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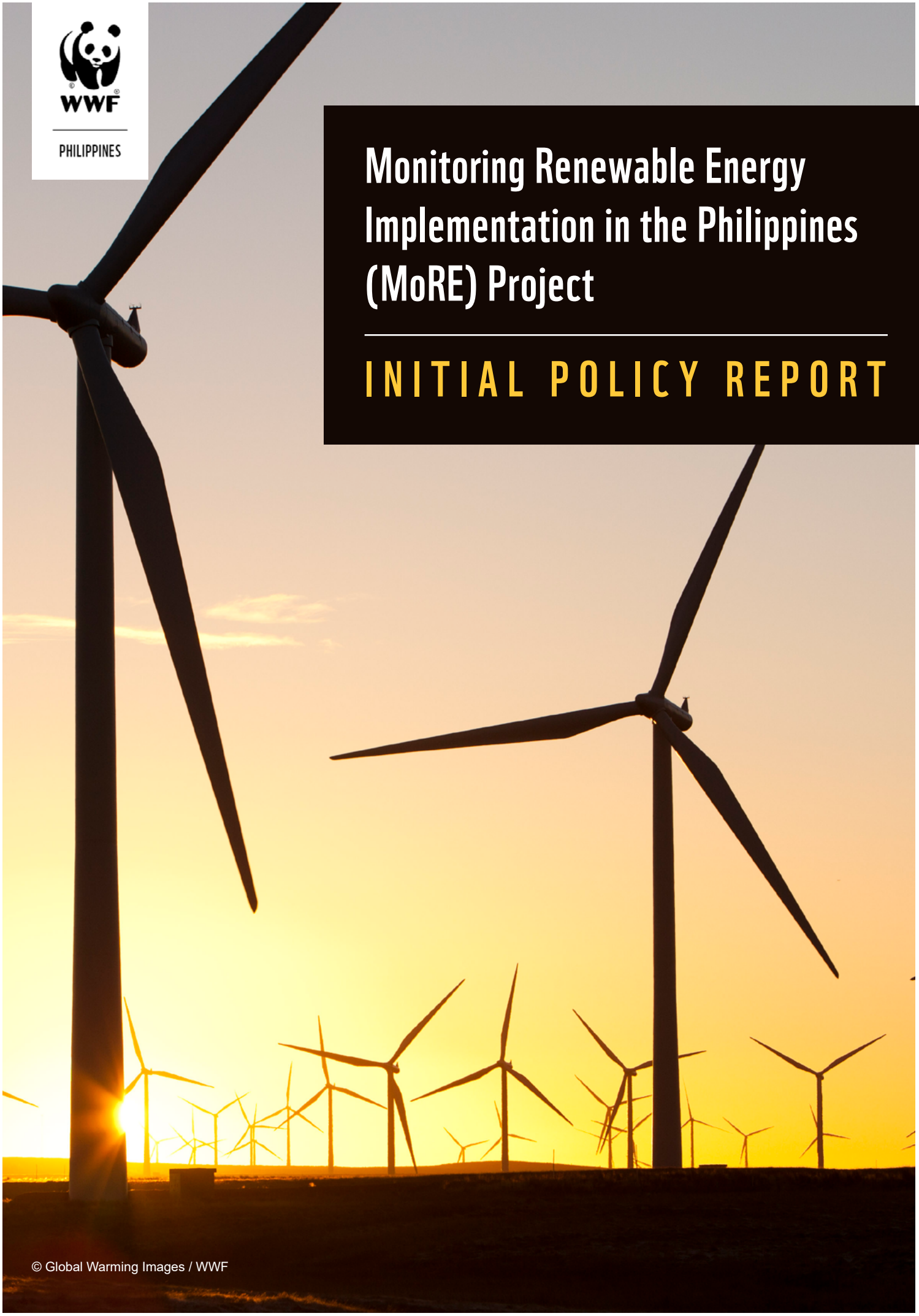
PHILIPPINES

Monitoring Renewable Energy Implementation in the Philippines (MoRE) Project

INITIAL POLICY REPORT



01 Background of the Renewable Energy Policies

A. EPIRA

On 08 June 2001, the Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (***"EPIRA"***), was enacted. The EPIRA provides for various reforms in the Philippine electric power industry, one of which was the unbundling of the industry from a state-operated model to a market-oriented model with four (4) distinct sectors, namely: generation, transmission, distribution, and supply.[1] Under the EPIRA, it is one of the Philippine Government's declared policies to *"promote the utilization of indigenous and new and renewable energy resources in power generation in order to reduce dependence on imported energy."*[2] In relation to this objective, the Department of Energy (***"DOE"***) was given the primary role of encouraging private sector investments in the electricity sector, as well as the promotion of the development of indigenous and renewable energy sources.[3]

In relation to the Philippine Government's efforts to promote renewable energy, one of the important features of the EPIRA is in its provisions mandating the DOE to develop and annually update the Philippine Energy Plan (***"PEP"***).[4] The PEP is the government's plan that, among others, *"shall provide for an integrated and comprehensive exploration, development, utilization, distribution, and conservation of energy resources, with preferential bias for environment-friendly, indigenous, and low-cost sources of energy."* [5]

B. Renewable Energy Act

i. Mandated the issuance of certain Renewable Energy Mechanisms

Pursuant to the Philippine Government's efforts to promote the utilization and development of renewable energy in the Philippines, the Congress enacted Republic Act No. 9513, otherwise known as the Renewable Energy Act of 2008 (***"RE Act"***). The law seeks to decrease the country's dependence on fossil fuels, prevent or reduce harmful emissions, and to accelerate the exploration and development of renewable energy resources (***"RE Resources"***) available in the Philippines.[6] To this end, the RE Act mandates the establishment of the following renewable energy mechanisms (***"RE Mechanisms"***):

1) Feed-in tariff system (***"FIT"***):[7] To incentivize investment in electricity produced from wind, solar, ocean, run-of-river hydropower, and biomass. The rules to be made for the feed-in-tariff system shall include priority connections to the grid for electricity generated from RE Resources, priority purchase and transmission of, and payment for, such electricity by the grid system operators, and fixed tariff to be paid to electricity produced from each type of emerging renewable energy, among other things.

2) Renewable Energy Market (***"REM"***):[8] In addition to establishing an REM, a Renewable Energy Registrar (***"RE Registrar"***) shall also be established to issue, keep, and verify renewable energy certificates (***"REC"***), which serve as evidence of energy generated from eligible facilities.[9]

1 Section 5, Republic Act No. 9136.
2 Section 2(h), Republic Act No. 9136.
3 Section 37(e)(i), Republic Act No. 9136.
4 Section 37 , Republic Act No. 9136.
5 Section 37 (b) , EPIRA
6 Section 2, RE Act
7 Section 7, RE Act
8 Section 8, RE Act
9 Section 8, RE Act

3) Green Energy Option Program (***"GEOP"***):[10] This shall provide eligible end-users the option to choose RE Resources as their sources of energy. Relevant authorities and instrumentalities are mandated to provide the mechanisms for the physical connection and commercial arrangements necessary to encourage the eligible end-users to enroll under this option program.

