



Regulatory Framework: Incentives for RES Deployment

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WORKSHOP

NON-DISPATCHABLE RENEWABLE ENERGIES INTEGRATION INTO THE GRID

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Agenda

1. Reasons for RES deployment
2. Policy and Regulatory Reforms
3. Incentives Schemes for RES:
 - Zambia
 - South Africa
4. Auctions
5. Feed-in Tariffs
6. Cases:
 - Zambia
 - South Africa
7. Conclusion

Introducing Renewable Energy

1. Reasons for RES deployment

- Diversify the energy mix
- Reduce/avoid carbon emissions
- Increase electrification – off-grid solutions
- Reduce fossil-fuel generation
- Support growing demand for energy
- Reduce cost of electricity supply
- Eradication of poverty – sustainable manner

2. Necessary policy and regulatory reforms

- Policy to set targets for renewable energy
- Future generation capacity to be defined
- Access to Transmission and Distribution systems
- Regulated or non-regulated tariffs (price structure in auctions vs feed-in tariffs)
- Rules for selling to national utility and/or private off-takers
- Consideration for Technical Regulation – Grid Codes
- Tariff regulation
- Framework for procurement of renewable energy – tender/auctions procedures

Incentives Schemes for RES

3. Incentives Schemes - general

- Production-based incentives – minimum feed-in tariffs, tax credit, emissions credit
- Investment based incentives – loan guarantees, accelerated depreciation, investment tax holidays, other tax exemptions
- Regulatory or policy incentives – setting Renewable Energy Zones, Environmental zones, land use incentives, building standards
- Other specific incentives: capital subsidies, grants, waivers for imported equipment
- **Setting Incentives:**
 - Country-specific – macro-economic environment, resource availability, fiscal space
 - Legal framework considerations
 - Market development
 - Targeted to specific groups – off-grid solutions for rural electrification

Incentives Schemes for RES - Zambia

Incentive Scheme – Zambia Case

- **Scaling Solar Programme:**
- Utility-scale solar project development
- Pre-screened project sites – feasibility
- Legal Due diligence
- Standardised contracts – PPA, Finance Agreements
- Government guarantees
- PPA for 25 years
- **Get-Fit**

Incentives Schemes for RES – South Africa

Incentive Scheme – South Africa case

- **Renewable Energy Independent Power Producer Procurement Programme (REIPPPP)**
 - competitive bidding based on a defined criteria via Request for Proposal
- PPA signed with Eskom (utility) for 20 years – inflationary price escalations
- PPA backed by South African Government Guarantee
- Proposal evaluation criteria: Price (70%) and Economic Development (30%)
- Submitted Proposal must be compliant – meet Qualification and Evaluation Criteria (two stage process)
- Broad-Based Black Economic Empowerment – participation by local shareholders, and meet other criteria relating to job creation; SMEs development; community development; and local procurement of goods and services

4. Auctions

- **Types:**
- Reverse auctions
- Capacity auctions
- Energy auctions
- **Pricing Structure in Auctions:**
- Participants bid on basis of price and other components (economic development and other objectives – job creation)
- Energy-only tariffs (kwh)
- Deemed energy payment
- Metering done by both seller and off-taker
- Take or pay basis

5. Feed-in Tariffs

- One of the widely used incentive for the renewable energy procurement
- Provides certainty to the producer:
- Access to grid
- Long-term PPA
- Subsidy
- **Pricing Structure:**
- Price determined upfront by either Government or Regulatory Authority
- Capital costs and O&M costs of an efficient operator
- Capital structure (financing) to be used

Cases: Zambia and South Africa

6. Two cases:

▪ Experience in Zambia

Scaling Solar

- Round 1 of two projects target capacity of 100MW
- Awarded in May 2016 to 2 winners for a total of 81 MW
- Tariffs are fixed (non-indexed) for the 25-year contract period.

- Round 2 began in February 2017
- Target capacity for a total of 500MW
- Prequalification for the first 200 MW completed

Get-Fit

- GET FiT became the official implementation program for REFiT
- The objective is to bring 200 MW RES online in 5-7 years
- Target: IPP's projects between 1-20 MW
- Round 1 of the program (launched in April 2018) will be a competitive auction for up to 100 MW of solar PV capacity
- Final awarding expected by December 2018
- GET FiT intends to launch the hydro tender in mid-2018.
- Other technologies including biomass and geothermal - future

Cases: Zamabia and South Africa

6. Two cases:

▪ Experience in South Africa

SA REIPPPP

- Power Purchase Agreement – 25 years
- Implementation Agreement
- Government Support Framework
- Connection of Use of System Agreement
- Ancillary Service Agreement
- Other:
- Generation License
- Distribution Facility License
- **Current Status:**
- 6, 422 MW procured from RE IPPs (out of 14, 725 MW determined)
- 3, 776 MW connected to the grid (includes non-RE generation)
- 24, 913 GWh generated by RE power plants (up to March 2018)
- **Average prices have decreased by 50% for wind and 75% for Solar PV – from 2011 to 2017**

Conclusion

7. Enabling Conditions for RES

- Programme is anchored on clearly defined policy and regulatory framework
- Policy: that considers all Renewable Energy Sources and strategy to set Renewable Energy Targets
- Clear and transparent procedures to foster renewable development
- Create standardized PPAs – enforceable and binding
- Government preferential procurement guidelines, and tender management processes
- **Other:**
- Clear and fair grid access rules that will accommodate renewable additional capacity
- Third Party Access rules to promote “wheeling of energy”
- Policies and regulatory framework to facilitate private sector involvement in decentralized renewable energy technologies (i.e. mini –grid projects, net-metering rules etc)
- Rules for the development of bilateral PPAs
- Undertake renewable energy resource mapping and promote the development and use of renewable energy technology systems
- Implement a feed-in tariff and bidding system which is attractive for private investment into renewable energy generation



Thank you



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