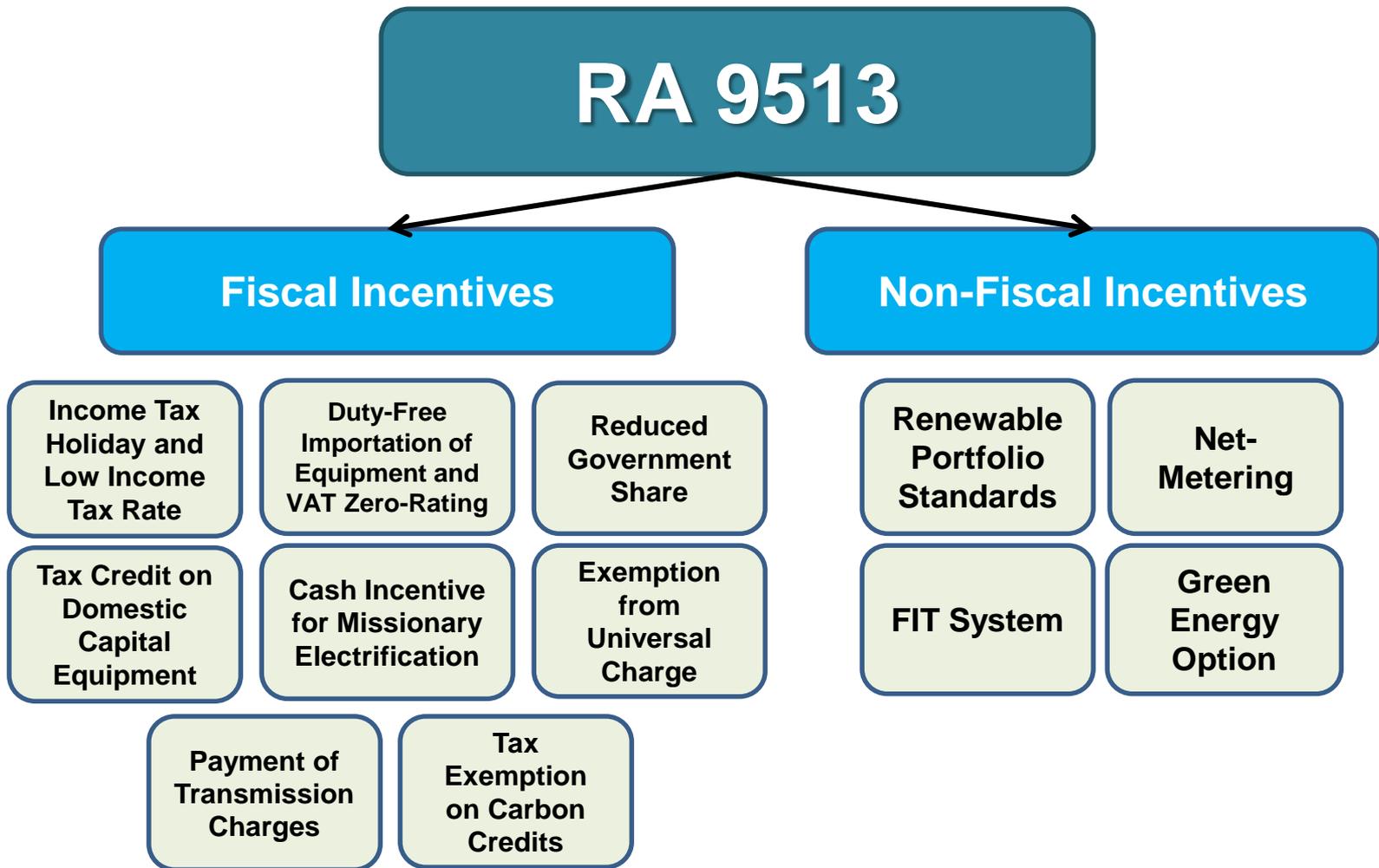




# Incentives under the RE Act



# I. Renewable Portfolio Standards For On-Grid (RPS)

					
Solar	Wind	Geo	Hydro	Bio	Ocean



# I. RPS for On-Grid Areas

## Department Circular No. DC2017-12-0015

- Promulgated DC – December 22, 2017
- Published – December 30, 2017
- Effective Date – December 31, 2017



# I. RPS for On-Grid Areas

Department Circular No. DC2017-12-0015

## *Salient Features:*

### **Purpose:**

- (a) Mandate the electric power industry participants to source or produce a specified portion of their electricity requirements from eligible RE resources**
- (b) Establish a minimum annual RPS requirement and the minimum annual incremental RE percentage;**
- (c) Prescribe the eligible RE facilities and the compliance mechanisms;**
- (d) Monitor the compliance of the mandated industry participants; and**
- (e) Provide the penalties for non-compliance.**

