APPENDIX 5: DEVELOPMENT PLAN & SCHEDULE

- **A.** CPV SENTINEL COD PRESS RELEASE
- **B.** PROJECT SCHEDULE **(REDACTED)**
- **C.** PERMIT MATRIX **(REDACTED)**
- **D.** PROJECT EXPERIENCE
- **E.** LIST OF POTENTIAL SUB-CONTRACTORS **(REDACTED)**
- **F.** ELECTRICAL INTERCONNECT DESIGN DRAWINGS & SINGLE LINE DIAGRAM **(REDACTED)**
    - I. OVERALL POWER BLOCK DIAGRAM
    - II. ELECTRICAL INTERCONNECT ARRANGEMENT
    - III. ELECTRICAL GIS BUILDING PLAN
- **G.** SUPPORT LETTERS

News Release

California's Newest Power Plant Goes Online Three Months Early, in Time for Summer Heat

CPV, GE & DGC begin commercial operations at 800-megawatt CPV Sentinel Energy Project in Riverside County

DESERT HOT SPRINGS, CALIF.-May 16, 2013-California's newest power plant, the 800-megawatt CPV Sentinel Energy Project, has begun flowing electricity to the grid three months early, in time for the summer heat. Competitive Power Ventures, Inc. (CPV), GE (NYSE: GE) unit GE Energy Financial Services and Diamond Generating Corporation (DGC) said the California Independent System Operator (CAISO) and the California Energy Commission have declared commercial operations while the Chief Building Officer issued a final Certificate of Occupancy for the natural gas-powered plant in Riverside County.

The CPV Sentinel Energy Project is located near Desert Hot Springs, amidst wind farms producing 600 megawatts of electricity, five miles northwest of Palm Springs. The project uses the most modern "peaking" power generation technology available, the GE LMS100 aeroderivative gas turbine, to provide electricity to approximately 640,000 homes in Southern California Edison's service territory. Eight units with quick-starting and fast-ramping capability make the project a perfect fit for Coachella Valley residents during the summer days of triple-digit temperatures and peak energy use, while also backing up California's growing solar and wind farms that literally surround the plant.

"With California's San Onofre nuclear plant off-line and power reserve margins expected to be tight, it is more important than ever that the CPV Sentinel Energy Project be available to support electric reliability this summer," said John Murphy, Senior Vice President of Engineering and Construction for CPV. "Gemma Power Systems did a fantastic job of working with GE and our team to complete this project ahead of schedule and on budget."

Gemma Power Systems California, Inc. was the general contractor overseeing construction of the project, which created over 350 direct and indirect jobs and infused the local economy with approximately $30 million in sales tax. Over 731 thousand construction hours went into building the project. By providing a clear path to commercialize critical infrastructure projects, California leads the way in developing a clean and efficient energy sector.

Through payment for emissions offsets, the project has helped fund a wide array of air improvement initiatives in the Coachella Valley. Paid for entirely by CPV Sentinel, the South Coast Air Quality Management District has awarded nearly $53 million for 26 emission-reduction projects, including replacing or cleaning up school district buses, installing air filtration systems in classrooms and assisting local cities with solar panel installations and dust control.

The project uses Best Available Control Technology for air emissions and Zero Liquid Discharge for water usage, making it one of the state's most environmentally friendly natural gas-fired power generation facilities. The commencement of Sentinel's operations allows the grid operator to rely less on older and inefficient power generation.

The project is providing power based on short-term sales agreements now. Beginning in August, CPV Sentinel will supply electricity under a long-term power purchase agreement to Southern California Edison, an Edison International (NYSE: EIX) company. CPV, the managing member, developer and asset manager, owns 25 percent of the project, while DGC owns 50 percent and will serve as the plant's operator and GE Energy Financial Services owns 25 percent. The project is expected to provide $6.4 million in annual property taxes for the life of the asset.

GE's LMS100® aeroderivative gas turbine, which uses advanced intercooling technology, is the world's most efficient simple-cycle gas turbine. With an output of more than 100 megawatts, unmatched hot-day performance due to intercooling, and capable of operating on both gas and liquid fuels, the machine defines a new era of flexible and efficient power generation. The LMS100 provides full output within 10 minutes of a cold start. With unparalleled efficiency and flexibility, the LMS100 is an ideal solution for power generation planners and developers needing to support variable loads.

For more information please visit: www.cpvsentinel.com

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About Competitive Power Ventures

Competitive Power Ventures, LLC (CPV) is dedicated to increasing North America's sustainability; both economically and environmentally. Using domestically available energy sources, like wind and natural gas, and partnering with host communities to support their tax base and school districts, CPV works to stabilize and improve local and state economies. Headquartered in Silver Spring, Md., with offices in Braintree, Mass., San Francisco, Calif., and Toronto, Ontario, the company currently has 5,000 MW of conventional generation projects in various stages of development. The company's Asset Management division has ramped up to more than 4,200 MW of natural gas generation under management and has been expanding into wind generation facility management. CPV Renewable Energy Company (REC) is currently developing 1,300 MW of wind power projects across North America, with plans for more. CPV REC has recently expanded its development portfolio to include utility-scale solar power generation.

About GE Energy Financial Services
GE Energy Financial Services—GE's energy investing business—works as a builder, not just a banker, to help meet the world's power and fuel needs. We offer more than money—expertise—for essential, long-lived and capital-intensive power, oil and gas infrastructure—GE's core business. Drawing on GE's energy technical know-how, financial strength and risk management, we see value where others don't and take on our customers' toughest challenges with flexible equity and debt transaction structures. Based in Stamford, Connecticut, GE Energy Financial Services holds an approximately $20 billion global energy portfolio. More information: www.geenergyfinancialservices.com. Follow GE Energy Financial Services on Twitter: @GEEnergyFinServ

About GE
GE (NYSE: GE) works on things that matter. The best people and the best technologies taking on the toughest challenges. Finding solutions in energy, health and home, transportation and finance. Building, powering, moving and curing the world. Not just imagining. Doing. GE works. For more information, visit the company's website at www.ge.com.

About Diamond Generating Corporation
As a wholly owned subsidiary of Mitsubishi Corporation, one of the world's most diverse enterprises, with over 500 subsidiaries and affiliates worldwide, Diamond Generating Corporation ("DGC") has developed a reputation for financial strength and long-term stability. DGC's expertise in power development and generation, including greenfield development, acquisition, fuel procurement, financing, construction, operations services and asset management has resulted in a portfolio of efficient, state-of-the-art, environmentally sound generating facilities. Headquartered in Los Angeles, DGC currently owns 10 operating power generating facilities around the U.S. totaling 5,000MW, with about 1,850 MW of net equity. Of these projects, two are wind projects and the remainder of the portfolio is natural-gas fired. DGC currently operates four of its facilities in California.

# # #

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Hess Newark Energy Center
Newark, NJ

Name of Project
Hess Energy Center

Location of Project
Newark, NJ

Contract Value
Approximately
$350 million

Type of Project
Gas fired combined cycle

Year Completed
2015 (anticipated)

Contract Type
Self perform, EPC

Work Performed by Others
Possibly electrical

Work Self Performed
Civil, mechanical, structural, all equipment setting and boilermaker work

Owner's Company Name
Hess/EIF

Approximate Value of Project Performed by Offeror
$250 million

Final Completion Date
Still under construction

Skanska, along with joint-venture partner SNC Lavalin, was awarded a contract by Hess NEC, LLC to provide EPC services for construction of the new 655MW Hess Energy Center located at the Hess Newark Terminal site in Newark, New Jersey.

Skanska will self-perform all of the civil, mechanical, structural and portions of the electrical work as well as set all major equipment including the CTs, ST, HRSG. We will also self-perform all the boilermaker work needed for the cooling towers and HRSGs.

Located on the Hess Newark Oil Storage Terminal in Newark, NJ, the facility will feature a state-of-the-art 655MW 2 X 1 gas-fired combined cycle power station utilizing General Electric's (GE's) latest 7FA.05 combustion turbine technology (this will be the first GE .05 to go into commercial operation), along with GE's D11 steam turbine generator and two three-pressure heat recovery steam generators (HRSGs), a condenser and plant control system. The project will utilize proven advanced combustion turbine technology to generate power in a highly reliable, efficient and environmentally friendly manner. Plant design will incorporate innovative approaches to operating practices, staffing levels, maintainability, load dispatch and flexibility in responding to market demands.

The Hess Energy Center will significantly reduce harmful pollutants to neighboring communities by replacing power generated from older, more polluted generation sources. Natural gas for the Hess Energy Center will be delivered through an existing pipeline within a mile of the power station.

The Hess Energy Center is scheduled to be operational in 2015. It will be capable of producing 655MW of electricity, power more than 700,000 homes, and will provide a much needed economic boost to the local community and the city of Newark.

Hess is one of the largest providers of electricity, natural gas and fuel oil to commercial and industrial customers in the east coast.

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Astoria Phase II Energy Expansion Project
Centerline Equipment Installation
Astoria, NY

Owner
Astoria Energy II, LLC

Project Type
Power Generation

Contract Value
$24 million

Start Date
November 2009

Completion Date
December 2010

Major Facets
Installation of two GE 7FA combustion turbine generators and one D11 steam turbine generator

Just-in-time deliveries must be done daily due to limited laydown space

Majority of equipment is delivered via a barge

Skanska USA Civil Northeast was awarded a $24 million contract by Astoria Energy to install combustion and steam turbine generators at their power plant the Queens, NY neighborhood of Astoria. Astoria Energy entered into a twenty year contract with New York Power Authority to provide power to its governmental customers.

This project required precision setting and installation of two GE 7FA combustion turbines with 7FH2 “leads up” hydrogen-cooled generators (CTGs) and one GE D11 steam turbine with a 324 generator (STG) along with all accessory components. The Skanska team also installed inlet ducts, filter houses, exhaust ducts and all interconnected piping. Workers field assembled a D11 low pressure steam turbine along with the steam turbine generator.

Skanska accelerated installation of major components ahead of building steel construction to mitigate impacts of erecting large components within the confines of the power house building. Since the site does not afford laydown of materials, all deliveries had to be coordinated to minimize the amount of time between off-loading and installation. Just-in-time deliveries were coordinated on a daily basis.

The majority of the heavy equipment was delivered via barge, offloaded using marine derricks, transported on site using muli-axle Goldhofer trailers, and set using moveable gantries. Due to the complicated nature of the equipment being installed, the project required the use of precision setting, measuring and milling equipment.

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Ravenswood Cogeneration Power Plant
Long Island City, NY

Owner
KeySpan Energy Development Corporation

Project Type
Power Generation

Contract Value
$183 million

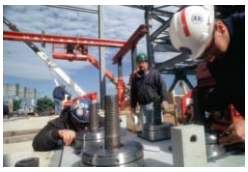
Start Date
November 2001

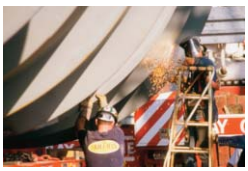
Completion Date
January 2004

Major Facets
The new generator utilizes state-of-the-art technology that is 30% more efficient than existing generators

The new unit adds 12% more generating capacity to the Ravenswood facility

The new generator produces emission rates more than ten times lower than standards proposed for 2003 in New York, the most stringent in the country





Skanska USA Civil Northeast was contracted to construct a 250 Mw cogeneration, combined-cycle power plant in Long Island City, NY. The plant owner is KeySpan Energy Development Corporation.

The plant utilizes a combustion turbine generator that outputs 160 megawatts, a heat recovery steam generator and a steam turbine generator that produces 90 megawatts. The plant was built on a 2.5-acre parcel of land at the existing Ravenswood Generating Station. The Ravenswood Station had a capacity of over 2,100 megawatts, about 25% of New York City's electric generating volume. The new unit added 12% more generating capacity to the facility.

The new generator produces electric power utilizing state-of-the-art technology that is more efficient than existing generators. The unit uses natural gas as a primary fuel and adheres to the latest stringent environmental standards. Increased efficiency, better technology, use of natural gas and use of pollution control technologies combine to result in a plant with very low emission rates.

The scope of work included relocation of existing utilities, site demolition and cleanup, and the drilling of caissons for the deep pile foundations, as well as placement of 12,000 cubic yards of concrete foundations. The contract also called for extensive architectural construction, such as erection of 3,800 tons of structural steel and placement of masonry block, acoustical siding, built-up roofing, and associated architectural finishes for the 47,000-square-foot powerhouse building. The team installed a 400-foot-tall, reinforced-concrete stack that features an 18-foot interior diameter lined with insulating steel.

A stand-out feature of this project was the installation of an 18-cell, air-cooled condenser. Due to space limitations, the unit had to be located on the roof of the facility. Because of the additional weight, larger caissons and structural steel components were needed. Skanska USA Civil Northeast was also responsible for erection of the gas insulated substation.

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ConEd East River Repowering Project
New York, NY

Owner
Consolidated Edison Company of New York, Inc.

Project Type
Power Generation; Plant Repowering

Contract Value
$235 million

Start Date
October 2002

Completion Date
December 2004

Major Facets
Performing contract in an existing, enclosed structure that houses a fully operational power plant

Construction of a state-of-the-art water treatment plant

Installation of 1,200 tons of structural steel

Installation of 100,000 linear feet of process pipe

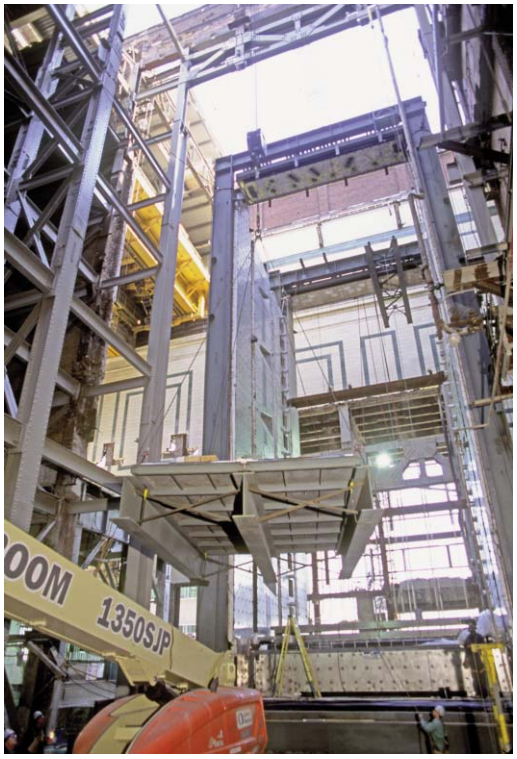
Overall annual emissions from the new facility are expected to be 70% less than those from the plant it is replacing

Skanska USA Civil Northeast continued its foray into the power market by securing a contract to repower one of Consolidated Edison Company of New York's largest and most significant combined-cycle power stations, the East River Generating Station. Situated on the east side of Lower Manhattan, the 43,000-square-foot facility produces electricity and steam for homes and businesses throughout New York City.

To repower the 360 megawatt power plant, the project team, which consisted of two Skanska USA Civil operating units, performed all civil, structural, electrical and mechanical work, including the installation of major equipment, such as: two GE Frame 7FA gas turbines, two Vogt-NEM, Inc. heat recovery steam generators and three Atlas Copco gas compressors. Skanska USA Civil Northeast's forces also installed over 100,000 linear feet of process pipe.

The project team was also responsible for the installation of all mechanical systems including the state-of-the-art water treatment plant, which featured a 9,000 GPM reverse osmosis system that produces high-quality water for steam generation. Electrical work encompasses the installation of 77,000 linear feet of conduit, 15,000 linear feet of cable tray, 665,000 feet of power and control cable, and 30,000 electrical terminations.

The most challenging aspect of the project was the logistical constraints posed by the equipment being placed inside an operating powerhouse. The state-of-the-art equipment was offloaded via barge from the Hudson River and then trucked over to the site. Workers then lowered the equipment into the plant through openings in the building's roof and sidewall. Major structural modifications to the existing building and shell were also a part of the project.



The completed East River Repowering Project produces a maximum steam generating capacity totaling approximately three million pounds per hour and a maximum electric generation capacity of 360 megawatts.

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New York Power Authority In-City Gas Turbines
New York City and Long Island, NY

Owner
New York Power Authority

Project Type
Power Generation;
Power Production Units

Contract Value
$225 million

Start Date
January 2001

Completion Date
June 2001

Major Facets
Installation of 11 new power production units constructed at seven sites

Work activities were performed simultaneously at all seven sites

The number of personnel on this assignment (1,500) made it one of the largest, most complex projects being constructed in New York City at the time

Project was completed in record time of five months

To provide additional capacity in order to prevent power outages in New York City during summer months, New York Power Authority awarded Skanska USA Civil Northeast a contract to install eleven 44 Mw General Electric LM 6000 turbine generator sets with pollution control equipment and stacks for each unit. The power production units, located at seven sites throughout New York City and Long Island, produce a total of 450 Mw. Subsidiaries Skanska Mechanical and Strucural and Underpinning & Foundation Skanska were also part of the team because of their expertise in providing turnkey construction services for the extremely aggressive schedule of five months.

In addition to the LM 6000 turbine generator sets, equipment installation included: selective catalytic reduction (SCR) units, stacks up to 150 feet tall, gas compressors, water tanks, auxiliary equipment buildings, control buildings, high-voltage transformers, and associated pumps, skids and compressors. The scope of work also called for the installation of over 1,400 piles, 60,000 linear feet of process pipe, 80,000 linear feet of underground conduit, 1,300,000 linear feet of control wiring, 475,000 linear feet of power wiring and placement of 20,000 cubic yards of concrete. The project team was also responsible for the placement of underground 138 kV high-voltage power cable to existing substations located as much as a mile away from each site.

At the peak of this fast-track assignment, over 1,500 staff and craft personnel were working at the sites: Hell Gate and Harlem River in the Bronx; Vernon Boulevard in Queens; 23rd & 3rd and 1st & Grand Avenue in Brooklyn; Pouch Terminal in Staten Island; and Brentwood, Long Island.

All of the units were completed and commissioned within the time frame. Skanska USA Civil's success constructing this project resulted in the award of many more contracts to construct power plant for the company.

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Brooklyn Supreme Court
Chiller/Boiler Plant and Electrical Systems Upgrade
Brooklyn, NY

Owner
New York City Department of Citywide Administrative Services

Client
New York Power Authority and Frederic R. Harris, Inc.

Project Type
Civil, Mechanical and Electrical; Upgrade of System

Contract Value
$5.5 million

Start Date
October 1999

Completion Date
March 2000

Major Facets
Procurement, installation, testing and commissioning of state-of-the-art boiler and cooling towers

Upgrade of electrical service and distribution

Skanska USA Civil Northeast served the New York Power Authority and Frederic R. Harris as general contractor for this $5.5 million design-build contract that encompassed installation of equipment necessary to rebuild the antiquated chiller plant and add a new 600-HP boiler to the existing boiler plant. The team was also responsible for replacing the controls needed to upgrade substandard electrical service.

The scope of work included procurement, installation, testing and commissioning of a 20,000 #S/hr. Unilux dual-fuel watertube high-pressure steam boiler for efficient low-load use; two 800-ton Marley cooling towers; three 500-ton Carrier electric drive centrifugal chillers; two 4,000-amp, 480-V, 3-phase service; two 1,600-amp distribution boards; a CB-panel upgrade; and a distribution transformer replacement.

The most challenging aspect of the project was working with the difficult logistics due to the complex configuration of the both the boiler and chiller plants, which were located in the sub-basement of the building, far below street level. The only entrance for the new chiller and boiler plant components was through the top of the boiler room, which necessitated temporary removal of existing equipment and piping blocking the entryway. To complete the project on schedule, Skanska started much of the demolition and piping fabrication and installation early on. hen the chillers were delivered in February 2000, Skanska was able to install, test and commission the units by March 30th of the same year.

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Port Jefferson Power Production Units
Port Jefferson, NY

Owner
KeySpan Energy Development Corporation

Project Type
Power Generation

Contract Value
$40 million

Start Date
January 2002

Completion Date
June 2002

Major Facets
Design and construction of 4,300-square-foot retaining wall structure

3,100 cubic yards of structural concrete foundations

10,000 linear feet of surface and underground process piping

2,100 linear feet of electrical duct banks with 225,000 feet of control wiring and 120,000 feet of power wiring

550,000-gallon water holding tank structure

Skanska USA Civil Northeast was awarded a $40 million contract from KeySpan Energy Development Corporation to construct an additional two-unit gas turbine generator power plant.

This power plant is located at KeySpan's Port Jefferson Energy Center in Suffolk County on the north shore of Long Island. The power units utilize General Electric LM6000 dual-fuel combustion turbine generators and were completed in time to meet the expected power peak demands during the summer months. The two units are designed to generate a total of 79.9 megawatts of electrical power.

Skanska USA Civil was the general contractor responsible for construction of the entire power plant and installation of all equipment including turbine generators, selective catalytic reduction (SCR) units, transformers, gas compressors, associated pumps and other key equipment. Additionally, the firm coordinated and assisted in the start up and commissioning of the equipment and systems.

Two Skanska USA Civil operating units worked on the project, which was the recipient of Skanska's Project of the Year Award.

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Glenwood Landing Power Production Units
Glenwood Landing, NY

Owner
KeySpan Energy
Development Corporation

Project Type
Power Generation

Contract Value
$33 million

Start Date
November 2001

Completion Date
May 2002

Major Facets
This facility will be among the cleanest and most efficient in New York State

Installation of two GE LM6000PC dual-fuel combustion turbine generators. Each equipped with a 11' diameter 105' tall steel stack and a five duct Selective Catalytic Reduction (SCR) unit

Construction of two 3,000-square-foot auxiliary equipment buildings

Installation of a 550,000-gallon steel water holding tank structure

130,000 square feet of site work including paving, drainage and an earth retaining wall structure

Skanska USA Civil Northeast constructed two power production units for KeySpan Energy Development Corporation at KeySpan's Glenwood Landing Energy Center, in the Town of Oyster Bay. The contract was valued at $33 million.

The power units, each equipped with a turbine generator, were completed in May 2002 to meet the increasing demand for power in the summer.

The two state-of-the-art power production units generate a total of 79.9 megawatts. The facility utilizes a simple-cycle configuration consisting of two General Electric LM6000 Gas Turbine (GT) Generators. The units primarily use natural gas as fuel but will also utilize low-sulfur kerosene as a backup fuel. The new generators utilize a highly efficient combustion system to control emissions.