4) Net-metering for Renewable Energy:[11] This shall allow distribution utilities (***"DUs"***) to enter into net-metering agreements with qualified end-users who will be installing renewable energy systems. Pursuant to this, net metering interconnection standards and pricing methodology and other commercial arrangements were required to be established by the relevant policymakers.

5) Renewable Energy Trust Fund (***"RETF"***):[12] This trust fund shall be exclusively used to finance the research, development, demonstration, and promotion of renewable energy systems for power and non-power applications,[13] as well as to support the development and operation of new RE Resources in order to improve their competitiveness in the market,[14] among other things.

In addition to programs stated above, the RE Act also provides for various incentives for certain renewable energy projects and activities. Under the law, renewable energy developers (***"RE Developers"***) shall be entitled to the following incentives:[15]

1) Income Tax holiday for duly registered renewable energy developers;[16]

2) Duty-free importation of renewable energy machinery, equipment, and materials;[17]

3) Special Realty Tax rates on equipment and machinery;[18]

4) Net Operating Loss Carry-Over of the developer for the first three (3) years from the start of commercial operations;[19]

5) Corporate Tax Rate of ten percent (10%) which shall be paid after seven (7) years of income tax holiday. Provided, that the developer shall pass on the savings to end-users in the form of lower power rates;[20]

6) Accelerated Depreciation if a renewable energy project fails to receive an income tax holiday before its full operation;[21]

7) Zero Percent Value-Added Tax (VAT) Rate for the sale of fuel or power generated from renewable sources of energy, for purchases of local supply of goods, properties, and services needed for the development, construction, and installation of its plant facilities. It also applies to the process of exploring and developing renewable energy sources up to its conversion into power;[22]

8) Cash incentive of renewable energy developers equivalent to fifty percent (50%) of the universal charge for power needed to service missionary areas, to be chargeable against the universal charge for missionary electrification;[23]

9) Tax exemption of all proceeds from the sale of carbon emission credits;[24]

10 Section 9, RE Act
11 Section 10, RE Act
12 Section 28, RE Act
13 Section 28 (a), RE Act
14 Section 28 (b), RE Act
15 Section 15, RE Act
16 Section 15(a), RE Act
17 Section 15(b), RE Act
18 Section 15(c), RE Act
19 Section 15(d), RE Act
20 Section 15(e), RE Act
21 Section 15(f), RE Act
22 Section 15(g), RE Act
23 Section 15(h), RE Act
24 Section 15(i), RE Act

10) Tax credit equivalent to one hundred percent (100%) of the VAT and custom duties that would have been paid on domestic capital equipment and services;[25] and

11) A developer producing power and electricity from an intermittent renewable energy resource may opt to pay the transmission and wheeling charges of the National Transmission Corporation (***"TRANSCO"***) on a per kilowatt-hour basis at a cost equivalent to the average per kilowatt-hour rate of all other electricity transmitted through the grid.

Additionally, renewable energy generators are exempted from paying the universal charge under Republic Act No. 9136, Section 34, if the power and electricity generated through the renewable energy system is for the generator's own consumption and/or for free distribution in the off-grid areas.[26]

Aside from the earlier mentioned incentives granted to RE Developers, the law also grants certain incentives to manufacturers, fabricators, and suppliers of locally produced renewable energy equipment and components. These incentives are as follows:[27]

1) Tax and duty-free importation of components, parts, and materials;[28]

2) Tax credit equivalent to one hundred percent (100%) of the amount of the VAT and customs duties that would have been paid on domestic capital components, parts, and materials;[29]

3) Income tax holiday and exemption for seven (7) years starting from the date of recognition/accreditation of a renewable energy manufacturer, fabricator, and supplier;[30]

4) Zero-rated VAT transactions with local suppliers of goods, properties, and services for all manufacturers, fabricators, and suppliers of locally produced renewable energy equipment;[31]

Finally, under the RE Act, farmers who are engaged in the plantation of biomass resources, such as jatropha, coconut, and sugarcane, are also entitled to duty-free importation and exemption from the payment of VAT on all types of agricultural inputs, equipment, and machinery.[32]

C. National Renewable Energy Program (NREP)

In order to ensure the proper and effective implementation of the various renewable energy policies enumerated above, the RE Act established the National Renewable Energy Board (***"NREB"***).[33] The NREB is the board responsible for evaluating and recommending to the DOE the mandated Renewable Portfolio Standards (***"RPS"***) and minimum renewable energy generation capacities in off-grid areas.[34] It is also responsible for overseeing and monitoring the utilization of the RETF.

In connection with its functions, the NREB was mandated to recommend specific actions to facilitate the implementation of the renewable energy policies, which shall be contained in the National Renewable Energy Program (***"NREP"***).[35] More particularly, the NREP is a document issued by the NREB, which sets the strategic building blocks that will help the country achieve the goals set forth in the RE Act.

25 Section 15(j), RE Act
26 Section 17, RE Act
27 Section 21, RE Act
28 Section 21(a), RE Act
29 Section 21(b), RE Act
30 Section 21(c), RE Act
31 Section 21(d), RE Act
32 Section 22, RE Act
33 Section 27, Republic Act No. 9513.
34 Section 27(a), Republic Act No. 9513.
35 Section 27(d), Republic Act No. 9513.

i. NREP 2011-2030

The NREP 2011-2030 was the first comprehensive document that provided for the installation targets and strategies to increase investment and further develop renewable energy in the country.[36] Through the NREP 2011-2030, the NREB intends to achieve the following goals on a per renewable energy technology basis:[37]

1) Increase geothermal capacity by 75%;

2) Increase hydropower capacity by 160%;

3) Deliver additional 277 MW biomass power capacities;

4) Attain wind power grid parity with the commissioning of 2,345 MW additional capacities;

5) Mainstream an additional 284 MW solar power capacities and pursue the achievement of the 1,528 MW aspirational target; and

6) Develop the first ocean energy facility for the country.

