,786	1,792	1,720	1,722	1,809	1,807	1,864	1,804	1,806	1,792			
24	1,798	1,741	1,791	1,793	1,788	1,787	1,793	1,720	1,722	1,810	1,808	1,863	1,805	1,806	1,792			
TOTAL	43,156	42,588	42,825	42,176	43,262	42,770	42,603	41,730	41,300	42,340	43,310	43,853	44,192	43,620	42,743			
Cumulative Output Sold, kV	719,812	762,400	805,225	847,401	890,663	933,433	976,036	1,017,766	1,059,066	1,101,406	1,144,716	1,188,569	1,232,761	1,276,381	1,319,124			
Transformer and line efficienc	100.0%	99.8%	99.8%	99.7%	99.7%	99.8%	99.8%	99.8%	99.8%	99.8%	99.7%	99.7%	99.7%	99.7%	99.7%	0.0%		
Hourly average	1,798	1,775	1,784	1,757	1,803	1,782	1,775	1,739	1,721	1,764	1,805	1,827	1,841	1,818	1,781	1,773		

'SEPTEMBER 2019																	
		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
		9/1/2019	9/2/2019	9/3/2019	9/4/2019	9/5/2019	9/6/2019	9/7/2019	9/8/2019	9/9/2019	9/10/2019	9/11/2019	9/12/2019	9/13/2019	9/14/2019	9/15/2019	9/16/2019
LFG and Biogas Flow to the Engines (KSCF)		1,052	999	1,005	1,006	1,039	1,082	1,052	1,078	1,046	1,108	1,029	1,003	1,062	1,117	1,104	1,086
LFG and Biogas Flow to the Engines (MMBTU HHV)		547	536	541	539	537	573	562	563	547	585	559	540	556	607	590	581
LFG and Biogas Flow to the Flare (KSCF)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and BiogasFlow to the Flare (MMBTU HHV)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LFG and Biogas Total Flow (KSCF)		1,052	999	1,005	1,006	1,039	1,082	1,052	1,078	1,046	1,108	1,029	1,003	1,062	1,117	1,104	1,086
LFG and Biogas Total Flow (MMBTU HHV)		547	536	541	539	537	573	562	563	547	585	559	540	556	607	590	581
Average Methane Content (%)		51.4	53.0	53.2	53.0	51.0	52.3	52.8	51.6	51.6	52.2	53.7	53.2	51.8	53.7	52.8	52.9
Engine 1 Hours		24	22	21	24	24	24	24	24	24	24	21	23	24	24	24	24
Engine 2 Hours		-	-	-	-	-	-	-	-	-	24	11	-	-	-	-	-
Engine 3 Hours		24	24	24	23	24	24	24	24	24	-	16	22	24	24	24	24
Engine 4 Hours		24	24	24	24	24	24	24	24	24	24	23	23	24	24	24	24
Generator 1 Power Output (kWhr)		15,644	14,732	12,996	14,240	15,456	16,808	17,060	16,784	16,297	19,104	14,532	15,220	16,292	15,782	16,792	15,968
Generator 2 Power Output (kWhr)		-	-	-	-	-	-	-	-	-	11,940	5,188	-	-	5,634	-	-
Generator 3 Power Output (kWhr)		14,392	14,396	14,388	14,232	13,976	14,200	14,284	13,224	12,840	-	10,060	15,380	15,820	10,926	16,772	16,768
Generator 4 Power Output (kWhr)		14,368	14,712	16,128	15,004	15,384	17,044	17,788	17,308	16,805	18,596	16,912	15,388	16,732	18,367	16,732	16,728
Gross Power Output (kWhr)		44,463	43,912	43,525	43,582	44,824	48,113	49,211	47,391	46,095	49,756	46,746	46,146	48,903	50,471	50,362	49,538
Net Power Output (kWhr)		42,524	41,996	41,544	41,600	42,888	46,172	47,292	45,476	44,156	47,664	44,680	44,296	47,084	48,525	48,368	47,556
Power Sold as metered by NStar, (kWhr)		42,426	41,916	41,518	41,492	42,826	46,047	47,146	45,358	44,042	47,525	44,549	44,157	46,992	48,383	48,289	47,453
Offgrid RECs (kWhr)		1,939	1,916	1,982	1,981	1,935	1,942	1,919	1,915	1,939	2,092	2,066	1,849	1,819	1,946	1,994	1,981
Calculated Performance Results																	
Daily																	
Power output (kW average when running)																	
Generator 1		652	670	619	593	644	700	711	699	679	796	692	662	679	658	700	665
Generator 2		-	-	-	-	-	-	-	-	-	498	472	-	-	-	-	-
Generator 3		600	600	600	619	582	592	595	551	535	-	629	699	659	455	699	699
Generator 4		599	613	672	625	641	710	741	721	700	775	735	669	697	765	697	697
Power output (kW average over 24-hrs)																	
Facility Gross		1,853	1,830	1,814	1,816	1,868	2,005	2,050	1,975	1,921	2,073	1,948	1,923	2,038	2,103	2,098	2,064
Facility Net		1,772	1,750	1,731	1,733	1,787	1,924	1,971	1,895	1,840	1,986	1,862	1,846	1,962	2,022	2,015	1,982
In-plant load		81	80	83	83	81	81	80	80	81	87	86	77	76	81	83	83
Daily availability factor																	
Facility		75%	73%	72%	74%	75%	75%	75%	75%	75%	75%	74%	71%	75%	75%	75%	75%
Engine 1		100%	92%	88%	100%	100%	100%	100%	100%	100%	100%	88%	96%	100%	100%	100%	100%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	46%	0%	0%	0%	0%	0%
Engine 3		100%	100%	100%	96%	100%	100%	100%	100%	100%	0%	67%	92%	100%	100%	100%	100%
Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%	96%	100%	100%	100%	100%
Daily capacity factor																	
Facility		56%	55%	55%	55%	57%	61%	62%	60%	58%	63%	59%	58%	62%	64%	64%	63%
Engine 1		79%	81%	75%	72%	78%	85%	86%	85%	82%	96%	84%	80%	82%	80%	85%	81%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	60%	57%	0%	0%	0%	0%	0%
Engine 3		73%	73%	73%	75%	71%	72%	72%	67%	65%	0%	76%	85%	80%	55%	85%	85%
Engine 4		73%	74%	81%	76%	78%	86%	90%	87%	85%	94%	89%	81%	85%	93%	85%	84%
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	46	67	91	115	139	163	187	211	235	256	279	303	327	351	375
Engine 2		0	0	0	0	0	0	0	0	0	24	35	35	35	35	35	35
Engine 3		24	48	72	95	119	143	167	191	215	215	231	253	277	301	325	349
Engine 4		24	48	72	96	120	144	168	192	216	240	263	286	310	334	358	382
Engine operating run hours total from 0 hours																	
Engine 1	109,004	109,028	109,050	109,071	109,095	109,119	109,143	109,167	109,191	109,215	109,239	109,260	109,283	109,307	109,331	109,355	109,379
Engine 2	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,488	95,512	95,523	95,523	95,523	95,523	95,523	95,523
Engine 3	104,481	104,505	104,529	104,553	104,576	104,600	104,624	104,648	104,672	104,696	104,696	104,712	104,734	104,758	104,782	104,806	104,830
Engine 4	103,840	103,864	103,888	103,912	103,936	103,960	103,984	104,008	104,032	104,056	104,080	104,103	104,126	104,150	104,174	104,198	104,222
Cumulative availability, %	September 1, 2019 @ 00:00 hours																
Engine 1		100%	96%	93%	95%	96%	97%	97%	97%	98%	98%	97%	97%	97%	97%	98%	98%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	13%	12%	11%	10%	10%	9%
Engine 3		100%	100%	100%	99%	99%	99%	99%	99%	100%	90%	88%	88%	89%	90%	90%	91%
Engine 4		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%	99%	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		652	1,321	1,940	2,534	3,178	3,878	4,589	5,288	5,967	6,763	7,455	8,117	8,796	9,453	10,153	10,818
Engine 2		-	-	-	-	-	-	-	-	-	498	969	969	969	969	969	969
Engine 3		600	1,200	1,799	2,418	3,000	3,592	4,187	4,738	5,273	5,273	5,902	6,601	7,260	7,715	8,414	9,113
Engine 4		599	1,212	1,884	2,509	3,150	3,860	4,601	5,322	6,023	6,797	7,533	8,202	8,899	9,664	10,361	11,058
Cumulative capacity factor, %																	
Engine 1		79%	80%	78%	77%	77%	78%	79%	80%	80%	82%	82%	82%	82%	82%	82%	82%
Engine 2		0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	11%	10%	9%	8%	8%	7%
Engine 3		73%	73%	73%	73%	73%	73%	73%	72%	71%	64%	65%	67%	68%	67%	68%	69%
Engine 4		73%	73%	76%	76%	76%	78%	80%	81%	81%	82%	83%	83%	83%	84%	84%	84%

