



# Solar PV Guidebook Philippines

Legal and administrative requirements for the development and connection of on-grid solar PV projects in the Philippines

On behalf of



Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety



of the Federal Republic of Germany

# Imprint

This publication is by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH through the Support to the Climate Change Commission in the Implementation of the National Framework Strategy on Climate Change and the National Climate Change Action Plan Project (SupportCCC), funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) under its International Climate Initiative. BMUB supports this initiative based on a decision of the German Parliament. For more information, see <http://www.international-climate-initiative.com>.

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## Published by

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

## Registered offices

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## Printed and distributed by

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

## Place and date of publication

Manila, Philippines  
August 2014

## Citation

Fajardo, Jose Edmundo; Ruales, Marilou; Wilhelm, Bruno. 2014: Solar PV Guidebook Philippines: Legal and Administrative Requirements for the Development and Connection of On-grid Solar PV Projects in the Philippines. Manila, Philippines: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.



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## Abbreviations

|        |   |
|--------|---|
| ACE    | ASEAN Centre for Energy   |
| ADSDPP | Ancestral Domain Sustainable Development and Protection Plan                              |
| BIR    | Bureau of Internal Revenue  |
| BMUB   | German Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety |
| BOI    | Board of Investments  |
| B2B    | Business-to-business  |
| CAPEX  | Capital expenditures  |
| CBRED  | Capacity Building to Remove Barriers to Renewable Energy Development                      |
| CENRO  | Community Environment and Natural Resources Office  |
| CFEI   | Certificate of Electrical Inspection  |
| CNC    | Certificate of Non-Coverage   |
| CNO    | Certificate of Non-Overlap  |
| CoC    | Certificate of Compliance   |
| COC    | Confirmation of Commerciality   |
| COE    | Certificate of Endorsement  |
| CP     | Certificate of Pre-Condition  |
| CPDO   | City Planning and Development Office  |
| CSP    | Competitive selection process   |
| DAR    | Department of Agrarian Reform   |
| DAS    | Distribution Assets Study   |
| DC     | Department Circular   |
| DENR   | Department of Environment and Natural Resources   |
| DIS    | Distribution impact study   |
| DOE    | Department of Energy  |
| DSOAR  | Distribution Services and Open Access Rules   |
| DTI    | Department of Trade and Industry  |
| DU     | Distribution utility  |
| ECA    | Environmentally critical area   |
| ECC    | Environmental Compliance Certificate  |
| ECP    | Environmentally critical project  |
| EIA    | Environmental Impact Assessment   |
| EIS    | Environmental Impact Statement  |
| EMB    | Environmental Management Bureau   |
| EPIRA  | Electric Power Industry Reform Act of 2001  |
| ERC    | Energy Regulatory Commission  |
| FBI    | Field-based investigation   |
| FIT    | Feed-in tariff  |
| FLAg   | Forest Land Use Agreement   |
| FMB    | Forest Management Bureau  |
| FPIC   | Free and Prior Informed Consent   |
| GIZ    | Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH                              |
| GSIS   | Government Service Insurance System   |
| HLURB  | Housing and Land Use Regulatory Board   |
| ICC    | Indigenous cultural community   |
| IMEM   | Interim Mindanao Electricity Market   |
| IP     | Indigenous people   |
| IRR    | Implementing Rules and Regulations  |
| LBP    | Land Bank of the Philippines  |
| LGU    | Local government unit   |

|         |   |
|---------|---|
| LLDA    | Laguna Lake Development Authority   |
| LMMD    | Licensing and Market Monitoring Division  |
| LUC     | Land Use Conversion   |
| MARO    | Municipal Agrarian Reform Office  |
| MEOT    | Minimum energy off-take   |
| MERALCO | Manila Electric Company   |
| MIRF    | Metering Installation Registration Form   |
| MOA     | Memorandum of Agreement   |
| MSG     | Metering Service Group  |
| MTD     | Maintenance and Testing Division  |
| MWp     | Megawatt peak (unit of measurement for installed capacity of SPV plants)        |
| NIA     | National Irrigation Administration  |
| NCIP    | National Commission on Indigenous Peoples                                       |
| NGCP    | National Grid Corporation of the Philippines                                    |
| NPC     | National Power Corporation  |
| NPP     | New power producer  |
| NREB    | National Renewable Energy Board   |
| OATS    | Open Access Transmission Service  |
| OCT     | Original Certificate of Titles  |
| O&M     | Operation & Maintenance   |
| OSEC    | Office of the Secretary of DOE  |
| PARO    | Provincial Agrarian Reform Officer  |
| PCA     | Philippine Coconut Authority  |
| PEMAPS  | Project Environmental Monitoring System and Audit Prioritization Scheme         |
| PEMC    | Philippine Electricity Market Corporation                                       |
| PERD    | Project Evaluation and Registration Department                                  |
| PHP     | Philippine Peso   |
| PSA     | Power Supply Agreement (here referring only to PSAs with DUs in on- grid areas) |
| PSE     | Philippine Stock Exchange   |
| PV      | Photovoltaic  |
| QE      | Qualified end user  |
| RCOA    | Retail competition and open access  |
| RA      | Republic Act  |
| RE      | Renewable energy  |
| REMB    | Renewable Energy Management Bureau  |
| REPA    | Renewable Energy Payment Agreement  |
| RESC    | Renewable Energy Service Contract   |
| RESP    | Renewable Energy Support Program  |
| RRT     | Regional Review Team  |
| SCADA   | Supervisory Control and Data Acquisition  |
| SESC    | Solar Energy Service Contract   |
| Sec.    | Section   |
| SLUP    | Special Land Use Agreement  |
| SO      | System Operator   |
| SPA     | Special Power of Attorney   |
| SPUG    | Small Power Utilities Group   |
| SPV     | Solar photovoltaic  |
| SRA     | Sugar Regulatory Administration   |
| TCT     | Transfer Certificate of Titles  |
| TRANSCO | National Transmission Corporation   |
| TSA     | Transmission Service Agreement  |
| VAT     | Value Added Tax   |
| WESM    | Wholesale Electricity Spot Market   |



