

## DETAILED DESIGN PROJECT EXPERIENCE

CLIENT	PROJECT	LOCATION	MW
Pattern Energy	SCADA and Communications Design and Owner's Engineering Services	United States	2500
ALSTOM Power	Manjung 2100 MW Coal-Fired Power Plant	Malaysia	2100
Bhimasena Power Indonesia	2x1000 MW Central Java Coal-Fired Power Plant	Indonesia	2000
Public Utility District No. 2 of Grant County	Priest Rapids & Wanapum Dam Hydro	United States	1800
Louisiana Generating	3 x 560 MW Big Cajun No. 2 Western Coal-Fired Power Plants	United States	1680
Gulf Energy Development Company, Ltd.	Twelve SPP Power Island Major Equipment Specification and Selection	Thailand	1470
Gulf Electric Company, Limited	2 x 734 MW Kaeng Khoi 2 Gas-Fired Power Project	Thailand	1468
Adani Power Ltd.	2 x 660 MW Mundra Coal-Fired Supercritical Power Project	India	1320
General Electric Company	Dezhou Coal Fired Facility 2 x 660	China	1320
AES Corporation	Southland Repowering Projects - Huntington Beach, Redondo Beach, Alamitos	United States	1280
Northeast Electric Power Design Institute	1200 MW Balloki Combined Cycle Power Plant	Pakistan	1200
Northeast Electric Power Design Institute	1180 MW Bhikki Combined Cycle Power Plant	Pakistan	1180
Advanced Power Services (NA)	Crickett Valley Energy Center		1100
Gemma Power Systems	1050 MW Caithness Freedom Generation Plant	United States	1050
Calpine Corporation	1038 MW Greenfield Energy Center Combined Cycle Project	Canada	1038
Old Dominion Electric Cooperative	1020 MW Rock Springs Generation Simple Cycle Power Plant	United States	1020
Tyr Energy	Hickory Run Energy Center 1000MW Combined Cycle Project	United States	1000
Calpine Corporation	1,000 MW Deer Park Energy Center Combined Cycle Cogeneration Project	United States	1000
Foster Wheeler Pyropower	4 x 250 MW Petcoke Fired Reliance Jamnagar CFB Power Plant	India	1000
Cogentrix	4 x 250 Mangalore Thermal Pulverized Coal-Fired Power Plant	India	1000
City of Vernon	900 MW Vernon Project Combined Cycle	United States	900

ALSTOM Power	Meramec IV 850 MW Coal Mills	United States	850
Gemma Power Systems	829 MW Panda Liberty Combined Cycle Generation Plant	United States	829
Gemma Power Systems	829 MW Panda Patriot Generation Plant	United States	829
Paiton Energy	815 MW Paiton Private Power Project III Pulverized Coal-Fired Power Plant	Indonesia	815
Dorad Energy Ltd.	800 MW Combined Cycle Power Plant	Israel	800
Calpine Corporation	800 MW Baytown Energy Center - Combined Cycle Cogeneration Plant	United States	800
Gemma Power Systems	785 MW Towantic Energy Center	United States	785
Competitive Power Ventures	785 MW Towantic Combined Cycle Energy Center Project	United States	785
Mitsubishi Power Systems	750 MW XCEL Comanche III Boiler	United States	750
Kansas City Power & Light	KCP&L La Cygne Generating Station Unit 1 Bottom Ash Conversion	United States	750
Kansas City Power & Light	KCP&L La Cygne Generating Station Unit 2 Bottom Ash Conversion	United States	717
Siemens Power Generation	700 MW Longview Power Project	United States	700
Henan Electric Power Corporation	Henan, Yuzhou Coal-Fired Power Plant Project	China	700
Old Dominion Electric Cooperative	700 MW Marsh Run Generating Simple Cycle Power Plant	United States	700
Calpine Corporation	700 MW Decatur Combined Cycle Cogen Energy Center	United States	700
Footprint Power	700 MW Salem Harbor Energy Center Repowering - Combined Cycle Repowering	United States	700
Siemens Energy	660 MW Carmon Creek Cogeneration Plant	Canada	660
Hess Corporation	655 MW Newark Energy Center Construction Services	United States	655
South Houston Green Power, LLC	650 MW Texas City Combined Heat and Power	United States	650
Cogen Technologies	645 MW Linden Combined Cycle Power Plant	United States	645
Seminole Electric Cooperative	Seminole Generating Station	United States	620
Associated Electric Cooperative Inc.	600 MW Dell Power Plant Combined Cycle Project	United States	600
Sempra Energy	600 MW Cedar Power Project Combined Cycle Power Plant	United States	600
Sempra Energy	600 MW Catoctin Power Project - Combined Cycle Power Plant	United States	600
HDR, Inc.	600 MW Twin Oaks 3 Coal-Fired Power Plant	United States	600
Sempra Energy	600 MW MC Energy Combined Cycle Power Plant	United States	600
Sempra Energy	Sempra 600 MW South Shore Combined Cycle Power Plant	United States	600
Central Maine Power Company	600 MW W.F. Wyman Station Unit No. 4	United States	600
Calpine Corporation	600 MW Metcalf Energy Center- Combined Cycle Plant	United States	600
Siemens Westinghouse	600 MW Wansley Plant Unit 8 - Combined Cycle	United States	600

