

**World Future Council Strategy Workshop & Public
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K. A. Otu-Danquah, Energy Commission

k.a.otudanquah@gmail.com / otu-danquahk@energycom.gov.gh

**Feed-In-Tariff and Reduced or zero import duties and
VAT exemption for Renewable Energy Technology (RET)**

Venue: Coconut Grove Regency Hotel

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Outline of Presentation

- Introduction
- The draft Renewable Energy (RE) Bill
- Provisions of the draft RE Bill
- The Feed-In-Tariff
- RE Purchase Obligation
- Connection to the Transmission and Distribution Systems
- RE Fund
- Reduced or zero import duties, VAT exemption for Renewable Energy Technology (RET)

Introduction

- Ghana is well endowed with renewable energy resources namely biomass, solar, wind, mini-hydro and solid and liquid wastes
- Studies undertaken over the past decade have established the potential of wind energy for large scale power generation along the eastern coastal belt of the country.
- Wind – about 300 to 400MW
- Small and Mini Hydro scattered in small rivers – about 25MW
- Municipal and Agro Waste – about 95MW.

Introduction

- Despite this potential, the exploitation and contribution of the renewable energy (RE) resources, to the national energy mix is insignificant.
- This situation is attributed to the comparatively high initial cost of energy production from these renewable energy resources and the lack of regulatory framework to attract investment into the sector.
- To encourage and accelerate the development of renewable energy in the country the Ministry of Energy/ Energy Commission have developed the draft RE Bill, to among other things mitigate the high cost and also promote investments in the sector.

The Renewable Energy Bill (Draft)

- The object of the Bill is to among other things:
 - promote the sustainable development and utilization of renewable energy resources for electricity and heat generation.
 - regulate the production and supply of woodfuel and biofuel.
- The Feed-In-Tariff is enshrined in the Bill.
- It is made up of 52 provisions.

Feed-In-Tariff Scheme

- Feed-in-tariff scheme is established for the purpose of guaranteeing the sale of electricity generated from renewable energy sources.
- The feed-in-tariff scheme consists of:
 - renewable energy purchase obligation
 - feed- in- tariff rate
 - connection to the transmission and distribution systems

Renewable Energy Purchase Obligation

- An electricity distribution utility shall procure a specified percentage of its total purchase of electricity from renewable energy sources.
- The Public Utilities Regulatory Commission (PURC) shall in consultation with the Energy Commission (EC) specify the percentage level of electricity to be purchased by the electricity utility.
- In specifying the percentage level of electricity, the PURC shall take into account the following:

Renewable Energy Purchase Obligation

- technology being used to generate electricity from renewable energy resources,
 - assurance of the financial integrity of public utilities,
 - net effect of the cost of renewable energy on the end user tariff.
- A bulk customer permitted by the Commission shall:
 - purchase a specified percentage of its total purchase of electricity from renewable energy resources, or
 - pay to the Commission a premium as determined by the Commission.

Feed-in-tariff rates

- A power distribution utility shall not agree to buy or negotiate a Power Purchase Agreement with a generator of electricity from RE sources unless it is in accordance with guidelines provided by the PURC.
- The PURC shall prepare and provide to public utilities guidelines on the levels of rates that may be charged by the public utility for electricity generated from RE sources.
- In preparing the guidelines, the PURC shall take into account the following:

Feed-in-tariff rates

- The technology being used in the RE industry,
 - The location of the generation facility;
 - The operating norms for the specific technology under consideration,
 - The costs associated with construction, commissioning, operation and maintenance of the plant,
 - The reasonable rate of return, and
 - The balance between the interest of the consumer and the investor.
- Feed-in-tariff rate fixed for electricity from RE source shall be guaranteed for a period of ten (10) years and subsequently subject to review every two (2) years thereafter.

Feed-in-tariff rates

- A public utility shall not demand a feed-in-tariff rate for electricity generated from RE sources unless the feed-in-tariff rate chargeable has been approved by the PURC.
- A public utility shall not directly or indirectly demand or receive a feed-in-tariff rate higher than the feed-in-tariff rate approved by the PURC in relation to electricity generated from RE sources.

Feed-in-tariff rates

- Despite the above, a public utility may, with the written permission of the PURC demand and receive from a consumer a higher feed-in-tariff rate agreed to by the public utility and the consumer.
- The power to approve a rate shall not apply to the export of electricity generated from RE sources.
- Feed-in-tariff Rates approved by the PURC for electricity generated from RE sources shall be published by the Commission in the Gazette and the mass media.

Connection to transmission and distribution systems

- An operator of a transmission or distribution system shall connect a generator of electricity from RE sources within the coverage of the transmission or distribution system where a generator of electricity from RE sources so requests.
- An operator of a transmission or distribution system shall
 - upgrade the transmission or distribution system at reasonable economic expense to feed in the electricity from the generator of electricity from RE sources.
 - upgrade the system as soon as practicable if so requested by a generator interested in feeding in electricity.

Connection to transmission and distribution systems

- The cost of upgrading the transmission or distribution system shall be shared equally between the operator of the transmission or distribution system and the generator of electricity from RE sources.
- The costs associated with connecting installations to the metering point shall be borne by the generator of electricity from RE sources.
- The operator of a transmission or distribution system shall enter into a connection agreement with a generator of electricity from RE sources within the coverage area of the transmission or distribution system.

Ghana Renewable Energy Fund (GREENfund)

- The object of the Fund is to provide financial resources for the promotion, development and utilization of renewable energy sources.
- The promotion of:
 - grid interactive renewable electricity by means of generation based incentives, feed-in-tariffs and capital subsidies,
 - scientific and technological research into renewable energy,
 - research into the establishment of standards for the utilization of renewable energy,
 - the production of equipment for the development and utilization of renewable energy in the country,
 - mini grid and off grid renewable power systems for remote areas and islands,
 - renewable energy projects for non-electricity purpose;

Ghana Renewable Energy Fund (GREENfund)

- The development of:
 - infrastructure for renewable energy
 - renewable energy projects
- Equity participation in renewable energy projects.

Ghana Renewable Energy Fund (GREENfund)

- The sources of money for the Fund include:
 - grants, donations and other voluntary contributions to the Fund from any person, donor and international organisation.
 - moneys specifically earmarked from the Energy Fund.
 - internally generated funds obtained from renewable energy related activities.
 - moneys that the Minister with the approval of Parliament may determine.

Reduced or Zero Import Duties and VAT Exemption for RETs

- It is one of the fiscal incentives to promote RETs in a country.
- In Ghana, solar and wind generating systems (solar panels and wind turbines or mills) are exempt from import duty and VAT.
- The RET balance of systems are not import duty and VAT exempt.
- The draft RE Bill mandates the EC to make recommendations for exemption from customs levies and other duties, equipment and machinery necessary for the development, production and utilisation of RE resources.

I'M DONE!

THANK YOU ALL!!!