



Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro
Manila

NINETEENTH CONGRESS
First Regular Session



HOUSE BILL NO. 8146

Introduced by: Rep. Dan S. Fernandez

EXPLANATORY NOTE

Solar power generation has been around for a while. Solar technology is becoming more and more affordable each day such that the same can be utilized by ordinary households to augment their electricity needs. To optimize the solar energy generated by end-users, we have introduced a net-metering program as early as 2008.

Net-metering allows end-users to participate in a distributed power generation thereby enabling them to contribute to the electricity grid while consuming electricity themselves. Under the net-metering program, excess power generated by end-users will be delivered and recorded through a bidirectional Net Meter to the local distribution grid of the electric distribution utility and this surplus energy can be used to offset the net metered customers electric bill and provide the utility or electric cooperative much needed added generation capacity derived from new renewable energy sources to fulfill its renewable portfolio standard goals. Installed solar technology has the immediate benefit of offsetting end user electric consumption. In effect, end-users are able to generate savings on their electricity bill and protect themselves against rising electricity prices while contributing in nation building by sharing its energy sources with the Philippine Grid.

Despite solar technology being economically and commercially accessible, out of millions of households, we still only have 5,716 end-users participating in the net-metering program as of fiscal year 2021, reflecting less than 1% of the energy mix. The Philippine grid is dangerously low in energy supplies with realized rotational outages due to shortages of electricity supply. The low participation rate can be attributed to two factors: (1) the 100-kW cap for end-users thereby precluding large electricity consumers from participating in the program; and (2) the cumbersome and unstandardized requirements and process for participating in the program, particularly the prerequisite permitting requirements in obtaining Net Metering which can take 4 months to over a year.

This bill seeks to address these two hindrances in the mass utilization of solar technology and participation in the net-metering program.

In view of the foregoing, the early approval of this bill is earnestly sought.

A handwritten signature in black ink, appearing to read 'Dan S. Fernandez', with a stylized, looping flourish at the end.

DAN S. FERNANDEZ
Lone District of Sta. Rosa City



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**AN ACT ENHANCING THE PROMOTION AND ADOPTION OF SOLAR
TECHNOLOGY AND NET-METERING AMONG END-USERS, AMENDING FOR
THE PURPOSE REPUBLIC ACT NO. 9513, OTHERWISE KNOWN AS THE
"RENEWABLE ENERGY ACT OF 2008", AND FOR OTHER PURPOSES**

*Be it enacted by the Senate and the House of Representatives of the Philippines in
Congress assembled:*

SECTION 1. Section 4 of Republic Act No. 9513 is hereby amended to read as follows:

Section 4. *Definition of Terms.* As used in this Act, the following terms are
herein defined:

XXX

(j) "Distributed generation" refers to a system of small generation entities
supplying directly to the distribution grid, any one of which shall not exceed
~~[one hundred kilowatts (100 kW) in capacity]~~ FOUR TIMES THE
CONNECTED LOAD OF THE END USER. SINCE
RENEWABLE ENERGY SUCH AS SOLAR IS INTERMITTENT
WITH A CAPACITY USAGE FACTOR OF 20 PERCENT,
ALLOWING 4 TIMES THE CONNECTED LOAD RATING OF
THE QUALIFIED END USER WOULD ASSURE ADEQUATE
CAPACITY TO GENERATE ENERGY TO FULFILL TOTAL
DECARBONIZATION GOALS ON A SOLARIZED CUSTOMER
LEVEL;

XXX

SEC. 2. Section 10 of Republic Act No. 9513 is hereby amended to read as follows:

Section 10. Net-metering for Renewable Energy. Subject to technical considerations and without discrimination and upon request by distribution end-users, the distribution utilities shall enter into net-metering agreements with qualified end-users who will be installing RE system.

