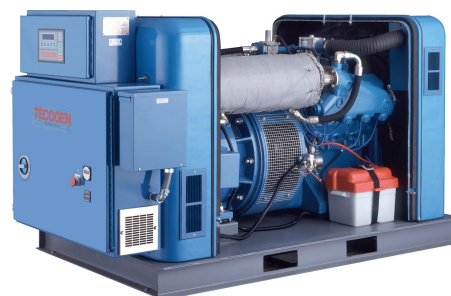




TerraShares™
Green for Business

CHP Project Qualification Survey

Combined Heat and Power (CHP) integrates the production of usable heat and power (electricity), in one single, highly efficient process. Because CHP must deal with two primary energy systems— heat and power generation — we will need a fair amount of data to determine CHP feasibility.



General CHP application

- Gas consumption data/bills for a year
 - Gas type
 - consumption — Btu/therms & \$\$
 - vendor & gas rate structure
- Electric consumption data/bills for a year
 - Consumption in kWh & \$\$
 - Electric rate plan and structure
 - Any programs that alter consumption - TVA demand response, etc
- Demand charges for a year
 - Demand charges by TOU, is variable
 - Estimate of the frequency and duration of demand peaks
 - Major users of power and their schedule
 - Estimate of base load (w/o A/C) — by month
 - Need for UPS — not required or in place
- Process & Building occupancy
 - Description of facility
 - Building size, % conditioned and not conditioned
 - Operating hours — days/yr, days/week, hrs/day
 - Weekend, holiday, shut down occupancy
 - Policies that affect consumption — i.e., HVAC shuts down at 3 pm?
 - Processes requiring heat, cooling other than HVAC
 - Description of restrictions — sound attenuation, gas emission, basement, etc
- HVAC equipment & specs
 - Boilers, chillers, # roof top units, water heaters, process heaters, etc.
 - Specs — number of units, sizes, models, inputs/outputs
 - architectural drawings are always helpful
- Any other energy saving measures already in place or planned

Process Heat

- Description of source(s) of recoverable heat

Non-HVAC Heat Loads

- Indoor swimming pool
 - Volume of pool (l, w, d)
 - Supply rate (gpm)
 - Supply temperature
 - Description of room/enclosure

- Method of conditioning room
 - Construction of walls & roof
 - Existing heating method
 - Dehumidification method
- Domestic water heating load (showers, sauna, steam room, etc.)
- Manufacturing plant processes
- Greenhouse
- Other - Project-specific conditions may require additional information