The NREP 2011-2030 included plans on tripling the Philippines' installed renewable energy from 5,438 MW in 2010 to 15,304 MW in 2030. However, according to the assessment of the NREP 2011-2030 under the updated NREP 2020-2040, from 2011-2019, the actual installed capacity addition at 2,115 MW remained significantly lower than the 9,865 MW target by 2030.[38] Furthermore, the renewable energy installed capacity as of 31 December 2019 at 7,399 MW was only around half of the 2030 target. Despite not reaching the installation targets, however, programs and plans under NREP 2011-2030 were able to encourage investment in renewable energy systems from the financial sector.[39]

In furtherance of the goals set under NREP 2011-2030, the DOE, as well as the relevant governmental policymakers, established a variety of plans and programs. First of all, in connection with the development of the REM, the DOE launched the Philippine Renewable Energy Market System (***"PREMS"***) on 17 December 2019. The PREMS serves as the online platform wherein trading participants can manage their REC accounts.[40]

Furthermore, the DOE issued Department Circular No. DC2019-10-0013, entitled the ***"Omnibus Guidelines Governing the Award and Administration of Renewable Energy Contracts and the Registration of Renewable Energy Developers."***[41] Through these Omnibus Guidelines, renewable energy contracts were awarded to various RE Developers through an Open and Competitive Selection Process (***"OCSP"***) for pre-determined areas or through direct application. Under DOE Department Circular No. DC2019-10-0013, *"pre-determined areas"* refer to "*area/s with RE Resource potential through sufficient available technical data as may be determined by the Renewable Energy Management Bureau ("**REMB**"), and approved by the DOE Secretary for its inclusion in the [OCSP]."*[42] Under the same guidelines, a Certificate of Registration from the DOE shall be sufficient for registering renewable energy projects for own-use or non-commercial purposes.[43]

Additionally, three (3) other renewable energy policies and programs were emplaced under the NREP 2011-2030.[44] One policy is the Household Electrification Program, which aims to provide household lighting through solar photovoltaic (***"PV")*** systems and organized recipient households into ***"Sitio Power Associations."***[45]

36 National Renewable Energy Plan 2020-2040, National Renewable Energy Board, available at https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf, last accessed on 27 September 2022.
37 National Renewable Energy Plan 2011-2030.
38-41 National Renewable Energy Plan 2020-2040, National Renewable Energy Board, available at https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf, last accessed on 27 September 2022.
42 Section 3.16, Department of Energy Department Circular No. DC2019-10-0013.
43-45 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf

Another policy is for the creation of the Competitive Renewable Energy Zones (***"CREZ"***) process. The CREZ process was established by the DOE through its Department Circular No. DC2018-09-0027, entitled *"Establishment and Development of Competitive Renewable Energy Zones in the Country."*[46] This department circular aims to streamline the process for proactive transmission planning by identifying candidate renewable energy zones, which represent geographic areas with the most economically viable renewable energy resources characterized by high-quality, low-cost renewable energy potential, in addition to high levels of private-sector developer interest.[47]

Lastly, one policy was for the creation of rules that shall ensure adequate safety and protection against hazards to health, life, and property, as well as pollution of air, land, and water from renewable energy operations.[48] Thus, on 21 November 2012, the DOE issued Department Circular No. DC2012-11-0009, entitled the *"Renewable Energy Safety, Health and Environment Rules and Regulations of 2012"* (***"RESHERR"***).[49] The RESHERR provides for rules that must be followed by all employers, employees, contractors, and other entities engaged in renewable energy operations within the Philippines.[50]

ii. NREP 2020-2040 Roadmap to be followed to promote renewable energy

During the effectivity of the NREP 2011-2030, the NREB saw it fit to issue an updated NREP, in view of the constantly changing situation pertaining to the renewable energy industry, as well as the Philippine Government's international commitments regarding climate change mitigation.

Thus, in 2020, the NREB issued the NREP 2020-2040, which provided for an update and an assessment of the previous NREP 2011-2030. Together with the PEP 2020-2040 and the Power Development Plan (***"PDP"***) 2020-2040, NREP 2020-2040 advocates for inclusive growth and sustainable development through the use of cleaner energy sources.

The NREP 2020-2040 provides for a renewed framework and roadmap composed of renewable energy transition pathways and enablers, resource-specific programs and strategies, which promote the use of renewable energy.[51] In the general sense, the priorities of NREP 2020-2040 are for: (1) the assessment of the renewable energy position of the country, (2) the full implementation of the relevant renewable energy policies, (3) expanding the renewable energy industry through the development of emerging and underutilized renewable energy technologies, and (4) sustaining the clean energy scenario through a secured and resilient energy system.[52]

To achieve the above-enumerated priorities of NREP 2020-2040, it directs the relevant stakeholders to focus on five (5) key areas, particularly: policy, marketing, financing, development of technology, and capacity building for local government units (***"LGUs"***), local communities, and stakeholders.[53]

iii. Policies under NREP 2020-2040

NREP 2020-2040 shall prioritize the following as part of its framework moving forward: (1) Renewable Energy Transition Pathways, (2) Renewable Energy Transition Enablers, (3) Renewable Energy for Off-Grid and Productive Uses of RE Strategies, and (4) Resource Specific Programs.

46 DOE Department Circular No. DC2018-09-0027.
47 Section 1(c)(i), DOE Department Circular No. DC2018-09-0027.
48 Statement of Authority, DOE Department Circular No. DC2012-11-0009.
49 DOE Department Circular No. DC2012-11-0009.
50 Section 2, Rule 1, DOE Department Circular No. DC2012-11-0009
51 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf
52 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf; The roadmap published by DOE is attached herewith as Annex "1".
53 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf

Renewable Energy Transition Pathways

These pathways provide for mandatory policies and voluntary programs that will establish the demand and market for renewable energy.

Mandatory policies provide for the following:

1) Increase of the RPS from an annual increment (Km) of 1% to 2.52% by 2023 onwards.[54] Additionally, Mandated Participants shall be monitored as to their compliance with their RPS mandates. The DOE is also expected to issue a policy providing for rules and regulations for administrative actions regarding any violation of the RPS Rules.[55]

2) The commercial operation of the REM, through the formulation of REM Manuals, the execution of Usufruct Agreements, and the performance of other preparatory activities, is expected in 2022.[56]

3) The grant of preferential dispatch to all renewable energy power generating units to accelerate the development and utilization of renewable energy resources.[57]

On the other hand, the NREP 2020-2040 provides for Voluntary Programs, which, more or less, reiterate the same programs already enshrined in the RE Act and NREP 2011-2030. These programs are, as follows:

1) Net-Metering

2) GEOP

3) Green Energy Auction Program (***"GEAP"***), which is a program not established by the RE Act but which provides additional market for renewable energy through a competitive electronic bidding of renewable energy capacities. The program provides that: *"qualified bidders shall place their lowest price offers in PhP/kWh which must not be higher than the ceiling price set by the ERC – i.e., Green Energy Auction Reserve (GEAR) price. Winning bidders' offered price represent their Green Energy Tariff which shall be the basis for their payments."*[58]

Renewable Energy Transition Enablers

Enablers include national laws and programs that will incentivize investments in renewable energy and facilitate project development in the field. The NREP 2020-2040 provides for the following renewable energy transition enablers:

1) **Ease of Doing Business and Efficient Government Service Delivery Act** (Republic Act No. 11032), which provides for the mandated use of standardized business application forms and the establishment of a "one-stop-shop" for LGUs where permits and clearances can be obtained.[59]

2) The establishment of the **Energy Virtual One Stop Shop (*"EVOSS"*)** to address one of the major roadblocks for renewable energy development in the Philippines, which is the complex permitting process.[60] The EVOSS is a centralized web-based platform that facilitates the coordinated submission, and synchronous processing and monitoring of permits for energy projects.[61]

54-58 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf
59 https://arta.gov.ph/wp-content/uploads/2020/07/RA.11032_Certified_True_Copy.pdf ; https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf
60-61 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf

3) The implementation of the **Omnibus Guidelines Governing the Awarding and Administration of Renewable Energy Contracts and Registration of Renewable Energy Developers**.

