Sudan energy independence



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Energy in Sudan describes energy and electricity production, consumption and imports in Sudan. The chief sources of energy in 2010 were wood and charcoal, hydroelectric power, and oil.[1] Sudan is a net energy exporter. Primary energy use in Sudan was 179 TWh and 4 TWh per million persons in 2008.[2]

A search for oil in the early 1960"s along the Red Sea coast also discovered natural gas. In the mid-1970s, additional oil explorations revealed more gas finds, but development was not considered at the time to be commercially feasible. In October 1988, Sudan announced that natural gas production would start in one year. Although it was estimated in 2002 that there were 3 billion cubic feet of natural gas reserves, production had not yet begun by 2010.[1]

Electricity generation began in 1908 when a private company constructed the first power station at Burri al-Daralsa near Khartoum. The modern system dates from 1925 with the establishment of the Sudan Light and Power Company, an enterprise financed and managed by British entrepreneurs but owned by the Condominium government. This company, acquired in full by the colonial government in 1952, was the precursor--through several name changes and reorganizations--of the National Electricity Corporation (NEC).[1]

Sudan relies heavily on hydroelectricity. In 2006, the country had total installed capacity of 4,520 gigawatt-hours (about 115 kilowatthours per head), 41 percent of which was provided by hydropower stations. As a result, power tended to fluctuate according to the flow of the Nile. Until recently, the Roseires Dam was the largest of the hydroelectric facilities, with smaller ones existing elsewhere on the Blue Nile and the Atbarah River.[1]

The sector deteriorated in the 1990"s because of a lack of funding. In 2000, however, the NEC launched the Rehabilitation and Performance Improvement Program supported by a US\$10 million loan from the OPEC Fund for International Development to upgrade the existing infrastructure and improve the reliability of the electricity supply. In 2001 the NEC announced that Sudan and Ethiopia had agreed to link their power grids, and a related report announced that Ethiopia had also agreed to export power to Sudan.[1]

Several newly completed projects have increased installed capacity. The 257-megawatt diesel power station constructed by a Malaysian-led consortium outside Khartoum became operational in 2004. The Chinese firm Harbin Power Engineering Company built another power station near Al-Jayli (Garri) refinery north of Khartoum.[1]

The largest projects are the Kajbar and Merowe hydroelectric facilities. The Kajbar Dam, on the second cataract of the Nile, has a planned capacity of 300 megawatts. Sudan and China signed an agreement to build

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the dam in 1997, with China financing 75 percent of the project (approximately US\$200 million), but construction had not yet started by January 2011. Environmental groups have been concerned about potential damage to the Nile ecosystem and the culture of the displaced Nubian residents.[1]

In January 2010, Taqa Arabia of Egypt entered a joint venture with ASEC Cement of Egypt and the Sudanese Pension Fund to build a 42 megawatt power station to provide electricity for the Takamol cement plant being built by ASEC at Atbarah, 200 kilometers north of Khartoum. The cement plant had a capacity of 1.6 million tonnes a year to help meet demand from the construction-related boom in and around Khartoum.[1]

Currently (2019) the power station at Garri is being extended by the Sudanese Thermal Power Generation Company.[4] It will be fired by light distillate oil and later by heavy fuel oil.

Apart from various controversies around the construction of the Grand Ethiopian Renaissance Dam in Ethiopia, its associated hydro power station is planned to supply additional electrical power to neighboring countries, including Sudan.

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