

## Maseru electricity market trends

production, consumption, imports and exports of energy commodities. Electricity data was obtained from Lesotho Highlands Development Authority (LHDA) and Lesotho Electricity Company (LEC), while petroleum fuels data was obtained from Petroleum Fund, Lesotho Defense Force, Matekane Group of Companies, Mission Aviati.

The model correlates well with the actual data, where data exists, and predicts that by 2030 Lesotho will achieve a national electrification rate of 54.2%, with 95% for urban households and 14% for rural households, up from 19.4%, 54.1% and 1.8% respectively in the base year.

The revised and projected electricity demand in this study are carried out using the International Atomic Energy Agency Model for Analysis of Energy Demand (MAED). MAED uses analytical bottom-up variables together with their constituents and their drivers.

electricity was generated in the month of June (61,335.3 kWh) followed by July generation with 61,193.2kWh. The least electricity generation was observed in February with 54,228.8

"The electricity supply industry in Lesotho is dominated by two state owned entities, namely the Lesotho Electricity Company (LEC), which is the monopoly transmitter, distributor and supplier of electricity, and the Lesotho Highlands Development Authority (LHDA), which is the main generator of electricity through its "Muela Hydro Power Station.

## Lesotho electricity demand profile from 2010 to 2030

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The results presented in this paper are part of the cost of service study undertaken in 2018 for LEWA, with the raw data obtained from LEC for the period 2000 to 2017. Since 2017 to date, there has not been any significant change in terms of the data on customer movements and consumption. For instance, the average consumption per household continues its decline trajectory, from 1 157 kWh/ year in 2016/17 to 1 117 kWh/year in 2018/19, which goes to corroborate the results discussed further in this paper.

The paper is arranged such that the next section discusses the current demand profile derived from the actual data. Section 3 talks about the methodology used to determine the forecasts which is then followed by the section of the forecast results. Section 4 gives conclusions. The various MAED input tables and data are available separately from the online home page of the article.

## 2. Current demand profile

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