

Long-term energy scenarios (LTES) for developing national energy transition plans in Africa

The Botswana Case

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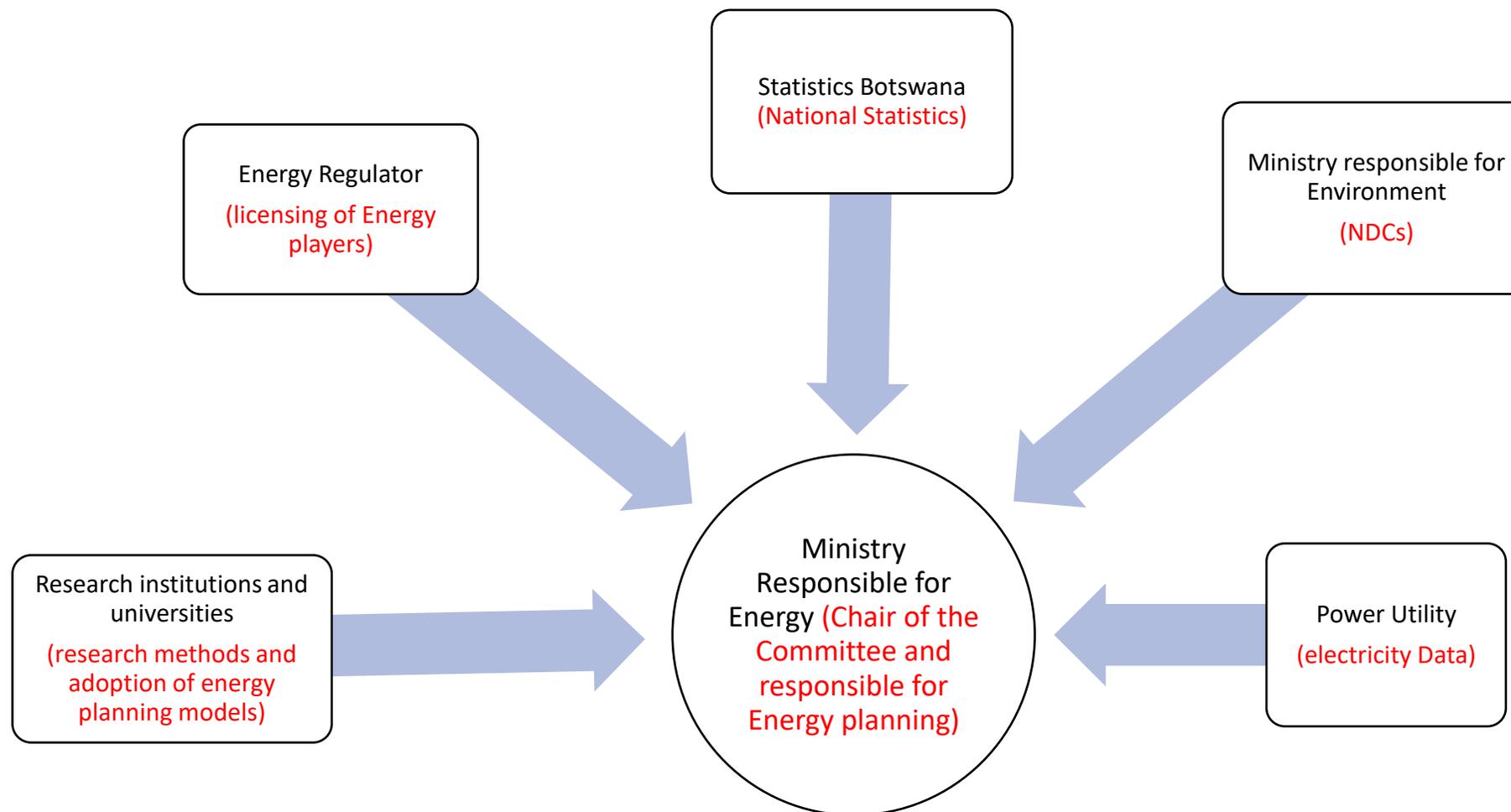
15 December 2021