The ERC, in consultation with the NREB and the electric power industry participants, shall (a) establish net metering interconnection standards and pricing methodology and other commercial arrangements necessary to ensure success of the net-metering for renewable energy program within one (1) year upon the effectivity of this Act, and (b) DETERMINE, EVERY TWO (2) YEARS, THE MAXIMUM HOSTING POWER CAPACITY OF THE DISTRIBUTION UTILITY OR ELECTRIC COOPERATIVE TAKING INTO ACCOUNT ITS RPS GOALS, MAXIMUM RENEWABLE ENERGY PENETRATION FOLLOWING GLOBALLY ACCEPTED PRACTICES WITH CLOSE COORDINATION WITH NREB, RENEWABLE ENERGY INSTALLER AND THE ERC QUALIFY FOR NET-METERING IN DISTRIBUTED GENERATION AS DEFINED IN SECTION 4 (J) OF THIS ACT, CONSIDERING THE FOLLOWING FACTORS:

i) ENSURE STABILITY OF THE DISTRIBUTION GRID AND ITS APPROPRIATE CAPACITY ADDITIONS.

IDENTIFICATION OF PARTICULAR GRIDS OR LOCAL GRIDS THAT WOULD NEED PRIORITIZED INSTALLATIONS OR FAST TRACKING OF ADDITIONAL NET METERING AGREEMENTS TO MINIMIZE VOLTAGE DROP AND SYSTEMS LOSS, AND IDENTIFYING AREAS THAT WOULD NEED NET METERING WITH ENERGY STORAGE SYSTEMS TO HELP IN FREQUENCY OR VOLTAGE SUPPORT OR TIMELY CAPACITY UPGRADES ON AREAS THAT HAVE PROJECTED OVERPENETRATION OF DISTRIBUTED ENERGY SOURCES. THESE AREAS WOULD NEED URGENT SERVICE CAPACITY CAPITAL INVESTMENTS TO ENABLE THE DISTRIBUTION UTILITY HOST ADDITIONAL RENEWABLE ENERGY SO THAT THE UTILITY AND COOPERATIVES CAN MEET MANDATED AND PROJECTED RENEWEABLE PORTFOLIO STANDARDS. FAILURE OF HOSTING ADDITIONAL APPROPRIATE RENEWABLE ENERGY SOURCES FROM NET METERING WHEN RENEWABLE PORTFOLIO STANDARDS HAVE NOT BEEN MET WOULD INCUR ADDITIONAL PENALTY EQUIVALENT TO THE THEORETICAL YIELD OF THE RENEWABLE ENERGY FACILITIES DENIED NET METERING APPLICATION VALUED AT ITS KWH NAME PLATE PRODUCTION MULTIPLIED BY CURRENT GENERATION CHARGE. THIS PENALTY WILL BE CREDITED AGAINST THE QUALIFIED END USERS ENERGY CHARGES.

ii) RETAIL RATES OF CAPTIVE CUSTOMERS AND ESTABLISHMENT OF PUBLISHED MONTHLY GENERATION RATES FROM ENERGY DERIVED FROM BEHIND THE METER RENEWABLE ENERGY SOURCES, ACCOUNTING FOR ITS CONTRIBUTION TO THE GRID ON THE TIME OF ITS DISPATCH. THIS IS TO ENSURE THAT ERC WOULD PROVIDE ACCURATE AND EQUITIOUS VALUATION OF EXPORTED ENERGY TO REFLECT MARKET REALITIES. BLENDED GENERATION CHARGE IS THE MINIMUM VALUE GIVEN FOR EXPORTED ENERGY OR FOR SYSTEMS IN EXCESS OF 100KW AT POINT OF DISPATCH, WITH A VARIABLE RATE REFLECTING ON THE INCREASED GENERATION COSTS INCURRED BY THE GRID DURING DAYTIME SOLAR HOURS

CREATION OF DISPATCHABLE ENERGY RATE STRUCTURE AND TECHNICAL STANDARDS TO INCENTIVIZE NET METERING SYSTEMS WITH ENERGY STORAGE TO FORCE DISCHARGE ADDITIONAL ENERGY STORED IN BATTERIES TO SUPPORT THE NATIONAL GRID DURING TIMES OF YELLOW OR RED ALERT OR WHEN WESM ENERGY RATES HIT PRICE THRESHOLD NUMBERS. THIS IS TO LOWER THE SEVERITY OF ACUTE POWER SHORTAGES AND ENCOURAGE INVESTMENTS TO ENERGY STORAGE THAT CAN HELP REGULATE THE PHILIPPINE GRID WITH MUCH NEEDED TIMELY ENERGY INJECTION