Skanska USA Civil Northeast was the general contractor responsible for construction of the power stations, including two 146-foot-tall stacks, control and operations buildings, as well as installation of selective catalytic reduction (SCR) units, transformers, compressors, associated pumps and other key equipment. The scope of the work involved installation of 11,000 linear feet of surface and underground process pipe, 235,000 linear feet of control wiring and 85,000 linear feet of power wiring.

Two Skanska USA Civil operating units worked on this fast-track project, which won Skanska's Project of the Year.

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East River Repowering Project
Reverse Osmosis System
New York, NY

Owner
Consolidated Edison Company of New York, Inc.

Project Type
Mechanical

Contract Value
$235 million

Start Date
October 2002

Completion Date
February 2005

Major Facets
Construction of a five-story water treatment facility

As part of the $235 million East River Repowering project for Con Edison, Skanska constructed a state-of-the-art water treatment facility at the site. To increase the electric generating capacity of the facility, Skanska installed two GE-7FA dual-fuel combustion turbines, two heat recovery steam generators (HRSGs), a demineralization facility, and 80,000 feet of process piping.

Because the export steam is equally as important as electricity generated by the two new gas turbines installed at the facility, the water treatment facility had to be capable of supporting the power plant with zero reclaimed water. To provide the demineralized water, Con Ed chose a reverse osmosis system (RO) and continuous electrodeionization (CEDI). The East River Repowering Project took place in an existing structure within confined spaces, creating a logistical challenge. The RO/CEDI system was constructed by Skanska in the former location of a retired boiler. The water treatment facility is supplied by 20-inch diameter potable city water lines. These water lines support a 8500 GPM, 5-story water treatment facility.

The water system is much larger than average water systems for a power plant. This is due to the fact that the New York City district heating system dates back to the late 1800s and the steam distribution system was not designed for return of the steam condensate. The raw water feed to the water treatment system is supplied by the raw water pumps that take suction from a raw water storage tank. The water is chemically pre-treated and is passed through multi-media filters to remove small particulate matter. The filtered water is then injectedwith antiscalant and then passes through cartridge filters to remove additional small particulates and is treated with sodium bisulfite. Next, the water is forwarded to the inlets of the RO banks. RO permeate flows to the continuous electrodeionization banks. The CEDI product flows to the five demineralized water storage tanks while the CEDI reject flows to the decarbonators. The decarbonated CEDI reject is recycled back to the raw water storage tank.

The water treatment facility consists of five floors of the power plant building. The first floor houses a waste collection tank and transfer pumps. On the second floor are 10 sand and anthracite filter tanks (the initial step in the water treatment process). Along with the filter tanks are the four demineralized water forwarding pumps and the bases of the four converted coal silos which store 750,000 gallons of demineralized water. Skanska performed the necessary concrete repairs and modifications in order to repurpose the coal silos into water storage tanks. Additionally, the PLCs that control the water treatment process are located on this level. The facility's third and fourth floors make up the "heart" of the water treatment system which is the 9,000 GMP reverse osmosis systems and chemical injection systems which complete the process. The reverse osmosis sytem produces high-quality water for steam generation. Finally, the electrical switchgear and MCCs for the water treatment facility are located on the fifth floor.

In total, the new gas turbines at the East River facility produce in excess of 3.2 million/pounds per hour of steam to heat most of the buildings in lower and midtown NYC and this five story water treatment facility supplies enough water to maintain this process with zero reclaimed water.

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Bethpage Power Plant
Hicksville, NY

Owner
Calpine Corporation

Project Type
Power Generation

Contract Value
$21 million

Start Date
March 2002

Completion Date
June 2002

Major Facets
Combustion air chiller system with associated piping, pumps and glycol cooling equipment

900 cubic yards of structural concrete for six major and secondary equipment foundations

8,500 linear feet of surface and underground process piping

40,000 feet of conduit and 2,100 feet of cable tray with 200,000 feet of power and control cable

200-foot structural steel truss pipe rack support structure

Skanska USA Civil Northeast constructed this $21 million power plant for Calpine Corporation. The new plant is located at Calpine's Bethpage Energy Center in Long Island, New York. Work was completed in four months in order to meet the expected peak power demands during the summer months. The single-unit gas turbine plant generates a total of 48 megawatts of electrical power.

The facility is located adjacent to a Northrup Grumman Corporation facility. Electricity and steam generated by the Bethpage Power Plant are sold to Grumman under an energy purchase agreement.

Skanska USA Civil was responsible for construction of the entire power plant and coordinated and assisted with the commissioning and startup of the equipment and systems. The project team installed over 40,000 feet of conduit and 200,000 feet of various types of cable. The workers also installed the step-up 69 kV transformer and the associated switch yard.

The key aspect of this project was to meet the fast-track schedule, which from notice to proceed to mechanical completion was a short 90 days.

As a result of the extreme efficiency, teamwork and creative construction methodologies utilized on this assignment, the project team received several awards, including Skanska's Project of the Year and Industrial Project - Award of Merit from New York Construction News.

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SUNY Stony Brook Cogeneration Facility
Stony Brook, NY

Owner
Nissequoque Co-Gen Partners

Project Type
Power Generation; Cogeneration Facility

Contract Value
$14 million

Start Date
July 1994

Completion Date
March 1995

Major Facets
30,000 ft. of piping

Preinsulated steam loops

6" through 14" piping

Skanska USA Civil operating unit installed the equipment, piping and instrumentation for the 40-MW cogeneration facility located at the Stony Brook campus of the State University of New York.

Electricity is generated by a 6,000 lm gas-fired turbine unit. The exhaust gases from the turbine fire the heat recovery steam generator (HRSG), which was provided by Nooter-Eriksen Co. All work for both the equipment installation and piping was performed in strict accordance with ASME codes, documented and certified by our in-house QA/QC team.

Over 30,000 feet of piping was required at and around the units as well as steam, condensate, high-temperature hot water, high-pressure gas and fuel oil distribution piping throughout the campus and existing power houses located almost two miles away. In addition, double-wall piping systems were required for buried steam loops, fuel oil piping and chemical piping. All of the high-energy piping (high-pressure, high- temperature) were welded in strict accordance with ASME boiler codes, which required 100% X-ray of all joints by our certified welders.

Several months of preconstruc-tion planning with the owner, major equipment vendors and the engineer was required in order to perform work in accordance with the tight nine-month project timetable.

Skanska USA Civil forces performed the rigging of major pieces of equipment with our own forces. Some of the more complex schemes included the lifting of a 300,000-lb. boiler section and an 85,000-lb. generator into the turbine enclosure.

Gas Turbine E perience

Burns & McDonnell has been in the power engineering business since 1900. In addition, Burns & McDonnell has extensive experience with gas-fired units including simple cycle gas turbine, combined cycle gas turbine, cogeneration and repowering projects. We have been involved in over 25 gigawatts of gas-fired generation in the last 10 years, as Owner's Engineer, Design Engineer and as the EPC Contractor. We have the experience to upgrade or modify any system. Since 1968, we have worked with numerous brands and models of gas turbines. You won't find a better source for design, construction, troubleshooting and problem solving to get the best performance from your generating plant.

A featured project within our gas turbine experience is Alliant Energy's Power Iowa Energy Center. It was a successful development effort, with Burns & McDonnell managing the project from beginning to end. Burns & McDonnell served as multiple prime contractor for permitting, detailed design, procurement and construction management of the award-winning project. In initial phases, Burns & McDonnell provided support for siting, due diligence, technical support and capital cost estimates for a 550-megawatt natural gas facility with fuel oil backup capability. The facility was designed to incorporate two General Electric 7FA combustion turbine-generators coupled with two heat recovery steam generators (HRSG) and a common steam turbine generator operating in combined cycle mode of operation. Key features of the project include: first GE 7FA to have black-start capability, natural gas and fuel oil fired, high level of supplemental firing and power augmentation, utilize tertiary treated water for makeup water, low emissions, enclosed steam turbine, gas turbines and HRSGs and aggressive design and construction schedule.

Other gas turbine experience includes:

- Dominion Virginia Power – Warren County Generating Station
- Western Farmers Electric Cooperative – Mooreland Generating Station
- First Energy (Original Owner Calpine) – Fremont
- Trans Canada – Halton Hills
- Western Farmers Electric Cooperative – Anadarko
- Great River Energy – Cambridge Unit 2
- South Mississippi Electric Power Association – Moselle 5
- Alliant Energy – Sheboygan
- South Texas Electric Cooperative, Inc. – Sam Rayburn
- Arkansas Electric Cooperative, Inc – Fitzhugh Repower
- Alliant Energy – Emery Generating Station
- Lincoln Electric System – Salt Valley Generating Station
- Mirant – Sugar Creek
- CLECO – Perryville
- Ameren Services – Pinckneyville
- Tenaska/Great River Energy – Lakefield Junction
- CLECO – Perryville
- Mirant – Zeeland
- Gainesville Regional Utilities – John R. Kelly Unit 8
- Aquila – Clarksdale
- Tri-State Generation & Transmission, Inc. – Brighton Generation Project
- Sempra Energy Resources – Mesquite Power

Please find more of our gas turbine experience on the following pages.

Simple and Combined Cycle Gas Turbine Experience

Bank's Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2002	GB3	Aseambankers	Alstom	13E2	3	650	Combined Cycle	Commercial Operation
2000	Merida III	Kepler	Siemens Energy	SGT6-5000F (501F)	2	500	Combined Cycle	Commercial Operation
1999	Uni-Mar Marmara Ereglisi Power Station (Turkey)	Banque Paribas (Owned by International Power Europe)	Alstom	13E2	2	480	Combined Cycle	Commercial Operation
1997	Powertek Sdn Bhd Teluk Gong	Bank Bumiputra	GE	Frame 9EA	4	440	Simple Cycle	Commercial Operation
1997	Segari Energy Ventures Lumut Power Station (Malaysia)	Bank Bumiputra	Alstom	13E2	6	1306	Combined Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

Design Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2012	Moselle Repower	South Mississippi Electric Power Association	GE	Frame 7EA	2	280	Combined Cycle Repower	Commercial Operation
2011	Fremont Energy Center	American Municipal Power	Siemens Energy	SGT6-5000F (501F)	2	707	Combined Cycle	Commercial Operation
2009	Bob Orme	Western Farmers Electric Cooperative	GE	LM6000PC	3	120	Simple Cycle	Commercial Operation
2007	Cambridge Unit 2	Great River Energy	Siemens Energy	SGT6-4000F (V84.3A)	1	150	Simple Cycle	Commercial Operation
2004	Terry Bundy Generating Station (Formerly Salt Valley)	Lincoln (Nebraska) Electric System	GE	LM6000PC SPRINT	2	120	Combined Cycle	Commercial Operation
2004	Emery Generating Station	Alliant Energy	GE	Frame 7FA	2	500	Combined Cycle	Commercial Operation
2004	Keokuk Plant	Roquette America	GE	Frame 6B	1	70	CHP/Cogeneration	Commercial Operation
2003	Terry Bundy Generating Station (Formerly Salt Valley)	Lincoln (Nebraska) Electric System	GE	LM6000PC SPRINT	1	45	Simple Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

Design Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2003	Sam Rayburn	South Texas Electric Cooperative, Inc.	GE	LM6000PC SPRINT	3	190	Combined Cycle	Commercial Operation
2003	Fitzhugh Repower	Arkansas Electric Cooperative, Inc	Siemens Energy	SGT6-3000E (501D5A)	1	170	Combined Cycle Repower	Commercial Operation
2002	Brighton Generation Project	Tri-State Generation and Transmission, Inc.	GE	Frame 7EA	2	140	Simple Cycle	Commercial Operation
2002	Cascade Creek Unit 2	Rochester (MN) Public Utilities	P&W	FT8 Twin Pac	1	50	Simple Cycle	Commercial Operation
2001	Pinckneyville, Illinois	Ameren Services, Inc.	GE	Frame 6B	4	152	Simple Cycle	Commercial Operation
2001	Kelly Repower	Gainesville Regional Utilities	GE	Frame 7EA	1	125	Combined Cycle Repower	Commercial Operation
2001	Columbia, Missouri	Ameren Services, Inc.	GE	Frame 6B	4	152	Simple Cycle	Commercial Operation
2001	Limon Generation Project	Tri-State Generation and Transmission, Inc.	GE	Frame 7EA	2	140	Simple Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

Design Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2001	Rokeby Unit 3	Lincoln (Nebraska) Electric System	Alstom	11N1	1	80	Simple Cycle	Commercial Operation
2001	Kinmundy, Illinois	Ameren Services, Inc.	Siemens Energy	SGT6-3000E (501D5A)	2	240	Simple Cycle	Commercial Operation
2001	Grand Tower Repower	Ameren Services, Inc.	Siemens Energy	SGT6-5000F (501F)	2	546	Combined Cycle Repower	Commercial Operation
2000	Gibson City, Illinois	Ameren Services, Inc.	Siemens Energy	SGT6-3000E (501D5A)	2	240	Simple Cycle	Commercial Operation
2000	Coughlin Station Repower	CLECO, Inc.	Siemens Energy	SGT6-5000F (501F)	3	800	Combined Cycle Repower	Commercial Operation
1999	Lubbock Power & Light Plant 2 Repower	West Texas Municipal Power Agency	GE	LM6000PC SPRINT	1	70	Combined Cycle Repower	Commercial Operation
1999	Northwest Substation	Jonesboro, Arkansas	GE	LM2500	2	44	Simple Cycle	Commercial Operation
1997	Rokeby Unit 2	Lincoln (Nebraska) Electric System	Alstom	11N1	1	80	Simple Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

Design Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
1996	South Fond du Lac Combustion Turbine Project	WP&L/WPPI	Alstom	11N1	4	320	Simple Cycle	Commercial Operation
1996	Greenwood, Yazoo City, Clarksdale	Municipal Energy Agency of Mississippi	GE	Frame 5	3	75	Combined Cycle Repower	Commercial Operation
1996	McWilliams Repower	PowerSouth Energy Cooperative, Inc	Siemens Energy	SGT6-2000E (V84.2)	1	145	Combined Cycle Repower	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

EPC Contractor

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2014	Warren County Power Station	Dominion Virgina Power	MHI	M501GAC	3	1300	Combined Cycle	Design
2012	McKittrick Cogeneration	Chevron USA, Inc.	Solar Turbines	Centaur	2	10	Cogeneration/Enhanced Oil Recovery	Commercial Operation
2010	Central Plant 1	Thermal Energy Corporation	GE	LM6000PD SPRINT	1	45	CHP/Cogeneration	Commercial Operation
2010	Halton Hills	Trans Canada	Siemens Energy	SGT6-5000F (501F)	2	670	Combined Cycle	Commercial Operation
2009	GRU South Energy Center - Shands Medical Center	Gainesville Regional Utilities	Solar Turbines	Mercury 50	1	4	CHP/Cogeneration	Commercial Operation
2006	Dell Children's Medical Center - Richard Mueller Energy Center	Austin (Texas) Energy	Solar Turbines	Mercury 50	1	4	CHP/Cogeneration	Commercial Operation
2005	Sheboygan	Alliant Energy Generation	GE	Frame 7FA	2	320	Simple Cycle	Commercial Operation
2005	District Peaking Plant	Kings River Conservation District	GE	LM6000 PC	2	80	Simple Cycle	Commercial Operation
2004	Domain Technology Park	Austin (Texas) Energy	Solar Turbines	Centaur 50	1	4	CHP/Cogeneration	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

EPC Contractor

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2003	Sugar Creek	Mirant	GE	Frame 7FA	2	500	Combined Cycle	Commercial Operation
2003	Goosecreek	Aquila	GE	Frame 7EA	6	510	Simple Cycle	Commercial Operation
2002	Perryville	CLECO, Inc.	GE	Frame 7FA	2	500	Combined Cycle	Commercial Operation
2002	Zeeland	Mirant	GE	Frame 7FA	2	500	Combined Cycle	Commercial Operation
2002	Clarksdale	Aquila	GE	Frame 7EA	4	340	Simple Cycle	Commercial Operation
2001	Bosque Texas	Mirant	GE	Frame 7FA	1	250	Combined Cycle	Commercial Operation
2001	Perryville	CLECO, Inc.	GE	Frame 7FA	1	170	Simple Cycle	Commercial Operation
2001	Zeeland	Mirant	GE	Frame 7FA	2	340	Simple Cycle	Commercial Operation
2001	Lakefield Junction	Tenaska/Great River Energy	GE	Frame 7EA	6	480	Simple Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

EPC Contractor

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2000	Wabash River Natural Gas Conversion	Cinergy	GE	Frame 7F	1	300	Combined Cycle/Fuel Gasification	Commercial Operation
2000	Pinckneyville, Illinois	Ameren Services, Inc.	GE	LM6000	4	160	Simple Cycle	Commercial Operation
2000	Hamakua Cogeneration	Tampa Electric/Jones Venture	GE	LM2500PE	2	63	CHP/Cogeneration	Commercial Operation
2000	Neenah, Wisconsin	Mirant	GE	Frame 7FA	2	320	Simple Cycle	Commercial Operation
1998	Osborne Cogeneration	CU Power International	GE	Frame 9EA	1	180	CHP/Cogeneration	Commercial Operation
1997	Ponca City Repower	Oklahoma Municipal Power Authority	GE	LM6000	1	60	Combined Cycle Repower	Complete

Simple and Combined Cycle Gas Turbine Experience

Owner's Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2017	Mooreland Generating Station Unit 4	Western Farmers Electric Cooperative	Later	F Class	1	300	Combined Cycle	Front End Engineering
2016	Sundance 7	TransAlta	MHI	M501GAC	2	800	Combined Cycle	Bidding
2014	Lakeside Unit 2	Pacificorp	Siemens Energy	SGT6-5000F (501F)	2	630	Combined Cycle	Design
2014	Shepard	Enmax Energy	MHI	M501G	2	800	Combined Cycle	Construction
2011	Jack County 2	Brazos Electric Cooperative, Inc.	GE	Frame 7FA	2	520	Combined Cycle	Commercial Operation
2010	McIntosh 4 and 5	PowerSouth Energy Cooperative, Inc	Siemens Energy	SGT6-5000F (501F)	2	360	Simple Cycle	Commercial Operation
2007	Choctaw	Suez Energy NA	Siemens Energy	SGT6-6000G (501G)	2	720	Combined Cycle	Commercial Operation
2006	Groton	Basin Electric Cooperative, Inc	GE	LMS100	1	100	Simple Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

Owner's Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2006	Mosselle 5	South Mississippi Electric Power Association	GE	Frame 7EA	1	75	Simple Cycle	Commercial Operation
2006	Palomar Energy	Sempra Energy Resources	GE	Frame 7FA	2	550	Combined Cycle	Commercial Operation
2005	Jack County 1	Brazos Electric Cooperative, Inc.	GE	Frame 7FA	2	500	Combined Cycle	Commercial Operation
2005	Silver Creek 3	South Mississippi Electric Power Association	GE	Frame 7EA	1	75	Simple Cycle	Commercial Operation
2005	Lawrence County	Hoosier Energy	GE	LM6000	6	300	Simple Cycle	Commercial Operation
2004	Wisdom Station	Corn Belt Power Cooperative	GE	Frame 7EA	1	85	Simple Cycle	Commercial Operation
2004	Silver Creek 2	South Mississippi Electric Power Association	GE	Frame 7EA	1	75	Simple Cycle	Commercial Operation
2003	Silver Creek 1	South Mississippi Electric Power Association	GE	Frame 7EA	1	75	Simple Cycle	Commercial Operation
2003	Mesquite Power	Sempra Energy Resources	GE	Frame 7FA	4	1250	Combined Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

Owner's Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2003	Sylvarena	South Mississippi Electric Power Association	GE	LM6000PC	3	135	Simple Cycle	Commercial Operation
2003	Chehalis	Suez Energy NA	GE	Frame 7FA	2	500	Combined Cycle	Commercial Operation
2002	Bellingham Energy	International Power America	Alstom	GT24	2	500	Combined Cycle	Commercial Operation
2002	Simple Cycle GT Addition	Springfield, MO	GE	LM6000	1	47	Simple Cycle	Commercial Operation
2002	Hays	International Power America	Alstom	GT24	4	1000	Combined Cycle	Commercial Operation
2001	Ennis	Suez Energy NA	Siemens Energy	SGT6-6000G (501G)	1	380	Combined Cycle	Commercial Operation
2001	Blackstone	International Power America	Alstom	GT24	2	500	Combined Cycle	Commercial Operation
2001	Vann	PowerSouth Energy Cooperative, Inc	Siemens Energy	SGT6-5000F (501F)	2	500	Combined Cycle	Commercial Operation
2001	CT 1	Arkansas Electric Cooperative, Inc	Siemens Energy	SGT6-4000F (V84.3A)	1	160	Simple Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

Owner's Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
2001	Aries	Aquila	Siemens Energy	SGT6-5000F (501F)	2	500	Combined Cycle	Commercial Opertion
2001	Richland	First Energy	Alstom	11N2	2	220	Simple Cycle	Commericial Operation
2001	ERCOT 3	Panda Energy	GE	Frame 7FA	2	500	Combined Cycle	Commercial Operation
2001	Cordova	Cordova Energy	Siemens Energy	SGT6-5000F (501F)	2	500	Combined Cycle	Commercial Operation
2000	Midlothian I and II	International Power America	Alstom	GT24	6	1500	Combined Cycle	Commercial Operation
2000	Braunig	City Public Service San Antonio, TX	GE	Frame 7FA	2	500	Combined Cycle	Commercial Operation
2000	Paris Power	Panda Energy	GE	Frame 7FA	4	1000	Combined Cycle	Commercial Operation
2000	Guadeloupe	Panda Energy	GE	Frame 7FA	3	750	Combined Cycle	Commercial Operation
1999	Phase 4 Conversion to Combined Cycle	Capex, Agua del Cajon	Siemens Energy	251B11/701D	6	560	Combined Cycle	Commercial Operation

Simple and Combined Cycle Gas Turbine Experience

Owner's Engineer

Operation Date	Project Name	Client	Manufacturer	Model Number	Number of Units	Total Megawatts	Technology	Status
1998	McIntosh 2 and 3	PowerSouth Energy Cooperative, Inc	Siemens Energy	SGT6-2000E (V84.2)	2	200	Simple Cycle	Commercial Operation

Warren County Power Station

Front Royal, Virginia

Combined Cycle Gas Turbine and EPC Construction

Client
Dominion Virginia Power
Front Royal, Virginia

Combined Cycle utilizing
Mitsubishi M501 GAC in a
3 on 1 Configuration

Completion Date
2014

Cost
Confidential

Project Manager
Bill Steenson

Services Provided
- Engineering
- Procurement
- Construction
- Startup
- Commissioning
- Testing

Project Summary
Burns & McDonnell and Zachry, in a joint venture named Warren County Energy Partners, has been hired by Dominion Virginia Power to perform Engineering, Procurement and Construction Services on a Lump Sum Turnkey basis for this 1,300+ MW Gas Fired power facility in Front Royal, Virginia which is approximately 60 miles from Washington, D.C. The plant is slated to go online in 2014.

