

PARTIAL LIST OF COGENERATION PROJECT

CLIENT/LOCATION	PROJECT DESCRIPTION	SCOPE OF SERVICES
Itochu Tokyo, Japan/ Batangas, Luzon Island, Philippines	304 MW Cogeneration Plant in combined cycle mode using LSWR oil/Gas as fuel with auxiliary steam generators and desalination facilities.	Due Diligence review of all Technical and Operational issues to ascertain the Feasibility and Profitability of the Project.
Halla Engineering & Heavy Industries, Seoul, Korea	Cogeneration Plant using Siemens GT units producing about 145 MW power and process steam for power plant.	Feasibility Study including Optimization Studies, Cost Estimate, Financial Analysis, Preliminary Engineering.
Synergics Energy Development Inc., Trenton, New Jersey	Cogeneration Plant at College of New Jersey with gas turbine power 3.1 MW and process steam 42,500 lbs./hr.	Provided all information required for DCA approval, Detail Engineering and Design for Phase 2, Preparation of Construction Documents, Vendor Drawing Review, Technical Advice during Construction, Construction Monitoring, Preparation of As-Built Drawings, Prepare Soil Erosion Plan and Application, Detailed Design and Structural Calculations for Site Retaining Wall
Yale University New Haven Connecticut, USA	5 x 500 KW Diesel Generators for Central Power Plant modernization and cogeneration plant with gas turbine power generation 3 x 6.1 MW and 3 x 80,000 lbs./hr steam Gas turbine Power. Scope includes consolidation of complete electrical power supply system and upgrading of chilled water system.	Preliminary Design, Design Development, Specification, Detail Design Drawings and Cost Estimate.
Kamine Development Corporation, Beaver Falls, New York, USA	Cogeneration Combined Cycle Project of capacity 80 MW including gas turbine and steam turbine with steam supply for specialty paper plant. Project includes 7.6 miles of 115 kV transmission line and 115/230 kV Substation.	Post Contract Engineering including Review of Vendor Design and drawings, O&M manuals, P&A tests and Shop Inspection.
Kamine Development Corporation, Beaver Falls, New York, USA	Cogeneration Combined Cycle Project of capacity 79 MW including gas turbine and steam turbine with steam supply for hot water system for heating of New York State Fairground.	Post Contract Engineering including Review of Vendor Design and drawings, O&M manuals, P&A tests and Shop Inspection. Scope also includes detail engineering of steam & hot water distribution system.
KEMCO/James River Corporation, Milford, New Jersey	Cogeneration Project 30 MW electric power, 230,000 lbs./hr. steam	Basic and detailed engineering services including engineering services for refurbishing of 30 MW gas turbine installation.



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Saline Water Corporation, Medina-Yanbu, Saudi Arabia	Cogeneration plant with 2 x 75 MW power and steam supply for 30 MIGD desalination plant	Post Contract Engineering including Vendor Design review, shop inspection., start-up & commissioning and warranty period services.
Boeing Corporation, Philadelphia, Pennsylvania, USA	Cogeneration Plan with 6 MW electrical power and 30,000lbs/hr supply.	Study and basic & detailed engineering services, preparation of specification, bid evaluation and vendor drawing review.
E. R. Squibb & Sons New Brunswick, New Jersey, USA	Cogeneration Project: 1 x 8.8 MW Gas Turbine & 1 x 165,000 lbs./hr supplementary fired heat recovery boiler. The plant also includes two (2) package boilers of 95,000 lbs./hr. capacity each.	Basic detailed engineering. Preparation of specification, bid evaluation, project management and construction supervision.
ARCO Chemical Company Newtown Square, Pennsylvania, USA	Cogeneration Project. Dual fuel simple cycle 3.5 MW gas turbine with waste heat boiler.	Conceptual Design.
Tastykake, Inc., Philadelphia, Pennsylvania, USA	Cogeneration combined with thermal storage and waste heat utilization from trash burning. Selection of optimum project has 3.5 MW electricity and 200,000 lbs./hr steam cogeneration system.	Techno-economic feasibility study, conceptual design, design engineering, procurement, and construction supervision.
Kraft, Inc. Champagne, Illinois, USA	21 MW Cogeneration Project. High pressure boiler burning pulverized coal, supplying 250,000 lbs./hr. steam to multiple extraction condensing turbine-generator.	Techno-economic feasibility study, conceptual design.
Third Party/Developer Turnkey Contractor, USA	106 MW Cogeneration Project: 79 MW gas turbine with heat recovery boiler (supplementary and fired) with matching 27 MW steam turbine and supplying 302,000 lbs./hr. of process steam distribution.	Detailed engineering preparation of specifications, bid evaluation of auxiliary systems.
IPP, Hawaii, USA	200 MW Cogeneration Project: 2 x 75 MW gas turbines and 1 x 50 MW steam turbine, 2 unfired multipressure heat recovery boilers.	Review of plant design, QA/QC and project monitoring services, construction supervision.
Governor's Energy Council, Lancaster County Conservation, USA	200 tons per day resource recovery, 5 MW steam turbine and 150,000 lbs./hr. Steam	Techno-economic feasibility conceptual design, study of biomass burning technology, test buns for process selection & analysis of environment impacts.



