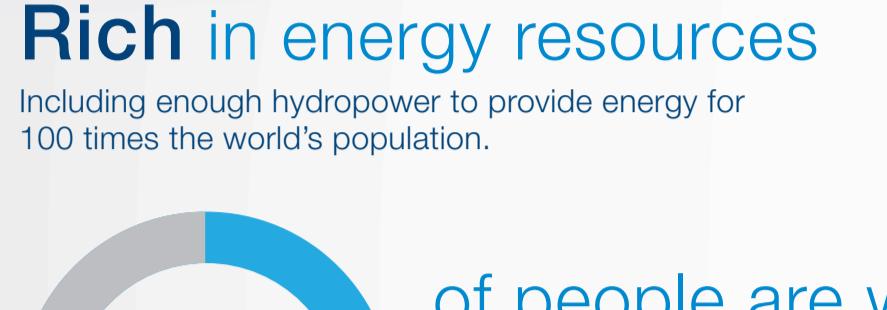


In a world with huge energy potential ABB's strengths can make the difference

Africa is home to some of the most beautiful and abundant resources on Earth. How can we harness this energy to enrich the future of the world's fastest growing continent?



Rich in energy resources

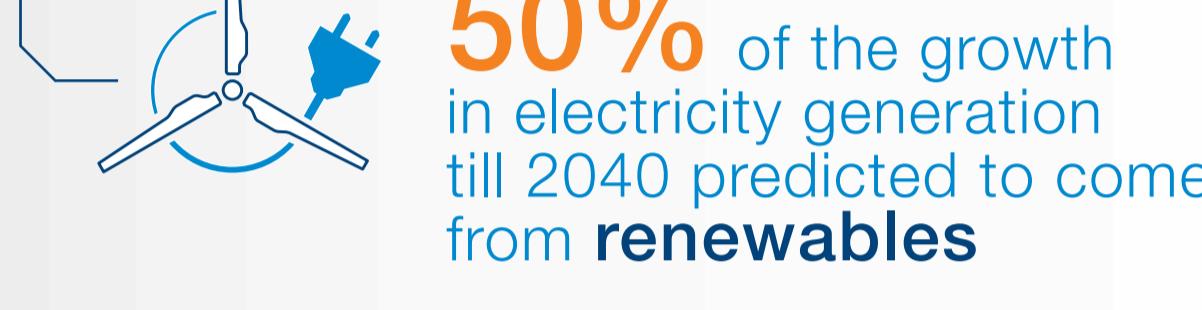
Including enough hydropower to provide energy for 100 times the world's population.



of people are without
access to electricity

That's twice the population of the United States

New trends on the rise



Microgrid systems provide electricity to 70% of those gaining access in rural areas



50% of the growth in electricity generation till 2040 predicted to come from **renewables**



but poor
in energy supply
and infrastructure



However, Africa is rapidly growing

- Population
- Economy
- Consumer demand
- Fuel demand
- Transportation infrastructure
- Energy usage
- Electricity demand
- Grid capacity
- Water networks
- World demand for African resources



Huge hydropower
potential in the Sub-Saharan region

ABB is promoting business growth and a better quality of life

Pioneers in innovative uses of energy resources

In Algeria, ABB provides

- Unique automation for a unique 150 MW integrated combined cycle and solar power plant
- Hydro mechanical and ICE packages for the MAO Water Transfer System, a 50 MW pumping station and
- EBoP for the biggest desalination plant in the country.



In Egypt, electricity consumption rose annually **7% between 2000-2010**

Automation systems support the Aswan 2,600 MW Hydro Plant and Ansaldo 600 MW Power Plant

Between 2011 and 2030 Algeria intends to install around 22,000 MW of renewable energy production

Over 30% of Egypt's power is automated by ABB

Largest power plant in Sub-Saharan Africa

ABB provides control for the expansion of the Azito combined-cycle power plant.

Aswan is the largest hydro power plant in Africa, essential for the regulation of the Nile River, Egypt's lifeline.

Promoting the local economy that has been **growing 6% a year**

Symphony Plus to maximize production & reliability at the Kafu Gorge 990 MW Hydro Power plant in Zambia

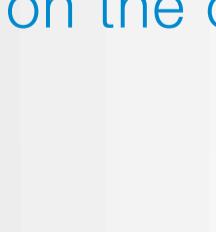


Wind for Prosperity

ABB partnership with Vestas To jointly deliver power technology and system integration solutions to electrify remote communities



Targeted to reach **13 communities with 200,000 inhabitants**



A new business model to distribute affordable and reliable wind generation.

4800 MW Home to the **4th largest power station in the world**

Remote operation & monitoring systems

Eskom 1195 MW in two fixed tilt PV power plants in South Africa

Turnkey solar solution including design, engineering, installation and commissioning at Witkop 33 MW and Soutpan 31 MW Solar Parks in South Africa

20 regional sales & service centers throughout the region

5,000 employees of which 1500 are engineers

ABB is supporting economic development of this growing region with integrated power and automation solutions for conventional and renewable-based power generation plants and water applications.

Sources:

International Energy Agency
Industrial Information Resources
Int Pow
International Rivers

www.iea.org
www.industrialinfo.com
www.intpow.com/index.php?id=487&download=1
www.internationalrivers.org/resources/grand-inga-hydroelectric-project-an-overview-3356