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
	9/1/2019	9/2/2019	9/3/2019	9/4/2019	9/5/2019	9/6/2019	9/7/2019	9/8/2019	9/9/2019	9/10/2019	9/11/2019	9/12/2019	9/13/2019	9/14/2019	9/15/2019	9/16/2019
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	142	211	282	354	426	498	570	642	714	785	853	925	997	1,069	1,141
Cumulative Availability, %	75.0%	74.0%	73.3%	73.4%	73.8%	74.0%	74.1%	74.2%	74.3%	74.4%	74.3%	74.0%	74.1%	74.2%	74.2%	74.3%
Max cumulative gross output, kWhr	79,200	158,400	237,600	316,800	396,000	475,200	554,400	633,600	712,800	792,000	871,200	950,400	1,029,600	1,108,800	1,188,000	1,267,200
Actual cumulative gross output, kWhr	44,463	88,375	131,900	175,482	220,306	268,419	317,630	365,021	411,116	460,872	507,618	553,764	602,667	653,138	703,500	753,038
Cumulative Capacity Factor	56.1%	55.8%	55.5%	55.4%	55.6%	56.5%	57.3%	57.6%	57.7%	58.2%	58.3%	58.3%	58.5%	58.9%	59.2%	59.4%
Cumulative fuel input, MMBtu HHV	547	1,083	1,624	2,163	2,700	3,273	3,835	4,398	4,945	5,530	6,089	6,629	7,185	7,792	8,382	8,963
Cumulative gross output, kWhr	44,463	88,375	131,900	175,482	220,306	268,419	317,630	365,021	411,116	460,872	507,618	553,764	602,667	653,138	703,500	753,038
Heat Rate																
Daily heat rate, Btu/kWe gross LHV	11,071	10,984	11,197	11,137	10,783	10,715	10,284	10,694	10,677	10,586	10,765	10,530	10,237	10,828	10,544	10,558
Daily heat rate, Btu/kWe gross HHV	12,298	12,202	12,439	12,372	11,978	11,903	11,424	11,880	11,860	11,759	11,958	11,698	11,371	12,029	11,713	11,728
Cumulative heat rate, Btu/kWe gross LHV	11,071	11,027	11,084	11,097	11,033	10,976	10,869	10,846	10,827	10,801	10,798	10,775	10,732	10,739	10,725	10,714
Cumulative heat rate, Btu/kWe gross HHV	12,298	12,250	12,312	12,327	12,256	12,193	12,074	12,049	12,028	11,999	11,995	11,970	11,922	11,930	11,914	11,902
Cumulative by Facility starting Calendar Year																
Max cumulative available engine run hours	20,064	20,160	20,256	20,352	20,448	20,544	20,640	20,736	20,832	20,928	21,024	21,120	21,216	21,312	21,408	21,504
Actual cumulative engine run hours	14,703	14,773	14,842	14,913	14,985	15,057	15,129	15,201	15,273	15,345	15,416	15,484	15,556	15,628	15,700	15,772
Cumulative Availability, %	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%	73.3%
Max cumulative gross output, kWhr	16,552,800	16,632,000	16,711,200	16,790,400	16,869,600	16,948,800	17,028,000	17,107,200	17,186,400	17,265,600	17,344,800	17,424,000	17,503,200	17,582,400	17,661,600	17,740,800
Actual cumulative gross output, kWhr	9,022,992	9,066,904	9,110,429	9,154,011	9,198,835	9,246,948	9,296,159	9,343,550	9,389,645	9,439,401	9,486,147	9,532,293	9,581,196	9,631,667	9,682,029	9,731,567
Cumulative Capacity Factor	54.5%	54.5%	54.5%	54.5%	54.5%	54.6%	54.6%	54.6%	54.6%	54.7%	54.7%	54.7%	54.7%	54.8%	54.8%	54.9%
Cumulative fuel input, MMBtu HHV	109,700	110,236	110,778	111,317	111,854	112,426	112,989	113,552	114,098	114,683	115,242	115,782	116,338	116,945	117,535	118,116
Cumulative gross output, kWhr	9,022,992	9,066,904	9,110,429	9,154,011	9,198,835	9,246,948	9,296,159	9,343,550	9,389,645	9,439,401	9,486,147	9,532,293	9,581,196	9,631,667	9,682,029	9,731,567
Cumulative heat rate, Btu/kWe gross LHV	10,944	10,945	10,946	10,947	10,946	10,945	10,941	10,940	10,939	10,937	10,936	10,934	10,931	10,930	10,928	10,926
Cumulative heat rate, Btu/kWe gross HHV	12,158	12,158	12,159	12,160	12,160	12,158	12,154	12,153	12,152	12,149	12,148	12,146	12,142	12,142	12,140	12,137
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	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
Date	9/1/2019	9/2/2019	9/3/2019	9/4/2019	9/5/2019	9/6/2019	9/7/2019	9/8/2019	9/9/2019	9/10/2019	9/11/2019	9/12/2019	9/13/2019	9/14/2019	9/15/2019	9/16/2019
Hour																
1	1,792	1,796	1,865	1,790	1,867	1,797	2,033	1,892	1,891	1,989	1,977	1,980	2,026	2,019	2,014	2,017
2	1,791	1,796	1,866	1,789	1,867	1,797	2,033	1,891	1,890	1,988	1,995	1,980	2,026	2,019	2,014	2,017
3	1,792	1,796	1,865	1,789	1,866	1,797	2,034	1,892	1,891	1,989	2,002	1,980	2,026	2,020	2,014	2,018
4	1,792	1,796	1,865	1,790	1,866	1,797	2,034	1,892	1,891	1,987	1,999	1,980	2,026	2,020	2,015	2,018
5	1,792	1,796	1,866	1,790	1,866	1,797	2,034	1,892	1,891	1,987	1,997	1,981	2,026	2,020	2,015	2,017
6	1,792	1,796	1,867	1,790	1,867	1,797	2,008	1,891	1,891	1,988	1,995	1,983	2,028	2,020	2,016	2,017
7	1,793	1,796	1,625	1,789	1,865	1,797	1,988	1,892	1,892	1,989	1,238	1,982	2,025	2,021	2,015	2,017
8	1,744	1,796	1,212	1,791	1,731	1,797	1,987	1,892	1,891	1,987	1,224	1,982	1,956	2,019	2,016	1,980
9	1,734	1,796	1,205	1,789	1,631	1,811	1,987	1,891	1,813	1,976	1,437	1,895	1,945	2,017	2,013	1,957
10	1,734	1,792	1,616	1,803	1,681	1,828	1,980	1,889	1,821	1,977	1,819	-	1,538	2,017	2,012	1,954
11	1,722	1,792	1,814	1,738	1,690	1,871	1,941	1,890	1,905	1,889	1,266	195	1,545	2,017	2,007	1,950
12	1,722	1,788	1,821	1,715	1,690	1,954	1,941	1,886	1,899	1,977	1,915	2,008	2,004	2,015	2,006	1,955
13	1,723	1,787	1,819	952	1,690	1,980	1,940	1,885	906	1,971	1,953	2,010	1,827	2,014	2,005	1,956
14	1,724	1,786	1,818	583	1,738	1,979	1,939	1,885	1,102	1,872	1,970	2,007	1,927	2,012	2,005	1,956
15	1,728	1,791	1,819	1,811	1,777	1,980	1,938	1,886	1,560	1,971	1,969	2,004	1,935	2,012	2,007	1,956
16	1,733	1,791	1,828	1,858	1,782	2,007	1,938	1,887	1,998	1,984	1,969	2,001	1,995	2,012	2,006	1,954
17	1,764	1,791	1,836	1,864	1,790	2,031	1,938	1,890	1,990	1,995	1,975	2,019	2,016	2,013	2,008	1,962
18	1,791	1,791	1,838	1,866	1,790	2,034	1,937	1,890	1,989	1,999	1,976	2,025	2,016	2,014	2,009	1,962
19	1,792	1,790	1,838	1,864	1,792	2,033	1,939	1,890	1,989	2,004	1,976	2,023	2,017	2,013	2,011	1,964
20	1,793	1,390	1,840	1,866	1,795	2,033	1,937	1,891	1,989	2,006	1,979	2,026	2,017	2,014	2,014	1,965
21	1,793	1,208	1,842	1,866	1,796	2,033	1,937	1,891	1,989	1,996	1,980	2,022	2,017	2,013	2,016	1,965
22	1,794	1,538	1,467	1,866	1,796	2,032	1,920	1,890	1,988	2,006	1,979	2,022	2,017	2,014	2,016	1,965
23	1,795	1,853	1,312	1,866	1,796	2,033	1,891	1,891	1,988	2,007	1,979	2,025	2,018	2,014	2,017	1,965
24	1,796	1,864	1,774	1,867	1,797	2,032	1,892	1,892	1,988	1,991	1,980	2,027	2,019	2,014	2,018	1,966
TOTAL	42,426	41,916	41,518	41,492	42,826	46,047	47,146	45,358	44,042	47,525	44,549	44,157	46,992	48,383	48,289	47,453
Cumulative Output Sold, kWhr	42,426	84,342	125,860	167,352	210,178	256,225	303,371	348,729	392,771	440,296	484,845	529,002	575,994	624,377	672,666	720,119
Transformer and line efficiency	99.8%	99.8%	99.9%	99.7%	99.9%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.8%	99.7%	99.8%	99.8%
Hourly average	1,768	1,747	1,730	1,729	1,784	1,919	1,964	1,890	1,835	1,980	1,856	1,840	1,958	2,016	2,012	1,977

