

Bay Park 1 – Database Notes

Table 1 Database Notes

Data Collection	<u>Data Logger:</u> <u>Data Collection Interval:</u> <u>Collection Method:</u>	Obvius AcquiSuite A8810 1 – Minute Obvius Upload Manager to CDH Servers
Site Information	<u>Cogeneration Units:</u> <u>Nameplate Capacity:</u> <u>Heat Recovery Medium:</u> <u>Heat Recovery Uses:</u> <u>Excess Heat:</u>	Two (2) Intelligen 160 Two (2) 160 kW Hot Water Domestic Hot Water Rejected to atmosphere by dump radiator
DG/CHP Generator Electrical Output	<u>Engineering Units:</u> <u>Energy Measurement (net/gross):</u> <u>Measurement Type:</u>	kWh Net Power Accumulated kWh
DG/CHP Generator Electrical Output Demand	<u>Engineering Units:</u> <u>Measurement Type:</u>	kW Measured kW
DG/CHP Generator Fuel Input	<u>Engineering Units:</u> <u>Measurement type:</u>	CF Accumulated cubic feet
DG/CHP Useful Heat Recovery	<u>Engineering Units:</u> <u>Heat Measurement Type:</u>	MBtu/hr Calculated from 1 minute analog flow and temperature data
DG/CHP Unused Heat Recovery	<u>Engineering Units:</u> <u>Heat Measurement Type:</u>	MBtu/hr Calculated from 1 minute analog flow and temperature data
DG/CHP Status/Runtime	<u>Engineering Units:</u> <u>Measurement Type:</u>	Hours Calculated based on generator output

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Facility Purchased Energy	<u>Engineering Units:</u> <u>Measurement Type:</u>	kWh Measured kW / data interval
Facility Purchased Demand	<u>Engineering Units:</u> <u>Measurement Type:</u>	kW Measured kW
Other Facility Gas Use	<u>Engineering Units:</u> <u>Measurement Type:</u>	- -

Table 2 Event Timeline

Date	Event
February 13, 2018	Data collection begins
February 20, 2018	Added to NYSERDA website.
July 28, 2020	Gas meter readings are incorrect beginning January 20 th , 2020 resulting in inaccurate operational efficiencies. Generator fuel input is flagged and is now only visible with the data quality flag off.
July 29, 2020	Gas meter readings are correct beginning July 29 th , 2020. Improper grounding at the gas meter was identified as the issue causing the inaccurate readings.
August 26, 2020	Revenue grade Shark power meter measuring net system power output lost communications. Gross power from displayed on website until power meter issue resolved.
February 10, 2021	Communications issue with Shark meter resolved. Net power displayed on website going forward from this date.

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Range Checks

Table 3. Range Checks

Data Point	Units	Hourly Data Calculation Method	Database Lower Range	Database Upper Range	Notes
DG/CHP Generator Output (WG_d)	kWh/int	Sum	-10	320	-
DG/CHP Generator Output Demand (WG_KW_d)	kW	Max	-10	320	-
DG/CHP Generator Gas Use (FG_d)	cf/int	Sum	0	6000	-
Total Facility Purchased Energy (WT_d)	kWh/int	Sum	0	1000	-
Total Facility Purchased Demand (WT_KW_d)	kW	Max	0	1000	-
Other Facility Gas Use (FT_d)	cf/int	-	-	-	-
Useful Heat Recovery (QHR_d)	MBtu/hr	Avg	0	6000	-
Unused Heat Recovery (QD_d)	MBtu/hr	Avg	0	6000	-
Status/Runtime of DG/CHP Generator (SG_d)	hr	-	0	1	System Off/System On
Ambient Temperature (TAO)	°F	Avg	-20	130	<i>WUG Airport Code - JFK</i>

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Relational Checks

Table 4. Relational Checks

Evaluated Point	Criteria	Result
Electricity Generated	Fuel Consumed > 0 and Electricity Generated Invalid	Fuel Consumed = invalid
Fuel Consumed	Electricity Generated > 0 and Fuel Consumed Invalid	Electricity Generated = invalid