

“Charting the progress of renewable energy in Nigeria... the journey so far”

Report from
NIGERIAN ELECTRICITY REGULATORY COMMISSION
(NERC)

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geographic overview...

Population: 140 million (2006)

Land Mass: 923.8 thousand sq. km

Geographical distribution:

Six Geo-political Zones

36 states + Fed Capital

Well diversified RE potentials



Policy Frame Work

Nation Energy Policy

- Effective April 2003
- Recognizes the use of renewable energy source such as Hydro, solar, wind, biomass
- Some specific provisions of the policy
 - The nation shall fully harness the hydropower potential available in the country for electricity generation.
 - The nation shall pay particular attention to the development of the mini and micro hydropower schemes.
 - The nation shall aggressively pursue the integration of solar energy into the nation's energy mix.
 - The nation shall keep abreast of worldwide developments in solar energy technology.
 - The nation shall commercially develop its wind energy resource and integrate this with other energy resources into a balanced energy mix.
 - The nation shall take necessary measures to ensure that this form of energy is harnessed at sustainable costs to both suppliers and consumers in the rural areas.
 - The nation shall effectively harness non-fuelwood biomass energy resources and integrate them with other energy resources.
 - The nation shall promote the use of efficient biomass conversion technologies.
 - The nation shall maintain an interest in other emerging sources of renewable energy.



Policy Framework

- Electric Power Policy Document
 - Developed by the National Council on Privatisation (NCP)
 - Through a 23-member Electric Power Sector Reform Implementation Committee (EPIC) by Approved 2001
 - Specific provisions for RE:
 - Section 7.1 (i) - The rural electrification policy shall include a full menu of rural electrification options – grid and off-grid, mini-grid, non-thermal, renewable, etc;
 - Provided for the reforms in the electricity Sector
- Electric Power Sector Reform Act - 2005





Regulation Framework

- The Commission has licensed two Renewable power projects above 1MW
 - 5MW Solar project located in Jos, Plateau State (Wedotebary Nig Ltd)
 - 39MW Hydro power Project in Dadinkowa, Gombe State (Mabon Ltd)
- Developed FIT for Solar, Wind and Small Hydro
 - Developed by the RRD Division of NERC
 - The FIT was part of the working document by a consultant developing Tariff Methodology for NERC
 - Consultation with the stakeholders on major review of the tariff Methodology (inclusive of the FIT) proposed for the end of the March, 2011
 - The reviewed tariff methodology to come into effect in July 2011

Regulation framework cont'd

- Developed Standards (Draft) for Solar Home System
- Developed Standards and sitting guidelines (Draft) for wind power
- Developed general Siting guidelines for IPPs wishing to engage in the business of Power Generation (RE) inclusive
- Produced Guidelines and codes for the procurement of bulk power for the wholesale market.
- Bottlenecks in the off-take arrangement is being removed by the creation of Bulk purchaser



Some RE projects in Nigeria

Existing Small Hydro Sites

S/No	River	State	Installed Capacity [mw]
1.	Bagel (I) (II)	Plateau	1.0 2.0
2.	Kurra	Plateau	8.0
3.	Lere (I) (II)	Plateau	4.0 4.0
4.	*Bakalori	Sokoto	3.0
5.	*Tiga	Kano	6.0
6.	*Oyan	Ogun	9.0
7.	Ikere	Oyo	6.0

** Needs rehabilitation*

Source: Energy Commission
Nigeria

Some RE projects in Nigeria cont'd

- **UNIDO SHP Initiatives**

S/N	River/Place	State	Capacity	
1.	Tiga	Kano	6 MW	Rehabilitation
2.	Waya	Bauchi	150KW	
3.	Ezi-imo	Enugu	15KW	

- **Others SHP's**

S/N	River/Place	State	Capacity	
1.	Gurara	Kaduna	30 MW	
2.	Ebvororo	Edo	3KW	
3.				