Project Features
- Greenfield Site
- Natural Gas Fueled
- 3 Mitsubishi M501 GAC Gas Turbines with Dry Low NO_x Combustors
- 3 Triple Pressure Supplementary Fired (500 MBtu/hr each) Heat Recovery Steam Generators (HRSG)
- 1 Mitsubishi Tandem Compound 4 Flow Reheat Condensing Steam Turbine
- 60 Cell Air Cooled Condenser
- Thermal Energy Storage System
- 10 million gallon Thermal Energy Storage
- Chillers
- Chilled Water Coils in CTG Inlets for Inlet Cooling

Project Bac ground and Description
Warren County Power Station (WCPS) is located near Front Royal, Virginia, in Warren County. The Facility consists of three nominal 255 MW combustion turbine generators (CTGs), three (3) three-pressure, supplementary fired, heat recovery steam generators (HRSGs), a bottom exhaust condensing steam turbine generator (STG), and associated balance-of-plant Materials and Equipment. The fuel is natural gas. The net electrical output of the Facility shall be a nominal 1322 MW at 92° F and 51 percent relative humidity. For combined cycle operating mode, the plant will be designed and permitted, subject to Virginia Department of Environmental Quality (VDEQ) PSD permit approval, for unlimited operation on natural gas with an unlimited number of starts annually. The Project will be designed for cycling load operation. Each CTG will be designed to operate at full load in a pseudo simple cycle mode where steam from the corresponding HRSG

bypasses the steam turbine and is dumped to the condenser.

Unodorized natural gas will be delivered to the Project Site by a new pipeline and will be regulated, metered, and conditioned onsite. Natural gas will be provided to the Project Site boundary from a new pipeline branch from the TCO pipeline.

The STG will be located indoors with a bridge crane provided for maintenance. The exhaust of the steam turbine will be directed to an air-cooled condenser. The HRSGs will be located outdoors and the boiler feed pumps will be located indoors in feedwater pump enclosures. The heat rejection system shall utilize an air-cooled condenser (ACC) to be located adjacent to the steam turbine building.

Makeup water for the plant will be provided at the Project Site boundary by others from the Town of Front Royal municipality. Makeup water will be used for the CTG thermal energy storage system, feed to the demineralized water treatment equipment, service water, fire protection water and potable water. A demineralization system shall be provided to produce the demineralized water to be stored in the demineralized water storage tank. Wastewater and sanitary drains from the Facility including process water, closed cycle cooling water, boiler blowdown and domestic wastes shall be discharged to the Town of Front Royal wastewater treatment system. Stormwater will discharge through onsite lined Stormwater Management Ponds (SWMPs) equipped with oil / water separators, shut-off valves and hydrocarbon detectors. The hydrocarbon detectors shall be monitored and alarmed in the DCS.

One gas fired auxiliary boiler shall be provided to produce steam for pre-heating piping and equipment as required for plant start-up and for supplying initial steam to the turbine gland seal steam system. The auxiliary boiler shall be designed for indoor installation.

Plant synchronization to the 500 kV substation shall be accomplished through low-side generator breakers for the CTG units and high voltage generator breakers for the STG.

A plant-wide distributed control system (DCS) will be provided to monitor and control the balance-of-plant Materials and Equipment.

NO_x emissions will be controlled by dry low-NO_x (DLN) combustors. A selective catalytic reduction (SCR) system will be included with each HRSG to reduce the NO_x level. CO and VOC emissions will be reduced by an oxidation catalyst in each HRSG.

The power plant was designed for a minimal plant operations and maintenance staff. Control of the plant is from a central control room via a distributed control system (DCS).

Mooreland Generating Station Unit 4

Mooreland, OK

Combined Cycle Owner's Engineer

Client

Western Farmers Electric Cooperative, Inc.
John Toland, P.E.
701 NE 7th Street
Anadarko, OK 73005-2231
(405) 247-4351

Owner's Engineer Services
300 MW Mooreland Generating Station Unit 4

Completion Date

2017

Cost

Confidential

Project Manager

Dave Bowen

Services Provided

- Project Definition
- Project Cost Estimate
- Owner's Engineering
- RUS financing coordination
- Permitting support
- EPC Specification Preparation
- EPC Negotiations Support

Project Summary

This project will be a 300 MW 1 x 1 combined cycle gas fired power plant based on F class gas turbine technology. The new plant will be located at an existing brownfield power plant site consisting of three gas-fired steam electric generation plants totaling approximately 300 MW. The Mooreland Unit 4 will be designed to include supplemental firing in the heat recovery steam generator. The project is planned to be executed on an EPC turnkey contract basis and is expected to be commercial in mid-2017.

Project Bac ground and Description

In 2010, Western Farmers Electric Power Cooperative, Inc. (WFEC) retained Burns & McDonnell to provide Owner's Engineer services for the Mooreland Generation Facility, Unit 4. The existing Mooreland Generation Station, Units 1-3 went into commercial operation in the mid 1960's. WFEC retained Burns & McDonnell to provide conceptual design development, cost estimating and Owner's Engineer services for its Unit 4 expansion of the existing Mooreland Generation Facility.

Burns & McDonnell's services for the Unit 4 expansion include conceptual design development and cost estimating, coordination of the RUS financing application, preparation of an Environmental Assessment and Construction Air Permit, preparation of the EPC specifications and EPC contract negotiation support.

Shepard Energy Centre

Calgary, Alberta, Canada
Combined Cycle Owner's Engineer

Client
ENMAX Energy Corporation
141-50 Ave SE
Calgary, AB T2G 4S7
Canada

Owner's Engineer Services
800 MW Shepard Energy Centre

Completion Date
2015

Cost
Confidential

Project Manager
Dave Bowen

Services Provided
- Owner's Engineering
- EPC Specification Preparation
- EPC Negotiations Support
- Design Review
- EPC Contract Administration and Oversight
- Construction Management and Oversight

Project Summary
This project includes two Mitsubishi 501G1+ combustion turbines, two Vogt triple pressure HRSG's, and one Mitsubishi reheat steam turbine, all supplied as part of Mitsubishi's Power Island. The Shepard Energy Centre is designed for supplemental firing in the heat recovery steam generator to achieve a nominal plant rating of 800 MW. The project is being executed on an EPC turnkey contract basis and is expected to be commercial in mid-2015.

Project Features
- Steam cooling of MPS combustion turbine transitions.
- SCR to 3 ppm NOx
- Natural gas compression
- Wet surface condenser & cooling tower
- Partially enclosed HRSG's
- Fully enclosed STG and GTG's
- Auxiliary boilers
- Provisions for future CO_2 capture

Project Bac ground and Description
In 2009, ENMAX Energy Corporation retained Burns & McDonnell to provide Owner's Engineer services for the Shepard Energy Centre. This nominal 800 MW facility will begin construction in mid 2011 with a COD of mid 2015.

Burns & McDonnell's services include preparation of the EPC specifications, EPC Contractor selection, EPC contract negotiation support, EPC contract administration, design review of contractor submittals, and construction management.

Moselle Units 1 2 Repowering

Moselle, Mississippi

Detailed Design Gas Turbine Combined Cycle Project

Client

South Mississippi Electric Power Association
Chris Rhodes - Plant Superintendant
PO Box 15849
Hattiesburg, MS 39404-5849
(601) 261-2306

Completion Date

April 2012

Cost

Confidential

Project Manager

Dan Fugate

Services Provided

- Development Services
- Existing Equipment Assessment
- Detailed Design Services
- Field Services

Project Summary

Based on the feasibility study conducted by Burns & McDonnell it was decided two of the steam turbines at SMEPA's Moselle Generating Station be repowered with 2, class "E" combustion turbines. Burns & McDonnell's scope included project definition, developing project cost estimates, preparing schedules and permitting support. The scope of the project included the installation of 2 General Electric 7EA gas turbines and 2 HRSG's.

Project Features

- Repowered capacity of 300 MW
- Congested site
- Duct firing
- Expansion of existing DCS control system
- Bypass stacks
- Addition of emissions control technologies to site

Project Bac ground and Description

The Moselle Generating Station originally consisted of three gas fired General Electric (GE) steam turbine generators and two dual fuel GE 7EA simple cycle gas turbines. Originally installed in the late 1960s, the gas fired steam turbine generators Unit 1 and Unit 2 are 1250 psig, 950 F, 59 MW non-reheat single-flow exhaust turbines. To support the repower, these steam turbines are being retrofitted with a new rotor, modern blading, new high efficiency diaphragms, and new updated last stage blade designs. Further, the turbines will include retractable seals and a modified control system to support sliding pressure operation. After these modifications, the turbines are expected to be capable of over 65 MW of generation in a repower mode.

Special features of this project include a cross tie to allow ether of the gas turbine HRSG combinations to power either of the steam turbines. Further, each steam turbine is supplied with duct firing to supplement the gas turbine exhaust and provide some peaking capability.

The second phase of the project includes detailed design and implementation of the repowering project. SMEPA retained Burns & McDonnell to provide detailed design engineering, procurement and field services for the project implementation.

Halton Hills Generating Station

Halton Hills, Ontario
Engineering-Procurement-Construction

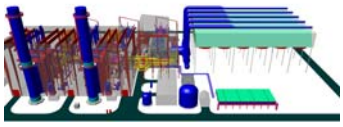
Client
TransCanada
450 First Street SW
Calgary, AB T2P SH1

Completion Date
2010

Cost
Confidential

Project Manager
Rich Carvajal

Services Provided
- Engineering
- Procurement
- Construction



Project Summary
Halton Hills Power Partners (HHPP), a joint venture between Burns & McDonnell and Aker Kvaerner, is serving as EPC contractor for the Halton Hills Generating Station. This project is a 2x1 F-class unit utilizing two Siemens SGT6-5000F (501F) gas turbines, two Alstom HRSGs, a single Alstom steam turbine, and an Air Cooled Condenser.

Project Features
- 100% Air Cooled
- Fully Enclosed HRSGs and Steam Turbine
- Single Fuel – Natural Gas
- High Efficiency with 2400 psia, 1050°F/1050°F Throttle Conditions
- 690 MW Fired
- 580 MW Unfired

Project Bac ground and Description
The Ontario Power Authority (OPA) awarded TransCanada a contract to own and operate a 683MW natural-gas fired power plant in Halton Hills, Ontario.

The Halton Hills Generating Station (HHGGS) will use state-of-the-art low emissions technology and will meet high environmental standards in order to fulfill the OPA's request for additional clean power generation.

Bob Orme Generating Station

Anadarko, Oklahoma

Simple Cycle Gas Turbine Project

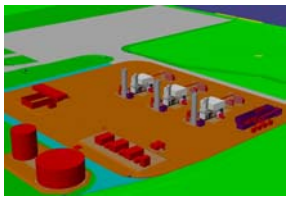
Client
Western Farmers Electric Cooperative
Anadarko, Oklahoma

John Toland
405-247-4351

Completion Date
Spring 2009

Project Manager
Greg Mack

Services Provided
- Development Engineering
- Environmental Permitting
- Detailed Design
- Procurement
- Construction Management



Project Summary
Western Farmers Electric Cooperative has retained Burns & McDonnell to be the EPCM Contractor for their new installation of 3 GE LM6000 gas turbines at a site in Anadarko, Oklahoma. Burns & McDonnell is performing development engineering, detailed design, procurement and construction management services for the project. The project also includes the design of a new demineralized water system for the new and existing plant.

Project Features
- 150 MW nominal capacity
- Start to Full Load in 10 Minutes
- Inlet cooling with a chiller system

Project Bac ground and Description
The Burns & McDonnell notice to proceed was issued in October of 2007. Project activities commenced immediately on securing the air permit and on the procurement of the gas turbines and other project equipment. The project is on schedule for a spring 2009 commercial operation date.

In addition to performing the detailed design, the project includes the procurement and contract management of all project equipment and construction contracts. The project includes twelve procurement packages and five construction packages. The construction packages include site preparation, foundations, mechanical, electrical, and field erected tanks.

Burns & McDonnell also provided the design and construction management of a new demineralized water treatment plant to serve the new LM6000 project as well as the five existing units which include both gas turbine and combined cycle units.

Gibbons Cree Unit 1

Bryan, Texas

LP Steam Turbine Upgrades

Client

Texas Municipal Power Agency
Bruce Partlow
PO Box 7000
Bryan, TX 77805
(936) 873-1116

482 MW General Electric
D8 Turbine-Generator
One Double-Flow Low Pressure
Steam Turbine Section

Completion Date

Spring 2008

Cost

Confidential

Project Manager

Ron Bryant

Services Provided

- Detailed study
- Upgrade options
- EPA implications
- Bid documents
- Technical bid analysis
- Commercial bid analysis
- Balance of plant impacts
- Fabrication inspections
- Construction services
- Performance testing

Project Summary

Burns & McDonnell is providing professional services to upgrade the LP steam turbine for reliability and performance.

Project Features

- New LP steam path
- Improved materials
- Stiffened last stage blades
- Increased output (~8 MW)
- Improved heat rate (~1%)
- Longer interval between inspections

Project Bac ground and Description

The Gibbons Creek Unit 1 LP Turbine Upgrade started with a detailed investigation to develop options and recommendations for improved reliability and performance. Predicted performance and cost estimates were developed for each option. Impacts on other plant equipment were examined. An economic analysis of each option was performed. A report detailing the results of the investigation including supporting analysis was prepared.

Strategies were recommended for approaching the EPA and the Texas Commission on Environmental Quality to comply with New Source Review (NSR) and Prevention of Significant Deterioration (PSD) requirements.

Performance standards and scope of work for the design and installation of the LP turbine upgrade were developed. The performance standards, scope of work, and performance testing methods were incorporated into bid documents for procurement.

Bids were received and evaluated on technical and commercial merit. Technical review included evaluating design and performance expectations. The impact on other plant equipment was checked. An economic evaluation was performed to determine a net present value and payback period for each bid. Fabrication and installation schedules were reviewed. References were contacted and verified. Negotiations with a short list of bidders were performed.

Fabrication shop inspections, installation construction reviews, and performance testing will be performed as the project progresses.

Cambridge Energy Center Unit 2

Cambridge, Minnesota

Simple Cycle Combustion Turbine Project

Client
Great River Energy
17845 East Highway 10
Elk River, MN 55330
(612) 937-8599

Completion Date
2007

Cost
Confidential

Project Manager
Gary Flandermeyer

Services Provided
- Site Evaluation
- Feasibility Study
- Detailed Design
- Procurement (Bid & Evaluation)
- Construction Services
- Start-up Support

Project Summary
Burns & McDonnell provided detailed design engineering, construction services, and start-up services for Cambridge Energy Center Unit 2. The project involved installation of a single Siemens Westinghouse V84.3A combustion turbine in simple cycle operation. The unit fires natural gas.

Project Features
- Built on an existing site
- Single Fuel natural gas-fired

Project Bac ground and Description
Great River Energy is a generation and transmission cooperative providing electric service to 28 distribution cooperatives. For the 170 MW Cambridge Energy Center Unit 2 project, Burns & McDonnell provided development assistance, detailed design, construction services, and start-up support for the installation of a single Siemens-Westinghouse V84.3A. The project was designed and constructed using a multiple contract approach. Equipment contracts were prepared separately for the combustion turbine (with ancillary equipment), electrical equipment, oil water separator, gas conditioning skid, miscellaneous pumps. Construction contracts included heavy haul, site preparation, foundations, mechanical, field erected tanks, and electrical packages.

Copper Mountain Power Project

Nevada

Owner's Engineer Project

Client
Sempra Energy Resources
Robert Jackson
(619) 696-2926

Completion Date
2007

Cost
$200,000 (Approx)

Project Manager
Matt Brinkman

Services Provided
- Project Development
- Cost Estimating
- EPC Bid Documents

Project Summary
Burns & McDonnell represented Sempra Energy Resources as the Owner's Engineer for the Copper Mountain Power Project, a proposed 1,250 MW combined cycle generating facility. Burns & McDonnell supported development of the project, provided permitting assistance, developed conceptual arrangements, estimated the anticipated project cost, developed a preliminary project schedule, developed the Design-Build specification, evaluated bids, and negotiated the EPC contract with the selected EPC contractor.

Catoctin Power Project

Maryland

Owner's Engineer Project

Client
Sempra Energy Resources
Robert Jackson
Sempra Energy Resources
(619) 696-2926

Completion Date
2007

Cost
$280,000 (Approx)

Project Manager
Matt Brinkman, P.E.

Services Provided
- Project Development
- Cost Estimating
- EPC Bid Documents

Project Summary
Burns & McDonnell represented Sempra Energy Resources as the Owner's Engineer for the Catoctin Power Project, a proposed 1,250 MW combined cycle generating facility in Maryland. Burns & McDonnell developed conceptual arrangements, estimated the anticipated project cost, developed a preliminary project schedule, developed the Design-Build specification, evaluated bids, and negotiated the EPC contract with the selected EPC contractor.

Palomar Energy Project

Escondido, California

Combined Cycle Development and Owner's Engineer Project

Client
Sempra Energy Resources (Now Sempra Generation)
Robert (Bob) Jackson
101 Ash Street
San Diego, CA 92101
(619) 696-2926

Palomar Energy
2 x 1 Combined Cycle
Escondido, California

Completion Date
2006

Cost
Confidential

Project Manager
Tony Cordes

Construction Oversight Manager
Cesar Cea

Services Provided
- Project Development
- Preliminary Engineering
- EPC Specification Preparation
- EPC Negotiations
- Document Review
- Construction Oversight
- Startup and Commissioning Oversight

Project Summary
Burns & McDonnell was hired by Sempra Energy Resources in 2001 to provide technical engineering support to develop a 2x1 Combined Cycle plant in the heart of Escondido, California. Burns & McDonnell provided the EPC specifications and Owner's Engineer support throughout the project.

Project Features
- 2 x 1 GE 7FA Project with D11 Steam Turbine
- Fully Duct Fired
- Project constructed in highly visible urban area North of San Diego, California

Project Bac ground and Description
Palomar Energy was the centerpiece of an extremely large industrial development in Escondido, California. One of the unique challenges of this project was the fact that it was very visible, in a local neighborhood that had reservations about the facility. Sempra Energy Resources had found the site and had obtained the rights when Burns & McDonnell was hired. From there, Burns & McDonnell worked with Sempra's permitting agent, ENSR, developing the project parameters including water supply, plant site layout, plant performance, emissions, supplying the technical project development and support for permitting. The site development was extremely difficult and Burns & McDonnell provided detailed design on the site development prior to EPC Contractor interface with the Project. Burns & McDonnell's involvement formed the technical basis, performance basis, and cost estimate basis for the project.

After project development, Burns & McDonnell developed the technical specifications that formed the EPC Request for Proposal document. Burns & McDonnell assisted Sempra in the technical and commercial evaluation of proposals from EPC Contractors. Working with the EPC Contractor (Bibb-Kiewit), throughout implementation of the project Burns & McDonnell provided drawing review, project oversight, construction oversight, and startup and commissioning oversight as an extension of the Owner's staff. The project was successfully commissioned in 2006 and subsequently turned over the current Owner, San Diego Gas & Electric.

Groton Generation Station

Groton, South Dakota

Gas Turbine Simple Cycle Project

Client

Basin Electric Power Cooperative
Myron Steckler
Bismarck, North Dakota
701-355-5698

Completion Date

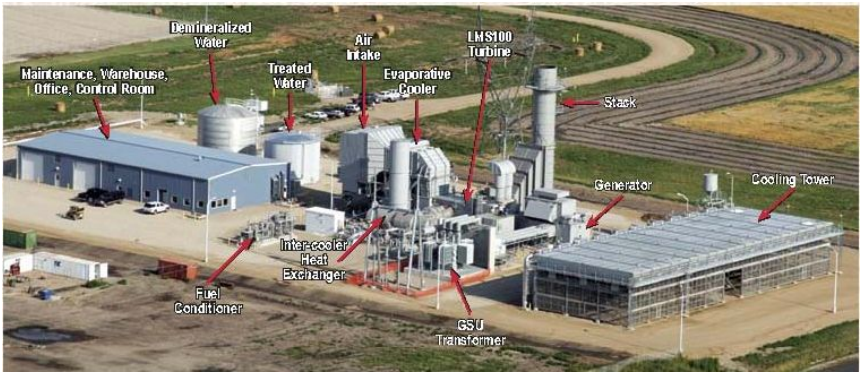
2006

Project Manager

Dave Demoret

Services Provided

- Assisted Client in Evaluating New Design
- Developed EPC Specification
- Assisted Client in Contract Negotiations



Project Summary

Basin Electric Cooperative installed the first commercial application of the GE LMS100 gas turbine. GE provided EPC services for the project. The project site is in Groton, South Dakota.

Project Features

- New Technology Gas Turbine
- Start to Full Load in 10 Minutes
- Fin/Fan cooler to reject Intercooler heat to the atmosphere

Project Bac ground and Description

The LMS 100 is based on a portion of the GE 6FA compressor (Low Pressure Compressor), the High Pressure compressor and drive turbine from the LM 6000, a new turbine section to drive the Low Pressure Compressor, new turbine section to drive the generator and an intercooler to cool the compressed air between the Low and High Pressure compressor sections.

Since this project was the first commercial application of this mixture of tested and new technology, GE and Basin Electric Cooperative both sought to minimize risk. An Engineer, Procure, Construct contract was awarded to GE for the project. Burns & McDonnell assisted Basin Electric Cooperative in evaluating this new product as well as developing the EPC contract agreements. Basin Electric Cooperative has ordered a second unit for installation at the same site.

