Alstom in South Africa

Over 100 years of contribution to the development of Power and Transport infrastructure

Alstom’s Presence

Key Data:

- Provided major equipment for 12 out of 13 South Africa’s coal-fired power plants and for the only nuclear power plant
- Currently a provider of major equipment for Medupi and Kusile power plants
- Historical provider to South Africa of technologies for passenger trains and locomotives
- >100 Years of presence in South Africa
- 80% SA’s electricity generated from Alstom turbines
- 50% Equipment required for all Alstom projects sourced from South African suppliers
- Level 4 Alstom’s BBBEE scorecard level
- 826 South African artisans and professionals (incl. engineers), being trained by Alstom
- >550 Permanent employees, trained and developed
- R250m Invested in the development of local industrial capacity through the CSDP
- >R20M Investment in community socio-economic development projects up to 2013

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April 2014
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History

Alstom has been present in South Africa for more than a century, contributing to the development of the country’s infrastructure. Today, we remain dedicated to ensuring that the country develops in ways that protect the environment and promote economic advancement and social progress.

Last key dates:

2007: Key equipment for the 4,800 MW Medupi coal-fired power station, located in the North-Eastern province of Limpopo
- Turbine Generator & Condenser Island 6 x 790MW
- Control and Instrumentation System

2008: Key equipment for the 4,740 MW Kusile coal-fired power station located in Mpumalanga province, east of Johannesburg
- Turbine Generator & Condenser Island 6 x 790 MW
- Control and Instrumentation System
- Wet Flue Gas Desulphurisation System

2008: Refurbishment and upgrade of 4 generators at the Gariep hydropower station located in the Orange River in Free State province

2009: Retrofit of Koeberg nuclear power station

2009: Retrofit of Arnott power station

2010: Automation of Eskom’s latest thermal power plant projects, Kusile and Medupi

2012: Reconstruction of Duvha unit

2012: Refurbishment of low pressure turbines on Kriel power station

2013: Contract awarded to Gibela – an Alstom lead joint-venture – by Passenger Rail Agency of South Africa (PRASA) to supply 600 passenger trains (3,600 coaches). It also includes the construction of a local manufacturing facility, technical support and spares supply over an 18-year period.

Partnerships

University partnership:
Wits University and Alstom have enjoyed a long association in the field of engineering and in 2011 the Alstom Chair in Clean Energy Systems Technology (ACCEST) was established.

To promote excellence in engineering for the future sustainability of South Africa’s power sector infrastructure, Alstom has partnered with Wits University to:
- Provide bursaries for engineering students
- Invest in the expansion of the engineering faculty building

Memberships:
SANEA (South African National Energy Association)
SACCCS (South African Centre for Carbon Capture and Storage)
FSACCI (French South African Chamber of Commerce and Industry)

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(...memberships continued)

NBI (National Business Initiative)
BUSA (Business Unity South Africa)
SASTELA (The Southern Africa Solar Thermal and Electricity Association)
SAWEA (South African Wind Energy Association)

Corporate Social Responsibility

Since 2008 Alstom in South Africa have supported socio-economic development projects in the field of education, under the auspices of the Alstom Foundation. Key projects:

- Environmental awareness education in 10 under-privileged schools in the Western Cape.
- Education: School-based Maths & Science Teaching and Learning Improvement project for 10 high schools in Lephalale and 10 high schools in Nkangala.
- Expansion of Wits University Engineering Faculty buildings and establishment of Alstom Chair in Clean Energy Systems Technology. (ACCEST)

Alstom complies with the Board Based Black Economic Empowerment Act (BBBEE) and codes of Good Practice, and is recognised as a Level 4.

Alstom, recognising the shortage of skills as a key constraint to GDP growth and infrastructure development, actively participates in Government’s Accelerated and Shared Growth Initiative for South Africa (ASGISA) and is involved in various skills development initiatives.