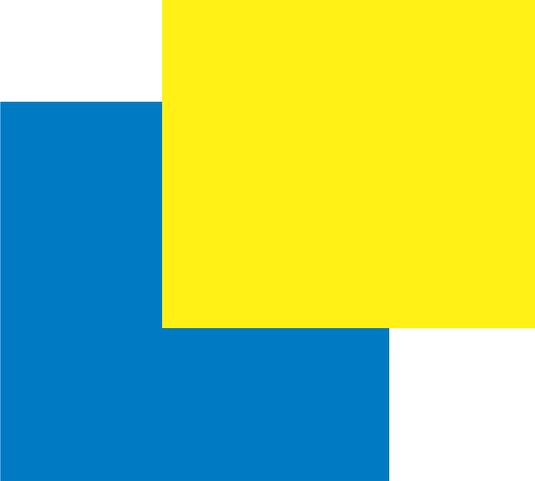
## Clarifications

This Guidebook addresses project developers and investors in the field of **on-grid solar photovoltaic (SPV) projects** in the Philippines.

It intends to provide them with a clear overview of major legal and administrative requirements they have to comply with when developing and implementing on-grid SPV projects in the Philippines under the provisions made in Sections 7, 9 and 10 of the Renewable Energy Act of 2008 (RE Act, also known as Republic Act 9513, i.e. RA 9513) in order to avail the incentives defined in Chapter VII of the RE Act.

According to the terminology used in the Philippines, only those SPV installations are **on-grid**, which are connected to the national high-voltage backbone system of interconnected transmission lines, substations and related facilities. This is the case either when a SPV project is directly connected to transmission grid facilities or when it is embedded in an interconnected distribution grid.

SPV plants, which are not connected to the national transmission grid, neither directly nor embedded in an interconnected distribution grid, are classified as **off-grid** and are consequently not taken into consideration in this Guidebook. This refers, among other things, also to SPV installations connected to one of the isolated grids established, for example, in remote islands served by the Small Power Utilities Group (SPUG) of the National Power Corporation (NPC).



# Preface

## Department of Energy

In 2008, the Philippines enacted the Renewable Energy Act (RA 9513), opening the path for the expansion of renewable energies (RE) in the country. The Department of Energy (DOE) is committed to lay down the tracks for tripling the capacities of RE between 2010 and 2030 to 15,304 MW as outlined in the National Renewable Energy Program. Thus, the implementation of RE support mechanisms, such as feed-in tariff (FIT) and net-metering, is a top priority for DOE.

With an aspirational target of 1,528 MW until 2030, solar energy is meant to play a crucial role in the future energy mix of the Philippines. Presently, DOE underlined its commitment for solar energy in increasing the installation target for solar under the FIT system to 500 MW.

With the FIT and the net-metering mechanisms in place, solar energy is expected to grow exponentially in the Philippines. This can be attested by substantial numbers of RE developers who were granted RE service contracts under the FIT system. However, the conversion of service contracts into actual RE plant construction has suffered significant delays, largely due to complex permitting procedures along the project cycle.

Most of the administrative and legal procedures for RE projects are taken from procedures for constructing traditional power stations and have not yet been fully adapted to the specific characteristics of RE projects. Moreover, there is lack of harmonization and standardization of the administrative processes at the national and local levels, which create further risks of non-compliance and delays for the RE developer.

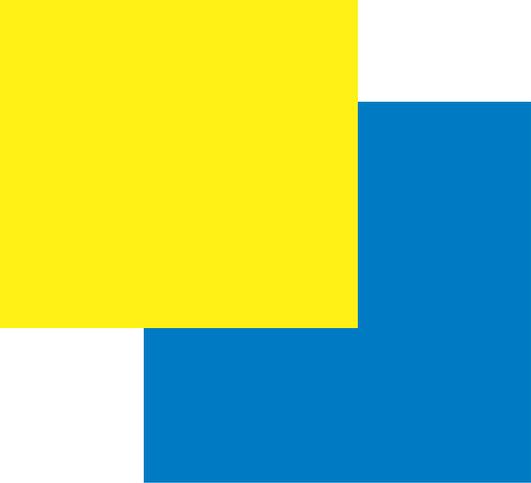
DOE's ultimate goal is to have well-coordinated, transparent and streamlined administrative procedures to ease doing business in the RE sector. The first step for this is to give a clear picture to the stakeholders (both the administrators and the developers) on the processes involved in project permitting.

As such, DOE lauds the effort of GIZ to come up with the Solar PV (SPV) Guidebook that provides an overview of the project cycle and all related administrative requirements for the development and implementation of SPV projects. The SPV Guidebook will serve as a springboard for policymakers to assess the administrative procedures and streamline them for efficient solar PV market development.

Finally, the SPV Guidebook was developed in close coordination with the ASEAN Centre for Energy (ACE) under a regional undertaking that will produce similar RE guidelines in Malaysia, Indonesia and Vietnam. This will afford us the opportunity to gauge our own competitiveness vis-à-vis our ASEAN neighbors. With regard to the forthcoming ASEAN market integration by 2015, this is of great importance.

We need to be ready and we need to be efficient to attract RE investors in our shores.

**Mario C. Marasigan**  
Director  
Renewable Energy Management Bureau



## Preface

### Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH has been a partner to the Philippines for renewable energy for more than 30 years. Starting in the early 1980s with the Philippine-German Solar Energy Project, GIZ is now supporting the implementation of the Renewable Energy Act.

Special emphasis of our current technical advisory services is given to administrative procedures for RE project development. This is crucial, as complex permitting processes and administrative procedures too often impose barriers to RE market development.