District Pea ing Plant

California

Detailed Design Project

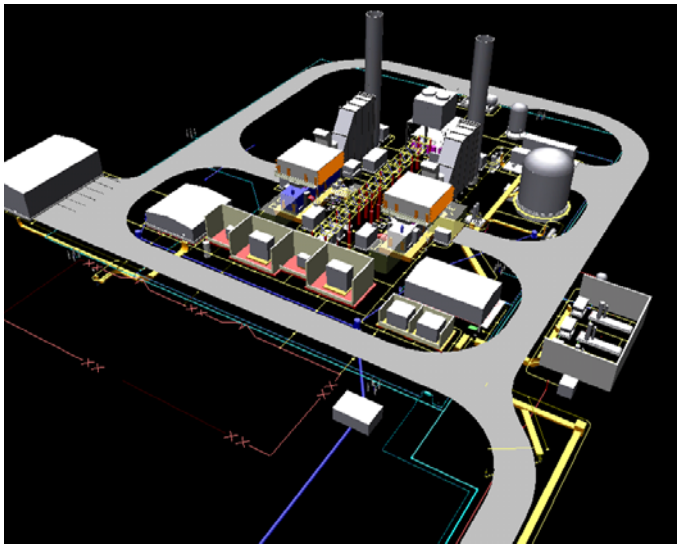
Client
Kings River Conservation District
District Peaking Plant
Simple Cycle Combustion Turbine Project

2 x LM6000PC (97 MW)
Single Fuel - Natural Gas

Completion Date
2005

Cost
Confidential

Project Manager
Jim Jurczak



Services Provided
- Permitting assistance
- Planning, estimating and scheduling
- Project management, expediting
- Equipment Procurement
- Balance of Plant Programming
- Detailed design
- Construction
- Construction Management
- Check-out and start-up

Project Summary
Burns & McDonnell, as a subcontractor to BMZ (the project EPC Contractor), provided Engineering services for the 97 MW KRCD District Peaking Plant which utilizes two GE Aero Power LM6000PC SPRINT combustion turbines. Burns & McDonnell/BMZ's scope included permitting assistance; project management; detailed design; balance of plant equipment procurement; balance of plant control system programming; construction; construction management; and startup and commissioning.

Project Features
- Fast track design and construction
- Two LM6000 PC SPRINT combustion turbines
- Combustion turbine inlet air chilling
- Portable demineralizer equipment
- Gas Compressors
- 115 kV Switchyard

Project Bac ground and Description
In mid-2004, BMZ was selected by KRCD as the EPC Contractor for the two unit, 97MW, simple cycle District Peaking Plant.

The plant was commercial in May 2005.

Sheboygan Falls Energy Facility

Sheboygan County, Wisconsin

Combustion Turbine Project Development

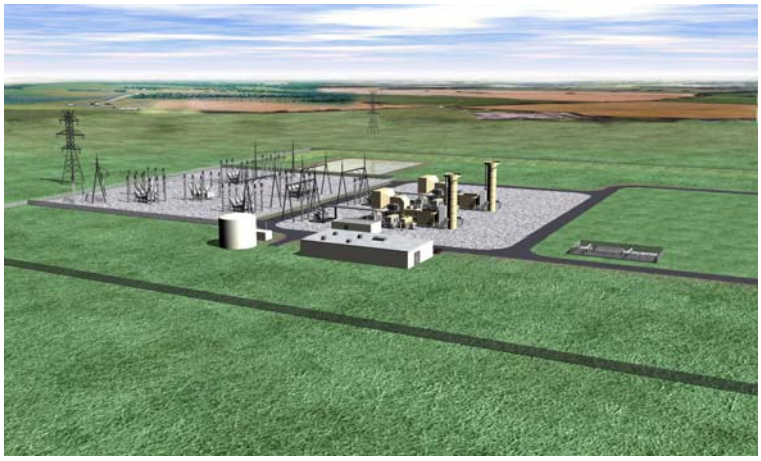
Client
Power Ventures Group, LLC
Sheboygan Falls Energy Facility

Project Development Assistance
300 MW Peaking Facility
Natural Gas Fired

Completion Date
2005

Cost
Confidential

Services Provided
- Project development assistance
- Site selection and acquisition assistance
- Conceptual engineering
- Permitting
- Planning, estimating and scheduling
- Project management
- Transmission load flow analysis and interconnect assistance



Project Summary
Burns & McDonnell provided professional services to identify and evaluate sites, provided development assistance, and provided permitting for the installation of a peaking facility in Sheboygan County, Wisconsin.

Project Features
- 2 simple cycle combustion turbines
- Inlet air evaporative cooling
- Strategic site location with onsite electrical transmission and adjacent natural gas laterals
-

Project Bac ground and Description
Burns and McDonnell Engineering Company, Inc., headquartered in Kansas City, Missouri is a full service engineering firm with operations both domestically and internationally. B&McD provides comprehensive services for natural gas-fired, coal-fired, and renewable energy generating facilities. B&McD was retained to provide siting assistance, development assistance, permitting, and technical engineering services for this peaking facility in Wisconsin.

The B&McD scope included the following development activities:
- Site identification, evaluation, and selection.
- Site infrastructure development and engineering support.
- Transmission interconnection request application.
- Application assistance for permits submitted to the Wisconsin Public Service Commission (WPSC) and the Wisconsin Department of Natural Resources (WDNR).
- Conceptual design and scope definition including development of performance estimates, capital cost estimates, operating & maintenance cost estimates, and a conceptual schedule.
- Evaluation of various plant configuration options.

Burns & McDonnell development scope further included application development and coordination for the various construction and operating permits required, detailed design, and construction management for the project.

Sheboygan Falls Energy Facility
(continued)

The primary and alternate project sites were identified in the summer of 2001. B&McD had selected the two feasible candidate sites to comply with the requirements of the Wisconsin Public Service Commission. The project's Certificate of Public Convenience and Necessity and the environmental permit applications were issued by the WPSC and the WDNR. B&McD initiated construction in August 2004.

Emery Generating Station

Mason City, Iowa

Combined Cycle Detailed Design Project

Client

Alliant Energy
4902 North Biltmore Lane
Madison WI 53718-2148
United States of America

550 MW 2-on-1 Combined Cycle Plant
Natural Gas / Fuel Oil Fired

Completion Date

June 2004

Project Manager

Todd Sundbom

Services Provided

- Site selection
- Permitting
- Planning, estimating and scheduling
- Project management
- Procurement
- Detailed design
- Construction management
- Start-up and Commissioning

Project Summary

Burns & McDonnell provided professional services to Interstate Power & Light from site selection and permitting, to detailed design and construction management, for a 550 MW Natural Gas Facility with Fuel Oil back up capability. Burns & McDonnell performed these services on the multiple-prime contract basis. Burns & McDonnell was responsible for permitting, detailed design, procurement, and construction management.

Project Features

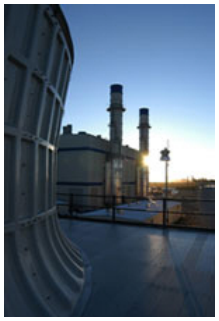
- 2 GE 7FA Combustion Turbines
- Natural Gas and Fuel Oil Fired
- High Level of Supplemental Firing
- Power Augmentation
- Utilizes tertiary treated water for makeup water
- Only 7FA in United States with Black Start Capability
- Low emissions
- Enclosed steam turbine, gas turbines, and HRSGs.
- Aggressive design and construction schedule

Project Bac ground and Description

Interstate Power & Light, a wholly-owned subsidiary of Alliant Energy, determined a need in Iowa for new intermediate-load generation to serve their growing customer demands. Burns & McDonnell supported Alliant Energy in developing their self- build option responding to a power generation RFP generated in 2001.

The Project included two General Electric 7FA combustion turbine-generators (CT) coupled with two heat recovery steam generators (HRSG) and a single common steam turbine-generator (ST) to operate in combined cycle mode. The plant was designed for operation from a central control room via a distributed control system (DCS). The gas turbines, steam turbine, and heat recovery steam generators were installed in a fully enclosed building. The plant was designed to receive tertiary treated water from a municipal treatment plant for makeup water to the plant. The CTs were designed to use evaporative cooling, power augmentation, and fuel gas as the primary fuel. The HRSG was designed with duct firing to 1600 F. The schedule was very aggressive with commercial operation achieved less than 20 months after commencement of design.

Emery Generating Station
(continued)



The unique feature of this facility is its black start capability. If the Midwestern grid would go black, this unit would be the spark behind restarting the system in Northern Iowa and the Midwest grid. Six 2100 kW Caterpillar generators power the first GE static starting system utilized on GE 7FAs. This system was successfully tested August 14, 2004.

The Emery Generating Station was a 2005 Power Magazine Top Plant and also won the 2005 Iowa ACEC (American Council of Engineering Companies) Grand Conceptor Award for Engineering Excellence.

Fremont Energy Center

Fremont, Ohio

Gas Turbine Combined Cycle Project

Client
Calpine Corporation
Fremont Energy Center
Natural Gas Fired Combined Cycle

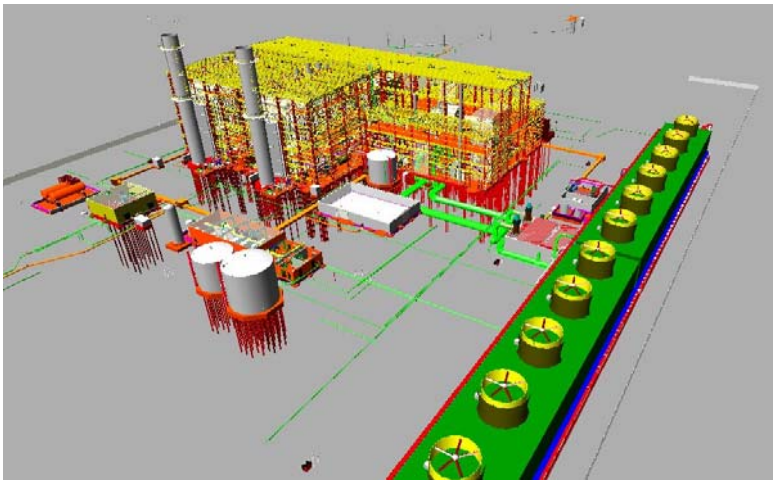
Detailed Design/Owner's Engineer

Completion Date
2004

Cost
Confidential

Project Manager
Gary Flandermeyer

Services Provided
- Permit support
- Planning and scheduling
- Project management, expediting
- Detailed design and owner's engineer
- On-site technical assistance



Project Summary
Burns & McDonnell provided professional services to design the Fremont Energy Center. Burns & McDonnell's scope included permit support, detailed design, project management, performance specifications for balance of plant equipment, bid evaluations, and on-site technical support.

Project Features Results
- Two-on-One gas turbine steam turbine arrangement.
- Generation building enclosing steam turbine, gas turbines, and HRSGs.
- 100% natural gas fuel with gas compressors
- Heavily Duct Fired HRSG
- Inlet Fogging and Steam Injection to gas turbine

Project Bac ground and Description
The project was a natural gas-fired, combined cycle gas turbine power plant designed for 700 MW (nominal) net electric power output. The project was located at a greenfield site near Fremont, Ohio.

The project was organized such that the construction work was performed on a general construction basis. Conceptual design and preparation of specifications and drawings to support bidding the general construction contract started immediately. Burns & McDonnell prepared the construction package bid documents and assisted Calpine with the bid evaluation.

Burns & McDonnell performed investigations, assessments, and engineering for the new generation building and balance-of-plant equipment. Burns & McDonnell engineers and technicians performed detailed electrical controls and interface design, mechanical system design, foundation and structural steel design, and site development design as well as continued project management and on-site technical support activities.

Mesquite Generating Station

Tonopah, Arizona
Combined Cycle Development and Program Management/ Owner's Engineer Project

Client
Sempra Energy Resources
(Now Sempra Generation)
Steve Feiner
101 Ash Street
San Diego, CA 92101
(619) 696-2375

Mesquite Generating Station
2 x 2 x 1 Combined Cycle
Tonapah, Arizona

Completion Date
2004

Cost
Confidential

Project Manager
Jerry Brooks

Construction Oversight Manager BOP Engineer
Matt Brinkman

Services Provided
- Project Development
- Permitting Support
- Preliminary Engineering
- EPC Specification Preparation
- EPC Negotiations Support
- Document Review
- Construction Oversight
- Startup and Commissioning Oversight
- BOP Design

Project Summary
Burns & McDonnell was hired by Sempra Energy Resources in 2000 to provide technical engineering support to develop a 2 block 2x1 Combined Cycle plant in the Palo Verde "power plant corridor" in Arizona. Burns & McDonnell provided the EPC specifications and Owner's Engineer support throughout the project.

Project Features
- 2 x 2 x 1 GE 7FA Project with D11 Steam Turbine
- Fully Duct Fired

Project Bac ground and Description
Mesquite Generating Station was just a dot on the map in 2000 when Burns & McDonnell was hired. Sempra Energy Resources had found the site and had progressed well on the site issues (water, transmission, etc.) and was ready for the next phase of the project development, preliminary engineering and permitting. Burns & McDonnell worked with Sempra's permitting agent, ENSR, supplying the technical project development and support for permitting. Burns & McDonnell's involvement formed the technical basis, performance basis and cost estimate basis for the 1250 MW project.

After project development, Burns & McDonnell developed the technical specifications that formed the EPC Request for Proposal document. Burns & McDonnell assisted Sempra in the technical and commercial evaluation of proposals received from the EPC Contractors. Working with the EPC Contractor (BVZ) throughout implementation of the project, Burns & McDonnell provided drawing review, project oversight, construction oversight, and startup and commissioning oversight as an extension of the Owner's staff. Burns & McDonnell also provided detailed design engineering for balance of plant which included the design of four miles of 30-inch, HDPE water4 pipeline, the design of two, 120-acre HDPE lined evaporation ponds, and the substation at the site. The project was successfully commissioned in 2004 and won the Power Magazine Plant of the Year.

Wisdom Combustion Turbine Project

Spencer, Iowa

Combustion Turbine Simple Cycle Project

Client

Corn Belt Power Cooperative
Wisdom Combustion Turbine Plant
Spencer, Iowa

80 MW Peaking Facility – Owner's Engineer Services
1 x GE 7EA
Fuel – Natural Gas & Fuel Oil

Reference
Mike Thatcher
Telephone: 515-332-2571

Completion Date

2004

Project Manager

Rod Robertson

Services Provided

- Project Development
- Permitting
- Secondary Market Search
- Support Engineering
- Owner's Engineer Services
- On-site Services

Project Summary

Burns & McDonnell provided Owner's Engineer services for the 80 MW Wisdom Combustion Turbine Plant. The project was a simple cycle facility adjacent to an existing coal-fired plant that utilized one GE Frame 7EA combustion turbine configured for future conversion to combined cycle. Burns & McDonnell's scope included project development, RUS financing support, permitting services, CT secondary market procurement assistance as well as on-site services during construction, startup and commissioning.

Project Features

- One GE 7EA combustion turbine
- Dual fuel capability
- Future combined cycle configuration
- Adjacent to existing coal-fired plant
- Outdoor Installation
- In-service Spring 2004

Project Bac ground and Description

Total output of the Wisdom combustion turbine project is a nominal 80 MW. Burns & McDonnell services included project development, RUS financing support, permitting services, CT secondary market procurement assistance, EPC specification preparation as well as on-site services during construction, startup and commissioning. Burns & McDonnell located a secondary market GE 7EA combustion turbine that was later procured by Corn Belt.

In addition, Burns & McDonnell specified upgraded 69-kV circuit breakers and supported the design upgrade of the Wisdom substation.

Chehalis Power Project

Chehalis, WA

Gas Turbine Combined Cycle Owner's Engineer Project

Client
Suez Energy North America
Dave Seitzinger
Houston, Texas
713-636-0000

Completion Date
2003

Project Manager
Stephen J. Gosoroski

Services Provided
- Preparation of Contract Exhibits
- Review of EPC Contractor Design
- Review of Project Drawings
- Review of Engineering Invoices
- Attendance at Monthly Progress Meetings at Site

Project Summary
This facility is a 520 MW natural gas-firing electricity and steam generation station. The location was selected as a result of a positive local environment, proximity to existing transmission lines and natural gas pipelines, and fuel storage facilities. The project is located in a semi-residential area and is subject to restrictive noise levels during operation, especially at night.

Project Features
- GE 7FA Combustion Turbines
- Air Cooled Condenser
- Dual Fuel
- 520MW Net

Project Bac ground and Description
Burns & McDonnell was retained by Suez (Tractebel at that time) to provide Owner's Engineer services for the Chehalis Project. Project duties included preparation of contract technical exhibits, review of project drawings produced by Parsons (EPC engineer) and equipment vendors, review of monthly engineering invoices, review of product substitution requests, change order review, review of ongoing technical issues for resolution, schedule review, performance testing procedure review and witness of performance testing. This 520MW net generation facility began commercial operations in August 2003.

Salt Valley Generating Station

Lancaster, Nebraska

Combined Cycle Detailed Design Project

Client
Lincoln Electric System
1040 O Street
Lincoln, NE 68508-3635

Completion Date
2004

Cost
Confidential

Project Manager
Gary Flandermeyer

Services Provided
- Detailed design
- Procurement
- Construction Support
- Planning and scheduling
- Startup and testing

Project Summary
Burns & McDonnell performed design and installation services to add a simple cycle unit and a 2-on-1 combined cycle plant utilizing GE LM6000-PCs (Sprint) to the Salt Valley Generating Station in Lancaster, Nebraska. Burns & McDonnell's scope included detailed design, procurement of equipment and construction subcontracts, construction support and startup and testing of the plant.

Project Features
- 175 MW
- 2-on-1 combined cycle plant and 1 simple cycle gas turbine
- 3 GE LM6000-PC spray intercooled (Sprint) gas turbines
- 2 supplementally-fired HRSGs
- 1 steam turbine-generator
- Hot Side SCR installed for NOx emissions control
- Gas turbines fueled with either natural gas or fuel oil
- Common inlet chilling system for all gas turbines
- Makeup water pretreatment systems using sewage treatment plant effluent
- Makeup from City of Lincoln wastewater treatment facility
- Two story administration building
- Enclosed turbine and HRSG buildings

Project Bac ground and Description
Lincoln Electric system added this 2-on-1 combined cycle and single simple cycle gas turbine facility in 2003 and 2004, respectively. The plant is located in Lincoln, Nebraska.

Burns & McDonnell performed the detailed engineering and assisted in procurement of equipment and construction contractors for the project. Burns & McDonnell provided technical support for the construction management, startup, and commissioning of the facility.

Plant capacity is approximately 175 MW and water for the project was provided from gray water (sewer effluent) makeup water. Because of the high plant efficiency, the station is usually the first local resource dispatched to meet customer load. Salt Valley maximizes the ability of Lincoln Electric System to match the plant's output to Lincoln's electric demand.

eo u Corn Milling Facility

Keokuk, Iowa

Combined Cycle Cogeneration Preliminary Design/Detailed Design

Client

Roquette America
Keokuk, IA

1 – GE Frame 6B combustion turbine
(41 MW)
1 – HRSG
1 – 10 MW steam turbine
Exporting 278 kpph of 428°F/223 psig steam

Completion Date

April 2004

Cost

Confidential

Project Manager

Rick Halil

Services Provided

- Complete Plant Design
- Procurement Support

Project Summary

A new combined cycle cogeneration project was designed for Roquette America's Keokuk, Iowa corn-milling facility. The project was constructed using a multiple contract approach. Equipment and construction contracts in specialty areas were awarded by the owner based on specifications and designs prepared by Burns & McDonnell. The project provided the Roquette facility with electrical power and steam.

Project Features

- One GE Frame 6B Combustion Turbine manufactured in France
- One Alstom HRSG manufactured in USA
- One Fincantieri back pressure (non-condensing) Steam Turbine manufactured in Italy
- Export steam to corn-milling plant

Project Bac ground and Description

Burns & McDonnell provided preliminary engineering and economic studies to help Roquette America evaluate project alternatives. Roquette's corporate parent in France negotiated the contract for the gas turbine. Many of the features of the plant reflect Roquette's desire to make it similar to projects they have constructed at other plants they operate around the world.

Sam Rayburn Power Plant, Units 7-10

Nursery, Texas

Detailed Design Combined Cycle Project

Client
South Texas Electric Cooperative (STEC)
180 MW 3-on-1 combined cycle plant with three GE LM6000 Gas Turbines, three HRSGs & Steam Turbine-Generator

Completion Date
2003

Cost
$140 million

Project Manager
Brian Basel

Services Provided
- Permit support
- Detailed design
- Program manager, procurement, and construction
- Planning and scheduling
- Daily observation, startup and testing

Project Summary
Burns & McDonnell performed professional services to add a 3-on-1 combined cycle plant to the existing Sam Rayburn Power Plant facilities. Burns & McDonnell's scope included permit support, procurement of equipment support, detailed design, program management, construction observation and coordination of startup and testing of the plant.

Project Features
- 3-on-1 combined cycle plant-180 MW
- 3 GE LM6000 gas turbines, 3 Foster Wheeler dual-pressure HRSGs, and 1 Dresser Rand steam turbine-generator
- SCR and CO catalysts installed for NO_x and CO emissions control
- Gas turbines fueled with either natural gas or fuel oil

Project Bac ground and Description
South Texas Electric Cooperative (STEC) added a 3-on-1 combined cycle plant to its existing Sam Rayburn Power Plant facilities. The plant is located in Nursery, Texas.

Burns & McDonnell assisted in the early stages of the project to obtain the permits for construction and operation of the plant in addition to serving as program manager for the process of obtaining financing for the project. Burns & McDonnell performed the detailed engineering and assisted in procurement of equipment and construction contractors for the project. Burns & McDonnell had representatives from their Kansas City office and staff from the local job force in Victoria work in a field office at the plant. Observation of the construction was performed on a day to day basis by Burns & McDonnell.

Plant capacity is approximately 180 MW and water for the project was provided from a new well installed on the site. The plant is controlled from the existing Unit 3 steam turbine plant control room with the addition of a new distributed control system provided by ABB. The plant provides STEC with additional scheduling flexibility to meet their system load requirements. Site preparation work started in April 2002 with completion of construction in 2003. The plant became commercial in Summer 2003.

Goose Cree Energy Center

Piatt County, Illinois

EPC Gas Turbine Simple Cycle Project

Client
Aquila
Goose Creek Energy Center
Piatt County, Illinois
(816) 421-6600

480 MW Peaking Facility
6 x GE 7EA
Fuel – Natural Gas

Completion Date
2003

Cost
Confidential

Project Manager
Steve Probasco

Services Provided
- Project Development and Permitting
- Engineering
- Procurement
- Construction
- Startup
- Commissioning

Project Summary
Burns & McDonnell provided Engineer-Procure-Construct (EPC) services for the 480 MW Goose Creek Simple Cycle Project which utilizes six GE Frame 7EA combustion turbines. Burns & McDonnell's scope included project development, as well as full EPC services including startup and commissioning.

Project Features
- Fast track EPC & start-up
- Six GE 7EA combustion turbines
- Outdoor Installation

Project Bac ground and Description
Total output of the Goose Creek facility is a nominal 480 MW. The project utilizes 6 GE frame 7EA combustion turbines in simple cycle. Burns & McDonnell provided up front project development and full balance-of-plant turnkey services to Aquila.

