# egenco

Electricity Generation Company (Malawi) Ltd







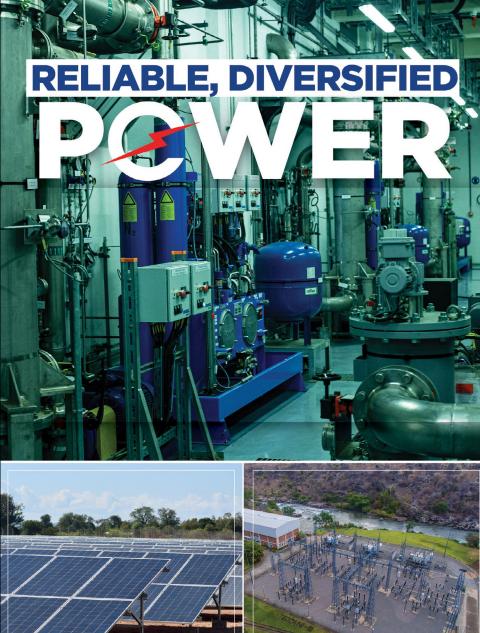


# **Generating Power** for Generations











Electricity Generation Company (Malawi) Limited (EGENCO) is a limited liability company incorporated under the Companies Act (Cap. 46:03) of the Laws of Malawi on 7th September 2016. The company was established with the mandate of generating electricity in Malawi. EGENCO was formed following the unbundling of the Electricity Supply Corporation of Malawi (ESCOM) Limited into two separate institutions; one for generating electricity (thus EGENCO) and another one for transmission and distribution (thus ESCOM).

The company started its operations as a separate and independent company on January 1, 2017. Currently, EGENCO operates four hydro power stations namely: Nkula, Tedzani, Kapichira and Wovwe. The Company also operates thermal power plants in Lilongwe, Mzuzu and Mapanga, Blantyre.It also operates solar power plants in Likoma and Chizumulu Islands. Overall, EGENCO has a total installed generation capacity of 444.68MW, with 390.15MW from hydro power plants, 53.23MW from standby diesel power plants and 1.3MW from Solar.

# **OUR MISSION**

To generate reliable and diversified power for generations by leveraging our diversity and innovative spirit, through inspired staff driven by excellence.

# **OUR VISION**

To create a better tomorrow for Malawi through leadership in power generation.

# **OPERATING PRINCIPLES**

Our overarching operating principle shall be "Generating Power for Generations", our motto. Furthermore, we believe in the following:

#### **PROFESSIONALISM**

We believe in being reliable, competent, punctual and organized and will hold ourselves and others accountable in our actions resulting in a respected, prosperous entity.

#### **INTEGRITY**

We believe that being honest and principle-centered, and maintaining personal accountability builds trust; which are pillars of investor and consumer confidence.

#### **TEAM WORK**

While acknowledging individual talents and capabilities, we achieve more as a team. We build strong teams with a shared purpose moderated by our behavioral standards.

#### **INNOVATION**

We believe that innovation is the key to growing our business. We will explore and nurture ideas capable of improving our ability to generate safe, reliable, affordable and sustainable energy.

### **SAFETY & QUALITY CONSCIOUS**

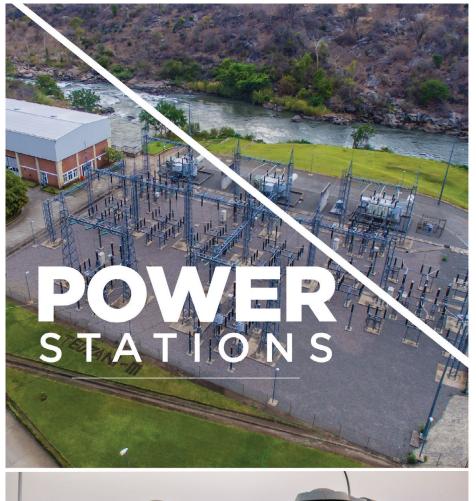
We value the safety and health of our employees and the community in which we operate. We also treasure high industrial quality performance. We promote healthy living and create an accident and incident free work environment where excellence prevails at all levels.

### **EQUAL OPPORTUNITY**

We believe in celebrating diversity. It serves as a driver of Innovation and all people, and their views, are treated with dignity and respect regardless of gender, ethnicity, culture differences, or any other artificial barriers.

# **CUSTOMER AND STAKEHOLDER-CENTEREDNESS**

We believe in operational excellence and performance that delivers exceptional economic and social values to our customers, investors and other stakeholders.







Nkula Power Station is the first major hydro power station in Malawi. It comprises of Nkula A with 3 machines, each rated 11.7MW, and Nkula B with 5 machines, each rated 20MW. The last machine at Nkula A was commissioned in 1966 where as the last machine at Nkula B was commissioned in 1992. The total generation capacity is 135.10MW as detailed below:

# **INSTALLED CAPACITY**

STATION NAME	NUMBER OF MACHINES	CAPACITY PER MACHINE	TOTAL CAPACITY
NKULA A	3	11.7 MW	35.1 MW
NKULA B	5	20 MW	100 MW





Tedzani Hydro Power Station is located on the Shire River, 7 Km downstream of Nkula Hydro Power Station. It comprises of four Power Stations: Tedzani I, Tedzani II, that are housed in one Power House, Tedzani III and Tedzani IV.