- iii) OTHER POLICIES UNDER THIS ACT AND REPUBLIC ACT NO.9136, OTHERWISE KNOWN AS THE ELECTRIC POWER INDUSTRY REFORM ACT OF 2001, SUCH AS RETAIL COMPETITION AND OPEN ACCESS.
- iv) FOR PURPOSES OF ESTABLISHING A PRICING METHODOLOGY FOR NET METERING, THE ERC SHALL APPLY THE SAME REFERENCE TO BOTH THE ELECTRICITY IMPORTED FROM AND EXPORTED TO THE DISTRIBUTION GRID BY END-USERS.

THE DISTRIBUTION UTILITY SHALL BE ENTITLED TO RENEWABLE ENERGY CERTIFICATE RESULTING FROM NET-METERING ARRANGEMENT WITH QUALIFIED END USER. RENEWABLE ENERGY CERTIFICATES EARNED BY THE UTILITY IS THE EXCESS OR SURPLUS ENERGY DELIVERED BY THE QUALIFIED END-USER RECORDED AS EXPORT BY THE NET METERING METER, WHILE SELF CONSUMED RENEWABLE ENERGY FROM THE CONSUMER CONSTITUTES RENEWABLE ENERGY CERTIFICATES EARNED BY THE CONSUMER WHO AT THEIR OPTION CAN TRADE IT WITH THE DISTRIBUTION UTILITY OR ANY THIRD PARTY IN THE RENEWABLE ENERGY CERTIFICATE MARKET.

THE VALUE OF RECS EARNED BY THE UTILITY IS REFLECTED BY THE ACTUAL KWH TRADED OR EXPORTED TO THE UTILITY VIA NET METERING. REC CONSUMER IS THE KWH GENERATED BY THE QUALIFIED END USER RE FACILITY – KWH EXPORTED TO THE UTILITY. METERING TECHNOLOGIES THAT SUPPORT METERS BESIDE RENEWABLE ENERGY FACILITY SUCH AS BUT NOT LIMITED TO PLC CONTROLLED OR RF BASED ELECTRIC METERS SHALL BE PROVIDED AT EXPENSE OF THE DISTRIBUTION UTILITY IF THEY WOULD NEED TO AVAIL OF THE QUALIFIED END USER'S SELF CONSUMPTION RECS. ALL WIRING COSTS, CONDUIT AND REASONABLE LABOR COSTS SHALL BE SHOULDERS IN ACCOUNT OF THE DISTRIBUTION UTILITY FOR THE INSTALLATION OR MAINTENANCE OF THE REC SELF CONSUMPTION METER.

QUALIFIED END USER OR SELF CONSUMPTION RE GENERATION PLANT OWNERS AT THEIR OPTION CAN INSTALL THEIR OWN SELF CONSUMPTION REC METERING FACILITY PROVIDED THEY SPEND FOR THE CONSTRUCTION OF THE RE FACILITY AND ITS ATTENDANT RE REC METERING COSTS AND SELL THE RECS TO ANOTHER PARTY ASIDE FROM THE HOSTING DISTRIBUTION UTILITY OR ELECTRIC COOPERATIVE.

PROPER ACCOUNTING OF THE RENEWABLE ENERGY CERTIFICATE IS AN IMPORTANT MECHANISM TO INCENTIVIZE DISTRIBUTION UTILITIES TO INCREASE HOSTING CAPACITY FOR RE AND PROVIDE A SECONDARY MARKET FOR CONSUMERS WHO PUT IN RE GENERATION AND ACTUALIZATION OF THEIR RENEWABLE ENERGY

CERTIFICATES EARNED FROM THEIR SELF CONSUMPTION OF RENEWABLE ENERGY.