'SEPTEMBER 2019																	
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday			
	9/17/2019	9/18/2019	9/19/2019	9/20/2019	9/21/2019	9/22/2019	9/23/2019	9/24/2019	9/25/2019	9/26/2019	9/27/2019	9/28/2019	9/29/2019	9/30/2019	TOTAL	Biogas	LFG
LFG and Biogas Flow to the Engine	1,094	1,113	1,158	1,151	1,146	1,141	1,126	1,070	1,132	1,192	1,180	1,204	1,187	1,170	32,931	447	32,484
LFG and Biogas Flow to the Engine	583	587	609	615	602	603	602	583	607	637	619	630	614	605	17,459	319	17,139
LFG and Biogas Flow to the Flare (	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8%	98%
LFG and BiogasFlow to the Flare (M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
LFG and Biogas Total Flow (KSCF)	1,094	1,113	1,158	1,151	1,146	1,141	1,126	1,070	1,132	1,192	1,180	1,204	1,187	1,170	32,931		
LFG and Biogas Total Flow (MMBT	583	587	609	615	602	603	602	583	607	637	619	630	614	605	17,459		
Average Methane Content (%)	52.7	52.1	52.0	52.8	51.9	52.2	52.8	53.9	53.0	52.8	51.8	51.7	51.1	51.1	52.4		
Engine 1 Hours	24	24	24	24	24	24	24	23	24	24	24	24	24	24	710		
Engine 2 Hours	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35		
Engine 3 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	685		
Engine 4 Hours	24	24	24	24	24	24	24	24	24	24	24	24	24	24	718		
Generator 1 Power Output (kWhr)	15,612	15,612	16,224	16,792	15,892	16,096	16,784	14,940	15,616	16,576	16,208	16,208	16,208	16,072	478,547		
Generator 2 Power Output (kWhr)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22,762		
Generator 3 Power Output (kWhr)	16,764	16,764	16,768	16,764	16,752	16,772	16,772	16,320	16,764	17,076	16,688	17,364	16,500	16,180	445,906		
Generator 4 Power Output (kWhr)	16,732	16,728	16,032	15,548	15,532	15,548	15,548	15,776	16,720	17,348	16,980	16,728	16,732	16,240	492,188		
Gross Power Output (kWhr)	49,175	49,183	49,074	49,166	48,212	48,453	49,196	47,097	49,129	51,048	49,912	50,300	49,483	48,529	1,440,995		
Net Power Output (kWhr)	47,196	47,188	47,072	47,152	46,220	46,452	47,052	45,048	47,040	48,888	47,868	48,268	47,424	46,492	1,381,181		
Power Sold as metered by NStar, (I	47,057	47,050	46,945	47,025	46,109	46,286	46,902	44,926	46,906	48,745	47,742	48,154	47,297	46,366	1,377,629	CRMCB inplant	
Offgrid RECs (kWhr)	1,979	1,996	2,001	2,015	1,993	2,000	2,144	2,048	2,089	2,160	2,044	2,032	2,059	2,037	59,812	10,707	
Calculated Performance Results																18%	
Daily																of total in-plant	
Power output (kW average whe																power	
Generator 1	651	651	676	700	662	671	699	650	651	691	675	675	675	670			
Generator 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Generator 3	699	699	699	699	698	699	699	680	699	712	695	724	688	674			
Generator 4	697	697	668	648	647	648	648	657	697	723	708	697	697	677			
Power output (kW average ove																	
Facility Gross	2,049	2,049	2,045	2,049	2,009	2,019	2,050	1,962	2,047	2,127	2,080	2,096	2,062	2,022			
Facility Net	1,967	1,966	1,961	1,965	1,926	1,936	1,961	1,877	1,960	2,037	1,995	2,011	1,976	1,937			
In-plant load	82	83	83	84	83	83	89	85	87	90	85	85	86	85			
Daily availability factor																	
Facility	75%	75%	75%	75%	75%	75%	75%	74%	75%	75%	75%	75%	75%	75%			
Engine 1	100%	100%	100%	100%	100%	100%	100%	96%	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	62%	62%	62%	62%	61%	61%	62%	59%	62%	64%	63%	64%	62%	61%			
Engine 1	79%	79%	82%	85%	80%	81%	85%	79%	79%	84%	82%	82%	82%	81%			
Engine 2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Engine 3	85%	85%	85%	85%	85%	85%	85%	82%	85%	86%	84%	88%	83%	82%			
Engine 4	85%	84%	81%	79%	78%	79%	79%	80%	84%	88%	86%	84%	85%	82%			
Cumulative by engine																	
Engine operating run hours in th																	
Max Cumulative Available,	408	432	456	480	504	528	552	576	600	624	648	672	696	720			
Engine 1	399	423	447	471	495	519	543	566	590	614	638	662	686	710			
Engine 2	35	35	35	35	35	35	35	35	35	35	35	35	35	35			
Engine 3	373	397	421	445	469	493	517	541	565	589	613	637	661	685			
Engine 4	406	430	454	478	502	526	550	574	598	622	646	670	694	718			
Engine operating run hours tota																	
Engine 1	109,403	109,427	109,451	109,475	109,499	109,523	109,547	109,570	109,594	109,618	109,642	109,666	109,690	109,714			
Engine 2	95,523	95,523	95,523	95,523	95,523	95,523	95,523	95,523	95,523	95,523	95,523	95,523	95,523	95,523			
Engine 3	104,854	104,878	104,902	104,926	104,950	104,974	104,998	105,022	105,046	105,070	105,094	105,118	105,142	105,166			
Engine 4	104,246	104,270	104,294	104,318	104,342	104,366	104,390	104,414	104,438	104,462	104,486	104,510	104,534	104,558			
Cumulative availability, %																	
Engine 1	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%	99%	99%	99%			
Engine 2	9%	8%	8%	7%	7%	7%	6%	6%	6%	6%	5%	5%	5%	5%			
Engine 3	91%	92%	92%	93%	93%	93%	94%	94%	94%	94%	95%	95%	95%	95%			
Engine 4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Engine cumulative gross output																	
Max cumulative capacity or	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	11,469	12,119	12,795	13,495	14,157	14,828	15,527	16,177	16,827	17,518	18,193	18,869	19,544	20,214			
Engine 2	969	969	969	969	969	969	969	969	969	969	969	969	969	969			
Engine 3	9,811	10,510	11,208	11,907	12,605	13,304	14,003	14,683	15,381	16,093	16,788	17,511	18,199	18,873			
Engine 4	11,756	12,453	13,121	13,768	14,416	15,063	15,711	16,369	17,065	17,788	18,496	19,193	19,890	20,566			
Cumulative capacity factor, %																	
Engine 1	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%	82%			
Engine 2	7%	7%	6%	6%	6%	5%	5%	5%	5%	5%	4%	4%	4%	4%			
Engine 3	70%	71%	72%	72%	73%	73%	74%	74%	75%	75%	75%	76%	76%	76%			
Engine 4	84%	84%	84%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%	83%			

