



## Project Highlight

# Department of Energy – Savannah River Site, SC

AMERESCO 

## Generating Half of SRS' Required Energy Through Onsite Renewable Sources

### Technology Type:

Biomass | Cogeneration | Energy Savings  
Performance Contract | Microgrid |  
Renewable Energy

### Facility Size

**300+** square miles

### Energy Project Size

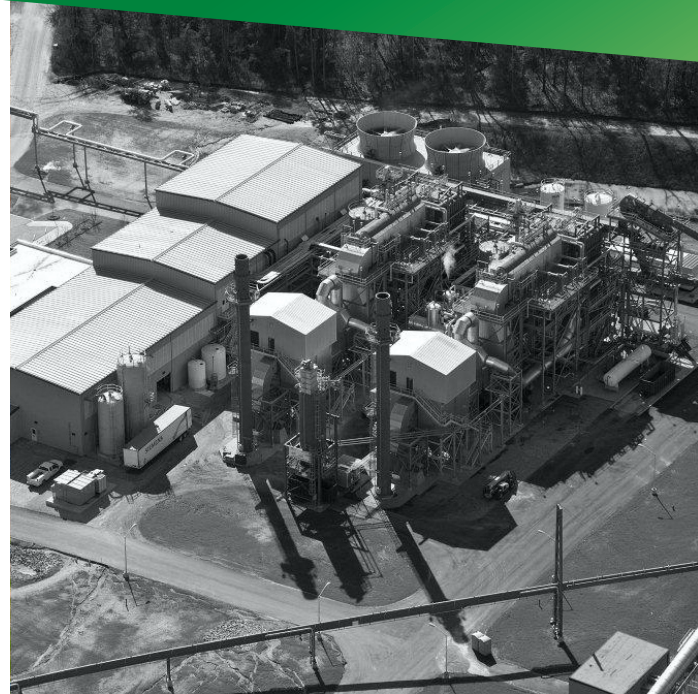
**\$795,000,000** task order  
award 2009

### Energy Project Size

**\$154,000,000** task order  
award 2014

### Annual Energy Savings

**\$36,200,000**



### Summary

In 2009, Ameresco was awarded an ESPC task order for the design, construction and operation of three biomass-fueled cogeneration plants at the DOE Savannah River Site (SRS) to replace the existing 1950s-era coal powerhouse and oil-fired boilers. In 2014, Ameresco was awarded a modification to the contract to construct an additional biomass steam plant to provide additional reliability for mission critical steam and to reduce peak demand load from additional power generation.



## Solution

The Ameresco Biomass Cogeneration Facility was contracted under the DOE Biomass and Alternate Methane Fuel (BAMF) Energy Savings Performance Contract (ESPC). The project was constructed under the largest renewable ESPC and the facility is the largest biomass cogeneration facility of its type in operation in the Federal sector.

- Woody biomass and bio-derived fuels are the primary fuel source for the boilers.
- Biomass is used to fuel two steam boilers capable of producing 240,00 lb/hr of high-pressure steam, and to power a steam turbine with nameplate capacity of 20 MW of electricity.
- Onsite facility generates electricity and steam for SRS mission-critical site needs used in SRS's industrial processes and building heating systems.



**SRS is recognized as a long-term national asset in the areas of environmental stewardship, innovative technology, national security and energy independence. It acts with an inspired workforce and mature, efficient management processes, while sustaining public confidence in our people and capabilities.**



## Benefits

Ameresco operates and maintains the 20 MW electric capacity biomass-fueled steam cogeneration plant and two smaller biomass-fueled plants at the DOE Savannah River Site. The facility has been operational since January 2012.

- Over 2 million MBtu/year of thermal renewable energy production and a minimum generation of 77 million kWh of green power
- Annual energy reductions of approximately 500,000 MBtu/year
- Decrease of water intake from the Savannah River by 1.4 billion gallons per year, supporting water conservation efforts in the region
- Created approximately 800 jobs in the mechanical, construction, engineering, and supplier sectors
- Reduction of 400 tons per year of particulate matter emissions
- Reduction of 100,000 tons per year of carbon dioxide emissions



Ameresco's team of energy experts can assist you in identifying the solution that fits your needs.

For more information about Ameresco and our full-range of energy efficiency and renewable energy solutions, please call **1-866-AMERESCO** or visit **ameresco.com**.

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