GE Power Systems	597 MW Ras Abu Fontas Frame 9FB Desalination Plant I&C	Qatar	597
Calpine Corporation	560 MW Channel Energy Center Combined Cycle Power Plant	United States	560
Stonegate Power LLC	560 MW Middlesex Energy Center	United States	560
Old Dominion Electric Cooperative	560 MW Louisa Generation Simple Cycle Power Plant	United States	560
Calpine Corporation	York Energy Center 550 MW CCGT	United States	550
Siemens Westinghouse	550 MW Big Sandy Energy Project Facility	United States	550
Colorado Energy Management	550 MW Combined Cycle Hobbs Generating Station	United States	550
Siemens Westinghouse	550 MW Blythe Power Center - Combined Cycle Plant	United States	550
Toshiba International Corporation	545 MW Valladolid III Energy Center - Combined Cycle	Mexico	545
Calpine Corporation	540 MW Westbrook Merchant Plant	United States	540
Consolidated Edison Company of New York	520 MW Con Edison New Hampshire Combined Cycle Power Plant	United States	520
Florida Power & Light	520 MW Putnam Combined Cycle Plant - Units 1 and 2 Post-Operation Upgrade Projects	United States	520
Associated Electric Cooperative Inc.	AECI Chouteau Water Treatment Facility	United States	520
Bayonne Energy Center	512 MW Bayonne Simple Cycle Plant	United States	512
M.A. Mortenson Company	500 MW Mortenson Navitas Gas Turbine Peaking	United States	500
Calpine Corporation	500 MW Otay Mesa Generating Combined Cycle Plant	United States	500
Santee Cooper	500 MW Cross Generating Station Pulverized Coal-Fired Power Plant	United States	500
Associated Electric Cooperative Inc.	Associate Electric Coop. Chouteau 2 Combined Cycle	United States	500
Big Rivers Electric	440 MW D.B. Wilson Unit 1	United States	440
Intergen	Rijnmond II 428 MW Combined Cycle Plant	Netherlands	428
Wolverine Power Supply Cooperative	Alpine Generating Power Plant	United States	405
NRG Energy	Portland Generating Station Units 1 & 2, Fuel Oil Addition	United States	401
BHE Renewables	Grande Prairie Wind Farm	United States	400
FirstEnergy	400 MW Yards Creek Pumped Storage Hydro	United States	400
Lill & Difazio Constructors LLC	York Energy Centre 393 MW Gas-Fired Peaking Station	Canada	393
U.S. Department of Energy	380 MW LMFBR Clinch River Breeder Reactor Project	United States	380
General Electric Company	357 MW Invenegy Cannon Falls Energy Center	United States	357
General Electric Company	Kalina Bottoming Cycle 350 MW Reference		350
Siemens Power Generation	350 MW Combined Cycle Caithness Power Plant	United States	350
Primoris Services Corporation	340 MW Doswell Energy Expansion Project	United States	340