Some RE projects in Nigeria cont'd

Wind Power

- The FGN is proposing 10MW wind farm in Kastina State - 37x275KW.
 - Contract signed with a German firm with the Ministry of Power.
- Two pilot wind power projects in the Kebbi State

Solar PV

- 58 Solar based rural electrification across the country by Energy Commission of Nigeria covering:
 - Street lighting
 - Solar powered boreholes
 - Electrification of Households/centre up 2.85KWp
 - More projects have will be executed this year
- Several kilometers of Street lightings initiated by the state and local government councils



POLICY MAKERS ARE NOW CLEARLY UNDERSTANDING WHY RE IS IMPERATIVE TO THE NIGERIAN ENERGY MIX

- The exhaustive nature of fossil energy makes it essential to diversify our national energy base.
- Fossil energy is unfriendly to the environment & is the key precipitator of global Climate Change.
- Most renewables are eco- friendly, easier & cheaper to harness.
- The exploitation of a potential renewable could be infinite.
- Renewables are the future for powering remote, hard to access & isolated rural areas of Nigeria.
- The Nigerian landscape is replete with abundance of varieties of renewables which could potentially reduce dependence on fossil.



NERC IS REGULATING FOR AN ENERGY EFFICIENT FUTURE FOR NIG & RE LEADS THE WAY

- NERC is utilizing the on-going Nig power sector reform, to drive for a more sustainable energy future by regulating for greatly improved energy efficiency, & for an intense infusion of renewable energy sources into Nig energy mix.
- NERC would also evolve towards the inclusion of environmental costs in the market price of energy as is becoming the custom the world over.
- NERC is also working on switching Nigeria from the low-efficiency incandescent lighting to higher-efficiency fluorescent and LED lighting.



NERC & the development of an actionable renewable energy framework for Nigeria

- The new regime at NERC while saddled the emergency task of regulating for sufficient energy, is equally futuristic in outlook, thus we are aiming to encourage through regulatory mechanisms, the permeation of copious renewable sources into the national energy mix.
- The CEO of NERC has already instituted the NERC fellowship to engage experienced & emerging local researchers on the subject.
- NERC is also working on collaborating with Nigerian higher learning institutions to harness the different breakthrough researches in the field with a view to bringing them to fruition.
- NERC is working towards a low carbon economy for Nigeria

HOW NERC CAN FACILITATE RENEWABLE ENERGY MARKET IN NIGERIA

- Through Licensing and regulating persons engaged in the generation, transmission, system operation, distribution, and trading of electricity
- Approve relevant amendments to the market rules
- Monitor the operation of the electricity market (enforcement)
- Set up and administer the fund to be used to subsidise efforts of power consumers who actively participate in the low carbon scheme
- Support renewable energy plans during preparation of the Rural Electrification Strategy and Plan, issue the licenses for RE, regulate the rural systems, determine the contribution rates to be sent to the Rural Electrification Fund
- Establishing regional offices to enhance regulators presence & to offer support to initiatives in the area of renewable energy.
- Ensuring that our FIT is effective enough to serve as appropriate RE investment incentiviser.

NERC's roles in engaging the various stakeholders in RE

- ensuring long term political will & ensuring clear govt policy directives towards renewable energy & climate change mitigation strategies
- ensuring clarity of market rules and offer incentives & support to would be investors in renewables & other efficient energy programmes.
- expand our regulatory facility to encourage & monitor the level and appropriateness of capital investment in the renewable department
- Public Enlightenment on the Climate Change phenomenon & why a low carbon economy must be pursued. We are currently engaged in this crucial step through the NERC CEO Town Hall Forums etc.



Electricity on Demand

You are welcome to help

- **Given that:**
- - Nigeria is the most populous black nation at around 150m persons, with its current energy demand at standing at well over 10000MW, current production is still under 40% of the demand, therefore, energy sourcing would definitely expand as we are currently working on at NERC, however the expansion of energy sourcing has to also reckon with the climate.
- Opportunity thus exists for bodies like NARUC, USAID, the wider technologically advanced communities & to participate in activities in the Nig power sector to enable us pursue both the inevitable advancement in energy sourcing simultaneously with the eco-protection through the instituting of more RE forms, given the dangers of the climate change phenomenon.
- - power generation: You can also assist us in persuading MNC's investing in the newly reformed Nig power market to adopt best international practices.





THANK YOU

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Electricity on Demand