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THE REPUBLIC OF SOUTH SUDAN  
MINISTRY OF ELECTRICITY, DAMS, IRRIGATION AND WATER RESOURCES  
JUBA

EAST AFRICA POWER INDUSTRY CONVENTION (EAPIC)

PRESENTATION

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# OVERVIEW OF CURRENT ECONOMIC POLICIES

- The population below the poverty line is about 50.6% (NBS) and the GDP is 21 billion United States American Dollars (NBS)
- Per capita energy consumption ranges between 1 – 3 kWh – indicates under development
- 83% of South Sudan population live in rural areas and uses Kerosene, charcoal and fire wood for energy
- Most villages in the country have no electricity or running water

# OVERVIEW OF CURRENT ECONOMIC POLICIES CONT'

- The country's overall infrastructure is non-existence, with only few feeder roads
- Lack of developed and reliable energy sources for domestic, and commercial use
- Oil is a major source of energy, comprise of 98% of South Sudan revenues and the rest of the 2% is non oil.
- Renewable energy supply is not yet exploited – It is recommended for rural electrification.

# OVERVIEW OF FUTURE ECONOMIC POLICIES

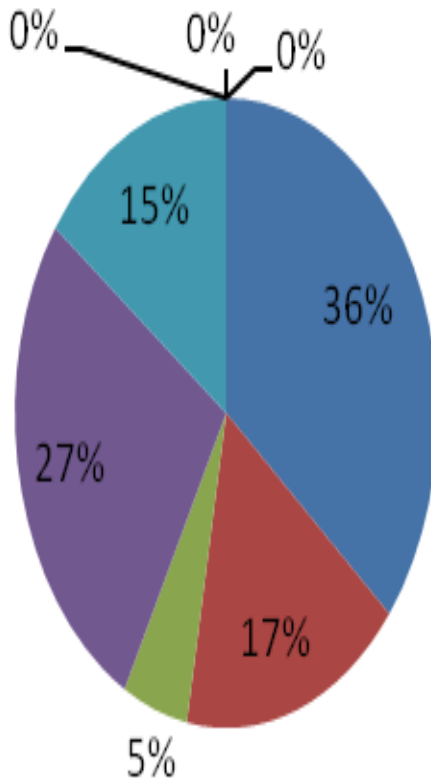
- Oil will be depleted – Alternative to be identified
- Most of the lands are fertile – Agriculture required to boost economy
- Encourage effective Public - Private – Partnership participation in infrastructure project

# STATUS OF SOUTH SUDAN POWER SECTOR

- About 90% dependency on diesel-fired generation that is suffering from limited unit capacity e.g see the case of Juba below

- Diesel power *generation* is about 36%
- Use of *PV & Biomass* is vivid but not exploited in large scale
- Other renewable energy (e.g *wind, Geothermal & Hydro*) are non-existence
- Despite all these, there is great *potential* for new and renewable energy sources in the country for *investment*

**Energy Sources in Juba City**



- Thermal
- Kerosene
- Battery
- PV System
- Biomass
- Wind
- Geothermal

## POWER SECTOR FOCUS (AMBITIONS)

- Increase of generation capacity through implementation of planned projects and proposed new sources of power generation;
- Mobilization of financial resources for electricity projects, especially those linked to economic activities such as mining and industry;
- Development, expansion and reinforcement of generation and distribution networks in the state capitals;