Topaz Power Group	Nueces Bay Unit 7 Repowering	United States	325
Topaz Power Group	Barney Davis Power Plant Unit 2 Repowering	United States	324
Kansas City Power & Light	KCP&L West Gardner Generating Station Combustion Turbine Generator Facility	United States	320
Kansas City Power & Light	South Harper Peaking Facility New Combustion Turbines 315MW	United States	315
AES Corporation	AES OE Services-Masinloc Expansion Project	Philippines	300
Key Span Corporation	270 MW Ravenswood Cogeneration Power Plant	United States	270
Skanska	256 MW Kendall Generating Station	United States	256
City Utilities of Springfield	James River Power Station Dry Fly Ash Handling System	United States	255
Calpine Corporation	250 MW Freeport Energy Center Combined Cycle Cogeneration Project	United States	250
Consolidated Edison Company of New York	250 MW Con Edison Massachusetts Combined Cycle Power Plant	United States	250
Public Service Company of New Mexico	245 MW Afton 7FA Combined Cycle Conversion	United States	245
Essar Group	200 MW ESSAR Steel Boiler Modifications	India	200
Southern California Public Power Authority	200 MW Simple Cycle Canyon Power Plant	United States	200
CPS Energy	200 MW Braunig Peaking Simple Cycle Project	United States	200
PT Graha Power Energy	100 MW Circulating Fluidized Bed Coal-Fired Power Project	Indonesia	200
Group Five	Ibom Power Plant	Nigeria	200
CalEnergy Generation	180 MW Salton Sea 6 Conceptual Design	United States	180
PCL Constructors	180 MW JEA Kennedy Station 7FA Simple Cycle Gas Turbine Installation	United States	180
Public Service Company of New Mexico	164 MW Afton OE 7FA Simple Cycle	United States	164
FirstEnergy	320 MW Gilbert Generating System Combined Cycle Plant		160
Encogen Northwest L.P.	160 MW Encogen Northwest Cogeneration Combined Cycle Power Plant	United States	160
FirstEnergy	160 MW Gilbert Generating Station Combustion Turbine Plant Expansion	United States	160
Edison Mission Energy	Goat Mountain Wind Farm	United States	150
North American Power Group	150 MW Humboldt Bay Power Replacement	United States	150
Black Hills Corporation	Valencia 148 MW GE 7FA Simple Cycle	United States	148
Edison Mission Energy	Mountain Wind I Transmission Line Upgrade Owner's Engineering	United States	141
Imperial Irrigation District	140 MW El Centro Unit 3 Repower	United States	140
City of Vernon	138 MW Malburg Combined Cycle Plant	United States	138
Group Five	Aba Power Plant	Nigeria	120

Barrick Goldstrike Mines	114 MW Barrick Gold Mines OE Recip	United States	114
PT Thiess Contractors Indonesia	Darajat III 110 MW Geothermal	Indonesia	110
Lansing Board of Water & Light	110 MW REO Town Cogeneration Power Plant	United States	110
Panda Energy Corporation	Agua Fria Solar Project	United States	110
Imperial Irrigation District	100 MW Niland Gas Turbine Plant	United States	100
Mitsubishi Heavy Industries	Cerro Prieto 100 MW Geothermal Plant and 161 kV Substation	Mexico	100
John F. Kennedy International Airport	100 MW JFK Int. Airport Energy Center Combined Cycle Power Plant	United States	100
City Utilities of Springfield	McCartney Generating Station Combustion Turbine Generator Facility	United States	100
Jacobsen Elektro	Ubungo 100 MW Natural Gas-Fired Power Plant	Tanzania, United Republic of	100
AES Corporation	99 MW Placerita Cogeneration Facility	United States	99
Riverside Public Utilities	96 MW Riverside Energy Resource Center Units 1 & 2	United States	96
Calpine Corporation	Calpine 96MW Riverside LM6000 Peaking	United States	96
Riverside Public Utilities	96 MW Riverside Energy Resource Center Phase II, Units 3 and 4	United States	96
Public Service Electric & Gas Company	Linden Black Start Generation Project	United States	96
Primary Energy	Cokenergy FGD System Upgrades	United States	95
Edison Mission Energy	Sleeping Bear 94 MW Wind OE Support	United States	94
BowArk Energy Ltd	Queenstown Power Plant EOR	Canada	90
San Diego Gas and Electric	San Diego Gas & Electric Combustion Turbine Generator Facility	United States	90
ProEnergy Services	Agilon Energy 2xLM6000 Combustion Turbine Generator	United States	88
Montana-Dakota Utilities Company	R.M. Heskett Station Combustion Turbine Generator Addition	United States	88
LS Power Development LLC	Wallingford Units 6 and 7 Combustion Turbine Generator Addition 2xLM6000	United States	88
Centrales de los Costa Atlantica S.A.	2xLM6000 CT Generator Addition Central 9 de Julio Plant Expansion	Argentina	88
PowerSouth Electric	PowerSouth Charles R. Lowman Power Plant Unit 1 Upgrade	United States	85
Covanta Energy	84 MW/1800 TPD Covanta H-Power WTE Facility	United States	84
Calpine Corporation	80 MW Bethpage III Combined Cycle	United States	80
Zorlu Energy	80 MW Kizildere II Geothermal Detail Design	Turkey	80
American Bituminous Power Partners, L.P.	80 MW Grant Town Waste Coal-Fired Facility Bituminous Gob-Fired Circulating Fluidized Bed	United States	80
Ansaldo North America,	2 x 40 MW Bahia Las Minas Units 3 & 4 Oil Fired Power	Panama	80

