PARTIAL LIST OF REHABILITATION PROJECTS

CLIENT	LOCATION	PROJECT DESCRIPTION	SCOPE OF SERVICES
Ministry of Electricity and Water, General Planning and Studies Directorate, Bahrain	Riffa'a Phase II Power Plant in Bahrain	5 Units of Siemens KWU Model V93.1 50 MW each Gas Turbine Units	Rehabilitation Work including development of planning report, technical specifications and tender document, tender evaluation, assistance in contract preparation, review of vendor design and drawings, shop inspection, supervision of construction at site, supervision of start-up, testing and commissioning, overall project management and warranty period services.
Ministry of Works Power and Water Manama, Bahrain	Ras Abu Jarjur Desalination Plant	10 MGD R.O. to be expanded to 15.84 MGD Desalination Plant, including rehabilitation of control system.	Design, Engineering, Procurement including Specification, Bid Evaluation, Vendor Drawing Review, Shop Inspection, Construction Supervision and Supervision of Testing and Commissioning.
Saline Water Conversion Corporation (SWCC), Saudi Arabia Shoaiba Phase 1 and Shuqaiq Thermal Power Plant retrofit	Shoiaba, Saudi Arabia Shuqaiq, Saudi Arabia	5 boilers 400 TPH each 3 boilers 400 TPH each	Engineering services including review of vendor design and drawings, and supervision of site construction, testing and commissioning for retrofit of electrostatic precipitator and other work for burning heavy fuel oil.
Ministry of Electricity and Water	Sana'a, Republic of Yemen	Transmission Upgrade and Expansion Feasibility Study for interconnection of the new power station in Marib to the main load center in Sana'a by installing a 132 kV & 400 kV transmission line and reinforcing the grid system in other respects, including adding new high voltage capacity to handle the major new generation capacity.	Review of the existing systems, studies and database; review of the load forecast, planning and operation criteria and principles; transmission system analysis, determining main parameters of line substations; cost estimates, economic and financial analysis; environmental assessment, preparation of tender documents and implementation schedule; and final report on business briefing.

PARTIAL LIST OF REHABILITATION PROJECTS

CLIENT	LOCATION	PROJECT DESCRIPTION	SCOPE OF SERVICES
A. M. Al-Issa Consulting Engineers/ Saudi Electricity Corporation – Western Region	Jeddah, Saudi Arabia	380 kV Substation Project380/110 & 13.8 kV switchgear with the extension of existing substation NAH including civil works, one 380 kV double circuit to loop 380 kV HVE-SHOAIBA circuit, 110 kV power cables, pilot cables & fiber optic cable with all required protection, LDC and SCADA system. Additional circuit 380 kV 2500mm^{2}XLPE (9 km) between Jeddah North 380 kV and FSL including civil works, one 380 kV cable feeder bay, control and protection, LDC and SCADA system	Design review, supervision of erection, testing and commissioning, warranty period services and project management.
Wyeth-Lederle Vaccines & Pediatrics	Marietta, Pennsylvania, USA	Electrical System Upgrading Including 69/12.47 kV Substation	Preparation of Design Basis Report, Design development, Preparation of equipment specifications, Bid evaluation Vendor drawing review, Preparation of construction drawings and documents, Assistance during construction and commissioning
Atlantic Electric Company, New Jersey	Beesley Point, New Jersey, USA	B.L. England 160 MW Unit 3 Coal Fired Thermal Power Station.	Plant rehabilitation work including Engineering Preparation of Construction
Atlantic Electric Company, New Jersey	Beesley Point, New Jersey, USA	B.L. England 160 MW Units 1, 2, and 3, 150 MW & 160 MW Coal Fired Thermal Power Station.	Plant rehabilitation work including Design and Engineering for Replacement of the Existing Soot Wash Sump Pumps, Valves, Controls, Interlocks, Power Supply, etc.

PARTIAL LIST OF REHABILITATION PROJECTS

CLIENT	LOCATION	PROJECT DESCRIPTION	SCOPE OF SERVICES
Delmarva Power and Light Company, Delaware, USA	Edge Moor, Delaware, USA	Edge Moor Plant Units 3, 4, & 5, 150 MW each Coal Fired Thermal Power Station.	Plant Rehabilitation Work including design, engineering, procurement, specifications, construction drawings and technical Assistance during construction for: - Addition of lube & seal oil filtration system. - Addition of a new cooling water heat exchanger for Unit 4. - New filter and control for fly ash silo.
Delmarva Power and Light Company, Delaware, USA	Indian River, Delaware, USA	Indian River Units 1, 2, & 3 Coal Fired, 2 x 89 MW and 1 x 160 MW Thermal Power Station.	Plant rehabilitation work including design, engineering, procurement, specifications, construction drawings and technical Assistance during construction for: - Replacement of Feed Water Heaters. - Improvement of Steam Heating & Condensate System.
Electricity Generating Authority of Thailand (EGAT) Thailand	North Bangkok, Thailand	North Bangkok Unit 2 Oil/Lignite Fired Thermal Power Station	Investigation and Study for rehabilitation and modernization of the plant with objectives of increasing life by 15 years upgrading capacity to the extent feasible and modernization of instrumentation and control.
Delhi Electric Supply Undertaking, India	New Delhi, India	Coal Fired Indraprahtha Power Station Units 2, 3, & 4 each 62.5 MW Coal Fired Power Station.	Investigation and Study with objectives of increasing output, improving reliability, increasing life expectancy and modernization of I & C.
Kamine Development Corporation (IPP)/James River Paper Company, New Jersey, USA	Milford, New Jersey, USA	Cogeneration Facility with GT capacity 25 MW	Engineering for refurbishing of the GT unit and increasing it's capacity to 30 MW by steam injection producing process steam with heat recovery boilers using GT exhaust heat. Scope included procurement assistance and witnessing of performance testing.