1. Applicable to Luzon, Visayas and Mindanao Grids.
2. Minimum annual increment initially set at one percent (1%) to be applied to Net Electricity Sales of the Mandated Participant for the previous year.
  - Baseline Year: 2018
  - Transition Year: 2019
  - Compliance Year: 2020
3. 1 MWh is equivalent to 1 RE Certificate (REC)
4. Eligible RE Facilities and RE Generation are those that have started commercial operations after the effectivity of the RE Act
5. Generated RECs are for compliance to the RPS requirement of the Mandated Participants
6. Mandated Participants
  - All DUs for their Captive customers;
  - All Suppliers of Electricity for the Contestable Market, as defined in the EPIRA and pursuant to RCOA;
  - GenCos only for their directly connected customers

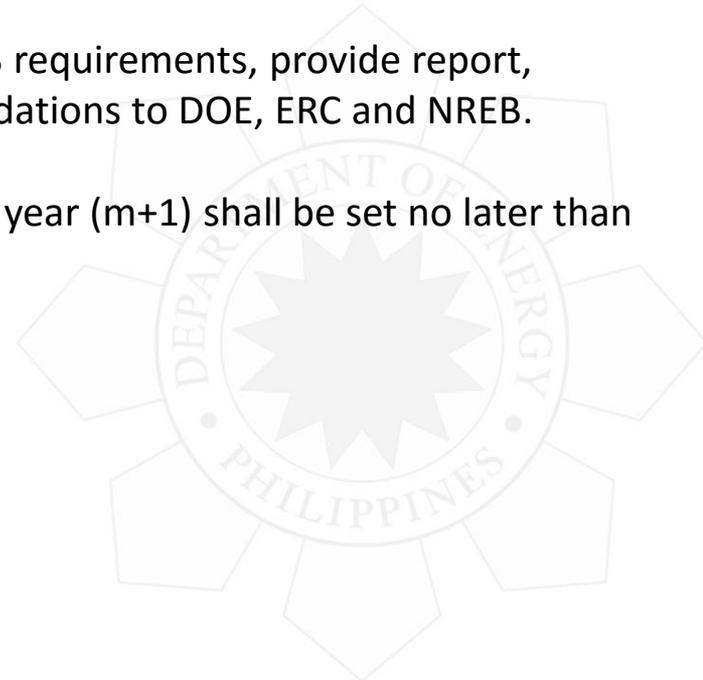


# I. RPS for On-Grid Areas

Department Circular No. DC2017-12-0015

## ***Salient Features:***

7. Mandated Participants, in complying with the RPS requirement, shall undertake Competitive Selection Process (CSP) in sourcing RE generation supply for its customers.
8. Establishment of RE Market (REM) and RE Registrar (RER) to govern the trading, account and registration of RECs of electric power industry participants.
9. Creation of the RPS Composite Team to compute RPS requirements, provide report, establish procedures, review and provide recommendations to DOE, ERC and NREB.
10. The compliance percentage ( $K_m$ ) for each succeeding year ( $m+1$ ) shall be set no later than September 30 of each year.
11. Annual Review of the RPS Rules.