Incorporated	Plant Rehabilitation		
Kansas City Power & Light	Osawatomie Generating Station Combustion Turbine Generator	United States	80
Polaris Infrastructure	77 MW Polaris Energy Nicaragua, San Jacinto-Tizate Geothermal Power Plant	Nicaragua	77
Electricity Generating Authority of Thailand	75 MW Khanom Barge Mounted Oil/Gas Fired Power Plant	Thailand	75
Güris Holding	Germencik Geothermal Binary Plants OE Services	Turkey	68
Zorlu Energy	Kizildere-3 Unit 2 Detailed Design	Turkey	65
Covanta Energy	2800 TPD/65 MW Essex County Waste-to-Energy Project / Essex Baghouse Project	United States	65
Robins & Morton	LEPA 64 MW Unit 1 Combined Cycle	United States	64
Tutor Perini Corporation	USACE MED Khor Al Zubayr 64 MW Gas Turbine	Iraq	64
Mitsubishi Heavy Industries	Olkaria II Units 1 & 2 64 MW Geothermal	Kenya	64
Louisiana Energy and Power Authority	64 MW Combined Cycle Project	United States	64
Wheelabrator	Frederick and Carroll County WTE	United States	55
Mitsubishi Heavy Industries	Mindanao I 52 MW Geothermal Power Plant	Philippines	52
Mitsubishi Heavy Industries	Mindanao II 52 MW Geothermal Power Plant	Philippines	52
Commonwealth Utilities Corporation	52 MW Saipan Diesel Power Plant	Northern Mariana Islands	52
Energy Development Corporation	Mt. Apo Geothermal Power Plant Assmt.	Philippines	51
Mitsubishi Heavy Industries	50 MW Los Azufres III Geothermal	Mexico	50
CEC Africa	Freetown 50MW HFO Power Plant Owner's Engineering	Sierra Leone	50
City of Redding	45 MW Combined Cycle Unit 5	United States	50
Ameren Corporation	Venice Power Station Combustion Turbine Generator No. 2	United States	50
Flint Hills Resources	Pine Bend Refinery	United States	50
Calpine Corporation	The Geysers Lakeview Plant (Unit 17) NCG System and Sulfur Handling System Upgrades	United States	49
Greenleaf Power LLC	49 MW Colmac Biomass Wood-Fired Power Plant	United States	49
Cyrq Energy	Patua Performance Improvement Study	United States	48
Calpine Corporation	48 MW Bethpage LM6000 Peaking	United States	48
Calpine Corporation	48 MW Wolfskill LM6000 Peaking	United States	48
Calpine Corporation	48 MW Riverview LM6000 Peaking	United States	48
Güris Holding	47 MW Germencik I Dual-Flash Geothermal	Turkey	47
Güris Holding	47 MW Germencik II Geothermal Flash Plant	Turkey	47
SWS Natural Resources	Kilgarvan 45 MW Wind Farm	Ireland	45
City of Redding	45 MW Unit 6 Combined Cycle Power Plant Design	United States	45

Zorlu Energy	45 MW Alasehir Geothermal Power Plant	Turkey	45
Value Management Strategies	Bjarmarflag Value Engineering	Iceland	45
Calpine Corporation	45 MW KIAC LM6000 JFK International Airport	United States	45
ALSTOM Power	45 MW MMPA Chaska Station Gas Turbine	United States	45
Veizades & Associates	Berlin Unit 3 Design Support	El Salvador	44
The Walsh Group	42 MW Gas Turbine Facility Nissequogue Cogeneration Plant	United States	42
Tutor Perini Corporation	40 MW Buzurgan Gas Turbine	Iraq	40
Tutor Perini Corporation	USACE MED Nasiriyah 40 MW Gas Turbine	Iraq	40
Mercator Minerals	40 MW LM6000PF (Bluefish Energy) Generator Project Detailed Design	United States	40
Merck & Co.	West Point Boiler and Cogeneration Project	United States	40
Edison Mission Energy	Lookout 38 MW Wind Project	United States	39
The Industrial Company	Heber 33 MW Binary Cycle Geothermal	United States	33
Cinergy	BP/Cinergy Solutions Chocolate Bayou CHP Project 80 MW Combined Cycle Cogeneration	United States	33
Mitsubishi Heavy Industries	32 MW Olkaria II Unit 3 Geothermal Plant	Kenya	32
CalEnergy Generation	30 MW BAGS Binary Geothermal	United States	30
Municipal Light & Power	30 MW Unit 3 Replacement	United States	30
Calpine Corporation	30 MW The Geysers Units 25 and 27 Initial Engineering	United States	30
U.S. Department of Energy	Alamosa CPV Solar, Loan Guarantee IE Review	United States	30
Edison Mission Energy	Forward 29 MW Wind Project	United States	29
Diamond Energy	29 MW Bakersfield Cogeneration Facility	United States	29
Mitsubishi Heavy Industries	Miravalles III 27.5 MW Geothermal	Costa Rica	28
Brady Power Partners	Brady Hot Springs 27 MW Geothermal Power	United States	27
Kansas Municipal Energy Agency	Jameson Energy Center Combustion Turbine Generator Facility	United States	27
Enel	25 MW Enel Cove Fort Geothermal Gathering System	United States	25
Mitsubishi Heavy Industries	MHI Project X Bid Support	Mexico	25
Energy Holding Steel Division	Enerjeo Kemaliye Bid Review	Turkey	24
Electric Power Research Institute	Neal Hot Springs Hybrid Cooling Study	United States	22
CP Kelco	22 MW Kelco Cogen Plant	United States	22
Edison Mission Energy	Crosswinds Wind Project OE Support	United States	21
Edison Mission Energy	Jeffers Wind Project OE Support	United States	21
The Industrial Company	20 MW TEP Valencia Gas Turbine Peaker	United States	20
Public Utility District No. 1 of Snohomish County	254 MW Garland Geothermal Conceptual Design	United States	20