4) **Renewable Energy Regulatory Support** by providing for a framework for decentralized power systems, implementing reforms in the transmission regulatory framework, and updating valuation parameters for least cost pricing since the current cost-based methodology of the Energy Regulatory Commission (***"ERC"***) in evaluating the rates do not fit the cost characteristics of renewable energy power plants.[62]

5) **CREZ Phase II**, establishing three (3) activities: (a) CREZ Implementation Support, (b) Enhanced Load Modeling and Forecasting for Long-term Power Sector Planning, (c) Improved Energy Storage and Modeling Considerations to understand operational impacts and potential cost savings for energy storage for bulk power system applications.[63]

6) Using **Energy Storage System (ESS)** to effectively manage the variability and intermittency of a renewable energy, and developing a Smart Grid which utilizes multi-way communication technologies with real-time monitoring, automation, and control systems.

7) **RETF**, as established by the RE Act.

8) The creation of a Local Government Unit Energy Code which provides for guidelines to aid LGUs in facilitating the implementation of energy projects.[64]

9) The issuance of policies providing for RESHERR for each renewable energy technology.[65] Thus, the DOE issued policies, which provided the RESHERR for each renewable energy technology on 11 June 2021, namely: (i) Department Circular No. DC2021-06-0016 for geothermal energy,[66] (ii) Department Circular No. DC2021-06-0017 for hydropower;[67] (iii) Department Circular No. DC2021-06-0018 for solar, (iv) Department Circular No. DC2021-06-0019 for wind energy, and (v) Department Circular No. DC2021-06-0020 for biomass.[68]

10) Active collaboration with local and international development organizations[69] to cultivate local renewable energy skills and technology.[70]

Renewable Energy for Off-Grid and Productive Uses of Renewable Energy ("PURE") Strategies

With the goal of providing electricity to all households by 2040, the government launched the Total Electrification Program (***"TEP"***). This program focuses on three (3) strategies for electrification, namely: (a) household, (b) grid, and (c) off-grid.

The off-grid strategy includes the development of standalone solar PV systems and mini-grids. To improve the operational efficiency of these off-grid systems, the DOE issued Department Circular (DC) 2019-01-0001, entitled "Prescribing the Omnibus Guidelines on Enhancing Off-Grid Power Development and Operation," which provides for the phasing out of the Universal Charge for Missionary Electrification (***"UCME"***). By doing so, NREP 2020-2040 provides a preference for deploying renewable energy systems for technically

62-65 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf
66 DOE Department Circular No. DC2021-06-0016.
67 DOE Department Circular No. DC2021-06-0017.
68 DOE Department Circular No. DC2021-06-0020.
69 These development organizations include: Agence Française Développement (AFD), Asian Development Bank (ADB), Carbon Trust (CT), European Union, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Global Green Growth Institute (GGGI) , Great Basin Center for Geotherma Energy (GBCGE), Japan International Cooperation Agency (JICA), National Appropriate Mitigation Action (NAMA) Facility, Organization for Economic Co-operation and Development (OECD), the UK Government, United Nations Development Programme (UNDP), UN Industrial Development Organization, USAID, and the World Bank.
70 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf

and economically viable solutions for areas without electricity.[71] Other programs include:

1) **Expanded Household Electrification Program**, which deploys solar home systems (***"SHS"***) to isolated households that are considered off-grid.[72]

2) **Renewable Energy Program for the Agriculture and Fisheries Sector** (***"REPAFS"***), which is a program intended to focus on energy and food security through the promotion of renewable energy technologies, research and development, formulation and enforcement of standards on renewable energy-powered machineries and facilities, human resource development, and provision of assistance to local manufacturers, fabricators, and suppliers of renewable energy equipment and components.[73]The Department of Agriculture (***"DA"***) also currently has a program on food security which includes solar-powered irrigation and fertigation systems, research, and development using biomass for agri-fishery mechanization and modernization, and the promotion of biogas in livestock farms for lighting, cooking, or pollution control.[74]

3) **PURE**, which focuses on deploying technologies that deliver energy for livelihood and social services particularly in off-grid or underserved areas. PURE systems provide vital social services related to health, water supply, and safety, such as renewable energy-powered cold storage for medicine, streetlights powered by solar and wind, and solar water pumps.[75]

4) **Support Facility for Renewable Energy** (***"SF4RE"***), which provides technical services or goods for projects in areas with limited investor interest but with potential for high economic returns.[76]

5) The utilization of **hybrid microgrids** to provide additional compliance to the RPS mandates and increase reliability of electricity services to end-users.[77]

Renewable Energy Resource Specific Programs

1) **Offshore Wind Energy Resource Development** through the ***"Offshore Wind Roadmap of the Philippines,"***[78] which analyzes offshore wind development potential in the country and aids the government in formulating policies, regulations, processes, and infrastructure to support this new industry.[79]

2) The DOE plans on conducting a study to assess the potential and viability of converting municipal solid waste into usable electricity or fuel, known as **Waste-to-Energy**.[80]

3) **Expanded Rooftop Solar Program** (***"ERSP"***) which aims to augment power supply by utilizing available rooftop spaces for solar energy production. This allows even electricity end-users to produce electricity as well as to sell the excess generation back to the grid.[81]

4) The government has allowed **one hundred percent (100%) foreign ownership of geothermal projects** in order to incentivize investment into these projects, provided that Financial and Technical Assistance Agreements (***"FTAAs"***) are executed by the foreign company with the government as well as mandating an initial investment of at least FIFTY MILLION USD (USD 50,000,000).[82]

71-77 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf
78 https://documents1.worldbank.org/curated/en/099225004192234223/pdf/P1750040b777da0c30935a0e2aa346f4e26.pdf
79-82 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf

5) Development of other emerging renewable energy technologies to augment the supply base.[83]

D. PEP 2020-2040

The PEP 2020-2040[84] is the second comprehensive energy blueprint following the PEP 2018-2040, which reiterates the goal of the energy sector to transition to a cleaner energy future.

i. NREP 2020-2040 and the PEP 2020-2040

In support of the PEP 2020-2040, the NREP seeks to provide a cost-sensitive and demand-responsive national renewable energy program.[85] Thus, the NREP 2020-2040 adheres to the RPS goals under the PEP of at least thirty-five percent (35%) renewable energy share in the total generation of electricity by 2030 and fifty percent (50%) by 2040.