	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday			
	9/17/2019	9/18/2019	9/19/2019	9/20/2019	9/21/2019	9/22/2019	9/23/2019	9/24/2019	9/25/2019	9/26/2019	9/27/2019	9/28/2019	9/29/2019	9/30/2019	TOTAL	Biogas	LFG
Cumulative by Facility in month																	
Max cumulative available engi	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 h	1,213	1,285	1,357	1,429	1,501	1,573	1,645	1,716	1,788	1,860	1,932	2,004	2,076	2,148			
Cumulative Availability, %	74.3%	74.4%	74.4%	74.4%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.6%	74.6%	74.6%			
Max cumulative gross output, k	1,346,400	1,425,600	1,504,800	1,584,000	1,663,200	1,742,400	1,821,600	1,900,800	1,980,000	2,059,200	2,138,400	2,217,600	2,296,800	2,376,000			
Actual cumulative gross output,	802,213	851,396	900,470	949,636	997,848	1,046,301	1,095,497	1,142,594	1,191,723	1,242,771	1,292,683	1,342,983	1,392,466	1,440,995			
Cumulative Capacity Factor	59.6%	59.7%	59.8%	60.0%	60.0%	60.0%	60.1%	60.1%	60.2%	60.4%	60.5%	60.6%	60.6%	60.6%			
Cumulative fuel input, MMBtu h	9,546	10,133	10,742	11,357	11,958	12,561	13,163	13,746	14,353	14,990	15,609	16,239	16,853	17,459			
Cumulative gross output, kWhr	802,213	851,396	900,470	949,636	997,848	1,046,301	1,095,497	1,142,594	1,191,723	1,242,771	1,292,683	1,342,983	1,392,466	1,440,995			
Heat Rate																	
Daily heat rate, Btu/kWe gross	10,672	10,744	11,175	11,253	11,235	11,205	11,006	11,147	11,118	11,238	11,157	11,278	11,174	11,230			
Daily heat rate, Btu/kWe gross	11,856	11,935	12,414	12,501	12,480	12,447	12,227	12,383	12,351	12,484	12,394	12,529	12,412	12,475			
Cumulative heat rate, Btu/kWe	10,712	10,714	10,739	10,765	10,788	10,807	10,816	10,830	10,842	10,858	10,870	10,885	10,895	10,906			
Cumulative heat rate, Btu/kWe	11,899	11,901	11,929	11,959	11,984	12,005	12,015	12,031	12,044	12,062	12,075	12,092	12,103	12,116			
Cumulative by Facility starting C																	
Max cumulative available engi	21,600	21,696	21,792	21,888	21,984	22,080	22,176	22,272	22,368	22,464	22,560	22,656	22,752	22,848			
Actual cumulative engine run h	15,844	15,916	15,988	16,060	16,132	16,204	16,276	16,347	16,419	16,491	16,563	16,635	16,707	16,779			
Cumulative Availability, %	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%	73.4%			
Max cumulative gross output, k	17,820,000	17,899,200	17,978,400	18,057,600	18,136,800	18,216,000	18,295,200	18,374,400	18,453,600	18,532,800	18,612,000	18,691,200	18,770,400	18,849,600			
Actual cumulative gross output,	9,780,742	9,829,925	9,878,999	9,928,165	9,976,377	10,024,830	10,074,026	10,121,123	10,170,252	10,221,300	10,271,212	10,321,512	10,370,995	10,419,524			
Cumulative Capacity Factor	54.9%	54.9%	54.9%	55.0%	55.0%	55.0%	55.1%	55.1%	55.1%	55.2%	55.2%	55.2%	55.3%	55.3%			
Cumulative fuel input, MMBtu h	118,699	119,286	119,896	120,510	121,112	121,715	122,316	122,900	123,506	124,144	124,762	125,393	126,007	126,612			
Cumulative gross output, kWhr	9,780,742	9,829,925	9,878,999	9,928,165	9,976,377	10,024,830	10,074,026	10,121,123	10,170,252	10,221,300	10,271,212	10,321,512	10,370,995	10,419,524			
Cumulative heat rate, Btu/kWe	10,925	10,924	10,925	10,927	10,928	10,930	10,930	10,931	10,932	10,933	10,935	10,936	10,937	10,939			
Cumulative heat rate, Btu/kWe	12,136	12,135	12,136	12,138	12,140	12,141	12,142	12,143	12,144	12,146	12,147	12,149	12,150	12,151			
Service																	
Engine 1																	
Engine 2																	
Engine 3																	
Engine 4																	
Oil - oil and filter change																	
Service - plugs, air filter, valve insp																	
Precipitation																	
NSTAR Power Reports	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday			
Date	9/17/2019	9/18/2019	9/19/2019	9/20/2019	9/21/2019	9/22/2019	9/23/2019	9/24/2019	9/25/2019	9/26/2019	9/27/2019	9/28/2019	9/29/2019	9/30/2019	TOTAL		
Hour																	
1	1,965	1,963	1,962	1,966	1,964	1,914	1,960	1,959	1,939	1,984	2,058	2,012	2,006	1,961			
2	1,965	1,963	1,963	1,966	1,963	1,914	1,959	1,958	1,939	1,984	2,058	2,011	2,006	1,960			
3	1,965	1,963	1,963	1,967	1,963	1,914	1,960	1,959	1,939	1,984	2,058	2,011	2,006	1,960			
4	1,965	1,964	1,964	1,968	1,963	1,914	1,960	1,959	1,937	1,984	2,058	2,011	2,006	1,960			
5	1,966	1,964	1,964	1,968	1,963	1,914	1,961	1,960	1,937	1,984	2,057	2,011	2,007	1,960			
6	1,966	1,964	1,963	1,967	1,962	1,915	1,961	1,960	1,936	1,985	2,015	2,010	2,006	1,960			
7	1,966	1,964	1,964	1,968	1,916	1,915	1,962	1,961	1,936	1,985	2,011	2,011	1,967	1,960			
8	1,966	1,964	1,962	1,967	1,916	1,915	1,960	1,962	1,937	1,985	2,010	2,011	1,960	1,935			
9	1,957	1,955	1,955	1,959	1,913	1,915	1,951	1,948	1,926	1,973	2,001	2,010	1,958	1,882			
10	1,957	1,956	1,950	1,958	1,910	1,912	1,943	1,944	1,921	1,967	1,997	2,008	1,957	1,855			
11	1,952	1,954	1,904	1,953	1,903	1,907	1,943	1,966	1,919	1,967	1,953	1,998	1,956	1,857			
12	1,950	1,955	1,922	1,943	1,896	1,899	1,942	1,986	1,920	2,028	1,950	1,998	1,956	1,906			
13	1,953	1,955	1,947	1,944	1,896	1,897	1,941	1,561	1,963	2,083	1,949	1,999	1,956	1,930			
14	1,953	1,955	1,947	1,942	1,896	1,897	1,942	881	1,957	2,083	1,950	1,999	1,957	1,926			
15	1,953	1,956	1,947	1,944	1,896	1,933	1,943	1,698	1,962	2,084	1,950	2,000	1,957	1,926			
16	1,955	1,955	1,954	1,952	1,899	1,945	1,949	1,763	1,974	2,090	1,952	2,001	1,957	1,926			
17	1,961	1,962	1,961	1,957	1,908	1,954	1,955	1,934	1,978	2,101	1,960	2,006	1,958	1,933			
18	1,962	1,962	1,963	1,958	1,907	1,956	1,956	1,938	1,982	2,102	1,963	2,007	1,959	1,937			
19	1,963	1,963	1,964	1,962	1,910	1,959	1,959	1,938	1,983	2,102	1,963	2,007	1,960	1,939			
20	1,964	1,963	1,964	1,963	1,913	1,960	1,959	1,938	1,984	2,060	1,964	2,007	1,961	1,939			
21	1,963	1,962	1,964	1,962	1,912	1,959	1,959	1,938	1,984	2,057	1,964	2,007	1,960	1,939			
22	1,964	1,963	1,966	1,963	1,913	1,960	1,959	1,938	1,984	2,057	1,965	2,007	1,960	1,939			
23	1,962	1,962	1,966	1,964	1,913	1,959	1,959	1,938	1,984	2,058	1,965	2,006	1,960	1,938			
24	1,964	1,963	1,966	1,964	1,914	1,959	1,959	1,939	1,985	2,058	1,971	2,006	1,961	1,938			
TOTAL	47,057	47,050	46,945	47,025	46,109	46,286	46,902	44,926	46,906	48,745	47,742	48,154	47,297	46,366			
Cumulative Output Sold, kV	767,176	814,226	861,171	908,196	954,305	1,000,591	1,047,493	1,092,419	1,139,325	1,188,070	1,235,812	1,283,966	1,331,263	1,377,629			
Transformer and line efficienc	99.7%	99.7%	99.7%	99.7%	99.8%	99.6%	99.7%	99.7%	99.7%	99.7%	99.7%	99.8%	99.7%	99.7%			
Hourly average	1,961	1,960	1,956	1,959	1,921	1,929	1,954	1,872	1,954	2,031	1,989	2,006	1,971	1,932			