AltaGas	20 MW / 80 MWh Pomona Battery Storage Project	United States	20
Panda Energy Corporation	20 MW Pilesgrove Solar Project PV Installation	United States	20
Industrial del Hierro	20 MW Industrial Del Hierro Geothermal Power Plants	Mexico	20
Enel	17 MW Enel Stillwater CSP Solar/Geothermal Augmentation	United States	17
Edison Mission Energy	Hardin Wind Project OE Support	United States	15
Princeton University	15 MW Gas Turbine Cogeneration Plant	United States	15
University of Medicine & Dentistry of New Jersey	14 MW Cogeneration Plant and Upgrade of Boiler Plant	United States	14
Rutgers University	13.5 Busch Campus Cogeneration Plant	United States	14
PacifiCorp	13MW Binary Bottom Cycle Addition	United States	13
The Industrial Company	Rye Patch 12.5 MW Binary Cycle Geothermal	United States	13
DG Energy Solutions	13.4 MW King's Plaza Shopping Mall Cogeneration Project	United States	13
Covanta Energy	Bristol Resource Recovery Facility	United States	13
Wheelabrator	12 MW Wood-Fired Plant Power System Study & Modifications	United States	12
Solar Turbines	12 MW Solar Turbines University of Arizona Combined Cycle Cogeneration Plant Design	United States	12
Maspo Enerji A.S.	Maspo Project Definition	Turkey	10
Maspo Enerji A.S.	Maspo Gathering System Detailed Design	Turkey	10
Solar Turbines	10 MW Solar Turbines Idaho Cogen	United States	10
Vestas Celtic Technology	Gneevies 9 MW Wind Farm	Ireland	9
EMCOR Energy Services	9 MW South Bay Cogeneration	United States	9
Andeavor	Kenai Refinery 8 MW Cogeneration Upgrade	United States	8
City of Santa Clara	6 MW City of Santa Clara Cogeneration Plant	United States	6
Pulama Lanai	5 MW Lanai Manele Power Plant OE	United States	5
Copper Valley Electric Association	5 MW Petro Star Cogen	United States	5
Eli Lilly and Company	5 MW Diesel Cogeneration Facility	Puerto Rico	5
EwingCole	4 MW Net Zero Facility Solar Photovoltaic Project	United States	4
Fuel Cell Energy	3.8 MW DFC3000 Power Plant	United States	4
Exxon	Exxon Cogeneration Facility	United States	4
Kvaerner Industrial Constructors	3 MW Western Renewable Energy Wood-Fired Power Plant	United States	3
Terra-Gen Power LLC	2.5 MW Beowawe Binary Geothermal Tie-in	United States	3
SunPower Corporation	Detailed Design for Standardized PV Station Inverter and Transformer Pad Assembly	United States	3
Merck & Co.	3 MW Oil-Fired Gas Turbine Cogen Plant	Puerto Rico	3
E.ON Climate & Renewables	Iron Horse Solar + Storage Project	United States	2



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Associated Electric Cooperative Inc.	AECI Units 1&2 Air Compressor Upgrade	United States	2
Trans Bay Cable LLC	Trans Bay Cable 1 MW Emergency Generation	United States	1

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