PARTIAL LIST OF REHABILITATION PROJECTS

CLIENT	LOCATION	PROJECT DESCRIPTION	SCOPE OF SERVICES
Public Establishment of Electricity (PEE) Syria/Forney International, USA (Turnkey Contractor)	Mehardeh, Syria	2 x 160 MW and 2 x 165 MW Oil Fired Thermal Power Stations.	Conversion of fuel from oil to oil and natural gas with necessary modifications in the control systems, Scope included design, engineering, procurement, construction drawings and supervision of construction and commissioning on behalf of the Turnkey Contractor.
Indiana University Pennsylvania (IUP), Pennsylvania, USA	IUP Campus, Indiana, Pennsylvania, USA	4 x 6 MW Diesel Generator Power Station.	Installation of a new tall stack to meet environmental requirements. Scope included study, design, specification, bid evaluation, construction drawings and periodic supervision during construction and commissioning.
Yale University, New Haven, Connecticut, USA	Yale Campus, Connecticut USA	Central Power Plant Modernization and Addition of Cogeneration Plant with gas turbine power generation 3 x 4.5 MW and 3 x 80,000 lbs./hr. steam supply. Also includes consolidation of complete electric power supply and upgrading of chilled water system.	Study, basic design, detail design, specification, bid evaluation, construction drawings and supervision at site of construction and commissioning.
U.P State Electricity Board, India	Obra, U.P. India	3 x 100 MW and 4 x 210 MW Coal Fired Obra Thermal Station.	Investigation and study with objective to increase plant life, bring rating, modernize instrument and control and improve reliability.
Department of General Services, Harrisburg, USA	Camp Hill, Pennsylvania, USA	Two Boilers of 35,000 pph and One Boiler of 70,000 pph and a common bag filter and ash handling system.	Basic engineering, detail engineering, specification, bid evaluation, issue of construction drawings and technical assistance during construction & commissioning for: - Rehabilitation of one boiler. - Addition of a bag filter for the 3 boilers. - Addition of an ash handling system for the bag filter

PARTIAL LIST OF REHABILITATION PROJECTS

CLIENT	LOCATION	PROJECT DESCRIPTION	SCOPE OF SERVICES
Lederle Laboratories New York, USA (A Division of American Cyanamid Company)	Pearl River, New York	Upgrading and Expansion of Existing 4.16kV Electrical Distribution System and Introduction of 13.2 kV Bulk Power Distribution System.	Study, Design and Engineering preparation of Bid Documents, Post Contract Design Review and Preparation of O&M Manual.
Department of General Services, Harrisburg, USA	Philadelphia, Pennsylvania, USA	Philadelphia State Hospital Renovation of Existing Secondary Electrical Systems	Renovating the Existing Secondary Electrical System which includes: upgrading the main distribution panel, replace all lighting and power panels and replace the branch circuits in poor condition.
Tastykake Inc. Philadelphia, Pennsylvania	Philadelphia, Pennsylvania, USA	Master Power Plan for next 10 years of the Tastykake Facility	Analysis of the Existing Electrical System with respect to present facility requirements and noting deficiencies in their system. Recommendation of an upgraded system to be adequate for their present facility needs. Development of a Master Power Plant to ensure that a reliable power supply will be established to fit the Facility Expansion Programs for the next 10 years.
Mobil Oil Corporation, Paulsboro Refinery , Paulsboro, New Jersey	Paulsboro, New Jersey, USA	Design of new 2400V Water Treater Load Center and Assocaited Load Transfer Survey.	Calculations and studies design engineering and preparation of specifications, construction drawings and bid packages complete with bill materials, preparation of cost Estimates and Construction schedules, bid evaluation and updating documentation.
ARCO Chemicals Company, Newtown Square, Pennsylvania	Newtown Square, Pennsylvania, USA	Planning and Implementation of Facility Electrical System Upgrade	Study to analyze the system, evaluate various categories of electrical load and design a reliable distribution system.
ARCO Chemicals Company, Newtown Square, Pennsylvania	Newtown Square, Pennsylvania, USA	Upgrading of Primary 13.2 kV Switchgear. Modification of the secondary substations.	Detail Engineering services of the 13.2 kV Switchgear and secondary distribution system.
Philadelphia Thermal Energy Corporation, Philadelphia, Pennsylvania.	Philadelphia, Pennsylvania, USA	UPS System for Boiler Plant and Replacement of Pilot Exciter of Turbo-Generator.	Engineering review of the project and recommend scheme with economic justification.