

## CORPORATE OVERVIEW

Cogeneration Consultants, founded in 1991, has provided its clients with energy saving solutions for their businesses. The efficient use of electrical and thermal resources is of primary concern. Cogeneration Consultants assists automotive suppliers, steel plants, food processing, landfills and hospitals with their major energy projects. These solutions provide the means for their customers to control energy costs. They also provide customer choices to manage energy suppliers and cost escalation. The primary means for the energy savings is cogeneration. Cogeneration is the use of a single energy source, usually natural gas, to create two simultaneous energy products, usually electricity and steam (or hot water). The electricity generated is used to offset purchases from the electric utility and the steam (hot water) offsets steam (hot water) boiler fuel. The cogeneration process utilizes up to 80% of the input to create the outputs, thus displacing processes that are 30 to 70% efficient. The efficiency of the cogeneration system creates the savings.

Principals, Alan B. Croll, CCP and Frank S. Woodbridge, PE, have over 40 years of combined experience in the cogeneration field. Cogen Consultants has demonstrated the capability of providing all services required by its customers to build and operate cogeneration systems. These services include feasibility analysis, engineering, programming, project management, startup, training and performance verification.

## INSTALLATIONS

- Four cogeneration commercial installations from 60 to 125 kW with hot water heat recovery and parallel operation with the utility.
- One 500 KW industrial, cogeneration installation with steam heat recovery and parallel operation with the utility.
- Two 1500 KW cogeneration (total energy) plants with steam heat recovery for process steam for a steel pickling company. These facilities are isolated from the electric utility; providing the total energy needed for the plants.
- One 4000 KW cogeneration (total energy) plant with steam heat recovery for space conditioning. This is a totally air-conditioned (steam absorption chiller) manufacturing and engineering education facility.
- Nine waste to energy plants in 5 states (land fill gas generation of electricity for a local utility), varying in size from 2 MW to 7 MW.
- Feasibility studies and construction documents for several plants were prepared for the above landfill owner. These plants were not constructed for various reasons relating to permitting and corporate issues.
- Numerous cogeneration feasibility studies have been prepared for commercial and industrial customers.
- We have been retained by the local gas utility to review possible cogeneration candidates.
- Assistance with utility contract issues, both gas and electric.
- One cogeneration, 3600 horsepower, engine-driven ammonia refrigeration system restoration with hot water heat recovery for process heating for a meat processor.
- Two 1.9 MW gas turbine generators, with high-pressure steam heat recovery for a hospital. The generators are operated in parallel with the electric utility. We continue to work for the hospital as a technical consultant to verify contract performance by the third party supplier of the system and improve the system operation to achieve the desired economic goals.

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