

ONEIDA COUNTY SEWER DISTRICT WPCP – DATABASE NOTES

Table 1 Database Notes

Data Collection	Data Logger: Data Collection Interval: Collection Method:	Facility BMS System 15-minute Interval Nightly FTP transfer to Frontier Energy servers
Site Information	DER Unit (make & model): Nameplate Capacity: Heat Recovery Medium: Heat Recovery Uses: Excess Heat:	Capstone C600S 600 kW on Biogas Hot Water Digester heating, space heating Vented to atmosphere via exhaust bypass dampers
DER Electricity Generated (WG)	Engineering Units: Energy Measurement (net/gross): Measurement Type:	kWh Gross Calculated from accumulated kWh/int from installed Shark 100 power meter
Biogas to Generator (FGE)	Engineering Units: Measurement type:	cf Calculated from accumulated cf/int from installed Fox FT2A gas meter
Biogas to Flare (FGF)	Engineering Units: Measurement type:	cf Calculated from 15-minute average cfm values from unknown meter
H2S to Scrubber (H2S_IN)	Engineering Units: Measurement type:	ppm Daily samples from installed AMI 3010BR H ₂ S Analyzer
H2S to Generator (H2S_OUT)	Engineering Units: Measurement type:	Ppm Daily samples from installed AMI 3010BR H ₂ S Analyzer
Methane Content (CH4)	Engineering Units: Measurement type:	% CH ₄ Calculated from weekly % CO ₂ samples taken using Draeger Tubes

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Table 2 Event Timeline

Date	Event
12/9/2019	Data collection and web reporting begins
1/14/2020 to 2/5/2020	PLC programming error resulted in repeating WG and FGE values – invalid data zeroed out.

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Range Checks

Table 3 Range Checks

Data Point	Units	Database Lower Range	Database Upper Range	Notes
DER Electricity Generated	kWh/hour	0	650	
Biogas to Generator	cfh	0	15,000	
Biogas to Flare	cfh	0	15,000	
H2S to Scrubber	ppm	0	5,000	
H2S to Generator	ppm	0	5,000	
Methane Content	%	0	100	
Ambient Temperature	°F	-20	130	NOAA Airport Code - KSYR

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Relational Checks

Table 4 Relational Checks

Evaluated Point(s)	Criteria	Result