ii. Policies under PEP 2020-2040

The PEP 2020-2040 has six (6) overarching policies and programs, which are aligned with and are similar to the policies and programs under NREP 2020-2040. These policies and programs are as follows:

1) The PEP aims to fast track the approval process for power facilities and infrastructure, similar to the EVOSS program under the NREP 2020-2040.[86]

2) Similarly, it aims to implement the smart grid policy and roadmap by 2040. The Smart Grid goals of the country, as provided for in the National Smart Grid Policy Framework, envisions a grid development capable of: (a) self-healing, (b) providing full customer choice, (c) full implementation of Retail Competition and Open Access (***"RCOA"***), RPS, GEOP, and net-metering, (d) optimized ESS, energy management system (***"EMS"***), and distributed energy resources management systems, (e) virtual power plant integration, (f) islanding, (g) demand response, demand side, and peak load management; and (h) smart homes and cities.[87]

3) Continuous implementation, evaluation, and adoption of necessary amendments in the EPIRA.[88]

4) Continuous improvement of power development planning and utilization of tools that assist the DOE in analyzing and quantifying the impacts of recent policy issuances and programs.[89]

5) Implement automated submission of reportorial requirements to address submission compliance, redundancies, inconsistencies, and varied interpretations of power-related data submitted to the DOE.[90]

6) Establish an expanded and integrated power sector database to enable the generation of periodic reports to allow more information to support the decision of the national government for the power sector.[91]

83 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf
84-91 https://www.doe.gov.ph/sites/default/files/pdf/pep/PEP%202022-2040%20Final%20eCopy_20220819.pdf

02 New Commitments of the Philippine Government on Renewable Energy

A. COP 26

The Philippines commits to reduce its greenhouse gas (***"GHG"***) emissions by seventy-five percent (75%) by 2030.[92] Pursuant to this commitment, the Philippine Government issued the Sustainable Finance Roadmap in November 2021. The Sustainable Finance Roadmap supports the Philippine Government's commitment by laying out ways to incentivize investments in businesses, technologies, and infrastructure to reduce emissions or help make the economy more resilient to climate change impacts.[93]

The Sustainable Finance Roadmap provides for three (3) pillars to address the lack of awareness of available resources to finance sustainable activities, namely: (1) the Policy Pillar to improve transparency on climate-related finance, develop policies to promote sustainability risk management, and enhance reporting of green and climate finance flows;[94] (2) the Financing Pillar to promote sustainable financial products; and (3) the Investment Pillar, to establish a sustainable pipeline database to monitor progress and provide regular updating, including linking the sustainable pipeline to Sustainable Development Goals (***"SDGs"***), PDP, and Nationally Determined Contribution (***"NDC"***) targets.[95]

B. NREP: 35% by 2040 and 50% by 2040

As discussed earlier, the NREP, 2020-2040 aims to increase the share of renewable energy to at least 35% of the power generation mix by 2030. In addition to this goal, NREP 2020-2040 seeks to address the following goals: (1) Energy Security and decrease reliance on fossil fuels, (2) Sustainable Development in furtherance of the United Nation's SDGs, (3) Climate Change Mitigation, (4) Capacity Building for the energy sector workforce and end-users, and (5) Greater adoption of renewable energy technologies in off-grid areas.[96]

03 Issues in the Development and Implementation of Renewable Energy Policies

While the RE Act has been enacted as early as 2008, it took a few years for one of the renewable energy mechanisms to be established. On 30 June 2011, the DOE, after public consultation and upon recommendation by the NREB, endorsed the installation targets for renewable energy resources eligible for the FIT.[97] Afterwards, the Net Metering

92 https://unfccc.int/sites/default/files/resource/PHILIPPINES_cop26cmp16cma3_HLS_EN.pdf
93 https://www.rappler.com/newsbreak/in-depth/what-philippine-delegation-did-cop26-climate-summit
94-95 https://www.dof.gov.ph/wp-content/uploads/2021/10/ALCEP-Roadmap.pdf
96 https://www.doe.gov.ph/sites/default/files/pdf/announcements/nrep-2020-2040_0.pdf
97 Preamble, DOE Department Circular No. DC2015-07-0014.

Program for Renewable Energy was enabled by the ERC through its issuance of ERC Resolution No. 9, Series of 2013, otherwise known as the "***Net-Metering Rules.***"

As regards the RPS, the RPS On-Grid Rules was issued on 22 December 2017, through DOE Department Circular No. DC2017-12-0015, while the RPS Off-Grid Rules was issued on 24 August 2018, through DOE Department Circular No. DC 2018-08-0024. With respect to the other remaining renewable energy policies, the DOE issued DOE Department Circular No. DC2018-07-0019, otherwise known as the "***GEOP Rules,***" on 18 July 2018. Through DOE Department Circular No. DC2020-07-0017, the DOE adopted the GEA Policy, which shall govern the conduct of Green Energy Auctions in the Philippines. Finally, the REM Rules were issued by the DOE in 2019, through DOE Department Circular No. 2019-12-0016.

Despite the issuance of the policies for the above-discussed renewable energy mechanisms, the full implementation and operationalization of these mechanisms were still dependent on the necessary regulatory support from the ERC and, in the case of the REM, the Philippine Electricity Market Corporation (***"PEMC"***).

As discussed earlier, under the EPIRA Law, the ERC was created as an independent, quasi-judicial regulatory body, which is responsible for promoting competition, encouraging market development, ensuring customer choice, and penalizing the abuse of market power in the electricity industry.[98] Furthermore, it is primarily responsible for setting the rates that are applicable in the electricity industry.[99]

On the other hand, when it comes to the RE Market, the PEMC is the entity primarily responsible for the drafting and the issuance of the RE Market Manuals, which are documents that provide the relevant rules, procedures, and methodologies for a variety of RE Market activities.

In other words, the participation of multiple government agencies, each with its own area of expertise, is needed due to the complexities involved in the development and implementation of renewable energy policies. Thus, to ensure the speedy and efficient implementation of the above renewable energy policies, there is a need for great coordination and synergy between and among various government agencies.

Based on an analysis of the development of the relevant policies for the renewable energy mechanisms, it appears that there have been challenges in the implementation of these mechanisms due to the time allotted and spent on the drafting and development of each of the responsible agencies' respective policies and other issuances.

For example, in the case of the REM, even with the existence of the PREMS, the trading of RECs could not take place in 2021 because the cap for the RE pricing has not yet been finalized by the ERC. Considering that the REC Price Cap is a vital feature of the REM, which will have the purpose of limiting the price of the trading of the RECs, the REM will not be able to accommodate any trading on the part of the Mandated Participants until the ERC is able to approve the RE Market Price Cap.

It is, thus, apparent that one of the solutions that may be considered by the renewable energy policymakers is the development of a monitoring and knowledge management tool that will facilitate the exchange of information between and among the relevant government agencies. This monitoring tool could be developed in such a manner that the government agencies and the general public will be kept updated regarding the status of the development of the policies, as well as any other actions that need to be considered by the relevant policymakers.