Tedzani I was commissioned in 1972, Tedzani II was commissioned in 1976, Tedzani III was commissioned in 1995 and Tedzani IV was recently commissioned in 2021. The total generation capacity is **121.1MW**.

#### **INSTALLED CAPACITY**

STATION NAME	NUMBER OF MACHINES	CAPACITY PER MACHINE	TOTAL CAPACITY
TEDZANI I	2	10 MW	20 MW
TEDZANI II	2	10 MW	20 MW
TEDZANI III	2	31 MW	62 MW
TEDZANI IV	1	19.1 MW	19.1 MW



The Kapichira Hydro-electric Power Station is located at the Kapichira Falls, formerly known as the Livingstone Falls; named after the all-great Scottish Missionary, Dr. David Livingstone, who once passed through these falls.

The Kapichira Power Station is in Chikwawa District and shares boundaries with Majete Game Park. The Power Station was first commissioned in the year 2000 with just two machines and each machine having an installed capacity of 32.4 MW.

In 2013 the station's installed capacity was increased with additional two machines making a total of four machines with a total generation capacity of **129.6MW**. The Facility comprises of a water reservoir with a capacity of 9.05 million cubic meters of which 3.5 million cubic meters is active storage at an elevation of 147m. The water is conveyed to the machine turbines through a common headrace tunnel which is 550m long and 8.8m in diameter. The height difference between the water reservoir and the machines' turbines is 54m.

#### **INSTALLED CAPACITY**

STATION NAME	NUMBER OF MACHINES	CAPACITY PER MACHINE	TOTAL CAPACITY
PHASE I	2	32.4 MW	64.8 MW
PHASE II	2	32.4 MW	64.8 MW



Wovwe Power Station is located in Karonga District, 17km off Uliwa Trading Centre (along M1 road) to the West, in the Northern Region of Malawi. It is built on Wovwe River, upstream of Wovwe Rice Scheme and the catchment area of the river is in Nyika National Park.

The Power plant is a donation from Federal Republic of Germany government. The power station was commissioned in 1996. It was designed to either connect to the National Grid or operate on island (not connected to National Grid). When operated on off grid, it is capable of supplying power to Karonga and Chitipa Districts. The power station is made up of 3 Pelton Turbines with a total generation capacity of **4.5MW**.

#### **INSTALLED CAPACITY**

STATION	NUMBER OF	CAPACITY	TOTAL
NAME	MACHINES	PER MACHINE	CAPACITY
WOVWE	3	1.45 MW	4.35 MW



EGENCO operates Diesel Power Plants that are used as standby or emergency power supply. They are also used to provide additional capacity during peak periods and for system voltage improvement. 20MW of diesel generation sets were installed at Mapanga, in Blantyre and 10MW was installed at Kanengo, in Lilongwe, in December 2019 while **6MW** of diesel generation sets was installed at Luwinga, in Mzuzu, in January 2018. **1.8MW** of diesel generators were also installed at Likoma and Chizumulu Islands in 2019.

Overall, EGENCO's generation capacity from diesel generators is **53.2MW**.

# **INSTALLED CAPACITY**

STATION NAME	NUMBER OF MACHINES	INSTALLED CAPACITY
MAPANGA	10	20 MW
LUWINGA	3	6 MW
KANENGO I	5	10 MW
KANENGO II	5	10 MW
LILONGWE A	3	5.40 MW
LIKOMA	2	1.168 MW
CHIZUMULU	2	0.652 MW



The Likoma and Chizumulu Solar Power Plants are the first solar power plants commissioned by the Electricity Generation Company (Malawi) Limited (EGENCO). Comprising of 1.3MW, they supply power to the historical Likoma and Chizumulu Islands, situated off the eastern shore of Lake Malawi.

Because of their geographical location, Likoma and Chizumulu islands are not connected to the national electricity grid. For decades, the main source of electricity for the islands has been diesel generators that were commissioned in 2002 by the Malawi Rural Electrification Programme (MAREP).

The commissioning of the solar power plant entailed that solar has now become the main source of power for the islands, replacing the diesel generators.

The solar power plants have a battery storage facility that enables them to operate for long periods on battery storage power alone. This guarantees stable power supply for the island.

The Solar Power Plant for Likoma was commissioned on 16th November 2020 while that of Chizumulu was commissioned on 8th December 2020.



Electricity Generation Company(Malawi) Ltd No.7 Victoria Avenue,Chayamba Building P.O Box 1567,Blantyre, Malawi

> Email: egenco@egenco.mw Website: www.egenco.mw

