ALSTOM POWER IN CHATTANOOGA, USA
Bringing State-of-the-Art Engineering & Manufacturing Capabilities to the North American Market
Alstom Power ramps up its presence in North America

Alstom Power has opened a new manufacturing and engineering facility in Chattanooga, on the banks of the Tennessee river, to serve both new and retrofit equipment markets in North America. From the Chattanooga site, we can ship our high-technology components directly to our customers and address the growing needs of the power market.

Advanced technology manufacturing and engineering site
The facility has the capacity to manufacture capital-intensive components with high-technology content for nuclear, coal, and gas power plants (both new and retrofit), and to assemble and test all products using the most up-to-date high-precision machine tools available today. In fact, the Chattanooga manufacturing and engineering site will have the capacity to manufacture the world’s largest turbines. The Chattanooga site will work in close cooperation with its sister site in Morelia, Mexico, which is responsible for manufacturing diaphragms, blades and other power plant components. The combined local NAFTA content will be around 80%.

Excellent infrastructure and strategic location
The new Chattanooga manufacturing and engineering site benefits from excellent road networks, rail links, and direct access to the US inland waterways system. It features a barge dock with lifting capacity up to 1,000 tons, well suited to shipping large and heavy products manufactured in Chattanooga. The Chattanooga manufacturing and engineering site will deliver the same high standards of quality and production efficiency for which Alstom is world-renowned.

Exelon
Exelon Corporation, one of the largest energy companies in the USA, has contracted Alstom to supply steam turbine retrofits at three of its nuclear power plant sites. The retrofits will increase output by around 40 MW per unit, increase operational efficiency and improve plant reliability. The new components will be manufactured in Alstom’s plants in Birr (Switzerland) and Chattanooga.

UniStar
Alstom is to supply Baltimore-based UniStar Nuclear Energy, a joint venture between Constellation Energy and EDF, with a minimum of four turbines generators for a planned fleet of advanced-design nuclear power plants in the United States. The Chattanooga facility will play a key role in manufacturing, assembling, and delivering key components of steam turbine, generator and related equipment.
Building the Chattanooga facility to high environmental standards

Building a sustainable factory includes energy efficient design - skylights, insulated siding, process heat recovery - which leads to a 35% reduction in building energy consumption.

Alstom’s goal is to build its facility to meet the US Green Building Council’s standards for LEED (Leadership in Energy & Environmental Design) Gold certification.

A sustainable facility
From design to final completion, environmental sustainability is a priority for the new Chattanooga plant. The LEED certification criteria include energy and water efficiency, material recycling, indoor air quality and low emission transportation. The facility will save 35% in energy use thanks to energy-efficient features.

Environmentally sustainable design and construction have lasting and far-reaching benefits:
- Recycled concrete debris was used in new road construction
- Skylights cover 75% of the occupied space, reducing electricity consumption
- Heat generated from our manufacturing process will supplement the HVAC*, saving energy
- Captured rain water will irrigate the landscaping. More than 50% of the site, other than the building footprint, will be returned to green
- The site promotes low-emission transportation with bicycle racks, preferential parking for low emission vehicles and public transportation access

Recycling from the Chattanooga site also benefited the local community. A number of reusable materials (doors, windows, AC units, etc.), as well as pre-engineered buildings, have been donated to local institutions.

Key recycling figures

3,400 tons of steel

Concrete and other materials from

12 acres of buildings and parking lots

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* Heat Ventilation Air Conditioning system

As a global leader in power technology, Alstom has extensive experience in ramping up engineering capabilities in new locations and establishing processes to integrate engineering work performed at different locations all over the world. Recent experiences include new engineering centers in China, India and Brazil. We are applying proven methods to build our engineering center in Chattanooga.

Following one of the best practices of knowledge transfer in the industry, we are applying proven methods to build our engineering center in Chattanooga, from the recruitment of engineers with the right skills set, to on-the-job training in Europe. Several experienced engineers from Alstom’s European facilities have been based in Chattanooga to facilitate the ramp-up.

As well, a number of US engineers have been sent to Europe for on-the-job training, some for a few months, others for a couple of years.

The Chattanooga engineering center is an integral part of Alstom’s global engineering network and is equipped with specific expertise in US industrial standards.

Our customers in North America will benefit from Alstom’s extensive North American supply scope, as well as local expertise and support.

The new engineering facility will broaden Alstom’s design engineering resources in North America to support Alstom’s manufacturing growth and help develop a competitive local supply base.

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Alstom Power in the USA

Alstom Power’s operations in the USA are aimed at meeting the needs of the North American power market.

Some of Alstom’s main facilities in the USA:
- The Chattanooga turbine manufacturing and engineering site will have the capacity to manufacture the largest turbines in the world and to meet the needs of the North American market.
- The utility boiler manufacturing facility in Chattanooga has the capacity to manufacture pressure parts for utility, industrial, marine, resource recovery and steam generators, pressure vessels for the USA, and worldwide markets.
- The material technology center located in Chattanooga comprises the material development, testing and failure analysis for the power industry and plays an important role in Alstom’s presence in the US market.
- Alstom Power main offices are located in Windsors (CT), Richmond (VA), Chattanooga (TN), Knoxville (TN), Denver (CO), Jupiter (FL) and Washington, DC. In addition, Alstom has service centers located in Harrisburg (PA), Erlanger (KY), Aurora (CO), Suwanee (GA), Tyler (TX) and Chattanooga (TN).

US Power Profile
- 6,000 permanent employees in 47 states and the District of Columbia
- Employee base can exceed 10,000 when including project workers

US Power Business
- Half of the power plants in the US use Alstom equipment
- We offer full range of power generation technologies for hydro, nuclear (turbine island), natural gas, coal, and wind applications
- We provide the largest scale of solutions to capture particulates and reduce traditional pollutants, including Hg, NOx, and SOx, by more than 90%
- Alstom is leading the way in the development and deployment of carbon capture technologies
- Alstom offers the most efficient solutions for retrofitting boilers, steam turbines and hydro turbines, resulting in lower operating costs and less pollution

Alstom supplies major equipment in 25% of the worldwide installed base

With the most comprehensive and balanced portfolio of generation equipment in the market, including the removal of traditional pollutants, Alstom is well positioned to assist plant operators apply the most appropriate technology mix to meet their market conditions.

Alstom complete portfolio

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Alstom offers full range of power generation technologies for hydro, nuclear (turbine island), natural gas, coal, and wind applications.

- Number 1 in turnkey power plants
- Number 1 in service for utility power generation
- Number 1 in air quality control systems
- Number 1 in hydro turbines and generators
- Number 1 in the number of installed boilers worldwide
- Number 1 in installed turbine and generator for nuclear plants
- Number 1 in steam turbine retrofit and integrated retrofit projects