To further emphasize the need to ramp up the development of the renewable

98 Section 43 Republic Act 9136.
99 Section 43(f), Republic Act No.

energy policies, as well as to develop additional policies, on 15 April 2021, the Philippine Government submitted its NDC, wherein it declared its commitment to reduce GHG emissions by seventy-five percent (75%) by 2030.[100] This figure represents the Philippine Government's goals for 2020 to 2030, which include the agricultural, wastes, industry, transport, and energy sectors.

For the energy sector, the GHG emissions can mainly be attributed to the combustion of fossil fuels. Therefore, to accomplish the goal of reducing GHG emissions in this sector, there is an apparent need to promote the utilization of renewable energy. According to the DOE, as stated in the PEP 2020-2040, the energy sector remains as the country's major source of GHG emissions.

However, if the Clean Energy Scenario (***"CES"***) under the PEP 2020-2040 is pursued, as opposed to the Business-As-Usual (***"BAU"***) scenario, there would be an increased 19.1% reduction in terms of aggregate emission reduction for the period of 2020 to 2030.[101] As discussed in the PEP 2020-2040, this increased reduction in GHG emissions can be attributed to decreased electricity generation from coal, as well as to increased electricity generation from renewables through the implementation of various programs and mechanisms including the RPS, GEAP, GEOP, and Net Metering, among others.[102]

04 WWF-Philippines' Monitoring Renewable Energy Implementation in the Philippines (MoRE)

To ensure the speedy and efficient implementation of the above renewable energy policies, there is a need for great coordination and synergy between and among various government agencies. Based on an analysis of the development of the relevant policies for the renewable energy mechanisms, it appears that there have been challenges in the implementation of these mechanisms.

Under its Monitoring Renewable Energy Implementation in the Philippines (***"MoRE"***) Project, the World Wide Fund for Nature – Philippines (***"WWF–Philippines"***) seeks to identify these challenges that have been encountered by the policymakers, particularly with respect to the exchange of information and the monitoring of the status of the development and implementation of the renewable energy mechanisms. This shall be done through a series of roundtable discussions with both the relevant agencies, policymakers, and organizations from both the public and private sectors.

Afterwards, WWF–Philippines seeks to develop and propose a working monitoring tool, which would facilitate a speedy and efficient policymaking process for all government agencies and policymakers involved. This monitoring tool could be developed in such a manner that the government agencies and the general public will be kept updated regarding the status of the development of the policies, as well as any other actions that need to be considered by the relevant policymakers.

100 "THE PHILIPPINES NATIONAL STATEMENT FOR THE COP 26 MEETING," Sec. Carlos G. Dominguez, 09 November 2021.
101 Table 89, p.207, Philippine Energy Plan 2020-2040.
102 P.207, Philippine Energy Plan 2020-2040.

05 Results of the Roundtable Discussions

It is beyond cavil that one of the steps by our government toward the direction of balancing sustainable economic growth with the protection of our natural ecosystem and environment, public health, is the enactment of the RE Act and its corresponding renewable energy policies, as well as the continuous development and implementation thereof.

In spite of our numerous laws and policies concerning renewables, there remain issues pertaining thereto, which need to be addressed. Thus, the first roundtable discussion conducted by WWF-Philippines sought to help identify the various problems encountered by the policymakers in the development and implementation of the renewable energy policies, as well as to provide recommendations to advance the objectives of the said RE Act. Moreover, the goal of the first roundtable discussion is to highlight the importance of the development of a Monitoring Tool, which will serve as a catalyst to the Philippine Government's shift to renewable resources.

A. Challenges and Recommendations Raised During the First Roundtable Discussion

Nowadays, it is generally accepted that energy is one of the basic human needs. Generally, people's daily living will be crippled should they be left without access to energy. One of the early challenges of the RE Act and the renewable energy policies is the promotion of the renewable energy industry to investors.

Incentivization of renewable energy development

According to the first roundtable discussion conducted by WWF-Philippines, there are several factors that hinder the effective promotion of renewable energy. One of the difficulties surrounding the promotion of renewable energy refers to the cost accompanying the development of renewable energy facilities. Admittedly, renewable energy development has initially not been a cost-effective endeavor. This factor alone has made it difficult to promote renewable energy.

For example, with respect to renewable energy technologies, these alone generally require a large infusion of money by investors. This is one of the reasons why, in an opinion written by the Foundation for Economic Freedom (***"FEF"***)– a public advocacy in the Philippines – while renewable energy has a role in providing energy in the Philippines, it is, however, seen as requiring high additional payments on the part of the end-users for its utilization.[103] The FEF also adds that, instead of promoting renewable energy, it is more prudent to first rehabilitate our existing energy resources, and further wait until the overall cost of implementing and utilizing renewable energy drops.[104]

Another challenge raised pertains to the tedious procedures involving government procedural systems, which include, among others, securing permits for renewable energy projects. According to the participants of the first roundtable discussion, the lengthy permitting process has been identified as one of the biggest obstacles to the deployment of renewable energy. Just at the initial stage, the requirement for renewable energy developers to secure numerous permits and signatures can already lengthen the permitting process, especially in view of the manner by which these documents have to go through different bureaus, divisions,

103-104 https://newsinfo.inquirer.net/47007/the-trouble-with-the-feed-in-tariff. Last accessed 29 September 2022, 1:35 am

and agencies. This process is further lengthened and complicated when these bureaus, divisions, and agencies have clarifications regarding the applications of the renewable energy developers.

In connection with the challenge of the complex permitting system of renewable energy facilities, the difficulties regarding the implementation of the renewable energy policies itself was also raised. According to the participants of the first roundtable discussion, the Philippine Government already has sufficient laws and policies relating to renewable energy. Furthermore, according to the DOE's REMB – the bureau primarily responsible for implementing policies, plans, and programs related to the accelerated development, transformation, utilization, and commercialization of renewable energy resources and technologies – there are already enough, if not substantial, laws and policies to fulfill the objectives of the RE Act.

However, one of the problems identified by the participants of the first roundtable discussion lies in the fact that renewable energy was not fully promoted not only in the private sector but even in the public sector. Therefore, this led to the said private and public sectors lacking familiarization with the various renewable energy policies, as well as the respective sectors' roles in effectively and efficiently enforcing the same.

In order for the Philippine Government to more effectively promote renewable energy, the participants of the roundtable discussion emphasized that the innate qualities and benefits of renewable energy resources should be emphasized. One of the inherent qualities of renewable energy resources, such as wind, solar, hydro, geothermal, ocean, biomass, and biofuel is that these resources are replenishable. This means that these renewable energy resources will practically not be depleted, in relation to the country's efforts to meet the sustainability of the country's energy requirements.

On the other hand, conventional sources of energy, as opposed to renewable energy resources, are those that are quickly depleted. Moreover, the replenishment of these conventional sources is too slow as to be considered as sustainable in view of the country's energy requirements.

