

November 8, 2016

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One quarter of Kenya's power generation capacity is geothermal power generation

Since Kenya is not endowed with many natural resources like oil and coal, it has been developing geothermal power since the 1970s.

In particular, in the Olkaria Geothermal Area inside Hell's Gate National Park, located up to a three hour's drive west of the capital of Nairobi, there are many geothermal power plants being operated that provide about one quarter of all of Kenya's electricity. The geothermal power plant can generate power at all hours of the day and night, irrespective of the weather. Together with being a stable source of energy with a high capacity factor, geothermal power generation is so environmentally-friendly that it can help curtail air pollutants and CO2 emissions compared with the thermal power generation of the same scale.

Amidst this, the newest Units 4 and 5 of the Olkaria I Geothermal Power Plant were completed in January 2015 through Japanese ODA loan of up to 29.516 billion yen (commenced utilization in February 2015). The capacity of the Units 4 and 5 is 140 megawatts, boasting the highest capacity in the district. It is known in Kenya for being a stable electricity source, and widely supports Kenyan companies and citizens' daily lives. Kenya Electricity Generating Company, which operates the geothermal power plant, says that it is indispensable for provision of stable electricity in Kenya.

Utilization of Japan's advanced technology

Most of the geothermal power plants operated in the same district use turbines made by Japanese companies, including the case of the Unit 4 and 5 at Olkaria I power plant. Turbines, which may be likened to be the "heart" of geothermal power plants, produce electricity by rotating through steam power. Since the district is globally prominent for its amount of steam, it is a perfect fit for constructing a large scale of geothermal power generation plant. Advanced technology and skills are needed for manufacturing a large-scale turbine, and thus Japan's high technological strength is being leveraged at Olkaria 1.

At TICAD VI, Prime Minister Shinzo Abe announced that Japanese government and private companies and the government would work together on further promotion of the energy systems with low carbon emissions that leverage Japan's strengths, including geothermal power, and there were expectations for further future cooperation and collaboration among Japan, the Government of Kenya, the Kenya Electricity Generating Company, and others.