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Menasha Corporation, Ostega, Michigan USA	Cogeneration Project: 210,000 lbs./hr. boiler for process steam & background turbine for 10.5 MW generation.	Techno-economic feasibility study.
Saline Water Conversion Corporation, Al-Jubail, Saudi Arabia	Cogeneration Project: 1375 MW power/250 MIGD desalination with 12 x 1,660,000 lbs./hr. boilers and 10 x MW turbo-generators.	Design, engineering, procurement, inspection construction management, and start-up & commissioning, warranty maintenance for 12 months after commissioning.
A. E. Staley Products/ J. A. Jones, Morrisville, Pennsylvania, USA	9 MW of power generation and 200,000 lbs./hr. of process steam.	Design, engineering, and preparation of O&M manual.
Ministry of Electricity, New Qidfa, Fujairah, U.A.E.	Cogeneration Project: 4 x 25 MW (ISO) gas turbines fitted with heat recovery boilers for 9 MIGD desalination plant.	Design, engineering and bid evaluation.
Ministry of Electricity and Water, Dubai, U.A.E.	Dubai East Coast Power/Desalination Plant: 2 x 100 MW gas turbines, 1 x 50 MW auto extraction condensing turbines and 20 MIGD desalination plant.	Feasibility study, preliminary engineering, and cost estimate
Rutgers University Camden, New Jersey, USA	Camden Campus: 2,000 KW cogeneration plant with gas turbine generators and waste heat boiler supplying hot water at 300°F.	Conceptual design, engineering, bid evaluation and project management.
Lederle Laboratories (a Division of American Cyanamid) Pearl River, New York, USA	Cogeneration Project: 2 x 8.3 MW gas turbines, dual fuel, simple cycle type.	Review of cogeneration system control, synchronizing protection and neutral grounding to ensure its power interconnection and operation with the utility's power system and Lederle's existing electrical distribution system.
Rohm and Haas Delaware Valley, Inc., Philadelphia, Pennsylvania, USA	Cogeneration Project	Study and analysis to assess cogeneration potential to reduce energy cost.
Saline Water Conversion Corporation, Tabuk, Saudi Arabia	Tabuk Desalination/Power Plant: 40 MIGD desalination, 400 MW generation.	Site selection, conceptual design, topographic survey, marine & investigation, design engineering, construction management, start-up and commissioning.
Geisinger Medical Center Danville, Pennsylvania, USA	Dual fuel gas turbine 3.7 MW (ISO) with waste recovery boiler generating 23,500 lbs./hr. of steam.	Techno-economic feasibility study, and conceptual design.



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Kraft, Inc., Wausau Wisconsin, USA	Cogeneration Project: 800 KW gas turbine with waste heat recovery boiler and generation of process steam.	Techno-economic feasibility study, and conceptual design.
Princeton University, Princeton, New Jersey, USA	12 MW Cogeneration Project	Pre-Investment Study
Nabisco Brands, Inc., Toledo, Ohio, USA	3 x 500 MW peak shaving and 4 to 8 MW cogeneration project.	Techno-economic feasibility study.
Fertilizer Corporation of India, Trombay, Durgapur, Gorakpur, India.	Process steam/generation plants 18, 15 and 12.5 MW. Each at 3 different sites.	Design, engineering, and inspection.
SPIC, RCF, GCFC, KBC, IFFCO, Tuticorin, Thal, Hazira, Phulpur, India	18, 30, 12.5 and 15 MW power and steam cogeneration for 5 different projects.	Design, engineering and inspection
Hindustan Lever Ltd. (Lever Brother) Bombay, India	Cogeneration Plant	Design, engineering, and project management.
Hindustan Lever Ltd. (Lever Brother) Calcutta, India	Cogeneration Plant	Design, engineering, and project management.
National Aluminum Co. New Delhi, India	Steam and captive power generation at Damaanjodi for Orissa Aluminum Complex	Design, engineering, project management services. Services include procurement, inspection, expediting, start-up, commissioning and initial operation.
Oil and Natural Gas Commission, Bombay, India	Cogeneration at Hazira	Project report and feasibility study.;