THE DISTRIBUTION UTILITY SHALL BE ABLE TO USE THIS RE CERTIFICATE IN COMPLIANCE WITH ITS OBLIGATION UNDER RPS AND CAN CONTRACT TO PURCHASE SELF CONSUMPTION RECS FROM QUALIFIED END USERS IN NET METERING AT ESTABLISHED MARKET RATES OR USE IT TO OFFSET ANY OUTSTANDING OBLIGATIONS OF THE CONSUMER WITH THE DISTRIBUTION UTILITY OR ELECTRIC COOPERATIVE

The DOE, ERC, TRANSCO or its successors in interest, DUs, PEMC, and all relevant parties are hereby mandated to provide the mechanisms for the physical connection and commercial arrangements necessary to ensure the success of the Net-metering for Renewable Energy program, consistent with the Grid and Distribution Codes.

SEC. 3. Standardization of Permits and Application Requirements. The Department of Energy shall standardize and streamline the process and requirements for the installation of solar projects and application for net-metering. The said process and requirements shall be uniform across all distribution utilities and local government units, provided that all applications for net-metering shall be acted upon within thirty (30) days from the complete submission of correct and valid requirements. A standard net-metering agreement between the distribution utility and end-users shall be included in the Implementing Rules and Regulations of this Act and shall be deemed integrated in every application of end-users for net-metering.

Requirements for the standardization is that permits and application requirements strictly adhere to technical aspects associated in the installation of a small scale renewable energy facility. Qualified end users by virtue of an existing account with the distribution utility are automatically qualified to avail of Net Metering. New construction or new residential, commercial and industrial entities would need Final Certificate of Electrical inspection as prerequisite for installation of Net Metering. Other requirements or permits such as Occupancy Permit for existing qualified end users, electronics permit, and others shall be waived nor additional requirements given by the LGU which are outside the requirements set forth by the Department of Energy. There shall only be an Electrical permit and all electrical works shall be performed by qualified personnel with solar or relevant work experience. A valid PCAB license is needed for installations over 200 amperes or 44kWp. Solar permits are deemed accepted within the prescribed period in line with ARTA or 14 days as long as permit fees are paid and permit fees should not exceed 1% of construction value of the renewable energy facility nor take more than four (4) hours of administrative burden to fill out and approved.

Within one year from the approval of this Act, the Department of Energy shall prepare an online portal for the permitting of Net Metering installations, where critical installation milestones are documented, photographed and uploaded by solar installer and cashless/contactless permitting transaction fees are paid to the hosting LGU. Permitting portal would handle the LGU Permitting fee, ERC CoC and generation of accepted QR code that the utility shall accept as the prerequisite requirement to enact the net metering agreement.

Standardization of all associated fees in availing of Net Metering is as follows: P500 for Net Metering of RE systems of 1kWp to 10kWp. P5000 for systems 10kWp to 50kWp, P10,000 for system sizes of 50kWp and above. Installations of over 100kWp would necessitate actual inspection from the office of the building official to ensure all codes from PEC are met and subject to a 30 day approval timeline or random inspections performed within 30 days of issuance of permit for smaller systems.

Local government units or building departments shall show cause if permitting period is over 30 days; permits over 60 days shall be deemed approved or fall under the provisions of ARTA law. Distribution Utilities and electric cooperatives have 30 days to deliver Net Metering agreement upon presentation of Certificate of Final Electrical inspection with a one time extension of 30 days provided a written show cause certification is issued on delays longer than 30 days. Local government units or building departments with documentable permitting delays longer than 3 months can be held administratively liable.

SEC. 4. *Implementing Rules and Regulations.* The Department of Energy, National Renewable Energy Board, Energy Regulatory Commission, and Department of Interior and Local Government, in consultation with the concerned public and private stakeholders, shall jointly formulate and promulgate the Implementing Rules and Regulations of this Act within sixty (60) from its effectivity.

SEC. 5. *Separability Clause.* - If, for any reason, any provision of this Act is declared to be unconstitutional or invalid, the other sections or provisions hereof which are not affected thereby shall continue to be in full force or effect.

SEC. 6. *Repealing Clause.* - All laws; decrees, orders, rules and regulations or parts thereof which are inconsistent with or contrary to the provisions of this Act are hereby repealed, amended, or modified accordingly.

SEC. 7. *Effectivity.* -This Act shall take effect fifteen (15) days after its complete publication in the Official Gazette or in a newspaper of general circulation.

Approved,