Alstom currently employs over 550 people in South Africa and trains staff and suppliers to help them acquire new skills in different technologies. More than 650 artisans and 176 professionals, including engineers, have been trained by Alstom. In addition, in support of the development of local industrial capacity, at least 50% of the equipment required for the projects underway, including Medupi and Kusile, is being sourced from South African suppliers.

Awards and Certification

- May 2009: The Africa Energy Award for the “Best fast track Power Project” for the Arnot Power Station increased capacity project
- Eskom Excellence in Safety award for 365 Days LTI free on Medupi PAC project
- Eskom Excellence in Safety Award for 2 Million Mio man hours LTI free on Kusile Steam Project

Alstom is:

- ISO 9001:2008 (Approved)
- ISO 14001:2004 (Approved)
- OHSAS 18001:2007 (Approved)

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References and Ongoing Projects

Power

Alstom has supplied major components for 12 of the 13 coal fired power plants in South Africa and for its only nuclear power plant. Of the installed capacity, 80% is generated by Alstom turbines.

Alstom is a long-standing partner of Eskom and is currently supplying generation equipment for its two new power plants.

Alstom is ready to support South Africa’s ambitions in hydro, solar and wind, as well as nuclear, by providing a wide range of solutions and technologies that will also address the climate change challenge. These solutions include a balanced portfolio of generation technologies, production efficiency, energy management and Carbon Capture & Storage (CCS).

Strong economic growth has increased the demand for power in South Africa beyond the available supply from ageing power plants. Alstom is playing a significant part in addressing this increased demand through its role in the construction of two new power plants, Medupi and Kusile, and the improvement of the existing fleet.

Alstom power contracts:

- Medupi Turbine Generator 6 x 790 MW (under construction)
- Kusile Turbine Generator 6 x 790 MW (under construction)
- Arnot Retrofit 6 x 400 MW (completed)
- Gariep Retrofit 4 x 112 MW (completed)
- Koeberg Retrofit 2 x 965 MW (completed)
- Komati Retrofit 5 X 100MW + 4 x 125MW (completed)
- Duvha Reconstruction 1 x 600 MW (completed)
- Medupi Control & Instrumentation System (under construction)
- Kusile Control & Instrumentation System (under construction)
- Kusile Wet Flue Gas Desulphurisation System (under construction)
- Refurbishment of low pressure turbines on Kriel Power Station (in progress)

Transport

Alstom has supplied to South Africa technology for passenger trains and freight locomotives which are still in operation today. Alstom strongly supports the deployment of freight and mass public transportation across the country. An enhanced rail network will be a catalyst for industrial growth in South Africa and also the region.

Alstom has the technical expertise to propose the best suited products for the South African rail industry, tailor-made for local conditions and the level of performance needed.

The long-term commitment to skills development, technology transfer and local job creation is what has driven Alstom's success in emerging markets globally. Localisation is a major part of our business model, as our manufacturing set-up in Brazil, Kazakhstan, India, and Algeria can bear testimony of. These countries provide real examples of sustainable local job creation as a result of Alstom's activities. The same model that Alstom is applying in South Africa through its local joint venture Gibela.

In 2013 Gibela has signed a contract with the Passenger Rail Agency of South Africa (PRASA) to supply 600 passenger trains (3600 coaches) and provide technical support and spares supply over an 18-year period. The contract also includes the construction of a manufacturing facility in South Africa.

On 14 Oct. 2013, Gibela - a joint-venture led by Alstom - signed a contract with the Passenger Rail Agency of South Africa (PRASA) to supply 600 passenger trains (3 600 coaches). It also includes the construction of a local manufacturing facility. In addition, technical support and spares supply over an 18-year period will be provided.

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Alstom Grid is particularly active in the transformer and switchgear business in tensions ranging from 220-750kV. The engineering, manufacturing and installation of most of Alstom Grid transmission portfolio for Southern Africa are manufactured in South Africa by Actom, the largest manufacturer, solution provider, repairer and distributor of electro-mechanical equipment in Africa.