The plant is connected to a 345kV grid connection. The grid interconnection is to Illinois Power. Connection of the substation grid is by others from the high-side of the Generator Step-Up Transformer bushing.

Fit hugh Repower Project

Ozark, Arkansas

Gas Turbine & Combined Cycle Generation Detailed Design & Project Management

Client

Arkansas Electric Cooperative Corporation
One Cooperative Way
PO Box 194208
Little Rock AR 72219-4208
(501) 570-2462

165 MW Steam Turbine Repowering with Combustion Turbine & HRSG

Completion Date

April 2003

Cost

$66 Million

Project Manager

Fred Campbell

Services Provided

- Feasibility studies
- Detailed design
- Multiple prime contracts administration
- Resident project representation during construction
- Start-up planning and coordination

Project Summary

Burns & McDonnell was retained by AECC for the Fitzhugh Repowering project located in Ozark, Arkansas. Burns & McDonnell's scope included feasibility studies, detailed design, procurement assistance and administration, and resident field services for this project.

The existing Fitzhugh Generating Station consisted of a 60 MW nominal, non-reheat steam turbine. Power supply planning completed by Arkansas Electric Cooperative Corp. revealed repowering to be a strong option, both economically and technically. Additional preliminary studies performed by Burns & McDonnell confirmed that repowering was feasible.

Project Features Results:

- Overall net capacity increase from 60 MW to 165 MW
- Repowered 1 steam turbine with 1 CT & HRSG
- Dual fuel
- Bypass stack & damper
- Addition of "helper" cooling tower
- Added a plant DCS control system
- Reduced air emissions

Project Bac ground and Description

Major equipment contracts were executed in 2000. Detailed balance of plant engineering began in the summer of 2001. A helper cooling tower was added to the existing once-through circulating water system in the spring of 2002. The foundations and underground piping for the new CTG, diverter damper/bypass stack, and HRSG were placed in the spring of 2002. Major equipment deliveries took place in the spring and summer of 2002. Equipment erection, mechanical and electrical construction took place during the summer, fall, and winter of 2002. Final system checkout and commissioning occurred in January of 2003 for simple cycle operation and February of 2003 for combined cycle operation.

Sugar Cree Phase II

Terre Haute, Indiana

Combined Cycle Combustion Turbine and EPC Construction Project

Client
Mirant Corporation
Sugar Creek Phase II
Terre Haute, Indiana

Combined Cycle utilizing GE
7FA Technology
in a 2 on 1 Configuration (2003)

2-GE 7FA
1- GE D11 Steam Turbine
Fuel – Natural Gas

Completion Date
2003

Cost
Confidential

Project Manager
Rich Carvajal

Services Provided
- Complete Plant Design
- Procurement
- Construction
- Startup, Testing and Commissioning

Project Summary
Burns & McDonnell was selected by Mirant for Phase II design, procurement and construction of the 500 MW Net Combined Cycle facility in Terre Haute, Indiana.

Project Features
- Aggressive Schedule
- 2 GE 7FA Combustion Turbines
- 1 GE D11 Steam Turbine
- Natural Gas Fired
- Combustion Turbines in Outdoor Installation
- Steam Turbine in Enclosed Building

Project Bac ground and Description
The Project featured two (2) General Electric 7FA combustion turbine-generators (CT) designed for outdoor installation. Both CTs were designed for simple cycle as well as combined cycle operation. The CTs were coupled with two heat recovery steam generators (HRSG) and a single common steam turbine-generator (ST) to operate in combined cycle mode. Mirant provided the CTs and the ST. The CTs were designed to use evaporative cooling and steam injection power augmentation during summer operation.

The grid interconnection was at 345 kV under a separate contract by others with the Owner.

The power plant was designed for a minimal plant operations and maintenance staff. Control of the plant is from a central control room via a distributed control system (DCS).

Midlothian, Blac stone, Hays Energy

Massachusetts & Texas

Gas Turbine & Combined Cycle Generation / Owner's Engineer Services

Client

International Power (formerly
American National Power)
62 Forest Street
Suite 102
Marlborough MA 01752-302
(508) 482-7446

1650 MW Midlothian Energy Project
550 MW Blackstone Energy Project
1100 MW Hays Energy Project

Completion Date

Midlothian - June 2002
Blackstone - June 2001
Hays - early 2002

Services Provided

- Owner's Engineer
- Design review activities
- Full field services
- Liaison between EPC engineering and field services
- Miscellaneous consulting

Project Summary

All three projects included ABB GT 24 single shaft combustion turbines. The Midlothian project included 6 units with a nominal plant rating of 1650 MW while the Blackstone included 2 units and the Hays project 4 units. An additional 2 GT-24 single shaft units were added to Midlothian for commercial operation in 2002.

Project Features Results

- Midlothian & Blackstone – Air cooled condensers
- NO_x emissions – 2 ppm

Project Bac ground and Description

International Power (IP), retained Burns & McDonnell to provide Owner's Engineer services for all three of these projects. ABB was awarded the contracts to provide complete EPC services for the three projects.

Burns & McDonnell's services included design review of all balance of plant systems, design review in cooperation with IP engineers of the power island and full field engineering services including civil, electrical, mechanical, I&C and startup engineers.

Cascade Cree Unit 2

Minnesota

Simple Cycle Combustion Turbine Detailed Design

Client
Rochester Public Utilities
Cascade Creek Unit 2

Completion Date
May 2002

Cost
$24 Million

Project Manager
Ray Kowalik

Services Provided
- Resource Planning
- Site Evaluation
- Feasibility Study
- Permitting assistance
- Preliminary engineering
- Detailed design, bidding and evaluation
- Site construction and start-up services

Project Summary
Burns & McDonnell provided detailed design engineering and construction services for Cascade Creek Unit 2. The project involved installation of a single Pratt & Whitney FT8 Twin Pac in simple cycle service.

Project Features
- Built on an existing site
- Dual fuel capability – gas and #2 oil
- Water injection for NO_x control

Project Bac ground and Description
Rochester Public Utilities is a municipal utility serving Rochester, Minnesota. For the Cascade Creek Unit 2 project, Burns & McDonnell provided resource planning, siting evaluation and feasibility studies, permitting assistance, detailed design, and construction services for the installation of a Pratt & Whitney FT8 Twin Pac. The project was designed and constructed using a multiple contract approach. Equipment contracts were prepared separately for the turbine generator, CEM equipment, and electrical equipment. Construction contracts included separate civil, mechanical, and electrical packages.

Perryville

Perryville, Louisiana

Combined Cycle/Simple Cycle and EPC Construction Project

Client
CLECO
Perryville, Louisiana

Simple Cycle Combustion Turbine Project using a GE 7FA Unit (2001)

Combined Cycle using a GE 7FA 2 on 1 configuration (2002)

3-GE 7FA
Fuel – Gas

Completion Date
2001 – Simple Cycle
2002 – Combined Cycle

Cost
Confidential

Project Manager
Richard Klover

Services Provided
- Complete Plant Design
- Procurement
- Construction

Project Summary
Burns & McDonnell was the EPC Contractor for this design, procurement and construction project in Perryville, Louisiana. The project consisted of a 570 MW Combined Cycle facility and a 180 MW Simple Cycle facility on a Greenfield Site.

Project Features
- Accelerated schedule
- 3 GE 7FA Combustion Turbines
- Gas Fired
- Turbines in Outdoor Installation

Project Bac ground and Description
Total output for the project was 750 MW. The Project encompassed three General Electric 7FA combustion turbine-generators (CT) designed for outdoor installation. One CT was designed for simple cycle operation; the other two were coupled with two heat recovery steam generators (HRSG) and a single common steam turbine-generator (ST) to operate in combined cycle mode. The Owner provided the CTs and the ST. The CTs were designed to utilize evaporative cooling and steam injection for power augmentation during summer operation.

The grid interconnection was made to Entergy at 500 kV under a separate contract by others with the Owner. The grid interconnection contract included the 500 kV switchyard and connection to the high side of the main step-up transformers. The Owner provided the step-up transformer for the simple cycle CT.

The power plant was designed for a plant operations and maintenance staff of approximately 25 people. The plant was designed to be operated from a central control room via a distributed control system (DCS).

Crossroads Energy Center

Clarksdale, Mississippi
Engineering-Procurement-Construction

Client
Aquila & Clarksdale Public Utilities
Crossroads Energy Center
PO Box 70
Clarksdale, Mississippi
(662) 627-8415

320 MW Peaking Facility
4 x GE 7EA
Fuel – Natural Gas

Completion Date
2002

Cost
Cost of Project - Confidential

Project Manager
Dave Hendry

Services Provided
- Project Development and Permitting
- Engineering
- Procurement
- Construction
- Startup
- Commissioning

Project Summary
Burns & McDonnell provided Engineer-Procure-Construct (EPC) services for the 320 MW Clarksdale Simple Cycle Project which utilizes four GE Frame 7EA combustion turbines. Burns & McDonnell's scope included project development, as well as full EPC services including startup and commissioning.

Project Features
- Fast track construction & start-up
- Four GE 7EA combustion turbines
- Outdoor Installation
- 230 kV Switchyard and Substation

Project Bac ground and Description
Total output of the Clarksdale facility is a nominal 320 MW. The project utilizes 4 GE frame 7EA combustion turbines in simple cycle. Burns & McDonnell provided up front project development and full turnkey services to Aquila and Clarksdale Public Utilities. The plant is connected to a 230 kV grid connection. Burns & McDonnell also provided full turnkey services for the switchyard and substation as well as engineer, procurement and construction management services for transmission lines.

Bosque Unit 4

Laguna Park, Texas
Combined Cycle Conversion Project

Client
Mirant Corporation
Mirant Bosque Unit 4 Combined Cycle
Laguna Park, TX

Conversion of Unit 3 (GE 7FA) to 250 MW Combined Cycle

Completion Date
June 2001

Cost
Confidential

Project Manager
Rich Carvajal

Services Provided
- One ABB 90 MW Steam Turbine Generator
- One ABB HRSG
- Substation

Project Summary
Design and construction of a 90 MW steam turbine, HRSG addition to convert a GE 7FA from simple cycle to combined cycle operation.

Project Features
- One ABB 90 MW Steam Turbine Generator
- One ABB HRSG
- Substation

Project Bac ground and Description
Burns & McDonnell began the project with a very aggressive schedule. The HRSG's and steam turbine were immediately negotiated with delivery of the HRSG commencing in August 2000 and completion by January 2001. The steam turbine supplier was committed to a March 2001 delivery and complete delivery of the IP/LP turbine sections by April 2001. The project was completed on schedule and was placed in operation in June, 2001.

eeland Facility

Zeeland, Michigan

Simple Cycle/Combined Cycle and EPC Construction Project

Client
Mirant
Zeeland, Michigan

Simple Cycle Combustion Turbine Project using 2 GE 7FA Units

Combined Cycle using a peaking turbine and a GE 7FA 2 on 1 configuration.
2 – GE 7FA Combustion Turbines
1 – GE D11 Steam Turbine

Completion Date
2001

Cost
Confidential

Project Manager
Jim Jurczak

Project Summary
Burns & McDonnell was selected by Mirant to provide Engineering, Procurement and Construction of the Simple Cycle Combustion Turbines and Combined Cycle Combustion Turbine Project.

Services Provided
- Complete Plant Design
- Procurement
- Construction
- Startup, Testing and Commissioning

Project Features
- Fast track design and construction
- Aggressive project schedule
- 1 GE Steam Turbine
- 2 Vogt HRSGs
- 3 GE 7FA Combustion Turbines

Project Bac ground and Description
The Zeeland Facility was a natural gas-fired, combustion turbine power plant. The first block was comprised of two GE 7FA combustion turbine simple cycle units designed for 340 MW output. The second block consisted of two GE 7FA units, a GE D-11 steam turbine and two HRSG's operating in combined cycle mode. The block was designed for 570 MW output while duct firing the HRSGs, utilizing steam augmentation in the combustion turbines and with the evaporative coolers in operation.

The Zeeland facility went online in 2001.

Grand Tower Units 3 4 Repowering Project

Grand Tower, Illinois

Combined Cycle Repowering Detailed Design / Preliminary Engineering

Client
Ameren Services Inc.
Grand Tower Units 3 & 4
Grand Tower, Illinois

Repowering Project
Steam turbine repowering with combustion turbines & HRSG's

Completion Date
Start Date: July 1999
Commercial Operation: 2001

Cost
Confidential

Project Manager
Dan Fugate

Services Provided
- Planning, estimating and scheduling
- Existing plant equipment and systems assessment
- Detailed design and field services
- Preliminary engineering

Project Summary
The project consisted of repowering the existing Grand Tower Power Station's Unit 3 and 4 steam turbines with two Siemens-Westinghouse 501F combustion turbines. The gas turbine and heat recovery steam generator associated with Unit 3 steam turbine was designated Unit 1. The gas turbine and heat recovery steam generator associated with Unit 4 steam turbine was designated Unit 2.

Project Features
- Duct-firing and thermal cycle enhancements
- DCS and turbine controls upgrade
- Added plant DCS controls system
- Congested site
- Reduced air emissions
- 90 MW and 112 MW net generating capability

Project Bac ground and Description
The existing Grand Tower plant consisted of 2 coal-fired steam-electric units. One unit is a non-reheat 112 MW unit and the other is a 90 MW non-reheat unit. Burns & McDonnell was retained to provide preliminary engineering to assist Ameren in the feasibility analysis of repowering the 2 steam turbines with gas-fired combustion turbines and heat recovery steam generators (HRSG). The preliminary engineering work included conducting an assessment of the existing plant equipment and systems. This included reviewing operating and maintenance records, recent outage logs, interviewing plant maintenance personnel and inspecting equipment and systems. In working with plant maintenance personnel, a plan for replacing or rehabilitating plant equipment and systems was developed. Each gas turbine is rated approximately 176 MW at ISO conditions of 59° F. After the repowering, Unit 3 and 4 steam turbines had approximately 90MW and 112MW net generating capability, respectively. The units are suitable for single fuel (natural gas) operation and were provided with facilities to support operation on gas. The generating units were designed for intermediate duty service and have on-site operations and maintenance staff.

John R. elly Unit 8

Gainesville, Florida

Combined Cycle Repowering Detailed Design / Preliminary Engineering

Client
Gainesville Regional Utilities
John R. Kelly Unit 8

120 MW Repowering Project

Completion Date
June 2001

Cost
$35 million

Project Manager
Greg Mack

Services Provided
- Detailed Design
- Field Services
- Preliminary engineering
- Feasibility study
- Planning, estimating, and scheduling

Project Summary
Gainesville Regional Utilities (GRU) repowered an existing steam unit by adding a single combustion turbine (CT) with a heat recovery steam generator (HRSG). One existing 44-MW non-reheat steam turbine unit with condenser and accessories was utilized.

Project Features
- Design aesthetically matched to the gentrified area of downtown
- Net capacity increase from 44 MW to 110 MW
- Heat rate reduced to 8000 BTU/KWH

Project Bac ground and Description
Located immediately adjacent to downtown Gainesville in a commercial/residential area, Unit 8 at the Kelly station is a 45 MW non-reheat steam turbine previously powered by a gas/oil fired boiler. Burns & McDonnell was retained by Gainesville to provide detailed engineering and field services for repowering the steam turbine.

The preliminary engineering included developing the thermal cycle for the unit and conducting an assessment of the existing plant equipment, systems and materials. The repowered project included a General Electric Frame 7EA combustion turbine with a heat recovery steam generator. Duct heaters were used to supplement the gas turbine exhaust temperature to more closely match the existing steam turbine inlet characteristics.

La efield Junction

Trimont, Minnesota

EPC Simple Cycle Combustion Turbine Project

Client
Tenaska Inc.
490 MW Lakefield Junction
Power Project
Trimont, Minnesota

6 GE 7EA Simple Cycle
Fuels – Natural Gas and No. 2
Fuel Oil

Completion Date
2001

Cost
Confidential

Project Manager
Dave Langford

Services Provided
- Engineering
- Procurement
- Construction
- Startup
- Commissioning

Project Summary
Burns & McDonnell in a Joint Venture with The Industrial Company (TIC) provided Engineer-Procure-Construct (EPC) services for the 490 MW Lakefield Junction Simple Cycle Project which utilized six GE Frame 7EA combustion turbines. Burns & McDonnell's scope included project management and scheduling, detailed design, and equipment procurement as well as startup and commissioning. TIC provided all construction and erection activities, and procurement of bulk materials.

Project Features
- Fast track construction & start-up
- Six GE 7EA combustion turbines
- Outdoor Installation
- 345kV Switchyard and Substation

Project Bac ground and Description
Total output of the Lakefield Junction facility is a nominal 490 MW. The project utilized 6 GE frame 7EA combustion turbines in simple cycle. The Burns & McDonnell/TIC Joint Venture provided full turnkey services to Tenaska. The plant is connected to a 345 kV grid. Burns & McDonnell/TIC also provided full turnkey services for the switchyard and substation as well as engineering, procurement and construction management services for the 345kV transmission line connection to the grid.

Hama ua

Honokaa, Hawaii

Combined Cycle Cogeneration EPC Project

Client

Owner: Jones Venture/TECO Power Services (Hawaii Energy Partners)
EPC Contractor: JA Jones/ Burns & McDonnell
Utility: Hawaii Electric Light Company

2 – LM 2500 combustion turbines
(22 MW each)
2 – HRSG's
1 –20 MW steam turbine

Completion Date

November 2000

Cost

Confidential

Project Manager

Ray Kowalik

Services Provided

- Complete Plant Design
- Procurement Support
- Complete Substation and Transmission Line Design

Project Summary

This 64 MW combined cycle cogeneration project near Honokaa, Hawaii, was constructed by a joint venture of JA Jones Construction and Burns & McDonnell. Construction started in November, 1999 and was completed by November, 2000. The facility provides power for residents and businesses on the Big Island of Hawaii. The Plant is an independent power producer (IPP) that sells power to the island utility of Hawaii Electric Light Company (HELCO).

Project Features

- Two LM2500 GE Combustion Turbines
- Two Aalborg HRSG's
- One MHI Steam Turbine
- Substation and Transmission Line
- Water Heating Circuit in Condenser to provide hot water for a fish farm

Project Bac ground and Description

Many challenges faced Burns & McDonnell on the "Big Island". A very tight schedule existed with many obstacles; typical equipment shipment required 2 to 6 weeks, a shortage of qualified labor, staged construction requiring temporary simple cycle operation, and challenging geotechnical considerations. The site was located on the side of a steep hill with underground voids from ancient lava flows.

inmundy Power Plant

Kinmundy, Illinois

Gas Turbine & Combined Cycle Generation Detailed Design

Client

Ameren Energy Generating Company
One Ameren Plaza
1901 Chouteau Avenue
St. Louis MO 63103
(314) 554-2378

240-MW Preliminary Engineering/Detailed Design
Units 1 & 2
Simple Cycle Combustion Turbine Project
2 x Siemens Westinghouse 501D5A (240 MW)
Dual Fuel - Natural Gas and Fuel Oil

Completion Date

2001

Cost

Confidential

Project Manager

Gary Flandermeyer

Services Provided

- Permitting assistance
- Planning, estimating and scheduling
- Project management
- Equipment procurement
- Balance of plant PLC programming
- Detailed design
- Resident engineering

Project Summary

Burns & McDonnell provided engineering services for the 240 MW Kinmundy Simple Cycle Project which consists of two Siemens Westinghouse 501D5A dry-low NOx combustion turbines. Burns & McDonnell's scope included permitting assistance; project management; detailed design; combustion turbine contract negotiation; balance of plant equipment procurement; balance of plant PLC programming; resident engineering; and assistance in startup/commissioning.

Project Features Results

- Two SWPC 501D5A combustion turbines
- Dual fuel design
- Stringent noise regulations/controls

Project Bac ground and Description

In October 1998, Burns & McDonnell was selected by Ameren as engineer of record for the two unit, 240MW, simple cycle Kinmundy Power Plant. Burns & McDonnell immediately assisted Ameren in acquiring two Siemens Westinghouse 501D5A combustion turbines which were delivered to the Kinmundy site in December and January 2000.

The Kinmundy Power Plant is located east of the city of Kinmundy in central Illinois. The design of the plant required a dedicated fire protection water supply system, roadway design, and minimal water discharge requirements. A noise analysis was conducted to determine the expected noise levels imposed on local residences which was coordinated with the combustion turbine equipment design to deliver a plant that complied with the stringent State of Illinois noise ordinances.

Burns & McDonnell provided technical assistance to Ameren in securing the construction permits for the Kinmundy Power Plant. Equipment specifications were prepared and Burns & McDonnell assisted Ameren in negotiating the procurement of the Siemens Westinghouse combustion turbines. The majority of the balance of plant equipment was procured by Ameren based on Burns & McDonnell equipment specifications. Construction design was performed for the two dual fuel units. A general construction contractor was hired by Ameren to manage the construction of the project with detailed design and field technical assistance being provided by Burns & McDonnell. The units went into commercial operation in April and May 2001, respectively.

Neenah Simple Cycle Pea ing Project

Neenah, Wisconsin

EPC Simple Cycle Combustion Turbine Project

Client

Richard Boswell
Mirant Corporation
Neenah, Wisconsin
(678) 579-7700

Design/Build of a Twin Gas Turbine Peaking Station having two GE 7FA units

Completion Date

May 2000

Cost

Confidential

Project Manager

Dave Langford

Services Provided

- Complete Plant Design
- Procurement
- Construction

Project Summary

Burns & McDonnell was selected to be the EPC Contractor for the Neenah simple cycle facility in Neenah, Wisconsin. Burns & McDonnell performed all design, procurement and construction activities for this 340 MW Peaking Plant.

Project Features

- 2 GE 7FA Combustion Turbines
- Gas & Oil Fired
- Turbine enclosed in pre-engineered building

Project Bac ground and Description

The Mirant (SEI – Wisconsin) Facility was a natural gas and oil fired, simple cycle combustion turbine project. Two simple cycle GE 7FA combustion turbine units were installed, each rated at a 170 MW (340 MW total) net electric output. The facility is located near Neenah, Wisconsin. The Owner furnished the combustion turbines for erection by Burns & McDonnell. Burns & McDonnell furnished and installed the balance of plant equipment from the gas supply at the site boundary to the high side of the generator step-up transformer. The project was completed on schedule and has been producing power since May of 2000.

