

Bechtel: Combined Cycle Experience



PROVEN TECHNOLOGY AND WORLDWIDE EXPERIENCE

Whenever a power plant is proposed, questions are asked: Will it generate electricity efficiently? Will it be cost-effective? Will it be environmentally sound? If the planned facility is a combined cycle plant from Bechtel, the answer to all three questions is yes, absolutely. Clean-burning natural gas and pollution-limiting technology make combined cycle plants among the most environmentally sound of all energy-producing facilities. That's good news for both global and local residents, and it can help developers during the environmental compliance and approval processes.

Bechtel is meeting the growing demand for new combined cycle plants with its standard plant designs. They are designed to burn natural gas as their primary fuel provide optimized designs for gas turbine-based plants ranging from 80 to 775 megawatts. They also provide state-of-the-art engineering in a cost-saving package that can easily be customized to fit a customer's specific needs. Case in point:

in the United States, the Redbud Energy Project near Luther, Oklahoma. Based on a standard design, it features four 300-megawatt power islands, each comprised of a single gas combustion turbine generator, a heat recovery steam generator, and a steam generator. Together, they can generate enough electricity to power up to 1.2 million homes.

Thanks to design, construction and management skills honed on hundreds of power projects, Bechtel can build a new combined cycle plant in under two years.

There's no doubt about it: When it comes to new power plants, combined cycle technology has a lot to offer. And when it comes to designing and building them, nobody does it better, faster, or more cost-effectively than Bechtel.

NATURAL GAS FAMILY OF PLANTS

Model	Hz	MW	GTxHRSGxST
CC 1240	60	260	1 x 1 x 1
CC 1340	50	350	1 x 1 x 1
CC 2060	50/60	120	2 x 2 x 1
CC 2240	60	550	2 x 2 x 1
CC 2350	50	775	2 x 2 x 1
CC 3240	60	770	3 x 3 x 1
SSCC 1350	50	380	1 x 1 x 1
CG 2040	50/60	80+steam	2 x 2 x 1

CC – Combined Cycle; SS – Single Shaft
CG – Cogeneration

DEVELOPMENT SUPPORT

- Economic, financial, and technical feasibility analysis
- Preliminary engineering
- Site selection
- Environmental studies and permitting
- Procurement support

COMPLETED LUMP-SUM TURNKEY PROJECTS SINCE 1990

Plant	Project/MW	Com. Op.
Simple Cycle	Perryman (USA)/160	1995
	Hartwell (USA)/300	1994
Combined Cycle	Mountainview (USA)/2x 525	2005
	Rijnmond (Netherlands)/2 x 400	2004
	Spalding (UK)/2 x 425	2004
	Athens (USA) 3 x 360	2003
	Cottonwood (USA)/4 x 300	2003
	La Rosita Expansion (Mexico)/250	2003
	Magnolia (USA)/3 x 300	2003
	Redbud (USA)/4 x 300	2003
	Izmir (Turkey)/4 x 400	2003
	Adapazari (Turkey)/2 x 400	2002
	Araucaria (Brazil)/2 x 250	2002
	Bajio (Mexico)/620	2002
	Coryton (UK)/770	2002
	Delta (USA)/880	2002
	Gebze (Turkey)/4 x 400	2002
	Great Yarmouth (UK)/400	2002
	Hsin Tao (Taiwan)/675	2002
	Sutter (USA)/500	2001
	Millennium (USA)/360	2000
	Dabhol I (India)/740	1999
	Samalayuca (Mexico)/720	1999
	TermoEmcali (Colombia)/240	1999
	Renca (Chile)/370	1998
Rocksavage (UK)/770	1998	
Hermiston (USA)/475	1996	
Cogeneration	Sabine (USA)/480	2001
	Gregory (USA)/480	2000
	Crockett (USA)/240	1996
	Milagro (USA)/60	1996
	March Point II (USA)/30	1994
	Selkirk II (USA)/270	1994
	East Syracuse (USA)/90	1993
	MASSPOWER (USA)/240	1993
	March Point I (USA)/110	1992
Selkirk I (USA)/80	1992	
Repowering	Manchester (USA)/489	1995

STRENGTHS AND CAPABILITIES

- Full-service capabilities
- Global experience
- Turnkey project capabilities
- Management commitment to quality and safety
- Engineering expertise
- Worldwide procurement
- Construction and construction management skills
- Startup experience
- Cost and schedule performance
- Owner/Operator perspectives
- Project development capabilities

