



Policy and Regulatory Issues of Solar Power in Sub-Saharan Africa

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Energy Overview Of Africa-Some Facts

- Three distinct regions- North Africa, South Africa and Sub-Saharan Africa
- SA generates around 45% of total electricity in Africa, while North Africa stands at 30%
- SSA has the world's lowest electricity access rate, at only 32%
- At roughly 45 GW the entire generating capacity of the 47 countries of SSA excluding South Africa is less than Turkey, and about a quarter of this capacity is not currently available
- Africa will face a gap of close to 400 GW of generation capacity in the year 2030 under a BAU scenario

NEED FOR CLEAN AND SUSTAINABLE ENERGY

Why Policy And Regulation is important

- Domestic resource as investment capital is low – huge opportunity for investment
- Stronger governmental regulations promoting and protecting investors can attract more FDI
- Independent Regulatory institutions can ensure businesses' rights
- Access to energy can create job opportunities, address gender inequality

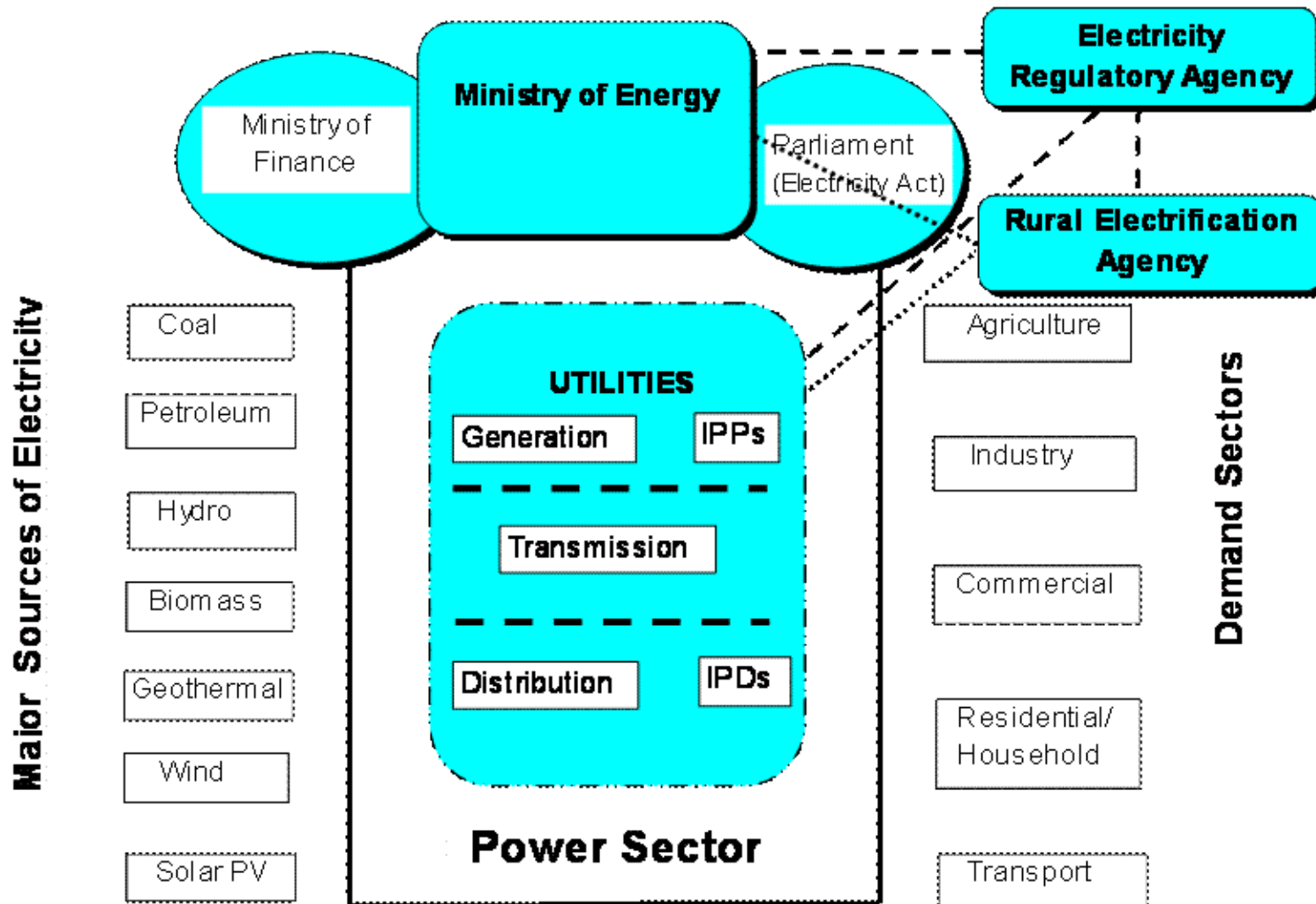
Policy and Regulatory Challenges

- Monopolistic nature of the electricity industry
- Lack of accountability and transparency of regulators
- Non-sustainable pricing policies- Feeble “level playing field” in the treatment of conventional and renewable energy technologies
- Tariff setting remains politicised