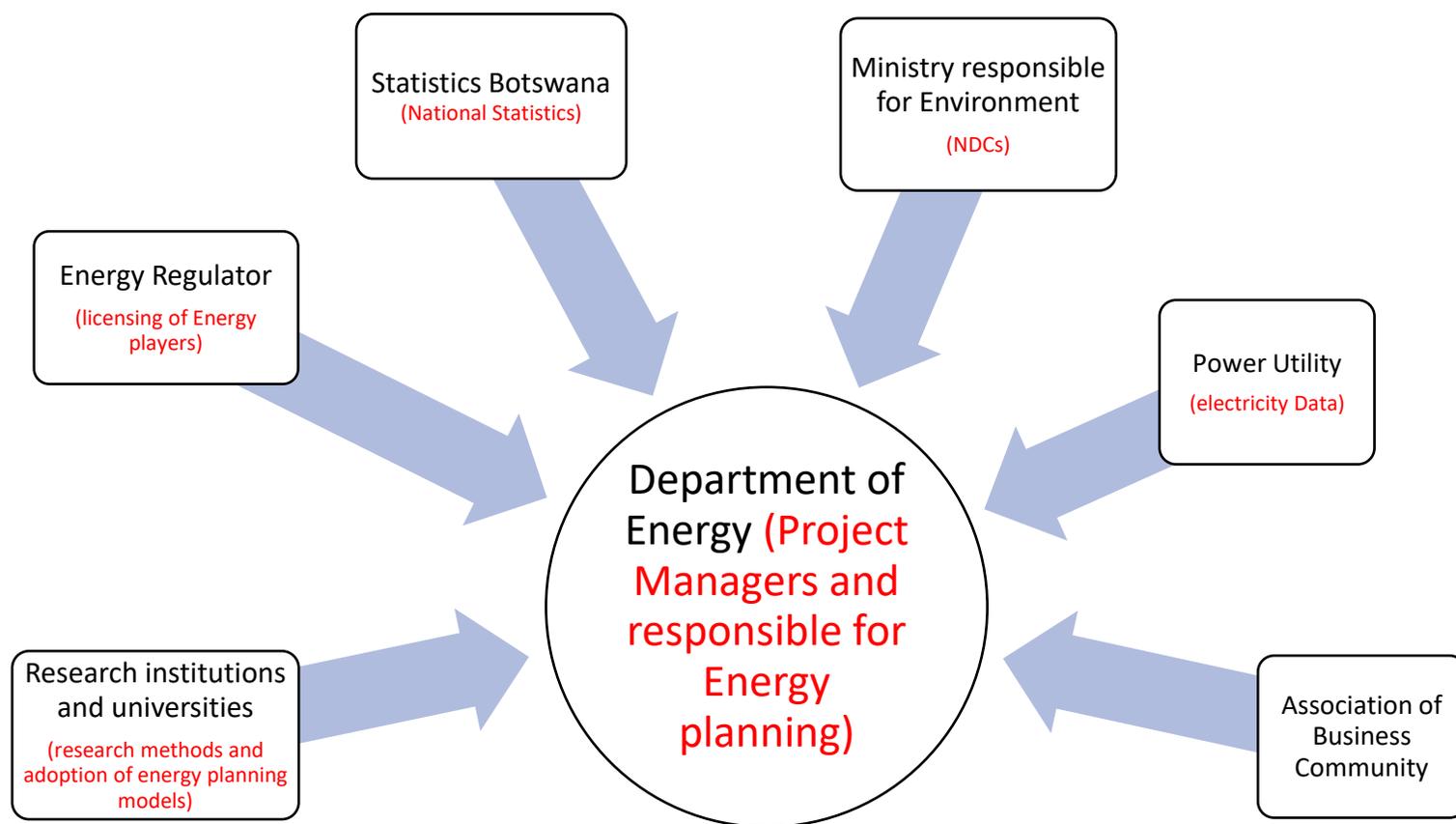
Republic of Botswana

DEPARTMENT OF ENERGY

Project Steering Committee



Project Technical Team



Technical Team

- Establish a dedicated team with resources and required expertise
- Capacity building on energy planning tools
- Train, refresh and retain the team
- Review energy model if possible on yearly basis

Scope of Work LTES

Scope	Areas
National Development Goals	Vision 2036, ambition to be high income country, export led economy
Environmental Goals	<ul style="list-style-type: none"> - NDCs - SE4All Action Agenda
Energy policy Goals	<ul style="list-style-type: none"> - Energy policy - Renewable Energy Strategy - Energy Efficiency Strategy - Universal Access to electricity - Ensure security of supply - Net exporter of electricity
Demography and Socio economic structure	<ul style="list-style-type: none"> - GDP and % growth of population

Scenarios Development – Energy Demand

Scenario	Objective
Optimistic	<ul style="list-style-type: none">- Projects that economy will grow at high rate leading positive change in prevailing GDP
Energy Demand Measures	<ul style="list-style-type: none">- Structure of the economy and demography are similar to Optimistic scenario, but energy demand measure are practiced to reduce the growth rate of energy demand with time
Alternative / Pessimistic	<ul style="list-style-type: none">- GDP annual growth rate is lower that optimistic scenario- The structure of the economy is inverse (lower GDP growth rate, no growth in energy demand) to the optimistic scenario which can be caused by economic shock like Covid-19

Scenarios Development – Energy Supply

Scenario (Derivative of National Goals)	Objective
Minimum Constraint	<ul style="list-style-type: none"> - Business as Usual Scenario - Imports are accommodated - No constraints on energy mix and environment
Clean electricity	<ul style="list-style-type: none"> - Energy Demand Measures employed - Meet the projected demand with local resources - Accommodate Reserve Margin - Enforce the use renewable energy and low carbon technologies
Self sufficiency	<ul style="list-style-type: none"> - Ensure generation is from local resources - Commit EDM - No imports allowed - Minimal Reserve Margin - Minimal use of Renewable energy and

Stakeholder Communication

Name	Role	Medium of Communication
Ministry Responsible for Energy	Development of Energy plans	Communicator
Development Partners	Shared responsibility of capacity building (IAEA, SADC)	Established periodic meeting, projects reports
Other Ministries		
Private Sector	interest in affordable energy, investing opportunities, provide energy use information	Meeting and workshops during the process of the project
Public	Use of affordable and access to energy, alternate energy options	National development plans, community meetings, workshops, use their political representations.
Multilateral Financing Institutions	Investing in energy projects, transparency and predictable plans	Bilateral meetings, and regional and international meetings.
Regional and International Organizations	Coordinated Regional and International developments	Established periodic meetings

Thank you for your attention



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