

## Siemens to supply nine compact steam turbines to Great Britain and the United States

Within a period of just a few weeks, Siemens has received orders from customers in Great Britain and the United States for a total of nine compact steam turbines. The turbines are to be manufactured at Siemens' production site in Frankenthal, Germany. Three SST-040 turbines have been ordered by the Dutch energy provider Kara Energy Systems B.V. for biomass power plants in Great Britain, while the U.S.-based company Airclean Energy in Seattle, Washington, has placed an order for six SST-110 compact steam turbines.

"These new orders underscore the growing demand for small units to serve distributed energy-producing solutions," emphasizes Volker Neumann, Siemens' location manager at the Frankenthal plant. "With both these orders, we are contributing to sustainable energy supply in Great Britain and the United States."

The three SST-040 turbines, designed to deliver an electrical generating capacity of 300 and 420 kilowatts (kW), will be deployed in three biomass power plants in Great Britain. These power plants are scheduled to begin operation between November 2016 and February 2017. Siemens has already received three identical orders from Kara over the course of the past twelve months.

This marks the first time that Siemens is supplying an SST-040 with an output higher than 300 kW. The unit is based on the technology of the existing SST-040 turbine, but expanded due to growing customer demand for turbines with outputs over 300 kW. This technical advancement enables the SST-040 to now achieve

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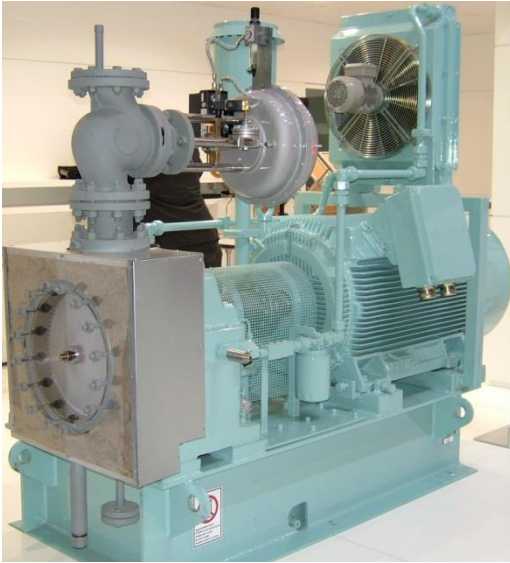
Wittelsbacherplatz 2  
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electrical generating capacities of up to 750 kW. The turbine, gearing, electrical generator and all related equipment units are installed on a common base frame. Weighing some 4,500 kg, this virtually maintenance-free machine is a lightweight among steam turbines. Thanks to the compact design, the unit requires just a very small foundation.

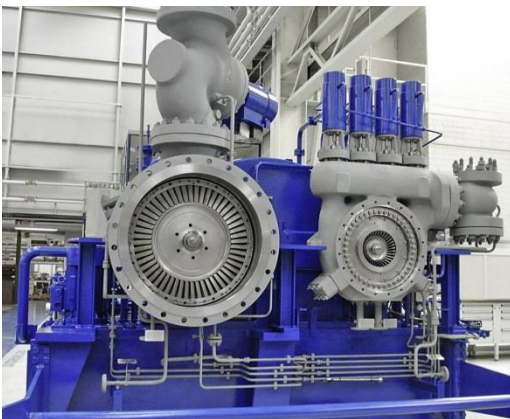
The U.S. company Airclean Energy is integrating the six compact SST-110 steam turbines into complete facilities. The turbines with an output of 3 megawatts each will be deployed in process steam systems at industrial facilities in the Midwestern U.S. They will replace steam pressure reducing valve (PRV) stations, optimizing the efficiency of the steam cycle. This type of retrofit is subsidized by many utilities in a number of U.S. states.

Pressure reducing valve stations are used to reduce boiler steam pressure to the pressure needed by the system. Different systems within an industrial facility have different operating pressure demands. When steam pressure is reduced through a valve, significant energy is lost. Airclean Energy is recovering this lost energy by reducing the steam pressure through the Siemens turbine and running a generator that will offset electrical energy consumption at the facility. The benefit of the SST-110 is its ability to reduce pressure to two different pressure levels at once, satisfying multiple consumers through one turbine. Many industrial facilities run at two different pressure levels, making this turbine an ideal choice for industry.



### **The Siemens SST-040**

The energy provider Kara Energy has placed an order for three compact SST-040 steam turbines to power biomass power plants in Great Britain.



### **Delivery of Siemens SST-110**

Six compact SST-110 steam turbines will be deployed in process steam systems at industrial facilities in the Midwestern U.S.

This press release and press pictures are available at:

[www.siemens.com/press/PR2016080363PGEN](http://www.siemens.com/press/PR2016080363PGEN)

For further information on compact steam turbines, please see:

[www.energy.siemens.com/hq/en/fossil-power-generation/steam-turbines/steam-turbine-products.htm](http://www.energy.siemens.com/hq/en/fossil-power-generation/steam-turbines/steam-turbine-products.htm)

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