- Lack of clarity in government policies, regulatory framework
- LPG subsidies make it difficult for decentralised solar system to be competitive
- Inadequate domain knowledge or capacity among regulators

External Challenges

- Poor revenue collection
- Macroeconomic Instability
 - Inflation in Zambia
 - currency devaluation in Nigeria, Rwanda
- Political Instability

Institutional Structure of the African Power Sector



Successful Regulatory/Support Mechanisms

- Standard power purchase agreements (PPAs)- Kenya, Uganda, South Africa
- Feed-in tariffs e.g.- utility scale grid interconnection, Ghana
Global Energy Transfer Feed-in Tariff program, Uganda
- Exemption of VAT from Solar Panels – Cameroun, Tanzania
- Cross-border Energy Cooperation- Eastern Africa Power Pool (EAPP), Southern Africa Power Pool (SAPP)
- Setting solar target in renewable energy mix
- Encouraging private sector- off-grid solar initiatives, pay as you go initiatives, Mobile payment

Different Country Commitments in their NDCs

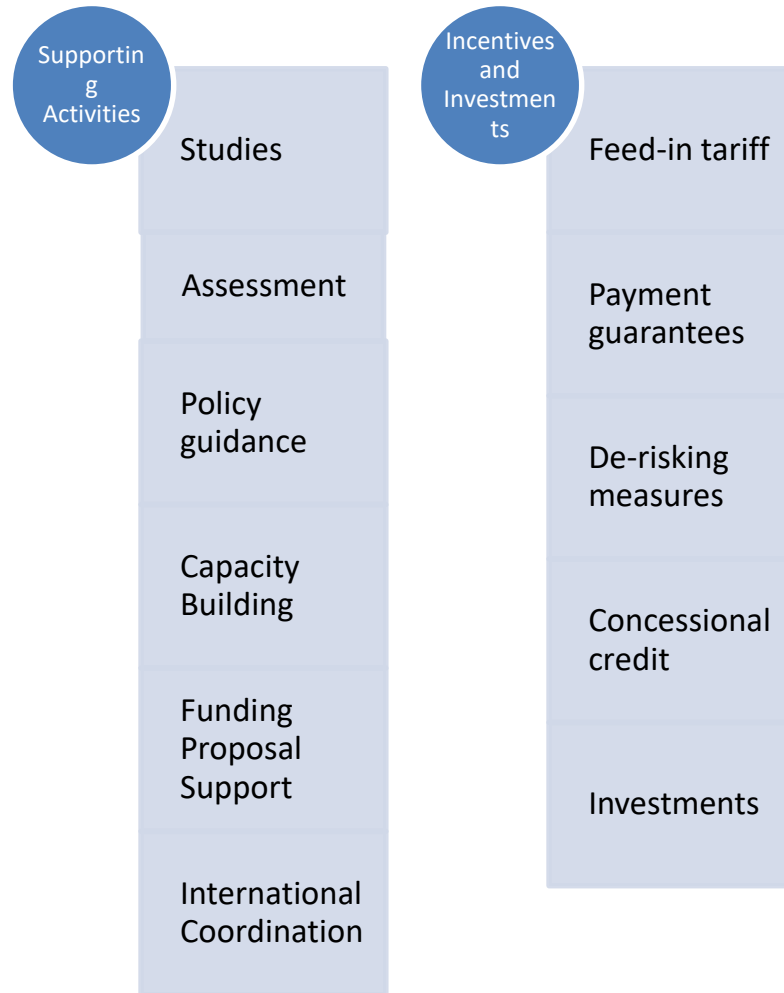
Country	PV (MW)	Other Solar (MW)
Algeria		4010 solar and wind
Benin	20	1 million solar PV lamps (13 MW)
Burkina Faso	*	
Chad	*	
Congo, Rep	*	
Djibouti	250	
Egypt	220	1100 CSP
Ethiopia	300	
Guinea	5 (estimate)	
Kenya	1200	
Malawi	2	2000 solar water heaters
Mauritania	*	2000 PV water pumps
Morocco	3350	1210 MW CSP
Nigeria	18000	1000 MW CSP
Senegal	160	
Seychelles	90	
Somalia	15	
South Africa	8400	1000 MW CSP
Tanzania	150	