ow Rate from SCADA													
	Minutes	Totalizer Reading,	scfm	Tot KSCF		% Methane		Heat valued per time period,	Tot Heat value in month,	Average methane content,	Biogas flow rate,	Biogas flow rate 50% methane,	
Time	in Period	KSCF		in month	Month	End	Start	MMBtu	MMBtu	%	ave scfm	ave scfm	
0:00	**5,100**	**951.92**	46	**1,982.87**		68%	68%	161.3	1,364.5	68.0	44	60.4	
9:53	2,033	1,045.34	46			68%	68%	64.3					
13:57	1,684	1,124.00	47			70%	70%	55.7					
9:42	5,505	1,377.76	46			70%	70%	179.8					
12:15	3,033	1,506.69	43			70%	70%	91.3					
9:23	2,708	1,632.41	46			70%	70%	89.1					
10:04	4,361	1,841.88	48			70%	70%	148.4					
9:52	1,428	1,908.51	47			70%	70%	47.2					
14:38	8,926	2,335.11	48			70%	70%	302.2					
16:38	1,560	2,410.22	48			70%	70%	53.2					
11:34	1,136	2,465.95	49			70%	70%	39.5					
9:45	2,771	2,560.00	34			70%	70%	66.6					
9:45		-		Reset to 0		70%	70%						
14:26	281	9.97	35			70%	70%	7.1					
10:25	4,079	180.87	42			70%	70%	121.1					
10:06	1,421	240.22	42			70%	70%	42.0					
10:33	1,467	302.54	42			70%	70%	44.1					
0:00	**2,247**	**398.25**	43	**2,006.33**		70%	70%	67.8	1,419.4	69.9	45	62.8	
9:38	578	422.87	43			70%	70%	17.4					
9:39	4,321	619.82	46			70%	70%	139.5					
10:00	2,901	739.42	41			70%	70%	84.7					
9:29	1,409	799.60	43			70%	70%	42.6					
10:07	5,798	1,050.70	43			70%	70%	177.9					
9:47	1,420	1,109.69	42			70%	70%	41.8					
11:17	4,410	1,294.52	42			70%	70%	130.9					
10:30	7,153	1,597.72	42			70%	70%	214.8					
11:33	1,503	1,664.29	44			70%	70%	47.2					
12:00	1,467	1,720.90	39			70%	70%	40.1					
12:00	-			Reset to 0		70%	70%						
13:00	60	2.25	38			70%	70%	1.6					
14:02	4,382	188.84	43			70%	70%	132.2					
0:00	**4,918**	**385.56**	40	**1,708.21**		70%	70%	139.4	1,210.1	70.0	42	59.3	
10:00	600	409.56	40			70%	70%	17.0					
6:00	4,080	570.00	39			70%	70%	113.7					
6:00	-	-		Reset to 0		70%	70%						
10:14	254	10.40	41			70%	70%	7.4					
16:33	10,459	448.21	42			70%	70%	310.1					
12:52	4,099	613.48	40			70%	70%	117.1					
11:37	1,365	666.70	39			70%	70%	37.7					
9:54	4,217	837.25	40			70%	70%	120.8					
10:13	1,459	897.53	41			70%	70%	42.7					
9:25	1,392	953.60	40			70%	70%	39.7					
10:00	7,235	1,228.53	38			70%	70%	194.8					