Moreover, administrative barriers have a financial impact on the overall system costs of RE technologies. Administrative costs indirectly affect other soft costs components such as capital costs and profit. High administrative costs indicate inadequate administrative risks, which reduce the predictability and cost security of the RE project. Thus, investors usually demand a risk premium and, consequently, capital costs will increase.

Understanding the impact of administration and regulation on RE market development requires, first of all, a complete and transparent assessment of all permitting requirements and regulative provisions that RE developers have to follow through. The Solar PV Guidebook provides the full picture of these procedures for on-grid solar PV project development in the Philippines.

The SPV Guidebook should give investors and developers a complete overview on the necessary requirements for a solar PV project. At the same time, the Guidebook should serve as an entry point for discussions on how to streamline administration and regulation for solar PV in the country. In addition, the integration of the Guidebook into the RE Guidelines of the ASEAN Centre for Energy (ACE) will be the basis for regional exchange on best practices for RE regulation and policy.

Let me thank REMB Director Mario Marasigan for his guidance throughout the process. Furthermore, I would like to thank the Integration Consulting Group, namely Bruno Wilhelm, Marilou Ruales and Dondi Fajardo for authoring the Guidebook. Special thanks also to Arne Schweinfurth and Thachatat Kuvarakul of GIZ ASEAN RESP Project in Indonesia for their valuable input and support.

Our gratitude is extended to all energy sector institutions that attended the validation workshop and provided key information for the conduct of the study: DOE, ERC, NGCP, DENR, NCIP, TRANSCO, PEPOA, NREB, MERALCO, PEMC, DMC-GMC and CCC. In addition, I would like to thank the solar developers who shared their precious knowledge during the stakeholder interviews.

**Dr. Bernd-Markus Liss**  
Principal Advisor  
SupportCCC Project

## Introduction

The Department of Energy (DOE) together with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH under the “Support of the Climate Change Commission in the Implementation of the National Framework Strategy on Climate Change and the National Climate Change Action Plan” Project funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) through its International Climate Initiative developed the Solar Photovoltaic (SPV) Guidebook to provide a clear overview of the administrative and regulatory requirements for on-grid solar PV project development in the Philippines.

The SPV Guidebook is meant to give guidance to SPV project developers as well as to decision makers within the Philippine energy sector and other stakeholders to ensure efficient administration and timely implementation of solar projects in the Philippines. Based on the Guidebook, recommendations for policymakers may be developed on how administrative procedures can be improved in order to increase private investment and market activity in the Philippine SPV sector.

Legal and administrative milestones and procedures are analyzed, which are necessary to fulfil the conditions for availing incentives and other privileges as specified in Chapter VII of the RE Act and in Sec. 18 of the Implementing Rules and Regulations (IRR) of RA 9513.

The Guidebook is structured as follows:

- The four major business models, which are foreseen according to the RE Act and the IRR, are briefly presented (Section 2):
  - Projects availing the feed-in tariff (FIT); Sec. 7 RE Act
  - Power Supply Agreements with distribution utilities in on-grid areas (PSA; Sec. 6 RE Act)
  - Net-metering projects; Sec. 10 RE Act
  - Power Supply Agreements with commercial bulk consumers (B2B); Sec. 9 RE Act together with Sec. 31e Electric Power Industry Reform Act (EPIRA)
- Milestones for project development, financing and implementation are specified for each of these four business models (Sections 3, 4 and 5).
- Specified requirements related to these milestones are analyzed for each phase along the project cycle (Section 5):
  - Phase 1: Project preparation (including selection of site and business model)
  - Phase 2: Pre-development
  - Phase 3: Development and commercialization
  - Phase 4: Registration and connection

The information provided for each of the milestones includes, for example:

- Legal and administrative reference documents
- Involved authorities
- Applied procedures
- Documents to be submitted
- Incurred fees
- Potential barriers
- Potential risks
- Additional remarks

Relevant legal documents and the sources of information where they can be obtained, or downloaded, are listed in the Annex.

The SPV Guidebook for the Philippines will be integrated into the online database of the ASEAN Centre for Energy (ACE). ACE through the Renewable Energy Support Program (RESP) of GIZ is coordinating a regional undertaking to develop renewable energy (RE) guidelines in Malaysia, Indonesia, Thailand and the Philippines. The SPV Guidebook for the Philippines is catering to this effort and will be used by ACE for regional knowledge sharing. Further information is available under [www.re-guidelines.info](http://www.re-guidelines.info).

## Business models for on-grid SPV projects

The RE Act supports four major types of business models for on-grid SPV projects:

- Projects availing the feed-in tariff (FIT); Sec. 7 RE Act
- Power Supply Agreements with distribution utilities in on-grid areas (PSA); Sec. 6 RE Act
- Net-metering projects; Sec. 10 RE Act
- Power Supply Agreements with commercial bulk consumers (B2B); Sec. 9 RE Act together with Sec. 31e Electric Power Industry Reform Act (EPIRA)

According to Chapter VII of the RE Act, RE developers undertaking to establish RE projects according to one of these business models shall be entitled to specific fiscal incentives, such as, for example:

- Income tax holiday for the initial 7 years from the start of commercial operation
- Duty-free importation of RE machinery, equipment and materials during the first 10 years from the issuance of a DOE Certificate of Registration to an RE developer
- Tax credit equivalent to 100% of value-added tax (VAT) and customs duties on imported products for machinery, equipment, materials and parts purchased from a domestic manufacturer, fabricator or supplier
- Reduced realty tax rates on equipment and machinery

General requirement for availing of these incentives is the DOE registration and endorsement of the RE developer and of its SPV project according to Sec. 18 of the Implementing Rules and Regulations (IRR) of the RE Act. Basic conditions and specific administrative challenges related to the DOE registration and certification of RE developers and their SPV projects are summarized in the following paragraphs.