Pinc neyville Power Station

Pinckneyville, IL

Combined Cycle Detailed Design Project

Client

Ameren Corporation
One Ameren Plaza
1901 Chouteau Avenue
PO Box 66149
St Louis MO 63166-6149
(314) 621-3222

Units 1-4
Simple Cycle Combustion Turbine Project
4 x LM6000PC (160 MW)
Single Fuel - Natural Gas

Completion Date

2000

Cost

Confidential

Project Manager

Gary Flandermeyer

Services Provided

- Permitting assistance
- Planning, estimating and scheduling
- Project management, expediting
- Equipment Procurement
- Balance of Plant Programming
- Detailed design
- Construction
- Construction Management
- Check-out and start-up

Project Summary

Burns & McDonnell provided Engineer-Procure-Construct (EPC) services for the 160 MW Pinckneyville Simple Cycle Project which utilizes four GE Aero (formerly S & S Energy Products) LM6000PC combustion turbines. Burns & McDonnell's scope included permitting assistance; project management; detailed design; combustion turbine contract negotiation; balance of plant equipment procurement; balance of plant programming; construction; construction management; and startup/commissioning.

Project Features Results

- Fast track design and construction
- Four LM6000 PC combustion turbines
- Combustion turbine inlet air chilling
- Portable demineralizer
- 230 kV Switchyard

Project Bac ground and Description

In early September 1999, Burns & McDonnell was selected by Ameren as the EPC Contractor for the four unit, 160MW, simple cycle Pinckneyville Station.

Burns & McDonnell immediately assisted Ameren in acquiring four GE Aero (formerly S & S Energy Products) LM6000PC combustion turbines with delivery dates of March 23, 2000; April 12, 2000; April 20, 2000; and May 6, 2000. The units were commercial in July 2000.

Burns & McDonnell assisted Ameren in acquiring the necessary construction permits by November 5, 1999 to allow for construction to begin on November 15, 1999. The first two combustion turbines arrived on site as scheduled and were declared ready for commercial operation on June 15, 2000, two weeks ahead of schedule. The final two units which arrived on-site as scheduled were declared ready for commercial operation on June 27, 2000 and June 30, 2000, also ahead of schedule.

Coughlin Station Units 7

St. Landry, Louisiana

Detailed Design Gas Turbine Combined Cycle Project

Client
Cleco Corporation
2180 St. Landry Highway
PO Box 70
St. Landry LA 71367

750 MW steam turbine repowering project

Study and installation of 3 Siemens Westinghouse 501 gas turbines and 3 HRSG's

Completion Date
June 2000

Cost
Confidential

Project Manager
Dan Fugate

Services Provided
- Feasibility study and recommendation
- Existing equipment assessment
- Planning, estimating and scheduling
- Detailed design and field services
- Procurement

Project Summary
Based on the feasibility study conducted by Burns & McDonnell it was recommended that the steam turbines be repowered with 3, class "F" combustion turbines. The work included developing cost estimates for several optional projects, and working with Cleco in selecting an option for development. The scope of the project included installation of 3 Siemens Westinghouse 501F gas turbines and 3 HRSG's.

Project Features
- Repowered capacity of 750 MW
- Congested site
- Duct-firing
- Expansion of existing DCS control system
- Bypass stack

Project Bac ground and Description
The Coughlin Station consists of two gas fired steam turbine generators. Originally installed in the late 1950s, Unit 6 is a 1450 psig, 1000 F, 110 MW reheat tandem compound two-flow exhaust machine. Unit 7 is a 2000 psig, 1000 F, 200 MW reheat tandem compound two-flow exhaust machine. This unit was installed in the mid 1960s. Initially, Cleco retained Burns & McDonnell to study the feasibility of repowering these machines to compete in the deregulated energy market. The study completed in 1998, included selecting a combustion turbine technology level that would provide the optimum heat rate to the repowered cycle. Project pro formas were developed for use by Cleco in selecting an option.

Phase II of the project included the implementation of the repowering recommendations. Cleco retained Burns & McDonnell to provide detailed design engineering, procurement and field services for the repowering project. Two of the gas turbines with HRSG's repowered the 200 MW steam turbine. The third gas turbine with HRSG repowered the 110 MW steam turbine. Both installations have duct firing to supplement the gas turbine exhaust. The project included various modifications and refurbishment of the existing steam turbines and equipment being reused.

Plant No. 2 Units 7

Lubbock, Texas

Steam Turbine Repowering Detailed Design Project

Client
West Texas Municipal Power Agency
Lubbock Power & Light

Repowering for Plant #2
Units 6 & 7
with Combustion Turbine & HRSG

Completion Date
June 2000

Cost
$27.5 million

Project Manager
Ken Korinek

Services Provided
- Feasibility study
- Existing equipment condition assessment
- Preliminary engineering
- Detailed design

Project Summary
Burns & McDonnell provided the detailed design engineering to repower Plant No. 2. Units 6 and 7 were normally rated at 22 MW and fueled by natural gas. The steam turbines were single case non-reheat machines.

Project Features
- GE LM6000 Sprint Combustion Turbine
- Heat Recovery Steam Generator (HRSG)
- 22 MW Steam Turbine
- Selective Catalytic Reduction (SCR) for NO_x Control utilizing aqueous ammonia
- Duct burner

Project Bac ground and Description
Lubbock Power and Light is a municipal utility and the managing member of the West Texas Municipal Power Agency. The first phase included the installation of a General Electric LM 6000 SPRINT combustion turbine and, HRSG (Heat Recovery Steam Generator) to repower one of the 22 MW units and a single gas turbine (GT) and HRSG to repower the other. The connections to the existing equipment were designed so that either of the units could be selected, but not operated simultaneously. The second phase added another gas turbine and HRSG to repower the second 22 MW steam turbine generator.

Lumut Power Station

Lumut, Malaysia

1950 MW Gas-Fired Combined Cycle Project

Client

Segari Energy Ventures Sdn. Bhd.
GB3 Sdn. Bhd.

Lead Banker – Lumut Project: Bank Bumiputra Malaysia
Lead Banker – GB3 Project: Aseambankers

Completion Date

SEV Project: 1998
GB3 Project: 2000

Cost

Confidential

Project Manager

Dan Fugate

Services Provided

Prior to Financial Close:

- Preparation of Technical Assessment Report & Presentation to Potential Lenders and advisors
- General advise and comments to Lenders on various technical related issues

After Project Financial Close:

- Periodic Site visits during construction
- Preparation of monthly progress reports for Lenders
- Monitoring of Project Expenditures and Certification of milestone payments to the EPC Contractor
- Review and comment on EPC Contract variations
- Periodic meetings with Project Agent
- Witness Performance Tests
- Post Operation Audits

Project Summary

In 1995, Segari Energy Ventures initiated the design and construction of the 1300 MW Lumut Power Station located on the upper West Coast of pensular Malaysia. The project consisted of 2 blocks of combined cycle units. Each combined cycle unit included 3 ABB 13E2 gas turbines each with a heat recovery steam generator (HRSG). The steam generated in each HRSG is ducted to one 180 MW steam turbine. At the time the project was completed, it was the largest IPP project in Malaysia.

In 2000, the development of a 3rd combined cycle block was initiated by GB3 Sdn Bhd at the site of the 1300 MW CCGT Lumut Plant. The GB3 combined cycle block in most respects is identical to the Lumut Project blocks, and also includes 3 Alstom (ABB) 13E2 gas turbines with associated HRSGs feeding one steam turbine.

Project Bac ground and Description

Burns & McDonnell was selected to be the Independent Engineer for the Lumut project in 1995 and for the GB3 Project in 2000. Since the Lumut Project was the first major IPP development in Malaysia, the Banks requested that extensive Independent Engineering services be provided, including monthly project site visits during the construction of the project, and operational audits after commercial operation.

McWilliams Repower

Gantt, Alabama

Gas Turbine & Combined Cycle Generation Detailed Design

Client

PowerSouth Energy Cooperative
(formerly Alabama Electric Cooperative)
PO Box 550
Andalusia AL 36420-0550
(334) 222-2571

McWilliams Repower
151 MW Steam Turbine
Repowering with Combustion Turbine & HRSG

Completion Date

December 1996

Cost

$53 million

Project Manager

Ken Korinek

Services Provided

- Existing equipment condition assessment
- Preliminary engineering
- Detailed design and field services
- Field engineering
- Start up coordination

Project Summary

Detailed engineering and procurement by Burns & McDonnell began in December 1993. The design included the demolition of the existing boilers, significant asbestos abatement, the addition of a large water treatment plant, a new cooling tower, and the refurbishing of offices. The existing facilities were utilized as much as possible. Construction began in June of 1995.

Project Features Results

- Overall net capacity will increase from 42 MW to 151 MW
- Heat rate will decrease from approximately 15,000 Btu/kWh to 9,000 Btu/kWh.
- Repowered 3 steam turbines with 1 CT & HRSG
- Dual fuel
- Bypass stacks & damper
- Addition of “helper” cooling tower
- Complete DCS retrofit

Project Bac ground and Description

The existing McWilliams Power Plant consisted of two 7.5 MW and one 22 MW steam turbines, all commencing commercial operation in the 1950’s. The plant was on standby reserve status for many years due to the construction of larger, more efficient generating units. Power supply planning completed by Alabama Electric Cooperative revealed repowering to be a strong option, both economically and technically. It was identified that additional capacity of 100 MW with 15 to 35 percent load factor would be needed for the summer of 1994.

In 1988, Burns & McDonnell examined repowering options for the plant which included the repowering of just Units 1 and 2, repowering only Unit 3, a combination of both, and total repowering. The total repower was deemed the most economical option when using a single 80 to 100 MW combustion turbine and heat recovery steam generator.

Evaluations were made of steam turbine performance in the repowered mode, differences in combustion turbine performance, state of the art emissions control, effect of steam/water injection on power and heat rate, and single pressure versus two pressure HRSG.

Contract No. CAT-210G

Catskill/Delaware Ultraviolet Light Disinfection Facility

Agency:
NYC Department of Environmental Protection
59-17 Junction Blvd
Flushing, NY 11373

Agency Contact:
George Schmitt, PE
(914) 372-3600
schmittg@dep.nyc.gov

Engineer of Record:
CDM/Hazen & Sawyer, JV

Contract Value:
$1.2 Billion

Project Dates:
1/2008 - 12/2012
(Substantially Complete)

This Design-Build Project for the New York City Department of Environmental Protection was undertaken as a Joint Venture between Skanska USA Civil, ECCO III Enterprises, Inc. and J.F. White Contracting Co. ("SEW Construction")

This 1.2 Billion Dollar Project for the New York City Department of Environmental Protection consists of the construction of an Ultraviolet Light Disinfection Plant for the Catskill and Delaware Aqueducts.

The facility is the world's largest ultraviolet light facility, and treats 90% of the New York City water supply. The plant has the capacity to treat up to 2 billion gallons of water per day from the Catskill and Delaware Aqueducts.

The contract included over 10,000 linear feet of various types of piping ranging in size from 48 to 144 inches. The major structural components were the north and south forebays which control water flow in and out of Shaft 19 of the Delaware Aqueduct, and control water flow diversion to the Catskill Aqueduct system, once treated. The UV Facility Building itself which houses four quadrants comprised of 56 UV treatment units, each able to process 40 million gallons of water per day. All controls and valves are fully automated to run through a computerized control system, and are monitored 24 hours a day. This facility is ten times larger than any previously built facility of its kind in the world.

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Yonkers, NY 10701

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Fax: (914) 963-3989

www.eccoiii.com

ECCO III ENTERPRISES, INC.

Design-Build Contract No. 5.83

Bergen Subdivision Bridge No. 8

Agency:
CSX Transportation
500 Water Street
Jacksonville, FL 32202

Agency Contact:
David Peters
(425) 450-6200
dpeters@hdrinc.com

Engineer of Record:
AECOM

Contract Value:
$3,711,000

Project Dates:
3/2002-11/2002

The design and construction of a new single track railroad bridge approximately 350 feet long over the Overpeck Creek in New Jersey.

The work for this project consisted of the removal of an existing timber trestle and the replacement of a new structure which consisted of pile bents; concrete pile cap and steel girders; timber deck and track bedding were also included. Difficult access to the work area required the design and construction of a temporary work trestle that was installed along side the proposed bridge. The temporary trestle provided access for all operations including pile driving and steel erection.

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ECCO III ENTERPRISES, INC.

Design-Build Contract No. 2162

West of Hudson Station Rehabilitation

Agency:
Metro-North Railroad
347 Madison Avenue
New York, NY 10017

Agency Contact:
Brian Bell
(212) 340-2414
bell@mnr.org

Engineer of Record:
AECOM

Contract Value:
$4,882,671

Project Dates:
4/2005-2/2007

Design and Construction of low level platform canopies and canopy extensions at the Pearl River, Salisbury Mills and Tuxedo Stations

The scope for this project included: Electrical Service upgrades, design and construction of concrete mini high level platform (MHLP) at Salisbury Mills, Under canopy lighting and PA systems at all three stations, platform lighting at Salisbury and Pearl River, canopy downspouts, site drainage and grading, signage, site investigation, field survey, platform shelters at Salisbury Mills and Pearl River and a pay station at Salisbury Mills.

Coordination with public and private utilities, local and county governments, the State Historic Preservation Office (SHPO), Norfolk Southern Railroad, New Jersey Transit and Metro North Railroad was required to maintain the train schedule at all times.

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ECCO III ENTERPRISES, INC.

Contract No. 9467

Rehabilitation of Bridge HA 11.90 Crossing over the Bronx River in Woodlawn, New York

Agency:
Metro-North Railroad
347 Madison Avenue
New York, NY 10017

Agency Contact:
Michael Feinberg, PE
(212) 499-4410
feinberg@mnr.org

Engineer of Record:
Parsons Transportation Group

Contract Value:
$7,838,601

Project Dates:
11/2000 - 5/2003

This project for Metro-North Railroad included the removal of a railroad bridge superstructure, and construction of a new two-span bridge superstructure in its place. The construction included waterproofing reinforced composite concrete deck cast on built-up steel girders with membrane system.

The Scope of Work for this Project included: The removal of railroad superstructure. Superstructure included a concrete deck formed in a metal trough and built-up steel girders; construction of new two span bridge superstructures which consisted of a reinforced composite concrete deck cast on built up steel girders; the rehabilitation of the existing abutment seats and backwalls; installation of one hundred ton minipiles in the existing north and south abutments and the center pier and the installation of tiebacks in the existing wing wall. Also included in this project was the removal of the existing overhead signal bridge, two towers and the rehabilitation of the existing abutments consisting of the removal of loose concrete and the shotcreting on the face of the abutments.

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ECCO III ENTERPRISES, INC.

Design-Build Contract No. 24429

The Harmon Wheel Truing Facility

Agency:
Metro-North Railroad
347 Madison Avenue
New York, NY 10017

Agency Contact:
Craig Gustavson
(914) 271-1658

Engineer of Record:
Edwards & Kelcey

Contract Value:
$12,675,000

Project Dates:
8/2006 - 9/2007

This Design-Build Project for Metro-North Railroad was undertaken as a Joint Venture between ECCO III Enterprises, Inc. and Skanska USA Civil.

The Harmon Wheel Truing Facility project included the design and construction of a 14,000 square foot wheel truing facility. The 205 foot long building contains Metro North Railroad's first under-floor wheel truing lathe used to service and maintain rail cars.

The design and construction included providing all power, air, heating, ventilation and air conditioning to run the wheel truer as well as designing, installing and commissioning the wheel truer. The contract also called for the design and construction of lighting, fire protection and water systems in accordance with local building codes. The building itself was designed as steel framed with insulated metal wall panels. The foundation was supported on taper tube piles. The contract also called for the installation of site and track work in the vicinity of the building.

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ECCO III ENTERPRISES, INC.

Design-Build Contract No. 9543

Mid Harlem Stations Rehabilitation

Agency:
Metro-North Railroad
347 Madison Avenue
New York, NY 10017

Agency Contact:
Glenn Blackman
(646) 335-6914
blackman@mnr.org

Engineer of Record:
AECOM

Contract Value:
$17,050,000

Project Dates:
1/2004-10/2005

Rehabilitation of Five Metro-North Platforms/Stations on the Harlem Line from the Wakefield Station in Bronx County to the North White Plains Station in Westchester County

Some of the major improvements at four of the five stations included: removal and replacement of existing roofing; concrete decks; steel floor beams; staircase treads for pedestrian overpasses; performing of structural steel and concrete repairs to the overpasses and staircases; new steel; canopy extensions; new windows for overpasses and staircases; lead paint abatement; upgrade of the electric service; new HVAC system for office area; jacking main girders of overpasses for installation of new bridge bearings with new concrete abutment seats and back walls; new passenger shelters; platform amenities and site restoration. At the Wakefield Station, temporary platforms with temporary staircases and canopies were constructed so that the existing platforms, platform supports and steel staircases could be completely demolished and replaced in their entirety. The reconstruction also included all new platform canopies; passenger shelters; platform and staircase lighting; new electrical service; foundation and walkway for future elevators; windows for new staircases and all platform amenities.

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ECCO III ENTERPRISES, INC.

Contract No. 9490

Croton-Harmon Maintenance Facility & Employee Overpass

Agency:
Metro-North Railroad
347 Madison Avenue
New York, NY 10017

Agency Contact:
Lowell Johnson
(212) 340-3012
ljohnson@mnr.org

Engineer of Record:
Parsons, Brinckerhoff, Quade & Douglas, Inc.

Contract Value:
$31,096,250

Project Dates:
5/2001 - 5/2003

This project for Metro-North Railroad involved the Rehabilitation & Upgrade of the Croton-Harmon Railroad Station Yard and Related Facilities

A portion of this rail yard was rebuilt with new and relocated tracks and associated industrial systems. A total of four new fueling stations were installed in the yard along with two new sanding systems. A new incoming electrical service was installed to feed the yard along with the required ancillary support structures. Upgrading the yard area included the installation of four new electric substations; approximately 19,000 linear feet of electrical ductbank; 6,000 linear feet of water mains and 7,000 linear feet of storm and sanitary piping. In addition, a new employee overpass was constructed from the existing station overpass and spanned over the yard tracks.

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ECCO III ENTERPRISES, INC.

Design-Build Contract No. 9484

Rehabilitation of Nine Hudson Line Stations & Yonkers Viaduct

Agency:
Metro-North Railroad
347 Madison Avenue
New York, NY 10017

Agency Contact:
Mari Miceli
(646) 805-8057
miceli@mnr.org

Engineer of Record:
Stone & Webster/ AECOM

Contract Value:
$62,123,000

Project Dates:
10/2001-1/2006

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Yonkers, NY 10701

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www.eccoiii.com

Design and Construction of Rehabilitation Work for Nine Metro-North Stations along the Hudson Line & Yonkers Viaduct

This Design-Build project consisted of the rehabilitation of nine Metro North platforms/stations on the Hudson Line from Morris Heights in the Bronx to the Greystone Station in Yonkers. A separate portion of the contract at the Yonkers Station that included the Yonkers Viaduct Rehabilitation. Work performed on this project included platform demolition and replacement with cast -in-place concrete and precast concrete; new canopies; stair rehabilitation; new electrical systems; signage; shelter work; platform amenities; fencing and elevators. New pedestrian overpasses were constructed at the Glenwood, Greystone and Riverdale Stations and this portion of the work included the demolition of existing overpasses; construction of new overpass foundations; pile work; new structural steel; roofing; window systems; electrical systems; interior finishes and exterior finishes. The Viaduct work consisted of ballast removal; deck removal; structural steel rehabilitation; bearing replacement and concrete repairs at four bridges; adjacent to the Yonkers Station.

ECCO III ENTERPRISES, INC.

Design-Build Contract No. 857

The Harmon Shop Replacement, Phase III

Agency:
Metro-North Railroad
347 Madison Avenue
New York, NY 10017

Agency Contact:
Matt DePasquale
(646) 423-0581
depasquale@mnr.org

Engineer of Record:
Parsons Brinckerhoff, Edwards & Kelcey, JV

Contract Value:
$282,898,000

Project Dates:
8/2006 - 8/2009

This Design-Build Project for Metro-North Railroad was undertaken as a Joint Venture between ECCO III Enterprises, Inc. and Skanska USA Civil.

The Scope of Work for this Project included the following:
Construction of new Coach Shop, Locomotive Shop, Locomotive Wash Facility with specialized equipment, parking lots, storage yards, upgrades to substations, supporting track work and site utilities. New fire, water and storm sewer installed throughout site including four 50,000 gallon oil water separators, flow control structures and pump house, relocation of underground fuel system to an above ground system, installation of ballast and track leading into each new building. Contract included two steel frame buildings with specialized equipment incorporated into the design-build contract, including overhead bridge cranes, turntable, truck wash, truck repair lift, jib crane and material lift. Also included was electrical service and distribution, lighting, plumbing, HVAC and telephone and data communications, administrative offices, bathroom/ locker facilities, meeting rooms and lunch rooms.

The entire site contained petroleum contaminated soil along with non-structural soil, therefore all buildings were pipe-pile supported structures.

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ECCO III ENTERPRISES, INC.

Contract No. CAT-210SP

Catskill/Delaware Ultraviolet Light Disinfection Facility Site Preparation Contract

Agency:
NYC Department of Environmental Protection
59-17 Junction Blvd
Flushing, NY 11373

Agency Contact:
George Schmitt, PE
(914) 372-3600
schmittg@dep.nyc.gov

Engineer of Record:
CDM/Hazen & Sawyer, JV

Contract Value:
$51,000,000

Project Dates:
3/2006 - 10/2010

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www.eccoiii.com

ECCO III Enterprises, Inc. was Awarded this $51 Million Contract to Prepare the Site for the Future Construction of the Ultraviolet Light Disinfection Plant for the Catskill & Delaware Aqueducts in Valhalla, NY

The major aspects of the project were 650,000 cubic yards of excavation, design and construction of an earth retaining wall system and installation of site security systems. The earth retaining system consisted of a soldier pile and lagging wall with tiebacks. Soldier piles were both driven and drilled. Approximately 475 tiebacks and over 55,000 square feet of lagging wall were installed. ECCO III implemented noise mitigation measures and provided attenuation devices on equipment. At no time during construction was ECCO III found to be in non-compliance with New York City regulations. The Site Security System included the installation of a vehicle security cable barrier system, 16 vehicle arrest devices complete with all required power supplies and a Closed Circuit Television Surveillance System.

The project also included demolition of portions of the Catskill and Delaware Aerators, filling of the aerators with approximately 100,000 cubic yards of excavated material trucked from the main excavation site, furnishing and installing environmental controls, temporary site fencing, demolition and removal of existing electrical facilities, new utilities including a temporary electrical system for the site, water main and sanitary.