Source: Global Economic Governance Initiative, GEGI WORKING PAPER 010 (11/2016), Dr. Miquel Muñoz Cabré; Mohamed Youba Sokona

ISA's probable role to promote solar energy

- Enabling activities can be divided in 2 broad categories

Market Intelligence, Investments and support in a technical and advisory role



CUTS Work in Energy

- **Regulatory Governance**
- **Market Competition**
- **Cross-border energy cooperation**
- **Advocacy for promotion of Solar energy through evidence based research**
- **Consumer Awareness Generation**
- **Capacity Building**

CUTS Past and Present Work in Energy

- **Regulatory Governance**

- *Regulatory Role & Engagement in India's Clean Energy Transformation*
- *A pilot project on Capacity Building on Electricity Reforms in Bangladesh, India and Nepal*
- *Regulatory Impact Assessment of Electricity Sector in India*
- *Consultancy Support to Haryana Electricity Regulatory Commission*
- *Comparative Study of Regulatory Framework in Infrastructure Sector: Lessons for India*
- *Consumer Participation in Electricity Regulation*

- **Market Competition**

- *National Competition Policy & Economic Growth in India*

CUTS Past and Present Work in Energy

- **Cross-Border Energy Cooperation**

- *Regional Cooperation on Energy Security in South/Central Asia*
- *Sustainable Development Investment Portfolio: Promoting Water, Food and Energy Security in South Asia*

- **Sustainable Development**

- *Sustainable Development Investment Portfolio: Promoting Water, Food and Energy Security in South Asia*
- *Assessing Consumer Behaviour on Energy Efficient Products in India*
- *Save to Survive: An awareness Campaign on Energy Efficient Products*
- *Valuing Vital Resources in India: Potential for Integrated Approaches to Water, Energy and Agricultural Sustainability*

CUTS Past and Present Work in Energy

- **Consumer Awareness and Capacity Building**
 - *Barriers To Uptake Of Clean And Renewable Energy: Case Of Bomet And Homa-bay County, Kenya*
 - *Consumer Participation in Electricity Regulation*
 - *Demand Side Management and Renewable Energy in India: Capacity Building of CSOs*
 - *Energy Access for Consumers – Screenings of ‘Katiyabaaz’ Documentary*
 - *Consumer Participation in Electricity Sector in Rajasthan*
 - *Assessing Consumer Behaviour on Energy Efficient Products in India*
 - *Involvement of Consumers in Power Sector Reforms in Rajasthan*
 - *Impact of Rural Electrification in West Bengal*
 - *Consumer Assistance Cells for Electricity Consumers at Grassroots Level*
 - *Save to Survive: An Awareness Campaign on energy Efficient Products*
 - *Assisting in Designing Interventions, Regulations and Consumer Capacity Building in New Town Solar City, Kolkata*



THANK YOU

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