### 2.1 Projects availing the feed-in tariff (FIT)

Section 7 of the RE Act of 2008 defines the FIT system to be a scheme involving the obligation of the electric power industry to source electricity from renewable energy generation at a guaranteed fixed price applicable for a given period of time, which shall in no case be less than 12 years. The FIT system includes furthermore:

- Priority connection to the grid for electricity generated from RE resources, such as SPV.
- Priority purchase, transmission of, and payment for such electricity by the grid system operators.

The FIT price and the period of its applicability are to be decided by the Energy Regulatory Commission (ERC), which on 27 July 2012 issued ERC Resolution No. 10/2012, approving the FIT rates and installation targets for renewable energy (RE) technologies. For on-grid SPV projects, the approved FIT rate was 9.68 PHP/kWh with a degression rate of 6% after 1 year from effectivity of the FIT.<sup>1</sup> The installation target for SPV projects availing the FIT was approved to be 50 MW. A new installation target of 500 MW is already announced by DOE and submitted to the ERC for the review of the FIT rate valid for 500 MW, as the previously approved FIT of 9.68 PHP/kWh was meant to be valid under the installation target of 50 MW.

<sup>1</sup> The date of effectivity of the FIT is not yet clear. The National Renewable Energy Board (NREB), in its meeting on 24th April 2014, resolved to write a clarifying letter to ERC to determine this date.

## 2.1.1 Basic conditions

In its Department Circular No. 2013-05-0009, the Department of Energy (DOE) issued its “Guidebooks for the Selection Process of RE Projects under FIT System and the Award of Certifications for Feed-In Tariff Eligibility” (FIT Guidebooks). The basic requirements are, according to this document:

- Only those RE developers with valid and subsisting Renewable Energy Service Contract (RESC) may apply for the eligibility and inclusion of their project under the FIT system.
- In their application for conversion of the RESC from pre-development stage to the development stage, RE developers have to indicate that their Declaration of Commerciality is based upon the approved FIT rate.
- A RE developer holding a RESC under development stage may apply for FIT eligibility provided that it shall include in its submission a notarized proof and/or declaration that the project is not bound under any contract to supply its generated energy to any distribution utility (DU) or consumer.
- A Certificate of Endorsement (COE) under the FIT can be issued by DOE after the confirmation of the electromechanical completion of the plant.
- Certificates of Endorsement under the FIT will be issued on a first-come, first-served basis until the approved installation target is fully subscribed.

In the event that the installation target is fully subscribed based on the issued COE, the RE developer shall notify the DOE of its options, which may include:

- Enter into a bilateral agreement with DU (PSA) or any off-taker (B2B), and/or
- Export the power generation directly to the Wholesale Electricity Spot Market (WESM), subject to the FIT rules on “must-dispatch.”

After the issuance of certificates of Confirmation of Commerciality (COC) covering the cumulative installation target of a particular technology, the DOE, in coordination with the National Renewable Energy Board (NREB), shall initiate the review of the next installation target.

Any RE plant that operates under any of the above-listed options may be issued COE for FIT eligibility for the next succeeding regimes of FIT system subject to the provisions of the FIT rules.

## 2.1.2 Specific challenges

### a. Late DOE endorsement to ERC for the issuing of a Certificate of Compliance under the FIT

Precondition for availing the FIT is the DOE endorsement of a project to ERC for the issuing of a Certificate of Compliance under the FIT. This endorsement may not be issued by DOE before a plant is completed and commissioned, and ready to start commercial operation. Consequently, the RE developer has to do the complete investment before receiving an approval of eligibility under the FIT.

Therefore, if a plant cannot surely be commissioned before the installation target announced by DOE (see next paragraph) is reached, the RE developers face the risk that they may not avail the FIT for this SPV plant, when completed.

In this case, the developers could theoretically change to an alternative scenario, as they announced to the DOE (see above). This would, however, in most cases imply the risk of a reduction of lifetime revenues for the plant compared with its lifetime revenues calculated on the basis of the guaranteed FIT rates. RE developers can usually not take this risk and are therefore reluctant to continue with the construction and commissioning of a SPV plant in a situation where it is not clear whether this project will finally avail the FIT, which it is designed for, or not.

### b. Exclusive effects of the installation target announced by DOE for on-grid SPV projects under the FIT system

In June 2011, the DOE announced a development target for on-grid SPV power plants availing the FIT on the basis of “first-come, first-served” basis. This development target was set to 50 MWp installed capacity.

The planned installed capacity of the 3 on-grid SPV projects, for which DOE has confirmed commerciality before 31 January 2014, amounts already to a total of 80 MWp.<sup>2</sup>

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<sup>2</sup> Source of information: [https://www.doe.gov.ph/feed-in-tariff-monitoring-board/with-certificate-of-commerciality/doc\\_download/766-solar-projects-under-fit-system-as-of-january-31-2014](https://www.doe.gov.ph/feed-in-tariff-monitoring-board/with-certificate-of-commerciality/doc_download/766-solar-projects-under-fit-system-as-of-january-31-2014)

Recently, DOE announced to increase the installation target for solar PV in the near term to a total of 500 MWp. When and under which conditions the new installation will be approved have not yet been announced by ERC.

### c. Tedious and costly procedures to avail fiscal incentives provided under the RE Act

Potential financial effects of the fiscal incentives foreseen in the RE Act have been included in the calculation of the FIT, and led to lower FIT rates. Clear regulations and reliable procedures on how to avail these incentives (e.g. tax credit on VAT or refund of import tax) in daily practice are, however, either not yet established or the actually applied procedures are so time-consuming and costly that installers of smaller SPV systems tend to rather do without than spending a lot of time and money on availing these incentives, which at the end may, in some cases, not even compensate for the cost and effort spent on the availing of these incentives.

