# Palace Hotel – Database Notes

**Table 1 Database Notes**

| | | |
|---|---|---|
| **Data Collection** | Data Logger:<br>Data Collection Interval:<br>Collection Method: | Obvius Aquisuite<br>15– minute<br>Obvius Upload |
| **Site Information** | Cogeneration Units:<br>Nameplate Capacity:<br>Heat Recovery Medium:<br>Heat Recovery Uses:<br>Excess Heat: | (12) – 65 kW Capstone Microturbines<br>780 kW<br>Hot Water<br>Domestic Hot Water, Space Heating/Cooling<br>Rejected from chiller heat exchanger dump radiator (heating season) or DHW loop heat exchanger dump radiator (cooling season) |
| **DG/CHP Generator Electrical Output** | Engineering Units:<br>Energy Measurement (net/gross):<br>Measurement Type:<br>Generator Power Measurements:<br>Parasitic Power Measurements: | KW/kWh<br>Net calculated: gross minus parasitic load from chiller<br>Accumulated energy per interval<br>2 – one for each bank of (6) microturbines<br>One time measurement |
| **DG/CHP Generator Electrical Output Demand** | Engineering Units:<br>Measurement Type: | kW<br>From energy measurement, based on peak 15-min power |
| **DG/CHP Generator Fuel Input** | Engineering Units:<br>Measurement type: | CF<br>4 – 20 mA Hot wire anemometer |
| **DG/CHP Useful Heat Recovery** | Engineering Units:<br>Heat Measurement Type: | MBtu (calculated value)<br>BTU meter installed on hot water header leaving microturbines. Meter reports, flow, temperatures, and BTUs.<br>Chilled water produced by absorption chiller is also measured, but not reported in useful heat recovery, as it is derived from the hot water produced by the turbines. |

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| | | |
|---|---|---|
| | | |
| **DG/CHP Unused Heat Recovery** | Engineering Units:<br>Heat Measurement Type: | Not collected |
| **DG/CHP Status/Runtime** | Engineering Units:<br>Measurement Type: | 0 – 1, System On/System Off |
| **Facility Purchased Energy** | Engineering Units:<br>Measurement Type: | Not collected |
| **Facility Purchased Demand** | Engineering Units:<br>Measurement Type: | Not collected |
| **Other Facility Gas Use** | Engineering Units:<br>Measurement Type: | Not collected |

**Table 2 Event Timeline**

| Date | Event |
|---|---|
| November 1, 2013 | Logging begins. |
| November 4, 2021 | RSP Systems replaced the power meter for each turbine bank at the site. |
| November 29, 2021 | Back data from replacement power meters uploaded to DER Website. |

# Palace Hotel – Database Notes

## *Range Checks*

**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 | 0 | 40 | |
| DG/CHP Generator Output Demand (WG_KW_d) | kW | Max | 0 | 300 | |
| DG/CHP Generator Gas Use (FG_d) | cf/int | Sum | 0 | 12000 | |
| Total Facility Purchased Energy (WT_d) | kWh/int | - | 9 | 100 | |
| Total Facility Purchased Demand (WT_KW_d) | kW | - | 9 | 400 | |
| Other Facility Gas Use (FT_d) | cf/int | - | 0 | 90000 | |
| Useful Heat Recovery (QHR_d) | MBtu/int | - | -500 | 6000 | |
| Unused Heat Recovery (QD_d) | MBtu/int | - | - | - | Not installed |
| Status/Runtime of DG/CHP Generator (SG_d) | hr | - | 0 | 1 | 0 – 1, System On/System Off |
| Ambient Temperature (TAO) | °F | Avg | -20 | 130 | WUG Airport Code - LGA |

Notes:

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

## *Relational Checks*

**Table 4.  Relational Checks**

| Evaluated Point | Criteria | Result |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  |  |

Notes:

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