

125 BROAD STREET – DATABASE NOTES

Table 1 Database Notes

Data Collection	Data Logger: Data Collection Interval: Collection Method:	Tecogen Installed CHPInsight 15-min Daily Email to Frontier
Project Information	DER Unit (make & model): Nameplate Capacity: Heat Recovery Medium: Heat Recovery Uses: Excess Heat:	Eight (8) Tecogen Inverde INV-125e+ Units 1000 kW Hot Water Domestic Hot Water (DHW), Space Heating, Absorption Chiller Rejected by dump Radiator
DER Electricity Generated (WG)	Engineering Units: Energy Measurement (net/gross): Measurement Type:	kWh/hour Net Power (calculated from gross and estimated parasitic load) Calculated using the kW measurements from site meters installed on the eight units
DER Fuel Consumed (FG)	Engineering Units: Measurement type:	cfh Calculated using measured gross power output and manufacturer’s fuel input ratings from NYSERDA CHP Acceleration Catalogue.
DER Heat Used (QU)	Engineering Units: Heat Measurement Type:	MBtu/hr
DER Heat Rejected (QR)	Engineering Units: Heat Measurement Type:	MBtu/hr

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Table 2 Event Timeline

Date	Event
December 17, 2024	Data collection begins
December 31, 2024	Power and gas data posted to the DER website. Site is working on providing heat recovery data. One time data upload received; site is working on providing daily data transfers to Frontier.

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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	1100	
DER Fuel Consumed	cfh	0	12000	
DER Heat Used	MBtu/hour	0	6000	
Ambient Temperature	°F	-20	130	NOAA Airport Code - KLGA

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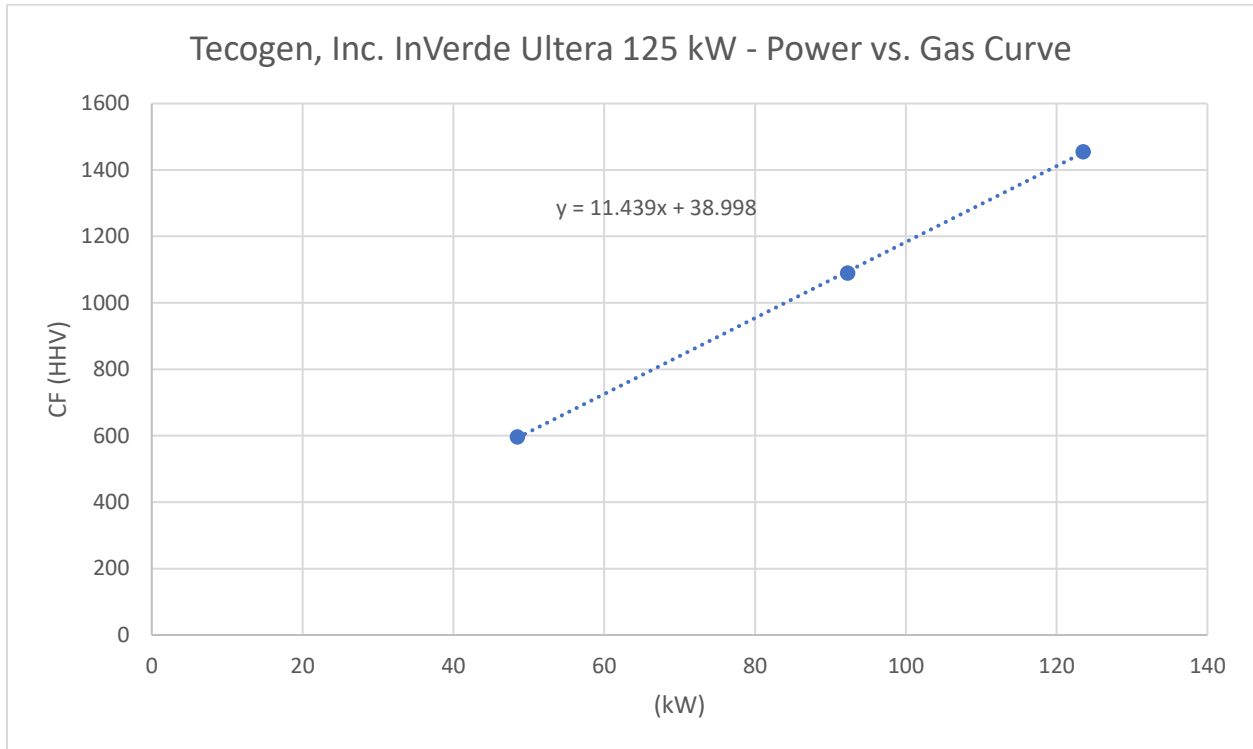
Relational Checks

Table 4 Relational Checks

Evaluated Point(s)	Criteria	Result
Electricity Generated Fuel Consumed	Daily Electric Efficiency < 0% HHV and > 100% HHV	Electricity Generated = invalid Fuel Consumed = invalid Heat Used = invalid Heat Rejected = invalid

125 BROAD STREET – APPENDIX A

Gas data is calculated from power generation by using gas curve developed from the NYSERDA CHP Acceleration performance values for the eight (8) Tecogen, Inc. InVerde Ultra 125e+ units.



Power generation (**WT_KW**), gas consumption (**FG**):

$$FG_x = 11.439 (WT_x_KW) + 38.998$$

$$FG = FG1 + FG2 + FG3 + FG4 + FG5 + FG6 + FG7 + FG8$$