For the developers and implementers of large-scale SPV projects, extra cost and long delays in receiving the legally promised incentives may create additional economic risks for the economic viability of a project as well as for the financial sustainability of the company.

Procedures on how to cash in the expected fiscal incentives, and the related cost and effort, should therefore be clarified and considered in the economic risk assessment of large-scale on-grid SPV projects in the Philippines at an early stage of project planning.

## 2.2 Power supply agreements with distribution utilities in on-grid areas (PSA)

### 2.2.1 Basic conditions

PSA in on-grid areas can be based on direct negotiations between the new power producer (NPP) and the DU. Requirements for a competitive selection process (CSP) do not apply for this type of contracts. The PSA rates have to be approved by ERC.

### 2.2.2 Specific challenges

The conclusion of PSAs by DUs is subject to public hearings.

## 2.3 Net-metering projects

Net-metering is, according to the RE Act of 2008, understood as a consumer-based RE policy mechanism wherein electric power generated by a qualified end user (QE) from an eligible on-site SPV facility and delivered to the local distribution grid may be used to offset electric energy provided by the DU to the end user.

The Renewable Energy Certificates, when issued, will be for the benefit of the DU.

### 2.3.1 Basic conditions

The concept of net-metering as applied in the Philippines is providing a two-fold benefit to the owner and user of such a plant. The power generated in the SPV plant is first of all used for the plant owner's own power consumption. Excess power is exported to the distribution grid and refunded by the DU with its average generation cost. In the MERALCO grid, for example, the average cost of generation was 5.8239 PHP per kWh in April 2014. Generation costs were approximately 50% of the total power price charged to a private household consuming 300 kWh per month, which was, for example, 11.8480 PHP/kWh in April 2014.<sup>3</sup>

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<sup>3</sup> [http://www.meralco.com.ph/pdf/rates/2014/May/05\\_2014\\_Rate\\_Schedule.pdf](http://www.meralco.com.ph/pdf/rates/2014/May/05_2014_Rate_Schedule.pdf): The retail price for residential consumers varied in April 2014 in a range from 5.9567 PHP/kWh, for customers with a monthly consumption of up to 50 kWh, to 13.0729 PHP/kWh, for customers with a monthly consumption of more than 5,000 kWh.

The difference between the generation cost and the total retail charge is composed of additional charges for transmission, distribution, supply, metering, system losses, taxes, etc. These additional components of the retail price will not be refunded to the owner of a net-metering SPV plant for the excess power exported to the grid. This means that from a net-metering plant owner's point of view, the monetary value of a kWh produced for own consumption is approximately twice as high as the monetary value of a kWh exported to the grid.

With regard to an optimization of the economic balance of an investment in a SPV plant under the net-metering business model, this means that the plant size should be limited as close as possible to the maximum capacity that can be absorbed by the plant owner's own consumption.

Application of the net-metering model is in general restricted to SPV facilities with an installed capacity of not more than 100 kWp.

According to the IRR of the RE Act, it is mandatory for DUs to enter without discrimination upon end users' request into net-metering agreements with qualified end users who intend to install an SPV system, subject to technical and economic considerations, such as the DU's metering technical standards for the SPV system.

Qualified end users (QE) in this sense are those DU customers who are in good credit standing in the payment of their electric bills to their DU.<sup>4</sup>

### 2.3.2 Specific challenges

Although, according to the IRR, the purpose of introducing the net-metering scheme in the RE Act was to encourage end users to participate in renewable electricity generation, some DUs are still requesting to issue a distribution impact study (DIS) at the cost of the end user on each net-metering installation even in the range of 5 kWp or less installed SPV capacity.

## 2.4 Power supply agreements with commercial bulk consumers (B2B)

### 2.4.1 Basic conditions

Section 31e of the Electric Power Industry Reform Act of 2001 provides that upon the initial implementation of retail competition and open access (RCOA), the ERC shall allow all electricity end users with a monthly average peak demand of at least 1 MW for the preceding 12 months to source their electricity supply from any supplier of their own choice. In November 2012, the total number of bulk users qualifying for sourcing their electricity generation from any provider on the market was given by ERC to be 1,574 in the country, of which ~830 are already certified contestable customers.

On 26 June 2013, the DOE announced the initial implementation of the RCOA having started on the same day. Two years after this date, as stipulated in Sec. 31a of the EPIRA, the aforementioned threshold will be reduced from 1 MW to 750 kW.

In its provisions related to the green energy option, the Section 9 of the RE Act stipulates that "... end-users may directly contract from RE facilities their energy requirements distributed through their respective distribution utilities." Consequently, as soon as the green energy option program requested for by the RE Act will be implemented by DOE, smaller consumers should also be entitled to directly contract their power supply from RE projects. It is expected that under the green energy option, the threshold for the direct contracting of RE will be 100 kW.<sup>5</sup>

### 2.4.2 Specific challenges

The economic incentive of commercial users to source their power directly from an IPP based on the generation of power from renewable energies is low as long as the average generation cost included in the DU power price (5.8239 PHP/kWh for MERALCO in April 2014, see above) is lower than the power generation cost of the SPV power plants.