ow Rate from SCADA													
	Minutes	Totalizer Reading,	scfm	Tot KSCF		% Methane		Heat valued per time period,	Tot Heat value in month,	Average methane content,	Biogas flow rate,	Biogas flow rate 50% methane,	
Time	in Period	KSCF		in month	Month	End	Start	MMBtu	MMBtu	%	ave scfm	ave scfm	
10:29	4,349	1,385.09	36			70%	70%	110.9					
0:00	**5,131**	**1,564.68**	35	**1,749.12**		70%	70%	127.2	1,239.1	70.0	39	54.9	
10:55	655	1,587.60	35			70%	70%	16.2					
10:30	10,055	1,801.50	21			70%	70%	151.5					
9:56	10,046	1,977.12	17			70%	70%	124.4					
11:03	10,147	2,135.80	16			70%	70%	112.4					
9:29	9,986	2,299.70	16			70%	70%	116.1					
0:00	**2,311**	**2,334.35**	15	**769.67**		70%	70%	24.5	545.2	70.0	18	24.9	
10:30	630	2,343.80	15			70%	70%	6.7					
10:30	-	-		Reset to 0		70%	70%						
11:30	20,220	323.62	16			70%	72%	232.5					
10:27	1,377	339.82	12			72%	76%	12.1					
9:40	1,393	356.06	12			76%	78%	12.7					
9:40	4,320	405.57	11			78%	80%	39.6					
9:13	1,413	421.19	11			80%	76%	12.3					
10:01	1,488	438.12	11			76%	75%	12.9					
9:31	1,410	454.23	11			75%	73%	12.1					
10:00	1,469	471.14	12			73%	73%	12.5					
10:18	5,778	535.00	11			73%	71%	46.5					
12:16	1,558	552.84	11			71%	73%	13.0					
13:10	2,934	587.63	12			73%	73%	25.7					
13:10	-	-		Reset to 0		73%	73%						
15:12	122	1.50	12			73%	73%	1.1					
0:00	**528**	**7.46**	11	**604.53**		73%	73%	4.4	444.2	72.6	14	19.7	
8:47	3,407	45.90	13			73%	75%	28.8					
17:20	1,953	67.94	11			75%	73%	16.5					
12:15	1,135	80.97	11			73%	73%	9.6					
12:40	7,225	163.86	11			73%	74%	61.7					
11:54	1,394	179.70	11			74%	74%	11.9					
9:16	1,282	193.99	11			74%	74%	10.7					
9:12	2,876	226.29	11			74%	74%	24.2					
13:28	4,576	277.63	11			74%	73%	38.2					
14:49	2,961	310.02	11			73%	73%	23.9					
10:33	2,624	338.77	11			73%	72%	21.1					
11:30	4,377	387.10	11			72%	73%	35.5					
13:30	3,000	420.14	11			73%	73%	24.4					
12:08	2,798	450.78	11			73%	74%	22.8					
0:00	**3,592**	**490.29**	11	**482.83**		74%	74%	29.6	358.8	73.4	11	16.4	
10:59	659	497.54	11			74%	74%	5.4					
16:51	1,792	517.25	11			74%	74%	14.8					
0:30	14,859	680.70	11			74%	74%	122.4					
0:30	-	-		Reset to 0		74%	74%						
11:52	3,562	43.03	12			74%	74%	32.2					

ow Rate from SCADA													
	Minutes	Totalizer Reading,	scfm	Tot KSCF		% Methane		Heat valued per time period,	Tot Heat value in month,	Average methane content,	Biogas flow rate,	Biogas flow rate 50% methane,	
Time	in Period	KSCF		in month	Month	End	Start	MMBtu	MMBtu	%	ave scfm	ave scfm	
9:25	5,613	102.02	11			74%	74%	44.2					
10:02	4,357	147.69	10			74%	74%	34.2					
12:08	3,006	181.41	11			74%	74%	25.3					
12:54	7,246	258.40	11			74%	74%	57.7					
9:49	1,255	272.07	11			74%	74%	10.2					
11:16	1,527	288.16	11			74%	74%	12.0					
0:00	**764**	**296.43**	11	**486.83**		74%	74%	6.2	364.6	74.0	11	16.7	
9:50	590	302.81	11			74%	74%	4.8					
9:17	8,607	400.49	11			74%	74%	73.2					
11:21	3,004	432.24	11			74%	74%	23.8					
11:11	4,310	477.57	11			74%	74%	33.9					
11:52	2,921	508.87	11			74%	74%	23.4					
8:55	2,703	538.62	11			74%	74%	22.3					
9:31	4,356	584.39	11			74%	74%	34.3					
9:30	2,879	614.22	10			74%	74%	22.3					
12:52	1,642	631.20	10			74%	74%	12.7					
0:00	**13,628**	**781.59**	11	**485.16**		74%	74%	112.6	363.3	74.0	11	16.6	
8:44	4,844	835.04	11			74%	74%	40.0					
11:02	3,018	869.26	11			70%	70%	24.2					
9:00	4,198	920.00	12			70%	70%	35.9					
9:00	-	-	-	Reset to 0		70%	70%						
9:27	27	0.32	12			70%	70%	0.2					
8:45	1,398	17.60	12			70%	70%	12.2					
8:45	1,440	-	-	Reset to 0		70%	70%						
15:36	411	5.03	12			70%	70%	3.6					
11:40	2,644	36.97	12			70%	70%	22.6					
20:10	3,390	-		Reset to 0		70%	70%						
11:10	900	11.17	12			70%	70%	7.9					
9:22	1,332	26.69	12			70%	70%	11.0					
9:11	4,309	78.93	12			70%	70%	37.0					
13:45	4,594	128.44	11			70%	70%	35.1					
9:45	1,200	144.23	13			70%	70%	11.2					
12:45	3,060	180.00	12			70%	70%	25.3					
12:45	3,060	-		Reset to 0		70%	70%						
9:49	1,264	15.13	12			70%	70%	10.7					
13:41	4,552	67.34	11			70%	70%	37.0					
0:00	619	**74.46**	11	**447.44**		70%	70%	5.0	319.1	70.5	10	14.6	
12:15	735	82.91	11			70%	70%						

Exhibit 6

Calibration of the LFG and biogas flow rates and composition meters 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

		Engine 1, kW	550	600	600	600	660	640	675	675	650
		Engine 2, kW	-	-	-	-	-	-	-	-	-
		Engine 3, kW	550	575	650	575	580	600	600	600	700
		Engine 4, kW	550	600	600	560	690	600	675	675	700
		Gross, kW	1,650	1,775	1,850	1,735	1,930	1,840	1,950	1,950	2,050
MEASURING INSTRUMENT:		Pitot Tube:	166	166	166	166	166	166	166	166	166
		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:			10-Jan-19	8-Feb-19	11-Mar-19	2-Apr-19	6-May-19	10-Jun-19	16-Jul-19	14-Aug-19	18-Sep-19
TIME OF MEASUREMENT:			**13:00**	**12:00**	**14:00**	**11:00**	**11:00**	**12:00**	**11:30**	**12:20**	**11:30**
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	85.49
Cp	Pitot tube coefficient	dimensionless	1.00	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	**0.100**	**0.109**	**0.106**	**0.100**	**0.111**	**0.109**	**0.132**	**0.130**	**0.148**
Blower Inlet											
Ts	Stack temperature	Degrees Fahrenheit	**64**	**62**	**64**	**64**	**65**	**77**	**82**	**84**	**84**
		Degrees Rankine	524	522	524	524	525	537	542	544	544
Pg	Stack static pressure	inch H20	-58	-62	-65	-68	-70	-70	-71	-72	-65.5
		inch Hg	(4.27)	(4.56)	(4.78)	(5.00)	(5.15)	(5.15)	(5.22)	(5.30)	(4.82)
Ps	Absolute stack gas pressure	inch Hg	25.33	25.31	25.14	25.40	24.72	25.07	24.60	24.59	25.00
Blower Outlet											
Ts	Stack temperature	Degrees Fahrenheit	**120**	**120**	**120**	**120**	**120**	**120**	**120**	**122**	**123**
		Degrees Rankine	580	580	580	580	580	580	580	582	583
Pg	Stack static pressure	inch H20	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	58.1
		inch Hg	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	4.28
		psig	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	2.10
Pbar	Barometric pressure	inch Hg	**29.60**	**29.87**	**29.92**	**30.40**	**29.87**	**30.22**	**29.82**	**29.89**	**29.82**
Ps	Absolute stack gas pressure	inch Hg	33.47	33.74	33.79	34.27	33.74	34.09	33.69	33.76	34.10
Ms	Molecular weight of stack gas, wet	lb/lb-mole	27.82	27.95	27.48	27.97	27.73	27.61	27.41	27.35	27.39
Vs	Average stack gas velocity	feet per second	23.3	24.2	24.2	23.2	24.9	24.8	27.9	27.7	29.3
Qact	Volumetric Flow	actual cubic feet per minute	828	861	860	825	886	883	990	985	1,041
Qstd	**Volumetric Flow at actual methane content**	**standard cubic feet per minute ***	**707**	**737**	**728**	**706**	**736**	**727**	**793**	**786**	**844**
Qstd corr	Volumetric Flow at 50% methane	standard cubic feet per minute **	728	751	761	717	758	752	799	802	861
Ht HHV	Heat input	MMBtu per hour HHV	22.10	22.81	23.11	21.77	23.03	22.84	24.25	24.34	26.14
Ht LHV	Heat input	MMBtu per hour LHV	19.89	20.54	20.80	19.59	20.73	20.56	21.83	21.91	23.53
	Methane Content	%, vol/vol wet	51.50%	51.00%	52.30%	50.80%	51.50%	51.70%	50.35%	51.01%	51.01%
Diff. between pitot tube and orifice reading:			0.2%	0.9%	-0.4%	0.1%	-0.3%	1.2%	1.5%	1.7%	0.8%
dP	Delta pressure across orifice plate	inches H20	**3.80**	**4.01**	**4.00**	**3.62**	**4.10**	**3.80**	**4.60**	**4.50**	**5.25**
Qact	Volumetric Flow	acfm	693	711	711	676	719	693	762	755	811
Qstd	**Volumetric Flow at actual methane content**	**standard cubic feet per minute ***	**705**	**730**	**731**	**705**	**739**	**718**	**781**	**773**	**837**
Qstd	Volumetric Flow at 50% methane	standard cubic feet per minute **	726	745	764	716	761	743	787	788	854
Ht HHV	Heat input	MMBtu per hour HHV	22.06	22.62	23.20	21.74	23.09	22.55	23.88	23.94	25.94
Ht LHV	Heat input	MMBtu per hour LHV	19.85	20.36	20.88	19.57	20.79	20.30	21.50	21.55	23.35

