QUICK FACTS
• Area (30,355km²)
• Population: 2 million (Census 2016)
• Energy:
  • Electrification Rate: 36.9% (HECS 2017)
  • Energy Supply Self-Sufficiency: 44%, Import Dependency 56%
  • Only 3% households use Improved Fuelwood stoves
DATA COLLECTION

- The Planning Unit of the Department of Energy (DoE) is responsible for collection of energy statistics and compilation of annual energy balances in the country.
- The Bureau of Statistics (BoS) is responsible for all surveys including population, economy and other sectors upon request by relevant ministries.
- DoE closely collaborates with BoS (Energy and Environment Unit) in all energy surveys and in compilation and dissemination of energy reports and balances.
DATA COLLECTION: ADMINISTRATIVE RECORDS

1. Lesotho Electricity Company (LEC) and Lesotho Electricity and Water Authority (LEWA) provides all data on:
   - Local Generation: 72MW hydro, 280KW solar, 2MW and 180KW hydro-diesel hybrid
   - Imports: ESKOM and EDM
   - Sales by customer category
   - Transmission and Distribution losses and
   - new connections
   - Approved tariffs by customer category

2. Multinational Oil Companies (Engen, Total and Puma Energy) and LPGas Companies (Afrox, Total and EasiGas): oil and LPGas imports

3. Petroleum Fund: Wholesale Oil Prices

4. Mission Aviation Fellowship: Aviation Fuel imports and prices

5. Lesotho Revenue Authority (LRA): imports of fuel wood

6. Technologies for Economic Development: installed biogas, prices
DATA COLLECTION: SURVEYS

1. 2017 Household Energy Consumption Survey (HECS):
   - Types and quantities of fuel used by activity e.g. biomass access (collection and travel time), usable area, number and type of meals cooked per day, appliances, number and types of meals, preferred future choices

2. Sectors Energy Consumption Survey, 2017:
   - Phase 1 covered: Health, Education, Industry, Public Institutions, Mining & Quarrying
   - Phase 2: Hospitality and Agriculture
   - Phase 3: Transport and Financial Sectors
### DATA COLLECTION: OTHER SURVEYS

<table>
<thead>
<tr>
<th>Type of Data</th>
<th>Source</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main source of energy for; -lighting -heating -cooking</td>
<td>Population and Housing Census</td>
<td>Every 10 years</td>
</tr>
<tr>
<td>Main source of energy for; -lighting -heating -cooking</td>
<td>Lesotho Demographic Survey</td>
<td>Every 5 years</td>
</tr>
<tr>
<td>Type of cooking fuel</td>
<td>Demographic and Health Survey</td>
<td>Every 5 years</td>
</tr>
<tr>
<td>Main source of energy for; -lighting -heating -cooking</td>
<td>Household Budget Survey</td>
<td>Every 5 years</td>
</tr>
</tbody>
</table>
DATA UTILISATION:

• Production of Energy Balances (2017)
• Energy Demand Analysis (MAED), to be published
• Energy Supply Analysis (MESSAGE)
• Developing Energy Efficiency Indicators
• Calculation of GHG emissions
• Track progress on national energy targets and international agendas
DATA AND INFORMATION SHARING

- Energy Reports and balances published at BoS website
- Energy Sector Coordination Forum;
- National Energy Planning Team
- Committee for Development of Environmental and Energy Data
- Energy Information System and website in pipeline
CAPACITY BUILDING

- IAEA – Energy Planning and Energy Statistics (EBS, MAED, MESSAGE, FINPLAN, SIMPACTS), survey design
- IRENA – Renewable Energy Statistics
- IEA & AFREC – Energy Statistics and Balances, Energy Prices, Energy Efficiency Indicators
ENERGY BALANCE 2017

Analysis of Total Energy Supply by Fuel

- Oil: 47%
- Biofuels: 41%
- Electricity: 8%
- Coal: 4%
ENERGY BALANCE 2017

Analysis of Final Energy Consumption by Sector

- Household: 56%
- Industry: 17%
- Agriculture: 1%
- Transport: 16%
- Commercial: 10%
Analysis of Final Energy Consumption by Fuel

- Oil: 45%
- Biofuels: 7%
- Electricity: 8%
- Coal: 40%
RESIDENTIAL ENERGY EFFICIENCY INDICATORS 2017

RESIDENTIAL ENERGY CONSUMPTION BY END-USE

- Cooking: 62%
- Space Heating: 19%
- Water heating: 10%
- Lighting: 3%
- Refrigeration: 1%
- Television: 1%
- Other appliances: 4%
RESIDENTIAL ENERGY EFFICIENCY INDICATORS 2017

RESIDENTIAL ENERGY CONSUMPTION BY FUEL

- Fuel wood: 67%
- Other biomass: 2%
- Electricity: 8%
- Fossil Fuels: 23%
CONCLUSION AND CHALLENGES

- Funding for data collection a challenge hence the phases in SECS
- Further capacity building in survey design, data analysis and questionnaire design, energy efficiency indicators, standards, reporting and publishing
- Developing projections from the baseline data
REA LEBOHA – THANK YOU