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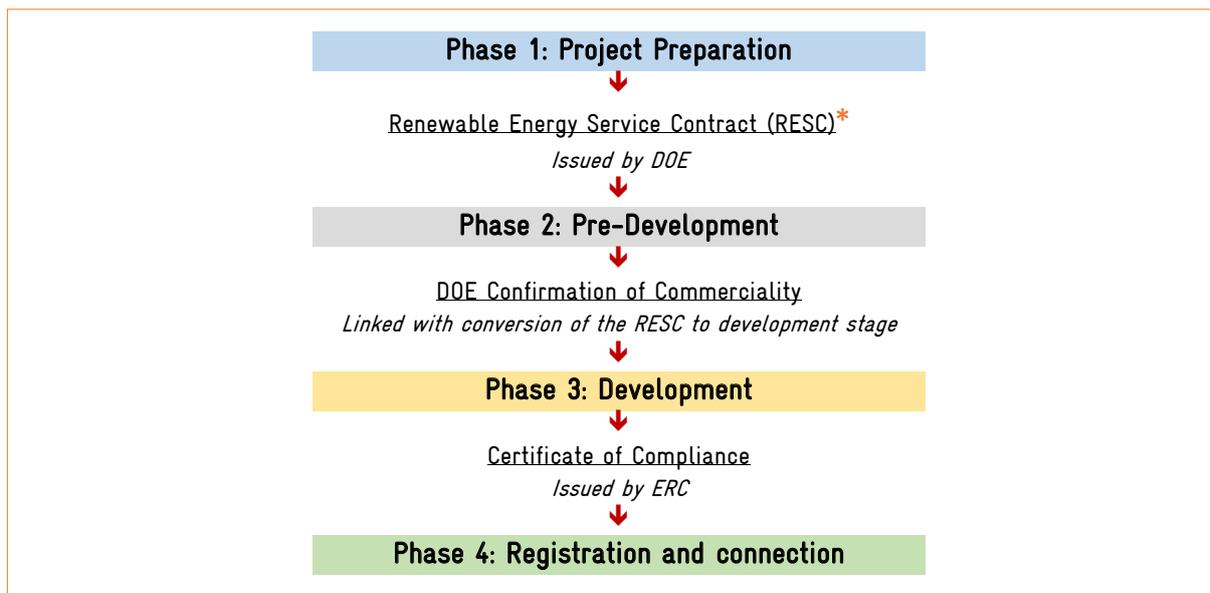
<sup>4</sup> Compare: GIZ Net-Metering Reference Guide, p. 11.

<sup>5</sup> Information provided by DOE-REMB during a GIZ/DOE workshop on 29 May 2014 in the DOE premises in Manila.

# Administrative milestones for the development and implementation of on-grid SPV projects

## 3.1 Phases in the development of FIT, PSA and B2B projects

According to legal and administrative provisions in the Philippines, the process for the development of on-grid SPV projects of the FIT, PSA or B2B type is divided in four phases. The interfaces between these phases are marked by three major milestones of project development.



Major phases and milestones in the development of SPV projects in the Philippines based on FIT, PSA or B2B business models

\* DOE has in its official documents, for SPV projects, recently used the term "Solar Energy Service Contract (SESC)" as a synonym to RESC.

- **RE Service Contract (RESC)** issued by the Department of Energy (DOE)

A service agreement between the Philippine Government through the DOE and an individual or juridical entity created, registered and/or authorized to operate in the Philippines in accordance with existing Philippine laws and engaged in the exploration, development or utilization of renewable energy resources and actual operation of RE systems/facilities converting RE resources into useful energy forms like, for example, electrical. Such individual or juridical entity is called the RE developer.

The DOE Certificate of Registration of the RESC issued to a RE developer serves as proof of entitlement to incentives under the RE Act.

- **Certificate of Confirmation of Commerciality** issued by the DOE

With the Confirmation of Commerciality, DOE approves the successful completion of the pre-development stage of the project and converts the RESC to the development stage.

- **Certificate of Compliance** issued by the Energy Regulatory Commission (ERC)

A certificate given to a RE developer to engage in the operation of a power plant facility used to generate electricity pursuant to Section 6 of RA 9136 and Section 4 of the Implementing Rules and Regulations of RA 9136. No person may engage in the generation of electricity as a generation company unless it has secured a CoC from the ERC to operate facilities used in the generation of electricity.

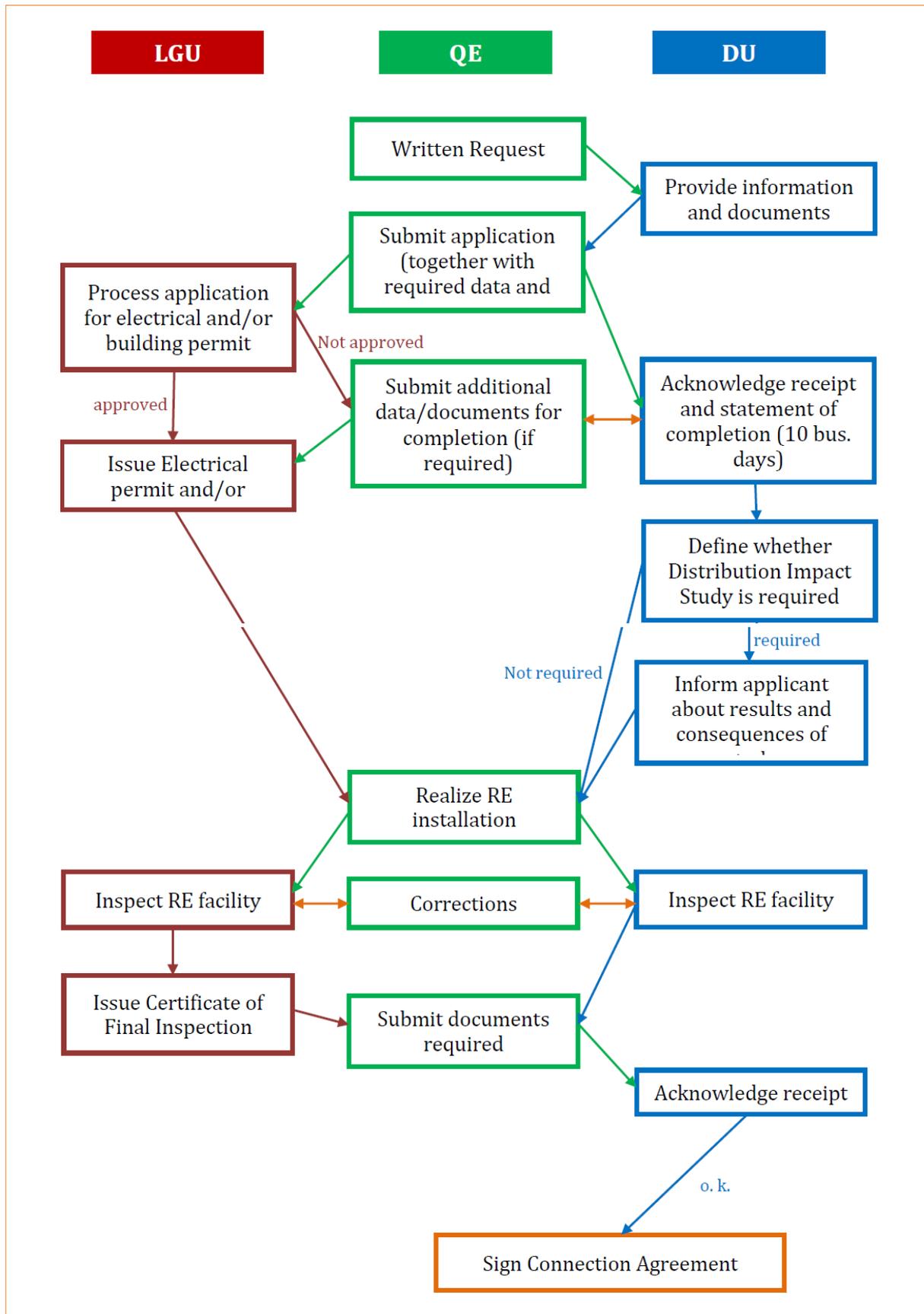
The RESC gives the RE developer the exclusive right to explore, develop or utilize a particular RE contract area. It is divided into two stages:

- **Pre-development stage** involves the preliminary assessment and feasibility up to the financial closing of the RE project. Validity of the pre-development SESC is in general limited to 2 years.
- **Development/commercial stage** involves the development, production or utilization of RE resources, including the construction and installation of relevant facilities up to the completion of commissioning of the SPV power plant. Validity of the development SESC is in general limited to 5 years.

Upon declaration of commerciality by the RE developer and after due Confirmation of Commerciality by the DOE, the RE developer may apply for the conversion of the RESC, prior to its expiration, from pre-development stage to development/commercial stage. When 80% or more of the plant is completed and ready for commissioning, the RE developer may apply for a Confirmation of Electromechanical Completion to be issued by DOE, which forms the basis for the Certificate of Compliance to be issued by the ERC.

### 3.2 Permitting procedure for net-metering projects

Net-metering projects are privileged insofar as the permitting process is less complex, less costly and less time-consuming than for FIT, PSA and B2B projects. An overview of the permitting procedure for net-metering is given in the Net-Metering Reference Guide published by DOE, NREB and GIZ in November 2013.



Milestones in the development of SPV projects based on the net-metering business model

DU = distribution utility; LGU = local government unit; QE = qualified end user.

### 3.3 Comparative overview

| MILESTONES   | BUSINESS MODELS              |                                 |                                  |                                 |
|--|------------------------------|---------------------------------|----------------------------------|---------------------------------|
|  | FIT<br>Direct<br>Negotiation | PSA<br>Competitive<br>Selection | B2B<br>Commercial<br>contracting | Net-<br>metering<br>Application |
| <b>Project development Phases</b><br>Milestone Documents/Certificates/Contracts/Agreements                     |                              |                                 |                                  |                                 |
| <b>1. Project preparation</b>  |                              |                                 |                                  |                                 |
| 1.1 RE Application   | X                            | X                               | X                                |                                 |
| 1.2 Net-metering application to the DU   |                              |                                 |                                  | X                               |
| <b>1.3 RE Service Contract</b>   | X                            | X                               | X                                |                                 |
| 1.4 Loan Application   | X                            | X                               | X                                |                                 |
| <b>2. Pre-Development</b>  |                              |                                 |                                  |                                 |
| 2.1 BOI Project Registration   | X                            | X                               | X                                |                                 |
| 2.2 NCIP Certificate   | X                            | X                               | X                                |                                 |
| 2.3 DENR Environmental Compliance Certificate <sup>a</sup>   | X                            | X                               | X                                |                                 |
| 2.4 DENR Permit to Operate   | X                            | X                               | X                                |                                 |
| 2.5 DAR Order of Conversion <sup>b</sup>   | X                            | X                               | X                                |                                 |
| 2.6 LGU Resolution of Support from host barangays  | X                            | X                               | X                                |                                 |
| 2.7 LGU Resolution of Support from host municipality, and provincial government                                | X                            | X                               | X                                |                                 |
| 2.8 LGU Building Permit (submit to the DU)   | X                            | X                               | X                                | X                               |
| 2.9 LGU Electrical Permit (submit to the DU)   | X                            | X                               | X                                | X                               |
| 2.10 Distribution impact study (performed by the DU)   |                              |                                 |                                  | X                               |
| 2.11 LGU Certificate of final inspection (submit to DU)  |                              |                                 |                                  | X                               |
| <b>2.12 DOE Certificate of Confirmation of Commerciality</b>   | X                            | X                               | X                                |                                 |
| <b>3. Development</b>  |                              |                                 |                                  |                                 |
| 3.1 DOE Confirmation of Electromechanical Completion   | X                            | X                               | X                                |                                 |
| 3.2 DOE Certificate of Endorsement for FIT Eligibility   | X                            |                                 |                                  |                                 |
| <b>3.3 ERC Certificate of Compliance (COC)</b>   | X                            | X                               | X                                | X                               |
| <b>4. Registration and Connection</b>  |                              |                                 |                                  |                                 |
| 4.1 NGCP/DU Connection Agreement   | X                            | X                               | X                                |                                 |
| 4.2 NGCP Transmission Service Agreement  | X                            | X                               | X                                |                                 |
| 4.3 NGCP/DU Metering Service Agreement   | X                            | X                               | X                                |                                 |
| 4.4 TRANSCO RE Payment Agreement   | X                            |                                 |                                  |                                 |
| 4.5 Registration to the WESM   | X                            | X                               | X                                |                                 |
| 4.6 Registration to the Interim Mindanao Electricity Market IMEM ( <i>only in Mindanao which has no WESM</i> ) | X                            |                                 |                                  |                                 |
| 4.7 DU Power Supply Agreement  | X                            | X                               |                                  |                                 |
| 4.8 ERC Approval of the PSA  |                              | X                               |                                  |                                 |
| 4.9 DU Connection agreement  | X                            |                                 |                                  | X                               |