ECCO

ECCO III ENTERPRISES, INC.

TOWN OF WAWAYANDA
SLATE HILL, NEW YORK 10973

John R. Razzano
SUPERVISOR

80 RIDGEBURY HILL ROAD
SLATE HILL, NY 10973

Tel: (845) 355-5700
Fax: (845) 355-8614

May 10, 2013

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo,

On behalf of the Town of Wawayanda, we are writing to reaffirm our prior communication to you regarding the CPV Valley Energy Center. We firmly believe that this project should be a part of the state's next generation electric system. We believe this project reflects your vision for the Energy Highway.

The CPV Valley Energy Center is a proposed 650 megawatt (MW) clean, natural gas-powered electric generating facility to be located in the town of Wawayanda, New York, just outside of Middletown in Orange County.

The town, along with other community leaders, has worked closely with CPV since this project was first announced back in early 2008. The CPV team has gone to great lengths to work with the local and regional communities to meet the needs of everyone involved. They have held scores of meetings with community members to educate and receive feedback on how to create a better project.

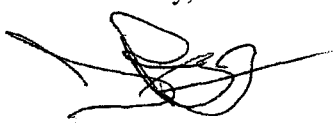
As mentioned in our previous letter dated April 27, 2012, the CPV Valley Energy Center is precisely the type of facility that achieves the goals and objectives you established for the Energy Highway. The addition of this project to the state's fleet of generation will enhance the overall reliability of New York's electric system not only due to its location in the Lower Hudson Valley, but also due the plant's dual fuel capability. The high efficiency of this project's combined-cycle technology will improve the state's system wide efficiency and consume less fuel than other baseload generators. This will result in a reduction in emissions for the state. Also, the project incorporates many positive environmental attributes, such as state-of-the-art combustion and control technology to be one of the cleanest generators in New York and dry cooling technology to reduce water use by over 95 percent compared to similar wet-cooled facilities. Further, the water the project does use will come from recycled "grey" water purchased from the City of Middletown.

The construction of this project will take two-and-a-half years and employ hundreds of union workers under a project labor agreement. These are vitally-needed jobs in our region and will be a major step toward meeting your goal of putting thousands of people back to work. CPV Valley Energy Center will contribute more than $30 million to local tax coffers, with the majority going to the local school system which has been hit hard in recent years by budget cuts.

Over the past several years, this project has advanced through New York's intense environmental permitting process, which was led by our planning board and had significant public participation throughout the process. The project achieved a major milestone in the state's SEQRA process with its Environmental Impact Statement (EIS) being deemed Final and Complete by the lead agency in May of 2012. Concurrent with the SEQRA review process, the project has progressed through the NYISO's interconnection process and is currently undergoing the final step. Recently this project received local zoning variances and approval of its site plan and special use permit. This advanced staged development project could be on-line as early as May 2016.

The CPV Valley Energy Center has the potential to have a positive impact on our region. We hope you will consider this project and include it as a key piece of New York's energy future and the Energy Highway.

Sincerely,



John Razzano
Supervisor
Town of Wawayanda

cc: Gil C. Quiniones, Co-Chair, Energy Highway Task Force
President and CEO New York Power Authority

Joseph Martens, Co-Chair, Energy Highway Task Force
Commissioner NY State Department of Environmental Conservation

MILLENNIUM
PIPELINE
COMPANY, L.L.C.

One Blue Hill Plaza, 7th Floor
Post Office Box 1565
Pearl River, NY 10965
845.620.1300 Voice | 845.620.1320 Fax

May 20, 2013

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Honorable Cuomo:

Millennium Pipeline Company ("Millennium") is writing to express strong support for Competitive Power Ventures' ("CPV") Valley Energy Center. In 2010, Millennium and CPV executed an agreement for the construction of a natural gas lateral connecting the CPV Valley Energy Center to the Millennium system. Over the past several years CPV has diligently obtained the necessary approvals for its Valley Energy Center. Now with these approvals in hand, the CPV Valley Energy Center is poised to be operational by June 1, 2016.

The lateral connecting the CPV Valley Energy Center to Millennium has been carefully evaluated for routing, schedule and environmental permitting. As one of New York's major natural gas pipelines serving almost a billion cubic feet (BCF) of gas a day throughout Ney York, Millennium is experienced with the permitting, construction and operation of over 182 miles of natural gas pipeline. Millennium will be working with CPV to permit and construct the 7.4 miles of pipeline connecting the CPV Valley Energy Center to the Millennium Pipeline.

Millennium understands New York's desire to have new generation available for June 1, 2016. The pipeline connection between the Valley Energy Center and the pipeline can be completed in time to support this in-service date. The projected 370-day schedule for permitting and constructing the connection of the Valley Energy Center already includes a protracted land acquisition process. While there are many factors that can impact schedule, even with significant delays, meeting CPV Valley's in-service date is readily achievable. The approval process for this interconnecting pipeline is a well-defined federal, FERC, process for interstate natural gas pipelines, with which Millennium is very familiar having successfully permitted, constructed and operated over182 miles of pipeline and natural gas infrastructure.

The CPV Valley Energy Center is a well-developed and supported project readily able to meet a June 1, 2016 in-service date. The interconnection with Millennium also supports this scheduled in-service date.

Sincerely,

Stan Brownell

Stan Brownell
Senior VP Commercial Operations

Joseph M. DeStefano
Mayor

Tel 845-346-4100
Fax 845-343-7439
mayor@middletown-ny.com

City of Middletown

16 James Street, Middletown, New York 10940
Established 1888

Steve Remillard
Vice President
Competitive Power Ventures, Inc.
50 Braintree Hill Office Park
Suite 300
Braintree, MA 02184

May 17, 2013

Re: CPV Valley Energy Center - Effluent Water Supply and Process Water Discharge Services Agreement

Dear Mr. Remillard:

I am writing to confirm the status of the referenced agreement which has been under negotiation between the City of Middletown and CPV Valley, LLC.

As you know, the City of Middletown has publicly expressed its support for the Valley Energy Center in several public forums, most recently at the public hearing held by the Town of Wawayanda Planning Board on March 27, 2013. I delivered a letter of support at that hearing, and I, and several of my colleagues on the City Council spoke in support of the project.

The City is committed to completing the referenced agreement as expeditiously as possible. As you know, the agreement would commit the City to supply the project's process water requirements by providing treated effluent (up to 500,000 gallons per day) from its wastewater treatment facility, and to accept the project's process water discharge to that facility. In addition, the agreement would provide CPV Valley with the rights to occupy the City's streets and other real property rights necessary for construction and operation of the water supply and discharge pipelines running between the City's wastewater treatment facility and the Valley project site.

Although both CPV Valley and the City had hoped that the agreement would have been executed by now, we fully expect that it will be completed, approved, and executed within the next several weeks. We look forward to working with you to complete the agreement within this time frame.

Please do not hesitate to call me or Commissioner Tawil if you have any questions if we can be of further assistance.

Sincerely,

Joseph M. DeStefano
Mayor

Maureen Halahan
President/CEO

ORANGE COUNTY
PARTNERSHIP
OFFICE OF ECONOMIC DEVELOPMENT
NEW YORK

40 Matthews Street, Suite 108
Goshen, NY 10924
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info@ocpartnership.org
http://www.ocpartnership.org

May 14, 2013

Honorable Andrew M. Cuomo
Governor of New York State
NYC Capitol Building
Albany, New York 12224

RE: Strong Support for CPV Valley Energy Center

Dear Governor Cuomo:

The Orange County Partnership works both a local and regional basis to develop the infrastructure and resources necessary to build long-term, intelligent economic growth to sustain the high quality of life those of us who live here so value. In this capacity, the Partnership vets and provides counsel on infrastructure development projects of every type and size.

The CPV Valley Energy Center is one of the best conceived and executed regional infrastructure projects we have ever encountered at the Partnership. CPV's emphasis on environmentally-sound technology deployment, community outreach, top-notch professional, technical prowess, coordination and communications and good old-fashioned courtesy, have all made this a project into one which that Orange County Partnership still heartily endorses after more than five years of review.

In addition to the hundreds of well-paying construction jobs created almost immediately by this project moving forward, the CPV Valley Energy Center is projected to lower regional electricity costs for ratepayers. It's stringent environmental adherence means that it will be one of the cleanest natural gas generating facilities in the world when it goes on-line and because it must retire more credits than emitted, its operation will actually reduce regional air emissions and improve air quality.

It isn't often a major electric generating project comes along and enjoys such widespread support, particularly after such a long permitting process. However, the CPV Valley Energy Center is not an average project. It is a vital electric infrastructure project that will create significant benefits for the people of the lower Hudson Valley.

We strongly encourage you to make a place within your Energy Highway for the CPV Valley Energy Center to be built.

Sincerely,

Maureen Halahan
President and CEO

MH/nb

www.orangeny.com
ORANGE COUNTY
CHAMBER OF COMMERCE

February 1, 2012

Hon. Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Gov. Cuomo:

On behalf of the Orange County Chamber of Commerce, I am writing regarding the vision of an Energy Superhighway and the expected RFP that you outlined in your recent State of the State speech. As part of this RFP, I strongly encourage you to include generation as well as transmission to meet the state's future energy needs.

Here in Orange County, there is a private infrastructure development project that we believe can help you attain your vision of a modern energy future for New York, as well as a number of additional objectives outlined in your speech.

The CPV Valley Energy Center is a proposed $900 million, 650 megawatt (MW) clean, natural gas-powered electric generating facility to be located in the Town of Wawayanda, just outside of Middletown in Orange County.

We at the Chamber have worked with the developers of this project since it was first announced back in early 2008. During the ensuing four years, we have watched as the CPV team has gone to great lengths to work with local and regional communities to refine this project to meet the needs of everyone involved. They have held nearly 100 meetings with community members to educate and receive feedback on how to enhance the project. This intensive outreach effort is likely the reason that this major power project has virtually unanimous support and almost no opposition within the community where it will be located.

CPV Valley Energy Center, which promises to be the most technologically advanced in the state when constructed, is exactly the type of facility that meets your stated policy goal of updating New York's electric system. Not only will its emissions be among the lowest of any conventional generator in the state, its use of dry cooling technology and recycled "grey" water for process water will conserve our state's precious water resources.

Construction of this project will take approximately 29 months and employ approximately 600 union workers under a project labor agreement. These are vitally-needed jobs in our upstate region and will be a major step toward meeting your goal of putting thousands of people back to work.

Under a PILOT agreement with the Orange County IDA, the project will contribute more than $30 million to local tax coffers, with the majority going to the local school system which has been hit hard in recent years by budget cuts.

Rarely have we seen a single project in our region that promises such a major positive impact for our region while enjoying such widespread public support. I hope you will include generation projects as part of the state's upcoming energy RFP, so that it has an opportunity to compete with other projects in demonstrating the significant benefits this project has to offer.

Sincerely yours,

John A. D'Ambrosio, Ed.D.
President

cc: Sen. John Bonacic
Sen. David Carlucci
Sen. William J. Larkin, Jr.
Assemblywoman Nancy Calhoun
Assemblywoman Aileen Gunther
Assemblywoman Annie Rabbitt
Orange County Executive Ed Diana
Wawayanda Town Supervisor John R. Razzano
Empire State Development President Kenneth Adams

Maureen Halahan
President/CEO

ORANGE COUNTY
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OFFICE OF ECONOMIC DEVELOPMENT
NEW YORK

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info@ocpartnership.org
http://www.ocpartnership.org

February 9, 2012

Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo–

Congratulations on a remarkable first year as Governor. Based upon the goals you outlined in your State of the State address in early January, it sounds like your second year in office may be even better than the first. We are writing to you today about your vision for an Energy Super Highway.

On behalf of the Orange County Partnership Board of Directors, we are writing to encourage you to include electric generation projects as part of your plan for New York State's energy future. We have an outstanding electric generation project under development here in Orange County that we believe should be a part of the state's future energy mix.

The CPV Valley Energy Center is a proposed $900 million, 650 megawatt (MW) clean, natural gas-powered electric generating facility to be located in the Town of Wawayanda, New York, just outside of Middletown in Orange County.

We, at the Partnership, have worked closely with the developers of this project since it was first announced back in early 2008. The CPV team has gone to great lengths to work with the local and regional communities to meet the needs of everyone involved. They have held scores of meetings with community members to educate and receive feedback on how to create a better project. This intensive outreach effort is likely the reason that this major power project enjoys such strong local support.

CPV Valley Energy Center is precisely the type of facility that meets your stated policy goal of updating New York's electric system. Its emissions will be among the lowest of any conventional generator in the state and its use of dry cooling technology and recycled "grey" water for process water, will conserve our state's precious water resources.

Construction of this project will take two-and-a-half years and employ approximately hundreds of union workers under a project labor agreement. These are vitally-needed jobs in our upstate region and will be a major step towards meeting your goal of putting thousands of people back to work.

CPV Valley Energy Center will contribute more than $30 million to local tax coffers, with the majority going to the local school system which has been hit hard in recent years by budget cuts.

This is an outstanding project that promises a major positive impact for our region and enjoys widespread public support. We hope you will include projects such as this for consideration as part of New York's energy future.

Sincerely,

Maureen Halahan
President and CEO

cc: Sen. John Bonacic
Assemblywoman Aileen Gunther
Orange County Executive Edward Diana
Wawayanda Town Supervisor John R. Razzano
Commissioner of Empire State Development Ken Adams
Orange County Partnership Chairman Alan Seidman

TOWN OF WAWAYANDA
SLATE HILL, NEW YORK 10973

John R. Razzano
SUPERVISOR

80 RIDGEBURY HILL ROAD
SLATE HILL, NY 10973

Tel: (845) 355-5702
Fax: (845) 355-8614

April 27, 2012

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo,

On behalf of the Town of Wawayanda, we are writing to make you aware of a promising electric generation project under development here in Wawayanda that we believe should be a part of the state's next generation electric system. We believe this project reflects your vision for the Energy Highway.

The CPV Valley Energy Center is a proposed $900 million, 650 megawatt (MW) clean, natural gas-powered electric generating facility to be located in the town of Wawayanda, New York, just outside of Middletown in Orange County.

The town, along with other community leaders, has worked closely with CPV since this project was first announced back in early 2008. The CPV team has gone to great lengths to work with the local and regional communities to meet the needs of everyone involved. They have held scores of meetings with community members to educate and receive feedback on how to create a better project.

The CPV Valley Energy Center is precisely the type of facility that achieves the goals and objectives you established for the Energy Highway. The addition of this project to the state's fleet of generation will enhance the overall reliability of New York's electric system not only due to its location in the Lower Hudson Valley, but also due the plant's dual fuel capability. The high efficiency of this project's combined-cycle technology will improve the state's system wide efficiency and consume less fuel than other baseload generators. This will result in a reduction in emissions for the state. Also, the project incorporates many positive environmental attributes, such as state-of-the-art combustion and control technology to be one of the cleanest generators in New York. The project employs dry cooling technology to reduce water use by over 95 percent compared to similar wet-cooled facilities. The water the project does use will come from recycled "grey" water purchased from the City of Middletown.

The construction of this project will take two-and-a-half years and employ hundreds of union workers under a project labor agreement. These are vitally-needed jobs in our region and will be a major step toward meeting your goal of putting thousands of people back to work. CPV Valley Energy Center will contribute more than $30 million to local tax coffers, with the majority going to the local school system which has been hit hard in recent years by budget cuts.

Over the past several years, this project has advanced through New York's intense environmental permitting process, which was led by our planning board and had significant public participation throughout the process. The project achieved a major milestone in the state's SEQRA process with its Environmental Impact Statement (EIS) being deemed Final and Complete by the lead agency earlier this year. Concurrent with the SEQRA review process, the project has progressed through the NYISO's interconnection process and is currently undergoing the final step. This advanced staged development project could be on-line as early as May 2016.

The CPV Valley Energy Center has the potential to have a positive impact on our region. We hope you will consider this project and include it as a key piece of New York's energy future and the Energy Highway.

Sincerely,

John Razzano
Supervisor
Town of Wawayanda

cc: Gil C. Quiniones, Co-Chair, Energy Highway Task Force
President and CEO New York Power Authority

Joseph Martens, Co-Chair, Energy Highway Task Force
Commissioner NY State Department of Environmental Conservation

CPV

ORANGE COUNTY LEGISLATURE

Committee: Rules, Enactments and Intergovernmental Relations
Sponsors: Amo, Berkman, Brescia, Bonelli, Hines
Co-Sponsors: Anagnostakis, Benton, Berardinelli, Buckbee, Castricone, Eachus, Paduch, Simmons, Smith, Pillmeier

Agenda No. 15

RESOLUTION NO. 110 OF 2012

RESOLUTION OF THE ORANGE COUNTY LEGISLATURE AND COUNTY EXECUTIVE IN SUPPORT OF ECONOMIC AND SUSTAINABLE ENERGY DEVELOPMENT OF THE CPV VALLEY ENERGY CENTER IN WAWAYANDA NEW YORK.

WHEREAS, the CPV Valley Energy Center (the "Project"), to be located in Wawayanda, Orange County, New York, is a nominally rated 650MW state-of-the-art combined cycle electric generation facility; and

WHEREAS, the Project represents a $900 million private investment in Orange County, and will generate significant economic activity for the County and the State through the creation of approximately 500 new jobs for the construction and 25 to 30 new jobs for operation, and by the Project's significant payment in lieu of taxes; and

WHEREAS, the Project's development will achieve many of the objectives set forth in the New York Energy Highway program, which includes enhancing the long-term reliability of the State's energy system due to the Project's location and dual fuel capability, as well as, increasing the efficiency of the State's generation fleet with the addition of the Project as a new, clean and highly efficient electric production resource for New York; and

WHEREAS, the Project will also achieve other goals of New York's Energy Highway program, such as creating new jobs and opportunity for New York through the construction and operation of the facility; and

WHEREAS, the Project will contribute to the improvement of the State's environmental future by utilizing clean proven and more efficient generation technology that will allow for the retirement of older, less efficient and less environmentally friendly electric generation facilities; and

WHEREAS, the design of the Project will utilize advanced technologies such as air cooling to reduce water consumption, and the use of re-claimed water from the local wastewater treatment facility, both of which preserve New York's precious water resources; and

WHEREAS, the Project has received wide spread community support due to the sponsor's extensive community outreach throughout the development process and the significant public participation as the Project proceeded through the State's SEQRA process, which is nearing completion with the Environmental Impact Statement recently deemed final and complete by the Lead Agency; and

WHEREAS, the Project has adhered to the market rules and procedures established by the New York Independent System Operator ("NYISO") as evidenced by the Project being in the final phase of the NYISO study and approval process.

NOW THEREFORE BE IT

RESOLVED, that the Orange County Legislature, supports the development and construction of the CPV Valley Energy Center and requests that the Energy Highway Task Force give all due consideration to inclusion of the CPV Valley Energy Center in the implementation of the Task Force's efforts; and be it further

RESOLVED, that the Clerk of the Legislature is hereby authorized to forward certified copies of this Resolution to New York State Governor Andrew Cuomo, Commissioner RoAnn M. Destito, Commissioner of the New York State Office of General Services, State Senate Majority Leader Dean Skelos, Speaker of the Assembly Sheldon Silver and to each member of the State Senate and Assembly whose districts include all or part of Orange County.

APPROVED: DATED: MAY 3, 2012

EDWARD A. DIANA, COUNTY EXECUTIVE

THIS IS TO CERTIFY THAT I, JEAN M. RAMPPEN, Clerk of the County Legislature of said County of Orange, have compared the foregoing copy of resolution with the original resolution now on file in my office and which was passed by the County Legislature of said County of Orange on the 3rd day of May, 2012, and that the same is a correct and true transcript of such original resolution and the whole thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and the official seal of said County Legislature this 4th day of May, 2012.

Clerk of the County Legislature of the County of Orange

JOHN J. BONACIC
SENATOR, 42ND DISTRICT
CHAIR
COMMITTEES ON
JUDICIARY
RACING, GAMING & WAGERING
DEPUTY MAJORITY LEADER
FOR STATE/FEDERAL RELATIONS

THE SENATE
STATE OF NEW YORK

COMMITTEES
ALCOHOLISM
BANKS
CULTURAL AFFAIRS, TOURISM,
PARKS & RECREATION
FINANCE
HOUSING, CONSTRUCTION
& COMMUNITY DEVELOPMENT
MENTAL HEALTH

May 11, 2012

Jean M. Ramppen, Clerk
Orange County Legislature
15 Matthews Street
Goshen, NY 10924

Dear Ms. Ramppen:

This will acknowledge Resolution Number 110 of 2012, which was adopted by the Orange County Legislature on May 3, 2012.

Resolution Number 110 of 2012 supports the development and construction of the CPV Valley Energy Center and requests that the Energy Highway Task Force give all due consideration to inclusion of the CPV Valley Energy Center in the implementation of the Task Force's efforts.

Please be assured, I will continue to support economic development opportunities in Orange County. Job creation remains my priority. Clean energy production which will provide for our needs and create jobs, while preserving New York's precious water supply, is a win-win for all of us!

If I can be of any further assistance, please do not hesitate to contact my office.

Sincerely,

JOHN J. BONACIC
State Senator

JJB/bac
bcc: Scott Bonacic

RECEIVED MAY 16 2012

ALBANY OFFICE: ROOM 509 LEGISLATIVE OFFICE BUILDING, ALBANY, NY 12247 (518) 455-3181
DISTRICT OFFICE: 201 DOLSON AVENUE, SUITE F, MIDDLETOWN, NY 10940 (845) 344-3311
SATELLITE OFFICE: 111 MAIN STREET, DELHI, NY 13753
EMAIL: BONACIC@NYSENATE.GOV

4 Crotty Lane
Suite 100
New Windsor, NY 12553

phone: 845.220.2244
fax: 845.220-2247
www.hvedc.com

May 15, 2012

The Honorable Andrew Cuomo
Governor, State of NY
NYS Capitol
Albany, New York 12224

Dear Gov. Cuomo:

We applaud you for your vision in proposing to upgrade New York aging electric grid through your Energy Highway plan. As we work to return New York state to its former prominence, we believe this is precisely the type of foundational initiative on which we need to be focused.
As you formulate your Energy Highway plan for the future, we hope you will make the CPV Valley Energy Center a central component. This natural gas-fired clean energy project which has been in development for over four years has extremely strong public support and promises to serve as an economic catalyst for the entire Hudson Valley region.

The Hudson Valley has been one of the fastest growing areas in New York state over the past decade. To meet the demands of this growth now and into the future, we need to make intelligent choices and plan accordingly. Advancing the CPV Valley Energy Center is an intelligent choice, helping lay the infrastructure groundwork to support economic growth and prosperity for decades to come.