# I. RPS for On-Grid Areas

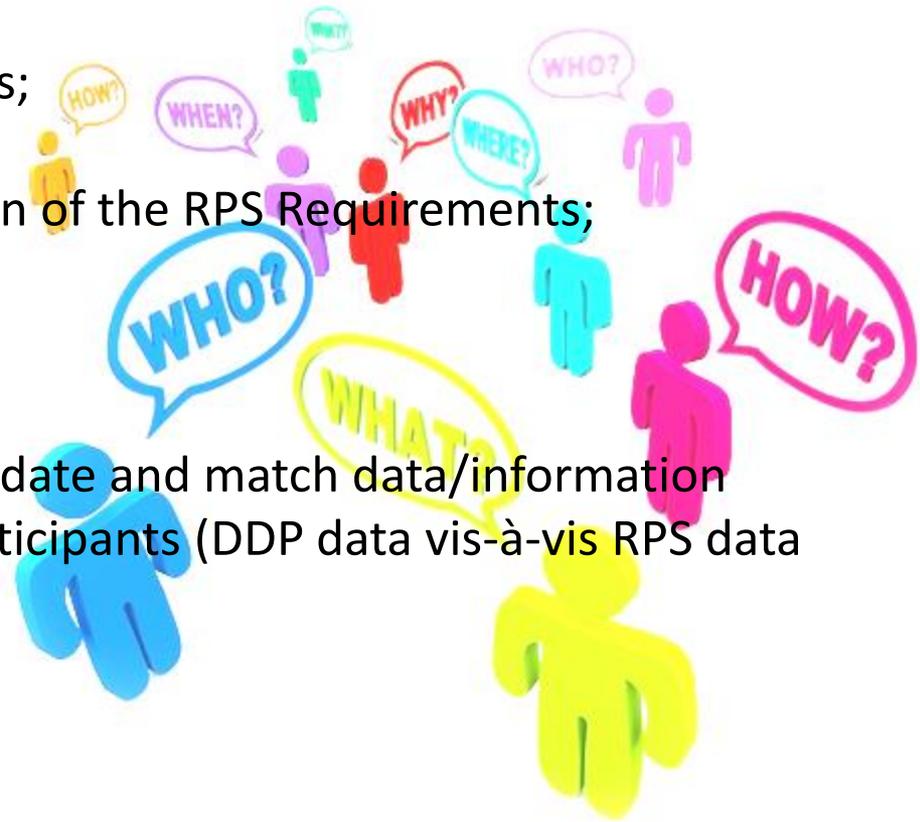
Department Circular No. DC2017-12-0015

## ***On-Going Activities:***

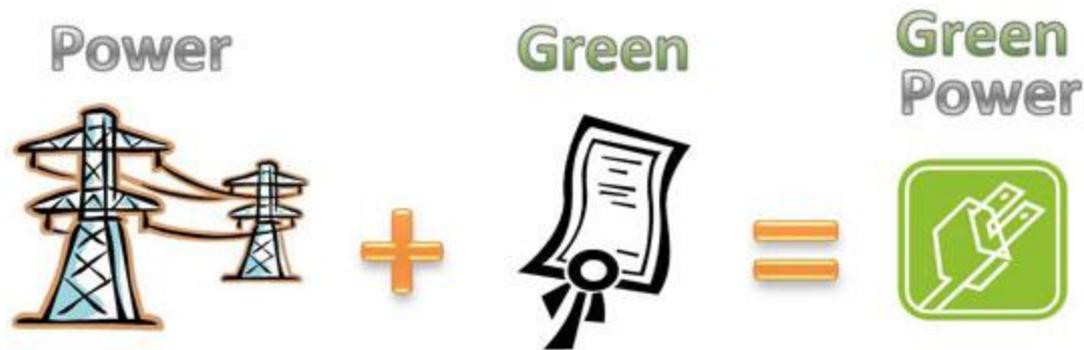
- IEC/Roll-out Program for the DUs;
- Data Gathering for determination of the RPS Requirements;

## ***Further Activities:***

- Integration Workshop to consolidate and match data/information submitted by the Mandated Participants (DDP data vis-à-vis RPS data submission);
- IEC/Session with GenCos; and
- Issuance of the RPS Requirements to DUs by 4Q2018.



## II. Renewable Portfolio Standards (RPS) for Off-Grid Areas



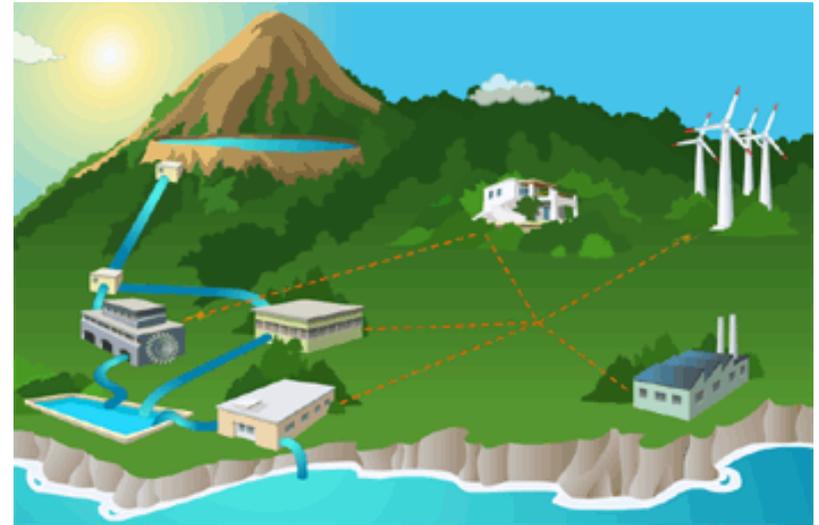
# II. RPS for Off-Grid Areas

## Legal basis of RPS for Off-Grid Areas

Republic Act 9136 of 2001 or EPIRA

Section 2 – Declaration of Policy

- (g) To assure socially and environmentally compatible energy resources and infrastructure;
- (h) To promote the utilization of indigenous and new and renewable energy resources in power generation



Republic Act No. 9513 or Renewable Energy Act of 2008

Sec. 12, Chap IV of RA No. 9513 and Sec. 12, Rule 4, Part II of the RE Act IRR require that NPC-SPUG or its successor-in-interest and/or qualified third parties in off-grid areas, shall in the performance of its mandate to provide missionary electrification, source a minimum percentage of its total annual generation, upon recommendation by the National Renewable Energy Board (NREB) from available renewable energy resources in the area concerned, as may be determined by DOE.