* 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*Cp*(sqrt dP) * sqrt (Ts/(Ps*Ms))
- Qact = Vs * A * 60
- Qstd = Qact * Tstd/ Ts * Ps/Pstd
- Flow , ACFM = 96.3221*SQRT(dP)*SQRT((460+Temperature)/(2.703*(Pressure +14.7)))

Conversions and constants

- 13.5958 in H2O/in Hg
- 1 PSI = 2.036 in HG
- 1 PSI = 27.68 in WG
- Tstd = 528 degrees R
- Pstd = 29.92 in Hg

Landfill Gas Flow Measurements									
Crapo Hill Landfill, New Bedford/Dartı									
Measurements by	TY	TY, RB	TY, RB	TY, RB	TY, RB	TY, RB	TY, RB	TY, RB	TY, RB
Date	10-Jan-19	8-Feb-19	11-Mar-19	2-Apr-19	6-May-19	10-Jun-19	16-Jul-19	14-Aug-19	18-Sep-19
Time	13:00	12:00	14:00	11:00	11:00	12:00	11:30	12:20	11:30
Flow valve									
Pipe inside diameter, inches	10.42	10.42	10.42	10.42	10.42	10.42	10.42	10.42	10.42
Orifice measurement, cfm	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ambient Temperature, F	31	41	42	35	50	61	88	80	70
Barometric Pressure, In Hg	29.60	29.87	29.92	30.40	29.87	30.22	29.82	29.89	29.82
Blower Inlet Temperature, F	64	62	64	64	65	77	82	84	84
Outlet Temperature, F	120	120	120	120	120	120	120	122	123
Blower Inlet Pressure (SP), In H20	-58	-62	-65	-68	-70	-70	-71	-72	-65.5
Blower Outlet Pressure, PSIG	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1
Blower Outlet Pressure, In H20	52.59	52.59	52.59	52.59	52.59	52.59	52.59	52.59	58.13
Measurement									
Manometer									
Pitot Tube									
Velocity Pressure (dP)									
Point									
1	0.08	0.09	0.09	0.08	0.09	0.09	0.14	0.13	0.14
2	0.09	0.10	0.09	0.09	0.10	0.10	0.14	0.13	0.15
3	0.10	0.11	0.10	0.10	0.11	0.11	0.15	0.13	0.15
4	0.11	0.11	0.11	0.11	0.12	0.11	0.15	0.13	0.15
5	0.11	0.12	0.12	0.11	0.12	0.12	0.15	0.13	0.15
6	0.11	0.12	0.12	0.11	0.13	0.12	0.14	0.13	0.15
7	0.11	0.12	0.12	0.11	0.12	0.12	0.12	0.13	0.15
8	0.10	0.11	0.11	0.10	0.11	0.11	0.10	0.13	0.15
9	0.09	0.10	0.09	0.09	0.10	0.10	0.10	0.13	0.14
Average	0.100	0.109	0.106	0.100	0.111	0.109	0.132	0.130	0.148
Gas Composition									
Compound, %v/v									
Methane (CH4)	51.5%	51.0%	52.3%	50.8%	51.5%	51.7%	50.4%	51.0%	51.0%
Carbon dioxide (CO2)	38.5%	38.9%	37.0%	38.9%	38.0%	38.0%	36.1%	36.3%	36.6%
Oxygen (O2)	1.00%	1.00%	0.90%	1.00%	1.00%	1.00%	1.21%	1.48%	1.22%
Balance gas	9.00%	9.10%	9.80%	9.30%	9.50%	9.30%	12.33%	11.15%	11.20%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Moisture (H20) (included in balance gas	2.0%	1.9%	2.0%	2.0%	2.1%	3.1%	3.7%	4.0%	4.0%
Molecular weight, lb/lb-mole wet	27.82	27.95	27.48	27.97	27.73	27.61	27.41	27.35	27.39

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'California Analytical' Analyzer Calibration Results

Month:	Jan-19	**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
12/30/18	1/2/19	63 Deg F	55%	54.60%	49.80%	0.02%	56.28%	49.65%
1/6/19	1/9/19	61 Deg F	55%	54.63%	52.06%	0.01%	55.89%	52.42%
1/13/19	1/17/19	59 Deg F	55%	54.65%	48.65%	-0.02%	53.45%	48.69%
1/20/19	1/22/19	54 Deg F	55%	54.71%	52.31%	0.00%	53.25%	52.39%
1/27/19	1/30/19	56 Deg F	55%	54.69%	49.48%	-0.20%	52.08%	49.59%

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'California Analytical' Analyzer Calibration Results

Month: Feb 2019		**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
2/3/19	2/6/19	55 Deg F	55%	54.70%	49.54%	0.01%	55.06%	49.50%
2/10/19	2/14/19	55 Deg F	55%	54.70%	51.23%	0.02%	55.04%	51.20%
2/17/19	2/22/19	55 Deg F	55%	54.70%	49.31%	-0.07%	55.56%	49.62%
2/24/19	3/1/19	54 Deg F	55%	54.71%	48.49%	0.03%	55.14%	48.49%

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'California Analytical' Analyzer Calibration Results

Month: March 2019		**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
3/3/19	3/7/19	54 Deg F	55%	54.71%	49.82%	0.02%	54.96%	49.88%
3/10/19	3/15/19	56 Deg F	55%	54.69%	51.36%	-0.15%	52.92%	51.45%
3/17/19	3/19/19	56 Deg F	55%	54.69%	50.70%	0.07%	56.06%	50.77%
3/24/19	3/29/19	58 Deg F	55%	54.66%	50.50%	0.01%	54.96%	50.59%

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'California Analytical' Analyzer Calibration Results

Month: April 2019		**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
3/31/19	4/4/19	60 Deg F	55%	54.64%	53.35%	-0.08%	54.75%	53.32%
4/7/19	4/10/19	59 Deg F	55%	54.65%	51.02%	-0.02%	54.55%	51.09%
4/14/19	4/18/19	62 Deg F	55%	54.62%	52.36%	-0.16%	54.74%	52.30%
4/21/19	4/25/19	62 Deg F	55%	54.62%	47.25%	-0.02%	53.81%	47.18%

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'California Analytical' Analyzer Calibration Results

Month: May 2019		**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
4/28/19	5/3/19	65 Deg F	55%	54.58%	50.58%	-0.04%	54.82%	50.51%
5/5/19	5/10/19	65 Deg F	55%	54.58%	50.12%	-0.02%	54.85%	50.18%
5/12/19	5/17/19	66 Deg F	55%	54.56%	51.07%	-0.06%	54.75%	50.82%
5/19/19	5/24/19	71 Deg F	55%	54.49%	50.49%	0.02%	54.85%	50.60%
5/26/19	5/30/19	71 Deg F	55%	54.49%	51.30%	-0.05%	53.90%	51.20%

