

555 WEST 23RD – DATABASE NOTES

Table 1 Database Notes

Data Collection	Data Logger: Data Collection Interval: Collection Method:	Tecogen control system 15 – Minute FTP Upload to Frontier servers
Site Information	DER Unit (make & model): Nameplate Capacity: Heat Recovery Medium: Heat Recovery Uses: Excess Heat:	Two (2) Tecogen INV-100 e+ Units 200 kW Hot Water Domestic Hot Water (DHW) and space heating Rejected by dump radiator
DER Electricity Generated (WG)	Engineering Units: Energy Measurement (net/gross): Measurement Type:	kWh/hour Net Power (calculated from gross and parasitic measurements) Calculated using kWh measurements from INV-100 unit and provided parasitic load data.
Electric Utility Import (WI)	Engineering Units: Measurement Type:	kWh/hour Calculated using kWh measurements from power meter.
DER Fuel Consumed (FG)	Engineering Units: Measurement type:	cfh Calculated using accumulated cf from gas meter.
DER Heat Used (QU)	Engineering Units: Heat Measurement Type:	MBtu/hour Calculated using temperature and flow measurements from BTU meters installed on the heat recovery loops.
DER Heat Rejected (QD)	Engineering Units: Heat Measurement Type:	MBtu/hour Calculated using temperature and flow measurements from BTU meters installed on the heat recovery loops.

555 WEST 23RD – DATABASE NOTES

Table 2 Event Timeline

Date	Event
July 28, 2019	Data collection begins for North and South Tower systems.
October 16, 2019	Gas data reporting begins for North and South Tower systems.
February 25, 2020	Parasitic data corrected for North Tower system.
February 27, 2020	Data received for North and South Tower systems.
March 9, 2020	Added to NYSERDA website. Rejected heat recovery is not being posted due to measurement issues.

555 WEST 23RD – DATABASE NOTES

Range Checks

Table 3 Range Checks

Data Point	Units	Database Lower Range	Database Upper Range	Notes
DER Electricity Generated	kWh/hour	-10	220	<i>Combined Generation for North and South Tower Systems</i>
Electric Utility Import	kWh/hour	0	1,600	<i>Utility Import for Building</i>
DER Fuel Consumed	cfh	0	3,000	<i>Combined Fuel Consumed for North and South Tower Systems</i>
DER Heat Used	MBtu/hour	0	1,600	<i>Combined Heat Used for North and South Tower Systems</i>
DER Heat Rejected	MBtu/hour	0	1,600	<i>Combined Heat Rejected for North and South Tower Systems</i>
Ambient Temperature	°F	-20	130	NOAA Airport Code - KLGA

555 WEST 23RD – DATABASE NOTES

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