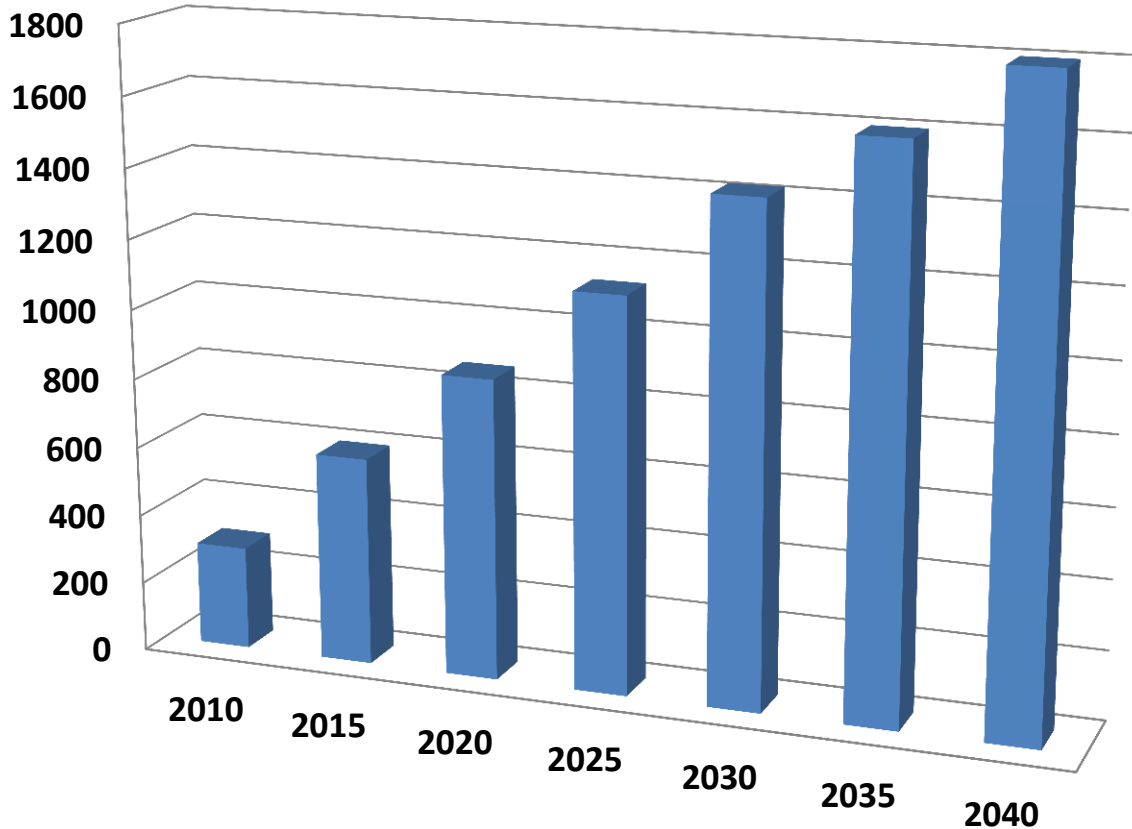
## POWER SECTOR FOCUS (AMBITIONS) CONT'

- Construction of transmission lines and substations (National Grid);
- Invest in regional interconnections, including *the East Africa Power Pool (EAPP)*, to access wider power market;
- Support of rural electrification by off-grid renewable energy sources.



# SOUTH SUDAN EXPECTED ELECTRICITY DEMAND BY 2040

Demand vs Years



- *Estimated Current demand is about 300MW*

- *Expected to increase to 1800MW by 2040*

- *Generation capacity should meet this demand by 2040*

■ DEMAND (MW)

# REGULATORY FRAMEWORK

- South Sudan Electricity Corporation Act 2009 is in force
- National Electricity Bill 2015 has been passed by cabinet and shall be ratified by parliament any time soon
- Promote regulations for private sector involvement, including feed-in tariffs (FITs) and Power Purchase Agreements (PPAs)
- Investments Act 2012 guarantees investors repatriation of their profits

# BUSINESS OPPORTUNITIES

- Public – private – partnership is encouraged
- The abundant hydro power potential (e.g Grand fulla 890M, Bedden 570MW, Laki 420MW and Shukoli 235MW) and other new and renewable energy resources to be exploited
- Investment benefits characterized by attractive internal rate of returns
- Regulatory environment which encourages private sector participation in the electricity sector

# CONCLUSION

- Despite the abundant resources available for power generation, the energy sector requires adequate funding in the form of investments to enable South Sudan to develop its ***energy infrastructure*** to achieve a reliable and cheap power supply to meet its socio-economic and development needs
- The use of solar power will be encouraged in rural areas. This requires investment of massive resources in electricity sector infrastructure so as to reach all parts of the country. The legal framework and appropriate electricity pricing is being put in place to attract private sector participation in the development arena

## CONCLUSION CONT'

- Promote appropriate renewable technologies to supplement conventional power sources.
- The expectations of the economy and the people of South Sudan are great and will require the participation of government and development partners.
- Reduction of high cost of energy by replacing diesel – fired generation that is suffering from limited unit capacity with cheaper and reliable energy sources, e.g Hydro power
- Pursue regional cooperation and integration

**“ASANTENI KWA KUSIKILIZA”**