# II. RPS for Off-Grid Areas

## Purpose of the RPS

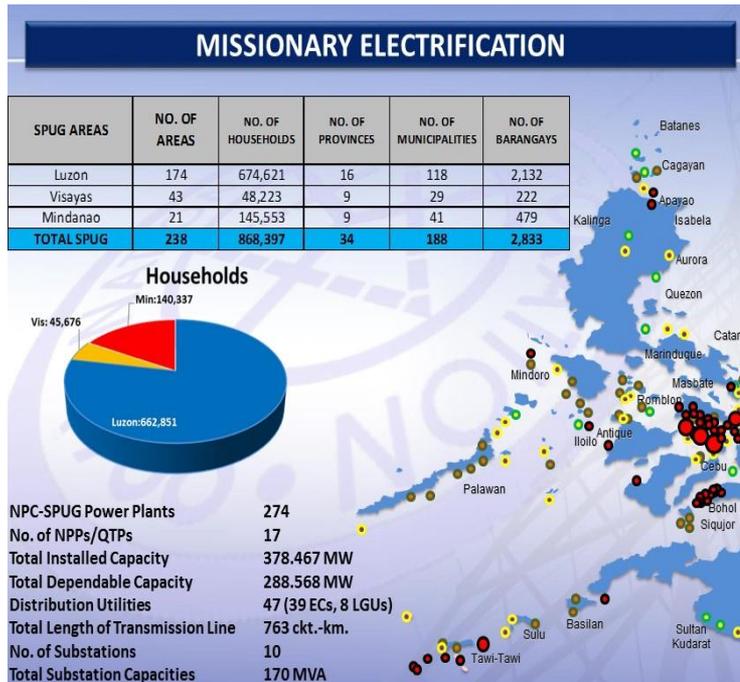


- To contribute to the growth of the RE industry in off-grid and missionary areas by mandating electric power industry participants to source or produce a specified portion of their electricity requirements from eligible RE resources.
- To rationalize the efficient use of the Universal Charge for Missionary Electrification (UC-ME).
- To improve self-efficiency in power generation through integration of RE in the supply mix of Off-Grid areas.



# II. RPS for Off-Grid Areas

The Salient features of the draft rules for Off-Grid areas provide that all mandated participants shall among others:



- Incorporate optimal supply mix in their respective plans and portfolios;
- The Missionary Electrification Development Plans (MEDP) to define the guidelines and parameters for setting the Optimal Supply mix in off-grid areas;
- Conduct CSP among RE Developers with valid service contract with DOE to determine the most advantageous RE generation offer;



## II. RPS for Off-Grid Areas

**The Salient features of the draft rules for Off-Grid areas provide that all mandated participants shall among others:**

- All DUs shall incorporate in their DDPs calculations of the minimum RE requirements;
- Generated RECs from eligible RE facilities and RE generation can be used for compliance;
- The Mandated Participant shall be guided by the RE generation target identified by the DOE in the MEDP, and in their respective DDPs of the DUs.

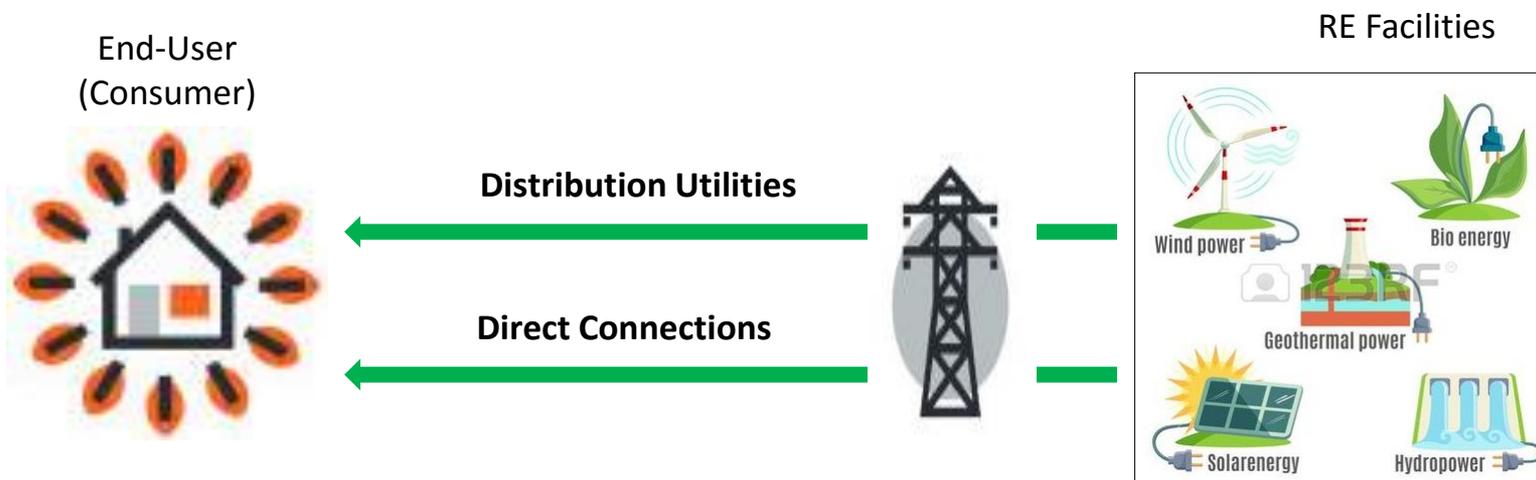


# III. Green Energy Option Program (GEOP)



# Green Energy Option Program(GEOP)

- Purpose
  - Empower end-users to choose renewable energy in meeting their energy requirements.



