SYRGDC – Database Notes

Table 1 Database Notes

Data Collection	Data Logger: Data Collection Interval: Collection Method:	PLC control system 15 – minute FTP over site internet/daily
Site Information	Cogeneration Units: Nameplate Capacity: Heat Recovery Medium: Heat Recovery Uses: Excess Heat:	(12) - 65 kW Natural gas fired Capstone Hybrid UPS Microturbines 780 kW Hot Water Space Heating/Cooling, Domestic Hot Water, Supplies heat to the absorption chillers Rejected from hot water loop to heat exchanger connected to cooling tower
DG/CHP Generator Electrical Output	Engineering Units: Energy Measurement (net/gross): Measurement Type: Generator Power Measurements: Parasitic Power Measurements:	kW/kWh Gross Accumulated energy per interval 8 total – four to the data, one to the utility connection, two to the utility connection , two to the battery bank 2 total – one for each parasitic panel
DG/CHP Generator Electrical Output Demand	Engineering Units: Measurement Type:	kW From power measurement, based on peak 15-min power
DG/CHP Generator Fuel Input	Engineering Units: Measurement type:	SCFM Form-A Pulse signal
DG/CHP Useful Heat Recovery	Engineering Units: Heat Measurement Type:	MBtu (calculated value) Sum of four thermal loops (2 chilled water and 2 hot water) flowmeter and multiple temperature sensors per loop.

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DG/CHP Unused Heat Recovery	Engineering Units: Heat Measurement Type:	Not collected
DG/CHP Status/Runtime	Engineering Units: Measurement Type:	Not collected
Facility Purchased Energy	Engineering Units: Measurement Type:	
Facility Purchased Demand	Engineering Units: Measurement Type:	
Other Facility Gas Use	Engineering Units: Measurement Type:	Not collected

Table 2 Event Timeline

Date	Event
May 28, 2010	Data collection begins
September 1, 2011	Monitored data available in an hourly format on NYSERDA's DG website

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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	-50	200	
DG/CHP Generator Output Demand (WG_KW_d)	kW	Max	-50	800	
DG/CHP Generator Gas Use (FG_d)	cf/int	Sum	0	8000	
Total Facility Purchased Energy (WT_d)	kWh/int	-	-500	500	
Total Facility Purchased Demand (WT_KW_d)	kW	-	-800	2500	
Other Facility Gas Use (FT_d)	cf/int	-	-	-	Not collected
Useful Heat Recovery (QHR_d)	MBtu/int	-	-60	5000	Calculated Value
Unused Heat Recovery (QD_d)	MBtu/int	-	-60	5000	Calculated Value
Status/Runtime of DG/CHP Generator (SG_d)	hr	-	-	-	
Ambient Temperature (TAO)	°F	Avg	-30	130	Ambient Temperature

Notes:

1. This table contains values from *syrgdc.csv*

Relational Checks

Table 4. Relational Checks

Evaluated Point	Criteria	Result

Notes:

1. This table contains values from *relational_checks.pro*