BOXLER – DATABASE NOTES

Table 1 Database Notes

Data Collection	Data Logger: Data Collection Interval: Collection Method:	Red Lion data loggers 15-minute Automated Frontier Energy Python script; catcher.py
Site Information	DER Unit (make & model): Nameplate Capacity: Heat Recovery Medium: Heat Recovery Uses: Excess Heat:	Guascor MGG-950 400 kW Hot Water Digester Heating Rejected to atmosphere using dump radiator
DER Electricity Generated (WG)	Engineering Units: Energy Measurement (net/gross): Measurement Type:	kWh Gross Accumulated energy from Intelisys NT engine controller
Biogas to Generator (FGE)	Engineering Units: Measurement type:	cf Accumulated cf from Sage gas meter
Biogas to Flare (FGF)	Engineering Units: Measurement type:	cf Accumulated cf from Sage gas meter
H2S to Scrubber (H2S_IN)	Engineering Units: Measurement type:	ppm INCA gas analyzer; 30-minute samples
H2S to Generator (H2S_OUT)	Engineering Units: Measurement type:	ppm INCA gas analyzer; 30-minute samples
Methane Content (CH4)	Engineering Units: Measurement type:	% CH_4 INCA gas analyzer; 30-minute samples

BOXLER – DATABASE NOTES

Table 2 Event Timeline

Date	Event
December 2, 2009	Data collection for new ADG system, from Red Lion data logger, begins. Data points include FGE, FGF.
February 17, 2010	Generator power output added to logged data file.
May 27, 2015	Scrubber installation is completed. Scrubber data points CH4, H2S_IN, and H2S_OUT added to website.

BOXLER – DATABASE NOTES

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	20,000	
Biogas to Flare	cfh	0	20,000	
H2S to Scrubber	ppm	0	4,000	
H2S to Generator	ppm	0	4,000	
Methane Content	%	0	100	
Ambient Temperature	°F	-20	130	NOAA Airport Code - KBUF

BOXLER – DATABASE NOTES

Relational Checks

Table 4 Relational Checks

Evaluated Point(s)	Criteria	Result