# III. Green Energy Option Program

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## Department Circular No. DC2018-07-0019

- Promulgated DC – July 18, 2018
- Posted on the DOE Website – July 26, 2018



# III. Green Energy Option Program

## Salient Features:

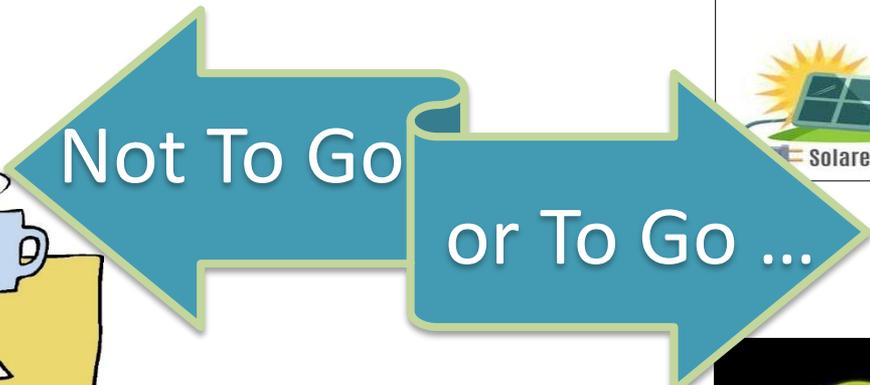


- Sets the general rules and procedures to properly guide the End-Users, RE Suppliers, Network Service Providers, in facilitating the option taken by the End-Users to choose RE Resources as sources of their energy.
- Considers various options for End-Users to contribute in the development and utilization of RE Resources, in a least-cost and sustainable manner.



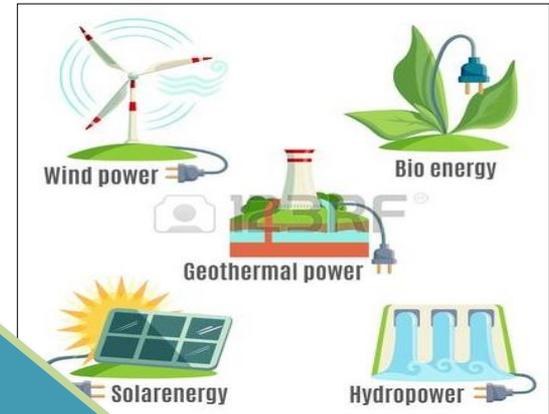
# III. Green Energy Option Program

## Guiding Principles



GEOP is a Voluntary  
RE Policy Mechanism

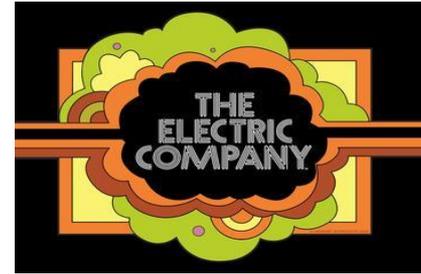
### RE Facilities



# III. Green Energy Option Program

## Guiding Principles

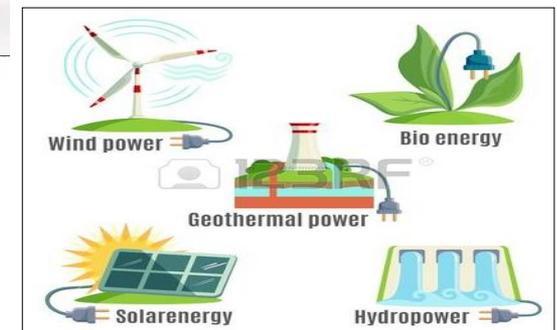
1. End-User informs DU of plan to source RE for its power supply.



GEOP Rules espouses full disclosure and transparency in all dealings/ transactions.



2. DU and RE Supplier informs the End-user of the attendant technical, commercial and legal arrangements.



RE Facilities



# III. Green Energy Option Program

## Guiding Principles



The **DUs** shall continue to provide **distribution wheeling service and supply of electricity** to the End-Users.

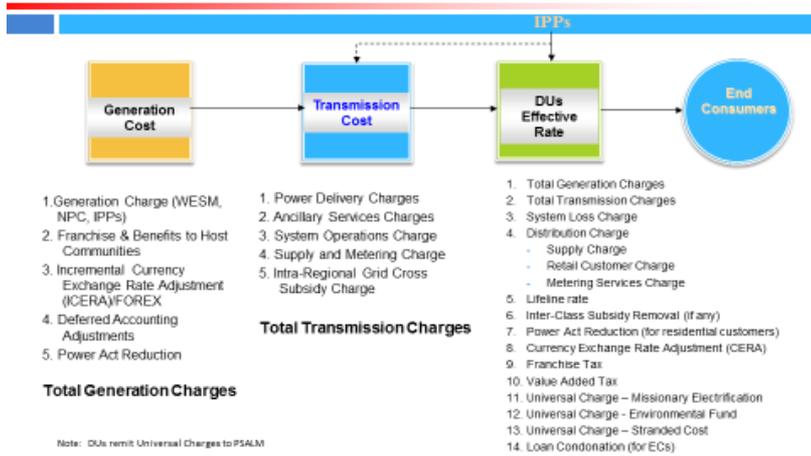
The **Network Service Providers** shall **adhere to** the principles of **open and non-discriminatory access** to the transmission and distribution facilities;