Another quality of renewable energy resources that must be emphasized, as discussed by the participants of the first roundtable discussion, is its impact on our environment. This has been contrasted to conventional energy sources, which have received a variety of criticisms, especially with respect to their carbon and greenhouse emission levels. More particularly, these conventional energy sources have been proven to massively contribute to climate change and other dangerous emissions.

As regards the issue on cost, which is undeniably an important consideration in implementing renewable energy policies for different projects, the participants of the first roundtable discussion stated that there is a need to fully and strictly implement the Philippine Government's policies formulated in connection with incentivization of renewable energy development.

For instance, under DOE Department Circular No. DC2009-05-0008, wherein the implementing rules and regulations of the RE Act (***"RE Act IRR"***) is enshrined, the following fiscal incentives for renewable energy developers are available:[105]

a. income tax holiday for the first seven (7) years of commercial operation;

b. duty-free importation of renewable energy machinery, equipment and materials;

105 Section 13, Rule 5, Part III, DOE Department Circular No. DC2009-05-0008.

c. special realty tax rates on equipment and machinery;

d. net operating loss carry-over;

e. reduced corporate tax rate (10 percent after income tax holiday);

f. accelerated depreciation;

g. zero percent VAT rate;

h. cash incentive for renewable energy developers for missionary electrification;

i. tax exemption of carbon credits; and

j. tax credit on domestic capital equipment and services.

The RE Act IRR also provides for the following incentives and privileges:[106]

a. tax rebates for purchases of renewable energy components;

b. financial assistance program;

c. exemption from the Universal Charge;

d. cash incentive for renewable energy developers for missionary electrification;

e. payment of transmission charges; and

f. Priority Dispatch and Must Dispatch status for intermittent renewable energy

Clearly, the RE Act offers a wide variety of both fiscal and non-fiscal incentives in its efforts to attract additional investments in the renewable energy sector.

Few incentives to entice the market to transition to renewable energy projects

Another issue identified during the first roundtable discussion was that there are just a few incentives to entice the investors to transition to renewable energy projects. Currently, most of the investors in generation facilities utilizing conventional energy sources have not yet fully realized their return on investment. Therefore, this makes it difficult for these investors to transition to renewable energy projects.

One recommendation that can be made with regard to this issue is for a feasibility study to be made to make the investors aware of available prospective investments in the renewable energy sector. Such feasibility study can consider the inclusion of additional subsidies and incentives for investments in clean energy technologies, in addition to those already in existence. It is also recommended that a clearer pathway and outlook in the renewable energy sector be issued to guide prospective investors.

The DOE can consider the creation of a clear and reasonable transition path to further assist energy companies utilizing conventional forms of fuel in transitioning to cleaner technologies. In connection with this, the Philippine Government should be able to provide and explore laws, rules, and regulations regarding incentives for undertaking such transition.

Lack of technical personnel

The participants of the first roundtable discussion also identified the lack of technical personnel in the government. These technical personnel are important,

106 Section 17, Rule 5, Part III, DOE Department Circular No. DC2009-05-0008.

especially if relevant financial and technical data from the implementation by the different government agencies of the renewable energy policies are to be processed and analyzed. Even though a wide array of information is generated from the implementation of the renewable energy policies and the operationalization of the renewable energy facilities, these data will be of no significant use if the Philippine Government lacks the personnel to process and analyze these.

As discussed during the roundtable discussion, the lack of technical personnel is brought about by the absence of competitive compensation packages, as compared to those provided by other countries. This ultimately leads to an increase in the difficulty of hiring more knowledgeable and competent people in the Philippine Government. Thus, the Philippine Government should consider more ways to incentivize and encourage technical personnel to join the government workforce, such as in revisiting and improving existing service level incentives.

The role of the National Grid Corporation of the Philippines (NGCP)

One of the issues raised during the first roundtable discussion refers to the effectiveness of the role of the National Grid Corporation of the Philippines (***"NGCP"***) as the Philippines' transmission service provider. As the transmission service provider, it is the entity primarily responsible for the operation, maintenance, and development of the country's transmission grid.

According to the participants of the first roundtable discussion, the role of the various agencies and stakeholders, including the NGCP, must be reviewed. As to the NGCP, it has been described in the first roundtable discussion as the liaison between the government and the private sector. As the transmission service provider, the NGCP is considered as the gateway in the energy sector because it has a crucial role in linking the power generators to the DUs in order to deliver electricity to areas where it is needed.

Furthermore, the participants of the roundtable discussion added that the capacity of the transmission grid to accommodate renewable energy is considered as one of the major hurdles in the renewable energy sector. The participants stated that no matter how much energy is generated by the existing renewable energy facilities, there will still be no significant impact to the energy sector if such energy is incapable of being injected into the transmission grid.

Aside from the foregoing issues, the first roundtable discussion revealed that there is an experience on the side of the private sector that the NGCP has controlled the energy market strictly. According to the participants of the first roundtable discussion, market forces should be given stronger emphasis for the more effective transmission and distribution of electricity. There were, therefore, suggestions to review and remove the requirements in the policies, such as the cap on net metering, which have been described as arbitrary.

Moreover, considering that the NGCP is considered as the gateway in the energy sector, any setbacks and issues arising in the transmission grid will lead to a bottleneck in the implementation of the renewable energy policies. Thus, there is a need to review the role of the NGCP and to determine ways how to make it more effective in its performance of such role. Additionally, the Philippine Government should examine and improve the processes of the NGCP regarding the testing and commissioning of renewable energy facilities.

More importantly, a review of the regulatory constraints pertaining to the regulatory gridlock, the infrastructure, and the needed support in the transmission

grid shall be made. As a more aggressive measure, there were suggestions from the first roundtable discussion to consider the possibility of removing the role of NGCP as there are disadvantages to a centralized planning system.

Participation of renewable energy stakeholders

Furthermore, policy instruments have been placed in the RE Act in order to promote the development of renewable energy. As stated earlier, various policies have been implemented by the Philippine Government to promote and support the development of renewable energy, such as the FIT, the REM, the RPS, GEOP, and the RETF.

However, as discussed by the participants of the first roundtable discussion, the DOE and its bureaus are not the only government agencies that are involved in the development and implementation of the RE laws. As a matter of fact, there are other agencies that must also be involved, particularly in terms of both technical and procedural activities pertaining to the renewable energy sector.

