

# **KENGEN**

## **GENERATING GROWTH**



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*As Kenya's energy demands continue to increase unabated, KenGen is taking its role as the country's leading electricity supplier extremely seriously by developing new long-term power solutions*

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Wind turbine generator

To say that Kenya Electricity Generating Company Limited, or KenGen as it is more commonly recognised, plays an important role in the economic development of the African nation is, to all intents and purposes, a gross understatement. The reason for this is that KenGen alone is responsible for producing almost 80 percent of the electricity consumed in the country.

KenGen’s history dates back to 1954. It was then that the Kenya Power Company (KPC) was first registered and was commissioned to construct a transmission line between the city of Nairobi and Tororo in Uganda, as well as to develop geothermal and other generating facilities in the country. The Nairobi - Tororo line was to transmit power generated at the Owen Falls Dam.

From its inception, KPC sold its electricity in bulk at cost to the Kenya Power and Lighting Company (KPLC), which ran the company under a management contract. This remained the case until January 1997 when the management of KPC was formally separated from KPLC as a result of new reforms and legislation brought in to regulate Kenya’s energy sector.

Come October 1998 KPC had re-launched itself under the name and corporate identity that we now know at KenGen. It was this act that saw KenGen take charge of all publicly owned power generating plants in the country.

Today KenGen possesses a workforce of approximately 1,829 staff distributed across 20 different sites where its power plants are located. The company utilises various sources to generate electricity ranging from hydro, geothermal, thermal and wind. Of these hydro is the leading source, with an installed capacity of 766.88MW, which is 65 percent of the company’s installed capacity.

Kenya is rightfully proud of having a liberalised marketplace and it is here that KenGen competes directly with four independent power producers, who between them produce the remaining 20 percent of the country’s electric power.

It is with this competition in mind that KenGen strives to maintain its position as the market leader in the provision of reliable, safe, quality and competitively priced electric energy. “With the wealth of experience we possess, our established

corporate base and a clear vision, we believe we are perfectly placed to retain our leadership position with the sector,” explains Geoffrey Muchemi, KenGen Director of Geothermal Projects.

“For the foreseeable future,” Muchemi continues, “we aim to efficiently generate competitively priced electric energy using state of the art technology, while also leveraging skilled and motivated human resources to ensure financial success. Meanwhile, we shall achieve market leadership by undertaking least cost, environmentally friendly capacity expansion. Consistent with our corporate

**560MW**

Potential future power capacity of the Olkaria complex

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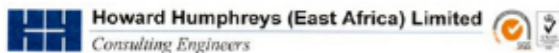
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culture, our core values will be adhered to in all our operations.”

Despite Kenya's economic advances in recent times it is still a widely shared belief that the country's power sector remains in need of major investment. This is evidenced by the fact that it is still many thousands of MW short of being able to deliver total national coverage. Thankfully Kenya's government and its energy

sector are not oblivious to this need and are taking active steps to meet the said challenge.

One answer is the major investment that is being made in geothermal energy projects. It is these such projects that KenGen anticipates will become its primary source of energy by 2020, and the basis for this growth will be its Olkaria power station projects. As of now there are three Olkaria plants active today, with Olkaria I and II producing a combined 115 MW of power, a figure that is set to be increased to 150 MW in the coming months. Olkaria III on the other hand produces 48 MW and its running is outsourced to Ormat Technologies.

### HYUNDAI ENGINEERING CO., LTD

Hyundai Engineering Co., Ltd. is the only company to have a performance reference from the geothermal power plant in the Republic of Korea, “Kenya Olkaria geothermal power plant unit I & IV Project”. This was awarded in recognition of its skills and competencies in the field of geothermal power plants, a field which has long been led by Japan, U.S. and European companies.

In addition, Hyundai Engineering Co., Ltd. is now standing in a competitive position within the market of combined cycle power generation, coal-fired power plants, cogeneration, diesel power generation, and transmission and substation projects.

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Water turbine generator

“KENGEN ALONE IS RESPONSIBLE FOR PRODUCING ALMOST 80 PERCENT OF THE ELECTRICITY CONSUMED IN THE COUNTRY”



The Olkaria III power plant

“KENGEN STRIVES TO MAINTAIN ITS POSITION AS THE MARKET LEADER IN THE PROVISION OF RELIABLE, SAFE, QUALITY AND COMPETITIVELY PRICED ELECTRIC ENERGY”

In 2012 the company hosted the ground-breaking ceremony for the Olkaria IV construction, a new 280 MW geothermal plant that KenGen expects to be ready for generation capacity by 2014. “Olkaria IV is an extension of the existing Olkaria I and

II plants, and is expected to cost around \$1.3 billion to complete,” Muchemi states. “The development itself will be built across two physical plants, each of which will boast two 70 MW units.”

The steam wells for the Olkaria IV project

have already been successfully drilled, while the well head generators are expected to be installed and begin generating power as the construction phase of the undertaking continues. The Olkaria IV project is co-financed by the Kenyan government through KenGen and by a series of development partners, including KfW, World Bank, JICA, the French development agency, and the European Investment Bank.

With the addition of Olkaria IV, the complete Olkaria complex will further cement itself as being the largest geothermal power project in Africa, with output estimated to

register at 430 MW in total by 2014. The good news doesn’t end here however. Recent studies on the field on which Olkaria stands have raised hopes that the overall capacity of the project could in fact be increased to 560 MW in total in the years ahead. Should this be achieved it would make KenGen even more of a vital contributor to Kenya’s growing power requirements. **BE**

For more information about KenGen visit: [www.kengen.co.ke](http://www.kengen.co.ke)



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