# III. Green Energy Option Program

## Guiding Principles

### STRUCTURE OF END-CONSUMERS' RATES (UNBUNDLED REGIME)



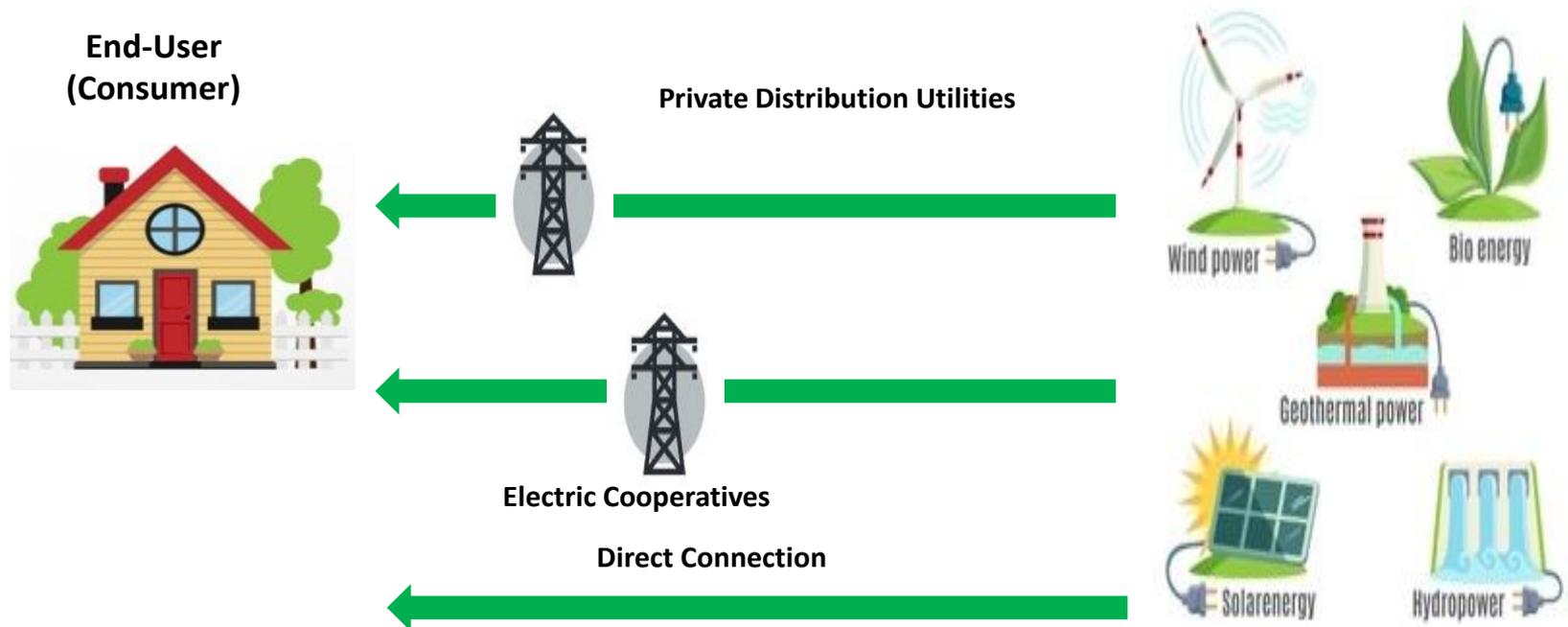
**All rates and charges to End-Users shall be unbundled, segregated and itemized for each of the generation components, transmission charges and distribution, supply charges and other applicable charges.**



# III. Green Energy Option Program

## Guiding Principles

- The **GEOP** shall be a **non-regulated activity** intended to develop and promote the increased utilization of indigenous and environmentally-friendly sources of energy through the empowerment of End-Users to choose RE Resources.



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# IV. Feed-in-Tariff (FIT) System



# IV. Feed-in-Tariff (FIT) System

The FIT is an energy supply policy that focuses on the development of RE projects by offering long-term purchase agreements for the sale of the RE generation.



# IV. Feed-in-Tariff (FIT) System

Aimed at accelerating the development of emerging RE resources by providing for the:

- Priority connection to the grid for electricity generated from emerging RE sources.
- Priority purchase, transmission of, and payment for such electricity by grid system operators; and
- Fixed tariff to be paid for electricity produced from each type of RE resource over fixed period not less than twelve (12) years.



