

Contract Details

Contract Type:

Design/Build

Technology Type:

Biomass; Cogeneration;
Renewable Energy

Capacity:

7.5 MW

About Becromal of America

Becromal is a key player in the market of aluminum foils for electrolytic capacitors. At Becromal, raw foil undergoes a multiphase electrochemical process that modifies the surface structure of the foil to increase its electrical capacity. Headquartered in Milano/Italy, Becromal has plants in the U.S.A. and Norway. It is one of the largest manufacturers of aluminum foils for electrolytic capacitors.

Learn more at
www.becromal.eu.

About Ameresco

Ameresco, Inc. (NYSE:AMRC) is one of the leading energy efficiency and renewable energy services providers. Our energy experts deliver long-term customer value, environmental stewardship, and sustainability through energy efficiency services, alternative energy, supply management, and innovative facility renewal all with practical financial solutions. Ameresco and its predecessors have constructed billions in projects throughout North America.

For more information about Ameresco and our full-range of energy efficiency and renewable energy solutions, please visit ameresco.com.



The construction crew lays the groundwork for the underground steam distribution pipeline.

Customer Benefits

Ameresco provided the required engineering services for this wood gasification cogeneration system. Ameresco engineers designed the plant, including the instrumentation and controls systems; fabricated, designed, and installed all steam piping, including underground distribution systems; and performed startup and commissioning of the systems.

Ameresco engineered, specified and supervised the installation of the instrumentation and controls for the relaying system and the turbine-generator, including vibration and bearing monitoring, throttle control, extraction control, and all electrical parameters. Ameresco was responsible for integrating all equipment and system controls into a single head end using a networked system, with multiple manufacturers of PLCs and control devices including Woodward, Bentley-Nevada, Siemens, and Allen Bradley.

Services Provided

The project consisted of one 100 million BTU fluidized bed biomass gasifier, a low BTU gasified boiler that produces steam at 600 psig and 750F and a 7.5 megawatt condensing steam turbine. The turbine has two extraction ports for 150 psig and 80 psig process steam for use by auxiliaries at the cogeneration plant and the manufacturing plant. Auxiliary systems

required for the plant include fuel processing and conveying (wood chips), and water supply, including wells, pumps, storage tanks, mixed bed filters, demineralizers, deionization, and a backwash and waste treatment facility.

Ameresco designed the 5,460 feet of underground steam distribution system, and a direct buried design was implemented. The system was a high pressure system with steam at 300 psig and 500F and included manholes, expansion loops, and expansion joints.



The exhaust from the wood chips being burnt is captured in this stack.