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'California Analytical' Analyzer Calibration Results

Month: June 2019		**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
6/2/19	6/5/19	73 Deg F	55%	54.46%	51.33%	0.02%	54.85%	51.38%
6/9/19	6/13/19	73 Deg F	55%	54.46%	52.62%	0.01%	54.65%	52.67%
6/16/19	6/21/19	74 Deg F	55%	54.44%	53.78%	-0.09%	53.92%	53.57%
6/23/19	6/27/19	77 Deg F	55%	54.38%	52.95%	0.01%	54.67%	52.96%

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'California Analytical' Analyzer Calibration Results

Month: July 2019		**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
6/30/19	7/3/19	79 Deg F	55%	54.34%	49.72%	4.36%	49.96%	49.65%
7/7/19	7/9/19	80 Deg F	55%	54.32%	50.09%	2.25%	52.35%	49.95%
7/14/19	7/15/19	82 Deg F	55%	54.28%	49.89%	0.01%	54.50%	49.80%
7/21/19	7/26/19	82 Deg F	55%	54.28%	50.35%	-5.72%	60.98%	50.65%
7/28/19	8/2/19	84 Deg F	55%	54.24%	51.51%	0.00%	53.94%	51.20%

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

Month: August 2019		**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
8/4/19	8/8/19	84 Deg F	55%	54.24%	51.58%	0.01%	53.92%	51.25%
8/11/19	8/14/19	84 Deg F	55%	54.24%	51.82%	0.00%	54.02%	51.85%
8/18/19	8/23/19	84 Deg F	55%	54.24%	51.83%	-0.05%	53.78%	51.25%
8/25/19	8/30/19	84 Deg F	55%	54.24%	51.88%	0.01%	54.01%	51.85%

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'California Analytical' Analyzer Calibration Results

Month: September 2019		**Methane (% v/v) measurements**						
Week	Date	LFG Temp @ blower inlet	Cal Gas dry	Cal Gas wet	Pre-calibration	Zero gas	Span gas	Post-calibration
9/1/19	9/6/19	84 Deg F	55%	54.24%	50.16%	-0.01%	54.49%	49.19%

Biogas Flow Measurements									
Q =sqrt(dP/[Ss *(T + 460)/(K^2*D^4 * P * 16590)]									
		SCADA Reading				SCADA Reading	P	P	T
		Pre-calibration	Measured	Measured	Difference between	Post-calibration	static pressure	static pressure	temperature
Month	Date	flow rate, scfm	dP, inch WG	flow rate, scfm	Measured and SCADA, %	flow rate, scfm	inch WG	psia	F
Jan-18	5-Jan-18	25	0.14	25	1.5%	25	-30	13.61	85
Feb-18	8-Feb-18	10	0.02	9	6.4%	10	-25	13.79	85
Mar-18	23-Mar-18	35	0.3	35	0.4%	35	-54	12.74	85
Apr-18	17-Apr-18	33	0.27	33	-1.1%	33	-48	12.96	85
May-18	23-May-18	30	0.23	31	-2.8%	31	-47	13.00	85
Jun-18	11-Jun-18	30	0.23	31	-2.6%	30	-48	12.96	85
Jul-18	10-Jul-18	30	0.23	31	-2.0%	30	-52	12.82	85
Aug-18	2-Aug-18	27	0.18	27	-0.6%	28	-50	12.89	85
Sep-18	13-Sep-18	40	0.4	41	-1.3%	40	-49	12.92	85
Oct-18	9-Oct-18	40	0.4	40	-0.9%	40	-52	12.82	85
Nov-18	7-Nov-18	40	0.39	40	0.1%	40	-50	12.89	85
Dec-18	11-Dec-18	44	0.46	43	1.6%	43	-52	12.82	85
Jan-19	10-Jan-19	43	0.43	42	2.1%	43	-48	12.96	85
Feb-19	8-Feb-19	42	0.41	40	3.8%	42	-60	12.53	85
Mar-19	11-Mar-19	39	0.4	40	-1.9%	39	-63	12.42	85
Apr-19	2-Apr-19	18	0.08	18	1.7%	18	-66	12.31	85
May-19	6-May-19	14	0.05	14	0.4%	14	-68	12.24	85
Jun-19	10-Jun-19	11	0.03	11	1.8%	11	-68	12.24	85
Jul-19	16-Jul-19	11	0.03	11	1.9%	11	-69	12.20	85
Aug-19	14-Aug-19	11	0.03	11	2.1%	11	-70	12.16	85
Sep-19	9-Sep-19	12	0.035	12	1.8%	12	-61	12.49	85
Oct-19									
Nov-19									

CRMC Bioenergy LLC						
Biogas Methane Calibration						
		SCADA Reading		Measured		SCADA Reading
		Pre-calibration	Calibration	Calibration	Difference between	Post-calibration
Month	Date	Methane, %	Methane, %	Methane, %	Measured and SCADA, %	Methane, %
Jan-18	5-Jan-18	70.0%	50.0%	49.5%	1.0%	70.0%
Feb-18	8-Feb-18	47.0%	50.0%	49.8%	0.4%	47.0%
Mar-18	23-Mar-18	74.0%	50.0%	50.3%	-0.6%	74.0%
Apr-18	17-Apr-18	70.0%	50.0%	50.0%	0.0%	70.0%
May-18	23-May-18	70.0%	50.0%	49.9%	0.2%	70.0%
Jun-18	11-Jun-18	70.0%	50.0%	50.3%	-0.6%	70.0%
Jul-18	10-Jul-18	66.0%	50.0%	50.2%	-0.4%	66.0%
Aug-18	2-Aug-18	68.0%	50.0%	49.7%	0.6%	68.0%
Sep-18	13-Sep-18	68.0%	50.0%	50.0%	0.0%	68.0%
Oct-18	9-Oct-18	68.0%	50.0%	49.8%	0.4%	68.0%
Nov-18	7-Nov-18	68.0%	50.0%	49.8%	0.4%	68.0%
Dec-18	11-Dec-18	68.0%	50.0%	50.0%	0.0%	68.0%
Jan-19	10-Jan-19	70.0%	50.0%	50.2%	-0.4%	70.0%
Feb-19	8-Feb-19	70.0%	50.0%	50.0%	0.0%	70.0%
Mar-19	11-Mar-19	70.0%	50.0%	51.0%	-2.0%	70.0%
Apr-19	2-Apr-19	70.0%	50.0%	50.0%	0.0%	70.0%
May-19	6-May-19	70.0%	50.0%	49.5%	1.0%	70.0%
Jun-19	10-Jun-19	73.0%	50.0%	49.8%	0.4%	73.0%
Jul-19	16-Jul-19	74.0%	50.0%	50.4%	-0.8%	74.0%
Aug-19	14-Aug-19	74.0%	50.0%	50.5%	-1.0%	74.0%
Sep-19	9-Sep-19	70.0%	50.0%	50.3%	-0.6%	70.0%
Oct-19						
Nov-19						

Exhibit 7

Attestation Statement

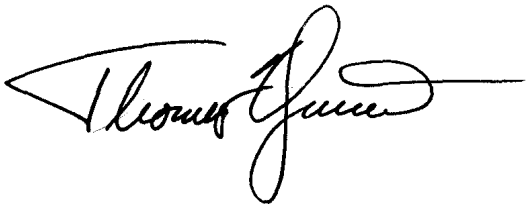
Attestation Statement

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, 2019 through September 30, 2019 from the Project Activity will be registered on the Markit Environmental Registry (formerly TZ1) only, which is an accredited VCS register.

Thomas Yeransian
Name

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

Title



Signature

Date: September 24, 2019