# IV. Feed-in-Tariff (FIT) System

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## FIT Rules and Rates

- The FIT Rules was promulgated by the Energy Regulatory Commission (ERC) on 12 July 2010 and took effect on August 12, 2010
- Fixed rate for 20 years.



# IV. Feed-in-Tariff (FIT) System

## FIT Rules and Rates

- The ERC approved the FIT Rates on July 27, 2012 with the corresponding installation targets as follows:

RESOURCES	ERC- Approved FIT Rates (PhP/kWh)	Installation Targets (MW)
Run-of-River Hydropower	5.9	250
Biomass	6.63	250
Wind	8.53	200
Solar	9.68	50
Ocean	Deferred	

*Notes:*

- June 2013, the DOE issued Selection Process of RE Projects under Feed-in-Tariff System and the Award of Certification for FIT Eligibility.*
- 2014-2015 Amendment of the Installation Target: (i) 30 April 2015, 50MW to 500 MW for Solar, and (ii) 24 April 2015, 200MW to 400 MW for Wind.*



# IV. Feed-in-Tariff (FIT) System

## FIT Rates

RE Technology	Approved Rates (PHP/kWh)	Installation Target (MW)
Run-of-River Hydro	5.8705***	250
Biomass	6.5969***	250
Wind	7.40*	(with initial target of 200) 400**
Solar	8.69*	(with initial target of 50) 500**

\* Feed in Tariff (FIT) rates for solar was revised in March 2015 under Resolution No. 6, series of 2015 issued by ERC from Php 9.68 to 8.69/kWh covering additional target of 450 MW.

The second FIT rate for wind energy was issued by the ERC on October 2015 at Php 7.40/kWh from Php 8.53/kWh covering additional target of 200MW under ERC Resolution No. 14, series of 2015.

\*\* Amended targets for wind energy and solar power up to 15 March 2016.

\*\*\* Under Resolution No. 1 series of 2017, the ERC on January 2017 issued the degressed FIT rates to cover January to December 2017 for Run-of-River Hydro Plants from Php 5.9 to 5.8705/kWh and Biomass Plant from Php 6.63 to 6.5969/kwh.