By creating hundreds of well-paying construction jobs over a two-and-a-half year period, the CPV Valley Energy Center provides precisely the type of economic shot in the arm we so need right now and the reliable energy we need for future growth. The project's environmentally-friendly design ensures that we don't sacrifice clean air or clean water in pursuit of our economic goals.

This project enjoys virtually unanimous support from virtually every level of government. We hope you will join the Hudson Valley Economic Development Corporation in supporting this vital project going forward through inclusion in your Energy Highway plan.

Sincerely,

Michael Oates, President
Hudson Valley Economic Development Corporation

Maureen Halahan
President/CEO

ORANGE COUNTY
PARTNERSHIP
OFFICE OF ECONOMIC DEVELOPMENT
NEW YORK

40 Matthews Street, Suite 108
Goshen, NY 10924
(845) 294-2323
Fax: (845) 294-8023
info@ocpartnership.org
http://www.ocpartnership.org

May 15, 2012

Hon. Andrew Cuomo
State of New York
NYS State Capitol Building
Executive Chambers
Albany, NY 12224-0341

Dear Governor Cuomo:

We are contacting you today to urge you to make the CPV Valley Energy Center one of the primary projects selected within your Energy Highway plan. This $900-million private infrastructure project is precisely the type of upgrade to our aging electric infrastructure that we need right now for the Hudson Valley and across the state. This clean, natural, gas-driven generator will create many hundreds of much-needed construction jobs and major positive economic impact. It will also provide power that will allow for the retirement of older, outdated electric generating units.

CPV Valley Energy Center's air-cooled design and use of grey water purchased from the Town of Middletown, combined with its state-of-the-art turbines and emissions suppression technology, will make this one of the most environmentally advanced electric generating facilities across North America.

CPV Valley Energy Center enjoys unprecedented local support within our area largely as a result of the extensive outreach efforts undertaken by the company. This support includes a unanimous resolution of support passed by the Orange County Legislature last week.

For the above reasons, as well as others, we hope you will join with us in doing whatever it takes to move this outstanding project into construction as soon as possible.

Sincerely,

Maureen Halahan
President and CEO

Cc Alan Seidman, Chairman of the Board

Board of Directors
Resolution #0512
May 15, 2012

WHEREAS, the Orange County Economic Development Corporation, doing business as the ORANGE COUNTY PARTNERSHIP, was formed to:

- Promote and coordinate the economic development of businesses in Orange County;
- Engage in research activities to aid business development in Orange County;
- Supply timely information to allied business or economic development groups and to the general public with respect to the economic and orderly development of Orange County; and
- Work in partnership with federal, state, county and municipal governments and their agencies to foster economic development in Orange County;

WHEREAS, the ORANGE COUNTY PARTNERSHIP has worked closely with Competitive Power Ventures (CPV) since the CPV Valley Energy Center project was first proposed back in Spring of 2008;

WHEREAS, the CPV Valley Energy Center (the "Project"), to be located in Wawayanda, Orange County, New York, is a nominally rated 650MW state-of-the-art combined cycle electric generation facility; and

WHEREAS, the Project represents a $900 million private investment in Orange County, and will generate significant economic activity for the County and the State through the creation of approximately 500 new jobs for the construction and 25 to 30 new jobs for operation, and by the Project's significant payment in lieu of taxes; and

WHEREAS, the Project's development will achieve many of the objectives set forth in the New York Energy Highway program, which includes enhancing the long-term reliability of the State's energy system due to the Project's location and dual fuel capability, as well as, increasing the efficiency of the State's generation fleet with the addition of the Project as a new, clean and highly-efficient electric production resource for New York; and

WHEREAS the Project will also achieve other goals of New York's Energy Highway program, such as creating new jobs and opportunity for New York through the construction and operation of the facility; and

WHEREAS the Project will contribute to the improvement of the State's environmental future by utilizing clean proven and more efficient generation technology that will allow for the retirement of older, less efficient and less environmentally friendly electric generation facilities; and

WHEREAS, the design of the Project will utilize advanced technologies to reduce water use and use re-claimed water from the local wastewater treatment facility, both of which preserve New York's precious water resources; and

WHEREAS**,** the Project has received wide spread community support due to the sponsor's extensive community outreach throughout the development process and the significant public participation as the Project proceeded through the State's SEQRA process, which is nearing completion with the Environmental Impact Statement recently deemed final and complete by the Lead Agency; and

WHEREAS, the Project has adhered to the market rules and procedures established by the New York Independent System Operator ("NYISO") as evidenced by the Project being in the final phase of the NYISO study and approval process.

NOW, THEREFORE, the ORANGE COUNTY PARTNERSHIP does hereby express its unanimous support for the development and construction of the CPV Valley Energy Center and requests that the Energy Highway Task Force give all due consideration to inclusion of the CPV Valley Energy Center in the implementation of the Task Force's efforts; and further directs that a copy of this resolution be transmitted to Governor Andrew M. Cuomo for his consideration.

MOTION CARRIED:

AYES:	10
NAYS:	0
ABSTENTIONS:	0

451A Little Britain Road
Newburgh, NY 12550

Phone (845)565-2737
Fax (845)565-3099

Hudson Valley Building and Construction Trades Council

BUILD IT RIGHT — BUILD IT UNION

May 16, 2012

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo:

On behalf of our membership which consists of 28 local trade unions and over 10,00 members, we seek your support for an outstanding energy infrastructure project in the Hudson Valley that should become part of the State's Energy Master Plan going forward that you addressed in your 2012 State of the State.

The CPV Valley Energy Center is a proposed $900 million, 650 megawatt (MW) clean, natural gas-powered electric generating facility to be located in the town of Wawayanda, New York, just outside of Middletown in Orange County. If it goes into construction by early next year, as planned, this facility can be online as soon as 2016 to begin helping meet our growing energy demand in the region.

The addition of this clean burning natural gas fired facility to the state's fleet of generation would serve to enhance both the overall reliability of New York's electric system, and our environmental profile.

This project certainly fits the vision you put forth as part of the goals and objectives you envisioned and established for the Energy Highway. It's geographic location makes it an excellent candidate to be able to help move power into much needed areas, it could conceivably come on-line in short period of time since it is almost through the permitting process, and it's technology is state-of-the-art. The high efficiency of the CPV Valley Energy Center's proposed combined-cycle technology is well proven, along with the environmental benefits the technology delivers.

Certainly key to us is the economic benefits that it will bring. Again, you spoke about the need for jobs and this project would employ hundreds of union workers during its 30-month construction period as CPV has committed to a project labor agreement for the project. That would be a tremendous economic boom for this region at time we sorely need it, as many local unions are currently at unemployment rates from 20-50%. The project will also provide more than $30 million in local tax revenues, with much of that going to help the local school district which has been hit hard by budget cuts the past few years.

Another thing that has made this project stand out is the close cooperation that the CPV team has displayed in dealing with us, and the community at-large. Since this project was first announced almost four years ago, we have worked closely with them and watched them work tirelessly to achieve an outstanding level of local support. CPV has gone to great lengths to work with the local and regional communities to meet the needs of everyone involved, and too assure that they build the best project possible for everyone involved. I really can't say enough about their dedication to this being a model project.

Orange County continues to be one of the fastest growing counties in the State. We need jobs and energy to continue that trend, and projects like the CPV Valley Energy Center can help provide that. As I mentioned before, this project really does incorporate all the good things you spoke about that we need in this State. It can help give us that future that we envision and are trying so hard to make a reality.

For this and all the reasons cited above, we hope you will join us in supporting this project by including it within your plan for New York's Energy Highway.

Sincerely,

L. Todd Diorio
President

New York State Laborers'-Employers'
Cooperation & Education Trust
18 Corporate Woods Boulevard
Albany, New York12211
Tel: 518 449 1715 · 800 797 5931
Fax: 518 449 1621
www.nysliuna.org

May 16, 2012

CPV Valley Energy

The New York State Laborers' Union represents 40,000 members employed in the construction industry and other fields throughout the state. Our members are organized into more than 35 local unions and 5 district councils. We are a proud affiliate of the Laborers' International Union of North America (LIUNA).

Direct Impact for our members

- The CPV Valley Energy project would create more than 400 direct construction jobs for our members from the Hudson Valley during the 2½ year construction period.

- The construction jobs will be associated with the construction of a 650 mega watt natural gas generating facility. Our members would also be involved with the construction of temporary access roads, site excavation and site restoration.

- The project would provide work opportunities in the community where they live which would benefit the local communities.

Economic Impact

- The construction phase will deliver immediate economic benefits to the state generating millions of dollars in local economic benefits in addition to the regional benefits of an increased competitively priced energy supply

- The instate construction jobs created by the project will result in an increase in demand of goods and services within the state.

- The construction phase of the project will create an average of more than 1,200 indirect jobs in New York State over the same period of time from suppliers and businesses in the local community along the route.

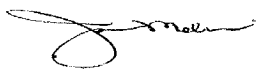
New York State Laborers'-Employers'
Cooperation & Education Trust
18 Corporate Woods Boulevard
Albany, New York12211
Tel: 518 449 1715 · 800 797 5931
Fax: 518 449 1621
www.nysliuna.org

- The project will also incur direct spending in New York, including non-labor installation costs, as well as fees and taxes paid to the local and state government. The latter is estimated to total over $30 million in the first two decades of operation.

Increase Reliability and Lower Costs

- Once this project is complete it will continue to deliver significant economic benefits. It is estimated that the increased supply of low cost electricity delivered from this facility will decrease electricity costs to customers throughout New York State.

Sincerely,



James M. Melius, MD, Dr.PH
Administrator

www.orangeny.com
ORANGE COUNTY
CHAMBER OF COMMERCE

May 16, 2012

Hon. Andrew M. Cuomo
NYS State Capitol Building
Albany, NY 12224

Dear Gov. Cuomo:

On behalf of the Orange County Chamber of Commerce, I am writing to encourage you to include the proposed $900 million, 650 megawatt (MW) clean, natural gas-powered CPV Valley Energy Center within your plans for New York's Energy Highway.

The CPV Valley Energy Center is precisely the type of facility that achieves the goals and objectives you established for the Energy Highway. The addition of this project to the state's fleet of generation will enhance the overall reliability of New York's electric system and the high efficiency of this project's combined-cycle technology will improve the state's system-wide efficiency and consume less fuel than other baseload generators. This will result in a reduction in emissions for the state.

Also, the project incorporates many positive environmental attributes, such as state-of-the-art combustion and control technology to be one of the cleanest generators in New York.

The construction of this project will take two and a half years and employ hundreds of workers. These are vitally-needed jobs in our region and will be a major step toward meeting your goal of putting thousands of people back to work. CPV Valley Energy Center will contribute more than $30 million to local tax coffers, with the majority going to the local school system which has been hit hard in recent years by budget cuts.

Over the past several years, this project has advanced through New York's intense environmental permitting process with significant public participation throughout the process. The project achieved a major milestone in the state's SEQRA process with its Environmental Impact Statement (EIS) being deemed Final and Complete by the lead agency earlier this year. Concurrent with the SEQRA review process, the project has progressed through the NYISO's interconnection process and is currently undergoing the final step. This advanced staged development project could be on-line as early as May 2016.

The CPV Valley Energy Center is an outstanding project that promises a major positive impact for our region and enjoys widespread public support. I hope you will include this project your consideration as a key piece of New York's energy future and the Energy Highway.

Sincerely,

John A. D'Ambrosio, Ed.D.
President

cc: Sen. John Bonacic
Sen. David Carlucci
Sen. William J. Larkin, Jr.
Assemblywoman Nancy Calhoun
Assemblywoman Aileen Gunther
Assemblywoman Annie Rabbitt
Assemblyman Frank Skartados
Orange County Executive Ed Diana
Wawayanda Town Supervisor John R. Razzano
Empire State Development President Kenneth Adams

LiUNA!

NEW ENGLAND REGIONAL OFFICE
226 South Main Street • Providence, RI 02903
Phone: (401) 751-8010 • Fax: (401) 861-3340

May 18, 2012

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo,

I am writing to you today on behalf of the membership of the Laborers' International Union of North America (LIUNA) and all the people of New York to seek your support for an outstanding energy infrastructure project in the Hudson Valley. This project should become part of the State's Energy Master Plan which you spoke about in your 2012 State of the State.

The CPV Valley Energy Center is a proposed $900 million, 650 megawatt (MW) clean, natural gas-powered electric generating facility to be located in the town of Wawayanda, New York, just outside of Middletown in Orange County. If construction commences by early next year, as planned, this facility can be online as soon as 2016 to help meet our growing energy demand in the region.

The addition of this clean burning natural gas fired facility to the state's fleet of generation would serve to enhance both the overall reliability of New York's electric system, and our environmental profile.

This project certainly fits the vision you put forth as part of the goals and objectives for the Energy Highway. It's geographic location makes it an excellent candidate to help move power into much needed areas, it could conceivably come on-line in a short period of time since it is almost through the permitting process, and it's technology is state-of-the-art. The high efficiency of the CPV Valley Energy Center's proposed combined-cycle technology is well proven, along with the environmental benefits the technology delivers.

Certainly key to LIUNA is the economic benefits that it will bring. Again, you spoke about the need for jobs and this project would employ hundreds of union workers during its 30-month construction period. That would be a tremendous economic boom for this region at a time when it is sorely needed. The project will also provide more than $30 million in local tax revenues, with much of that going to help the local school district which has been hit hard by budget cuts the past few years.

Another thing that has made this project stand out, is the close cooperation that the CPV team has displayed in dealing with organized labor, and the community at-large. Since this project was first announced almost four years ago, LIUNA has worked closely with them and watched them work tirelessly to achieve an outstanding level of local support. CPV has gone to great lengths to work with the local and regional communities to meet the needs of everyone involved, and too assure that they build the best project possible.

Orange County continues to be one of the fastest growing counties in the State. Laborers need jobs and energy to continue that trend, and projects like the CPV Valley Energy Center can help provide that. As I mentioned before, this project really does incorporate all the good things you spoke about that working families need in this State.

For this and all the reasons cited above, LIUNA hopes you will join us in supporting this project by including it within you plan for New York's Energy Highway.

With kind regards, I remain

Sincerely,

ARMAND E. SABITONI
General Secretary-Treasurer and
New England Regional Manager

AES/lar

NiSource Gas Transmission & Storage℠

5151 San Felipe, Suite 2500
Houston, TX 77056
713.267.4770

Joseph P. Shields
Chief Operating Officer

May 22, 2012

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo:

We are writing to you today with regard to your plans for New York's Energy Highway as outlined in your State of the State address, and subsequently within April's Energy Summit and recent Request for Information (RFI). We would like to express our support for the CPV Valley Energy Center electric generating project currently proposed for the Town of Wawayanda in Orange County, New York.

NiSource is a Fortune 500 energy holding company engaged in natural gas transmission, storage and distribution, as well as electric generation, transmission and distribution. Our headquarters are in Indiana, but we hold a majority stake in the Millennium pipeline which transports natural gas across the southern tier of New York to the metro New York region.

NiSource takes pride in the way we conduct business. In March, NiSource was named one of the World's Most Ethical Companies by the Ethisphere Institute. Ethisphere recognized NiSource's commitment to ethical leadership, compliance practices and corporate social responsibility.

We are proud to recommend Competitive Power Ventures (CPV), the developer of the CPV Valley Energy Center. Through our subsidiary, we have worked closely with CPV--working on a gas interconnection agreement--as they have developed this project and have been impressed by their high level of professional and ethical standards in everything they do.

In particular, the CPV team has done an outstanding job of working with the local and regional communities to meet the needs of everyone involved. They have held scores of meetings with community members to educate and receive feedback on how to create a better project. This intensive outreach effort is likely the reason that this major power project enjoys such strong local support.

The CPV Valley Energy Center is precisely the type of facility that achieves the goals and objectives you established for the Energy Highway. The addition of this project to the state's fleet of generation will enhance the overall reliability of New York's electric system.

The high efficiency of this project's natural gas-powered, combined-cycle technology will improve the state's system wide efficiency and consume less fuel than other baseload generators. This will result in a reduction in emissions for the state. Also, the project incorporates many positive environmental attributes, such as state-of-the-art combustion and control technology to be one of the cleanest generators in New York.

The construction of this project will take two-and-a-half years and employ hundreds of union workers under a project labor agreement. These are vitally-needed jobs in our region and will be a major step toward meeting your goal of putting thousands of people back to work. The CPV Valley Energy Center will contribute more than $30 million to local tax coffers, with the majority going to the local school system which has been hit hard in recent years by budget cuts.

The CPV Valley Energy Center is an outstanding project that promises a major positive impact for our region and enjoys widespread public support. We hope you will include this project your consideration as a key piece of New York's energy future and the Energy Highway.

Sincerely,

Joseph Shields
NiSource

Joseph M. DeStefano
Mayor

Tel 845-346-4100
Fax 845-343-7439
mayor@middletown-ny.com

City of Middletown

16 James Street, Middletown, New York 10940
Established 1888

May 25, 2012

The Hon. Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo,

On behalf of the City of Middletown, we are writing to encourage you to support the CPV Valley Energy Center as a central component within your Energy Highway plan.

The CPV Valley Energy Center represents a $900 million private infrastructure investment in the State of New York. This clean, 650MW combined-cycle natural gas electric generating plant will deliver a much-needed economic boost, while increasing electric reliability throughout New York's Hudson Valley.

We in the City of Middletown have worked closely with the CPV team throughout the development of this project. As part of the project's innovate design to minimize environmental impacts, CPV Valley will be purchasing grey water from the City of Middletown Waste Water Treatment Facility. This will create a new revenue stream for our City, while reducing the amount of discharge into the Wallkill River.

The high efficiency of this project's combined-cycle technology will improve the state's system wide efficiency and consume less fuel than other baseload generators. This will result in a net reduction in emissions for the state.

The construction of this project will take approximately 30 months and employ hundreds of union workers under a project labor agreement. These are much-needed jobs in our region and will be a major step toward meeting your goal of putting thousands of people back to work.

The CPV team has gone to great lengths to work with the community to make this the best project possible. In addition to holding an informational open house near the proposed project site in Wawayanda, the CPV team also held an informational open house in Middletown, to ensure that people in our City had access to information and the ability to provide feedback on this project. In addition, the CPV team has met with a number of our civic groups in Middletown to ensure that the community is well informed.

The CPV Valley Energy Center is an outstanding energy infrastructure project that promises significant public benefits for decades to come. We hope you will include CPV Valley energy center as a key piece of New York's energy future and the Energy Highway.

Sincerely,

Joseph M. DeStefano
Mayor

Cc:

Mr. Gil C. Quiniones
Co-Chair, Energy Highway Task Force
President and Chief Executive Officer
New York Power Authority
123 Main Street, 16th Floor
White Plains, NY 10601-3170

Mr. Joseph Martens
Co-Chair, Energy Highway Task Force
Commissioner
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

LABORERS' INTERNATIONAL UNION OF NORTH AMERICA
LOCAL No. 17

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451A LITTLE BRITAIN ROAD
NEWBURGH, NEW YORK 12550

May 25, 2012

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo:

I am writing to you today on behalf of the Local 17 membership to seek your support for the Competitive Power Ventures project in Orange County, New York, that should become part of the State's Energy Master Plan going forward that you addressed in your 2012 State of the State.

The CPV Valley Energy Center is a proposed $900 million, 650 megawatt (MW) clean, natural gas-powered electric generating facility. Recently, on Wednesday May 23, 2012 the Town of Wawayanda accepted CPV's environmental review findings therefore, clearing the way for necessary state and federal permits. CPV is online for a first quarter 2012 construction start. This facility can be online as soon as 2016 to begin helping meet our growing energy demand in the region.

The addition of this clean burning natural gas fired facility to the state's fleet of generation would serve to enhance both the overall reliability of New York's electric system, and our environmental profile.

Certainly key to us is the economic benefits that it will bring. Again, you spoke about the need for jobs and this project would employ many Local 17 Laborers during its 30-month construction period. That would be a tremendous economic boom for this region at time we sorely need it. The project will also provide more than $30 million in local tax revenues, with much of that going to help the local school district which has been hit hard by budget cuts the past few years.

We ask you to support this project by including it within your plan for New York's Energy Highway.

Sincerely,

Jeffrey T. Diorio
President

EDWARD A. DIANA
COUNTY EXECUTIVE

May 29, 2012

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo:

I am writing today to encourage you to make the CPV Valley Energy Center a central component of your Energy Highway plan.

As you may know, CPV Valley Energy Center is a proposed $900 million, 650 megawatt (MW) clean, natural gas-powered electric generating facility to be located in the town of Wawayanda, New York, just outside of Middletown in Orange County. If this project goes into construction by early next year, this facility can be online as soon as 2016.

The project, which is nearly fully permitted, is the type of facility that will help to achieve the goals and objectives you established for the Energy Highway. The addition of this project to the State's fleet of generation operations will enhance the overall reliability of New York's electric system due to its location in the Lower Hudson Valley, as well as its dual fuel capability.

The high efficiency of this project's combined-cycle technology will improve the State's system-wide efficiency and consume less fuel than other conventional generators. This will result in a reduction of emissions for New York. By employing dry cooling technology, this project is designed to use 95 percent less water than similar "wet cooled" generators. The relatively small amount of water the project does need will come from recycled "grey" water purchased from the City of Middletown.

At a time when we so desperately need economic stimulus, this project will also provide an important shot-in-the-arm for the economy of our mid-Hudson region. During the 30-month construction period, this project will employ hundreds of workers, including many union tradespeople. The project will also provide more than $30 million in local tax revenue, with the majority going to the local school system which is in great need of a revenue boost.

Since the CPV team first introduced this project to us more than four years ago, we have worked closely with them and watched as they have built an unprecedented level of local support.

This has occurred not by chance, but because CPV has gone to great lengths to work with the local and regional communities to meet the needs of everyone involved. They have held scores of meetings with community members to educate and receive feedback on the project. This intensive outreach effort is likely the reason that this major power project enjoys such strong local support.

Orange County has been one of New York State's two fastest growing counties over the past decade. This is likely the reason why the New York Independent System Operator was planning to create a new electric zone in our area before the economic downturn. By advancing this project now, we will be poised to help lead New York's economic resurgence as the electric demand begins to return and increase.

For this and the many reasons listed above, we hope you will join Orange County in supporting this vital project by including it within your plan for New York's future energy system. Thank you for your consideration.

Sincerely,

Edward A. Diana
County Executive

EAD/kj