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GENERAL NOTICE

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NOTICE 382 OF 2009



**South Africa Renewable  
Energy Feed-in Tariff (REFIT)**

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**Regulatory Guidelines 26 March 2009**

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## **Glossary of Terms And Abbreviations**

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### **GLOSSARY**

#### **AREA LOAD CONTROL CENTER**

A function responsible for the operational control of the electricity network and dispatch of the generations in a defined load control area

#### **AVOIDED COST**

Avoided Cost is the marginal cost for the same amount of energy acquired through another means such as the construction, finance and operation of new efficient generation facility or purchase from an alternate supplier.

#### **CABEERE**

A joint project between the Governments of South Africa and Denmark, CaBEERE aimed at building capacity in energy efficiency and renewable energy.

#### **CENTRALLY DISPATCHED GENERATION UNIT**

The expected energy produced by the unit can be determined ahead of time (hour, day, week, etc) and the energy output of the unit can be controlled by the area load control centre. The unit can be placed in an appropriate place in the priority loading order and the expected energy calculated.

#### **COGENERATION**

Cogeneration is the simultaneous generation of electricity and useful thermal energy (heat) at a single plant. This occurs either through the use of thermal energy during electricity generation or via the use of waste energy for electricity during heating processes. Cogeneration is also referred to as combined heat and power (CHP). In a South African context, cogeneration can also refer to the production of electricity as a by product of an industrial process, without the need for a combined heat and power system to necessarily be in place.

#### **DISTRIBUTION**

Distribution refers to the conveyance of electricity through a Distribution System.

#### **TRANSMISSION**

Transmission refers to the conveyance of electricity through a Transmission System.

**DISTRIBUTION SYSTEM**

An electricity network consisting of assets operated at a nominal voltage of 132 kV or less.

**TRANSMISSION SYSTEM**

An electricity network consisting of assets operated at a nominal voltage of above 132 kV.

**DISTRIBUTOR**

A Distributor is a legal entity that owns or operates/distributes electricity through a Distribution System. This includes Eskom, municipalities and private distributors.

**TRANSMITTER**

A Transmitter is a legal entity that owns or operates/distributes electricity through a Transmission System. This includes Eskom, municipalities and private transmitters.

**EMBEDDED GENERATORS**

A legal entity who operates a unit, other than a co-generator, that is not connected to the TS.

**GIGA WATT HOUR (GWh)**

An energy unit in which electricity consumption is measured. 1 GWh = 3,600 GJ (Gigajoule) (Joule, unit of energy).

**GREENHOUSE GAS**

Gases primarily carbon dioxide, methane, and nitrous oxide in the earth's lower atmosphere that trap heat, thus causing an increase in the earth's temperature and leading towards the phenomenon of climate change.

**INDEPENDENT POWER PRODUCER (IPP)**

IPPs are defined as typically limited-liability, investor owned enterprises that generate electricity either for bulk sale to an electric utility or for retail sale to industrial or other customers with certain conditions.

**NATIONAL INTEGRATED RESOURCE PLAN (NIRP)**

The NIRP is a least cost plan that assesses a variety of demand and supply side options to meet customer electricity needs under environmental and social

considerations

#### **NATIONAL TRANSMISSION COMPANY (NTC)**

The South African legal entity licensed to execute the national transmission responsibility. It consists of a System Operator and a national transmission network service provider.

#### **PRODUCER SURPLUS**

Producer surplus is the difference between the total income derived from the sale of a product and the costs involved in its production. In the context of REFIT, this refers to the potential surplus as a result of differences in the cost of production due to the varying sizes and scales of technology adopted. For small scale projects, producer surplus will be low, for larger scale projects producer surplus will be higher. The potential for a producer surplus is balanced against the need to develop a non-complex and simple to implement mechanism.

#### **REFIT**

Renewable Energy Feed-In Tariff: a mechanism to promote the deployment of renewable energy that places an obligation on specific entities to purchase the output from qualifying renewable energy generators at pre-determined prices.

#### **RENEWABLE ENERGY** (from White Paper on Renewable Energy, 2003, DME)

Renewable energy harnesses naturally occurring non-depletable sources of energy, such as solar, wind, biomass, hydro, tidal, wave, ocean current and geothermal, to produce electricity, gaseous and liquid fuels, heat or a combination of these energy types.

**Solar energy** can be used to generate electricity; heat water; and to heat, cool and light buildings. For example, photovoltaic systems capture the energy in sunlight and convert it directly into electricity. Alternatively, sunlight can be collected and focused with mirrors to create a high intensity heat source that can be used to generate electricity by means of a steam turbine or heat engine.

**Wind energy** uses the naturally occurring energy of the wind either directly as in windmills or to generate electricity, and can be used, for example, to charge batteries or pump water.

Large modern wind turbines operate together in 'wind farms' to produce