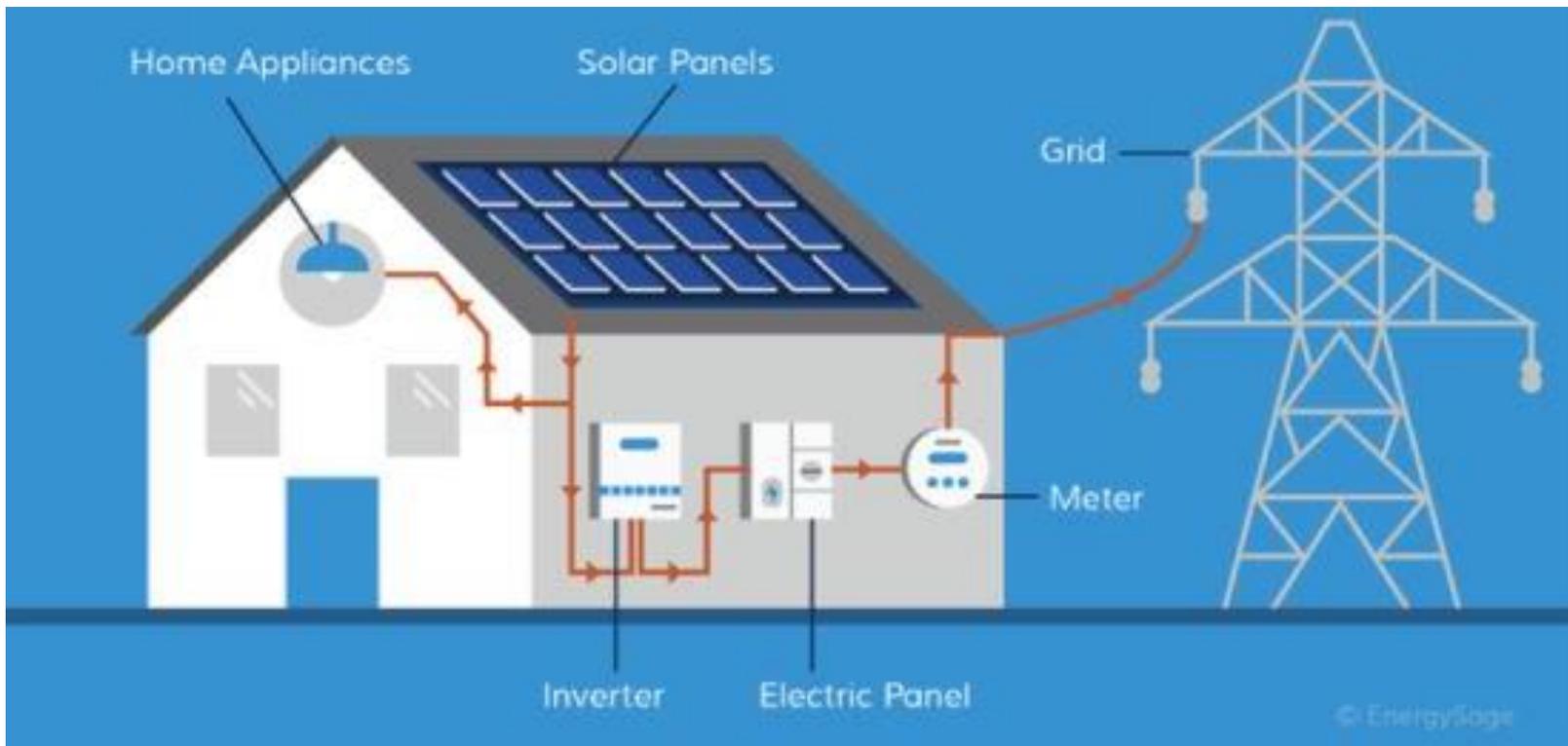
# IV. Feed-in-Tariff (FIT) System

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- The DOE has extended the FIT system for biomass and run-of-river hydro for two years (2018-2019) for purposes of completing the installation targets.
- ERC to evaluate the NREB proposed FiT Rates for biomass and run-of-river hydro

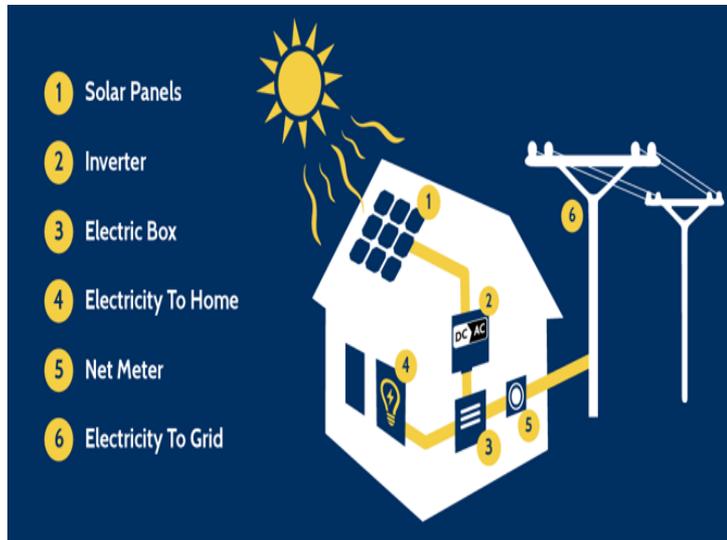


# V. Net-Metering for RE



# V. Net-Metering for RE

## Net-Metering Rules and Interconnection Standards

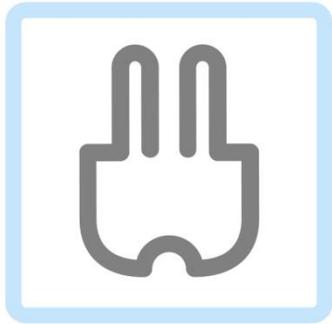


**Max. 100KW per meter**

- The Net-Metering refers to a system, appropriate for distributed generation, in which a distribution grid user has a two-way connection to the grid and is only charged for his net-electricity consumption and is credited for any overall contribution to the electricity grid.
- The ERC approved the Net-Metering Rules last May 27, 2013.
- As of June 2018, the total number of net metering customer is 1698 with the total estimated capacity of 13,373.44 kWp.



# VI. RE Market Rules



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# VI. RE Market Rules

- Pursuant to Section 8 of the RE Act, a Renewable Energy Market (REM) shall be established by the DOE to facilitate the compliance of the Mandated Participants with the RPS On-Grid Rules.



- The RE Act further mandates that Philippine Electricity Market Corporation (PEMC) shall, under the supervision of the DOE, establish a Renewable Energy Registrar within one (1) year from the effectivity of the RE Act and shall issue, keep and verify RE Certificates corresponding to energy generated from eligible RE facilities. Such certificates will be used for compliance with the RPS.



# RE Market

## Renewable Energy Certificate Cycle



- The *REM* is a market for the **trading of Renewable Energy Certificates** (“*RECs*”) in the Philippines.
- The *REM* is **intended as a venue** for *Mandated Participants* obligated by *Renewable Portfolio Standards* (“*RPS*”) to comply with their RPS requirements.



# RE Market



## The objectives of the *REM*

- To establish a **competitive, efficient and transparent** market for the trading of *RECs*;
- To facilitate the **compliance** of *Mandated Participants* with their *RPS* requirements through the surrendering of *RECs*;
- **To ensure a level playing field** for all *REM* participants;
- To ensure that prices of ***RECs* are governed** as far as practicable by the fundamentals of demand and supply;
- To ensure that the **prices of *RECs*** are, in the long-term, reflective of the benefits of bringing an additional Megawatt-hour of *RE* generation into the Philippine electricity system; and
- To issue ***RECs* only based on actual RE generation** from eligible *RE* generation capacities.

To date, the final draft Circular adopting the *REM* Rules are for final review before endorsement to the Secretary for his approval.





**Thank You!**