For instance, the following key agencies have been given their own responsibilities under the RE Act and Republic Act No. 9367, otherwise known as the Biofuels Act of 2006:[107]

- ***Department of Science and Technology (DOST)*** – coordinate with Departnment of Agriculture (DA) in identifying and developing viable feedstock for the production of biofuels; develop research and development program for sustainable biofuel production and utilization.
- ***Department of Agriculture (DA)*** – develop a national program for the production of crops for use as feedstock supply, that would also guarantee sufficient and reliable supply of feedstock is allocated for biofuel production; undertake biofuel feedstock research and development; coordinate with the Philippine Coconut Authority (PCA) and Sugar Regulatory Administration (SRA) to identify and publish potential areas for expansion and production of raw materials as feedstock, and other policies in support of the biofuels program; certifies whether the proposed feedstock may be utilized for biofuel feedstock production.
- ***Department of Agrarian Reform (DAR)*** – approves conversion of agricultural lands to biofuel production site.
- ***Department of Labor and Employment (DOLE)*** – recommend policies and programs that will enhance social impact of the National Biofuels Program, including promotion of gainful livelihood and employment opportunities and social protection coverage.
- ***Department of Trade and Industry (DTI)*** – promote development of alternative fuel technology for vehicles, engines, and parts in correspondence with the requirements of the mandated minimum biofuel blends; in coordination with the Department of Transportation and Communication (DOTC) and the Department of Environment and Natural Resources (DENR), formulate and implement a national motor vehicle inspection and maintenance program as a measure to reduce emissions from motor vehicles pursuant to the Philippine Clean Air Act of 1999.
- ***Department of Environment and Natural Resources (DENR)*** – issues Environment Compliance Certificate (ECC).

107 Republic Act No. 9367.

- ***National Commission for Indigenous Peoples (NCIP)*** – issues Certificate of Precondition (Certificate of Non-Overlap for sites outside ancestral domain; Certificate of Compliance if area is within/overlaps with ancestral domain).

- ***Philippine Coconut Authority (PCA)*** – develop and implement policies and programs within the coconut industry in support of the National Biofuels Program, such as: formulate and implement necessary regulatory measures to ensure availability, sufficiency, quality and sustainability of supply of coconut raw materials for the National Biofuels Program, require the accreditation/registration of reputable and credible oil mills that will supply coconut oil (CNO) requirements of coco biodiesel products.

- ***Tariff Commission*** – create and classify a tariff line for biofuels and biofuel-blends in consideration of World Trade Organization (WTO) and ASEAN Free Trade Area (AFTA) agreements.

Likewise, the following government agencies are given their respective and unique responsibilities under the RE Act,:

- ***Board of Investments (BOI)*** – register renewable energy developers, manufacturers, fabricators, and suppliers of locally produced renewable energy equipment to qualify for availment of fiscal incentives.

- ***Department of Environment and Natural Resources (DENR)*** – member of the NREB; issues ECC, Forest Land Use Agreement (FLAg)/ Special Land Use Agreement (SLUP) for area in public domain.

- ***Department of Finance (DOF)/Bureau of Customs, Bureau of Internal Revenue*** – formulate guidelines/mechanisms to implement fiscal-related provisions such as: exemption from duties on renewable energy machinery, equipment and materials; zero percent VAT; tax rebate for purchase of renewable energy components in consultation with DOST, DTI, DOE; member of the NREB.

- ***Department of Trade and Industry (DTI)*** – member of the NREB;

- ***Department of Agrarian Reform (DAR)*** – approves conversion of agricultural lands to industrial sites;

- ***Energy Regulatory Commission (ERC)*** – formulates the FIT system rules;

- ***National Commission for Indigenous Peoples (NCIP)*** – issues Certificate of Non-Overlap for sites outside ancestral domain; Free and Prior Informed Consent/Certificate of Precondition if area is within/ overlaps with ancestral domain;

- ***National Transmission Corporation (TRANSCO)*** – provide necessary mechanisms for physical connection and ensuring safety and reliability of electricity transmission; member of the NREB;

- Others: Maritime Industry Authority (MARINA), Bureau of Fisheries and Aquatic Resources (BFAR), Philippine Navy, Philippine Coast Guard, etc. – for necessary clearances.

In view of the participation required of the numerous government agencies, the participants of the first roundtable discussion stated that the Philippine Government should establish procedural systems to ensure that there is an efficient and orderly way of implementing the renewable energy policies.

At present, each stage involves a series of approvals, certifications, and permits from multiple government agencies. This applies even to renewable energy facilities located in off-gird areas, which are considered as being too remote as to not be attractive to renewable energy investors. The different and complex steps involved in the development of renewable energy suggest that the procedure can take a while to accomplish before a renewable energy facility may begin to operate and be considered as profitable.

The roundtable discussion also raised the fact that there is very limited participation on the part of certain sectors, especially in the development of renewable energy policies. In order to improve the drafting and implementation the renewable energy policies, the private sector and the LGUs should be allowed an increased participation in the development of such policies.

Thus, the lengthy permitting process has been identified as one of the major obstacles to the deployment of renewable energy facilities. The permitting process alone – not to mention the time that is needed in putting up the renewable energy project – could take years to complete. Hence, aside from strictly enforcing renewable energy policies, there is also a need to further engage the different government sectors by undertaking actions, such as adding more personnel to effectuate the implementation of such tedious process.

The need for a monitoring tool in the renewable energy sector

The roundtable discussions revealed that there is currently a lack of dissemination of the renewable energy policies in terms of the progress made in their implementation. One of the reasons behind this is the lack of availability of analyzed data generated from the implementation of the renewable energy policies.

Some information were also not made available to the public because of the lack of technical personnel analyzing the data collected and reported. For example, vital information such as the breakdown of the generation cost is not made available. As discussed above, there are no incentives for hiring technical personnel, such as engineers and analysts, that will help implement and execute the renewable energy policies.

Furthermore, even though there are reports generated in relation to the implementation of the renewable energy policies, the participants of the first roundtable discussion shared their observation that there is a lack of consistency in the data reported.

As agreed upon by the participants of the first roundtable discussion, for there to be a more effective and efficient engagement of the various government agencies, there is a need for a monitoring tool to be set in place.

As of the moment, according to REMB, the Bureau is set to deploy a monitoring tool called the ***"REMB Management Information System",*** which aims to provide all the relevant information under its jurisdiction, such as updates on the status of the policies, drafts of the policies, as well as academic articles pertaining to the relevant policies. However, it was not mentioned whether the government

procedures and processes will be included in the said platforms, which includes the requirements, steps on what to do after securing the requirements, if it will also be a platform that can be used to monitor their application for permits and other requirements.

In developing a monitoring tool, more data should be generated from the actual implementation of the renewable energy policies and from the operations by the renewable energy companies. This would allow for the technical personnel to come up with a more accurate analysis of the actual status and condition of the renewable energy sector. Also, this would improve the reports generated in connection with the renewable energy sector because more technical details could be provided therein.

05 Conclusion

During the first roundtable discussion, it is quite assuring that there is good source of light in the direction of renewable energy. Although some of its paths are not yet well lighted, the adequacy of achieving the 35% requirement of renewable energy share by 2030, is doable and achievable, if the proper data, processes, coordination, promotion, incentives, will be implemented and aligned with the goal of shifting toward renewable energy. This roundtable discussion is a helpful tool to achieve and help bridge the gap for renewable energy and hopefully, some other issues will be addressed in the next roundtable discussions.

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