

Energy Statistics in Zimbabwe

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Introduction

- Zimbabwe collects, compiles and publishes energy statistics from the following sources:
 - Administrative Records
 - Censuses and Surveys

Administrative Sources

- Electrical Energy produced and distributed by source:
 - Hydro
 - Thermal
 - Independent Power Producers (IPPs)
 - Imports
 - Exports
- Electrical Energy used by broad group:
 - Agriculture
 - Mining and Quarrying
 - Manufacturing, Transport and Construction
 - Domestic Consumers
 - Others

Establishment-based Surveys

- Census of Industrial Production (CIP) covers
 - Quantities and values of the following
 - Electrical energy used
 - Coke
 - Coal
 - Charcoal
 - Petrol
 - Diesel
 - Lubricants
 - Oils
 - Other liquid fuels
 - Gas

Establishment-based Surveys

- Establishments covered are in:
 - Mining and Quarrying
 - Electricity and Water Production and Distribution
 - Manufacturing
 - Construction

Household-based Surveys

- Every 10 years a population census is carried out in Zimbabwe and some of the housing characteristics estimated are:
 - Proportion of dwelling units with households with electricity
 - As a main source of heat for cooking, the proportion of households that used:
 - Wood
 - Paraffin
 - Electricity
 - Gas, Coal or some other form of fuel

Household-based Surveys

- Other surveys carried out every 5 years obtaining the same characteristics are:
 - Labour Force Survey (LFS)
 - Poverty, Income, Consumption and Expenditure Survey (PICES)

Renewable Energy Sources in Zimbabwe

- The following are the sources of renewable energy in Zimbabwe:
 - Fuelwood and sawdust
 - Bagass
 - Hydropower
 - Charcoal
 - Solar
 - Biogas
 - Wind energy (Masvingo)
 - Ethanol (Chisumbanje)

Small Hydropower (SHP) Development

- Potential for SHP of about 200MW exists on both irrigation dams and perennial rivers especially in the Eastern Highlands for both grid-connected and off grid systems
- Current government policy is that all water bodies should be exploited and all new dams should have provision for power generation

CURRENT GOVERNMENT INITIATIVES

- Gairezi Small Hydropower Plant 30 MW run-of-the-river
- Manyuchi Dam (1.26Mw) Mini-hydropower project
- Ruti Dam (0.96Mw) Mini-hydropower project

CURRENT PRIVATE SECTOR INITIATIVES

- Nyangani Renewable Energy Projects include:
 - Nyamhingura 1.1Mw
 - Duru 2.2Mw
 - Pungwe A, B and C
- Kupinga Renewable Energy (Pvt) Ltd

Solar Energy

- Solar energy potential of Zimbabwe is relatively high, with an average 300 days or 3000 hours of sunshine per year.
- A number of projects to promote thermal and electric applications have been supported over the years, by government, donors, NGOs and the private sector.

PLANNED SOLAR PROJECTS

- SOLAR PV POWER PLANTS in GWANDA (100 MW), PLUMTREE (100 MW), MUNYATI (100 MW) AND ZVISHAVANE (2 MW)
- MARONDERA SOLAR PV POWER PLANT (150MW) by De Green Rhino

Biomass Power Generation

- Bagasse and timber wastes are used to fire boilers to produce steam which can be used for electricity generation.
- The electricity is used internally but excess is exported to the national grid

Plant owner	Plant Name	Capacity	Status
Triangle Ltd	Triangle Plant	45Mw	Operational, uses bagasse
Hippo Valley Estates	Chiredzi Sugar Mill	33Mw	Operational, uses bagasse
Green Fuel	Chisumbanje	18Mw	Operational, uses bagasse
Border Timbers	Charter Plant	0.5Mw	Operational, uses wood waste

Challenges