<sup>a</sup> Depends on the location and the land use on site; clearance may also be required from, for example, Forest Management Bureau (FMB), Laguna Lake Development Authority (LLDA) or other local development authorities.

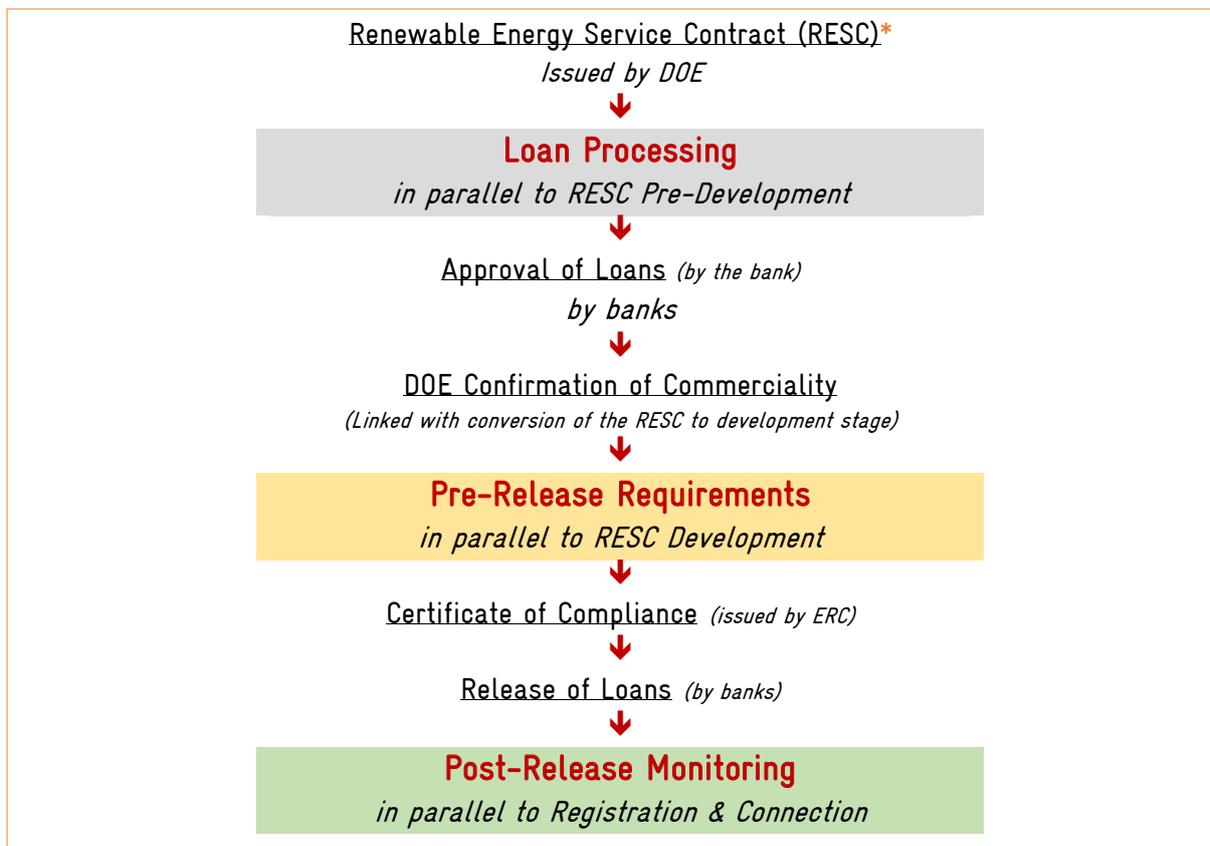
<sup>b</sup> Depending on the type of previous land use, additional clearance may be required, for example, from National Irrigation Administration (NIA), Philippine Coconut Authority (PCA), Sugar Regulatory Administration (SRA), etc.

The listed milestones are described in detail in Section 5.

# Administrative milestones for the financing of on-grid SPV projects in the Philippines

## 4.1 Exemplary overview of bank procedures aligned with DOE procedures

On the global market, the capital expenditure (CAPEX) for on-grid SPV projects are in most cases partially equity-funded, with the balance coming from bank loans. Bankable FIT rates are in most countries calculated for funding schemes based on 30% equity and 70% loans. Banks in the Philippines are not yet experienced in the financing of on-grid SPV projects. The following information is based on a draft procedure outlined by a local bank, the identity of which cannot be disclosed here. The following procedure is therefore not binding but may still provide some orientation on how Philippine banks may align their evaluation and approval processes on loans for on-grid SPV projects with the progress of the DOE-controlled process of awarding and monitoring the project-related RE Service Contract (RESC).



\* DOE has for SPV projects in its official documents recently used the Term "Solar Energy Service Contract (SESC)" as a synonym to RESC.

## 4.2 Specific milestones

In the following list, the numbering of milestones is adjusted to the numbering of the same milestones in the table in Section 3.3 and in Section 5.

| PROJECT DEVELOPMENT MILESTONES   | BANK REQUIREMENTS |                          |                           |
|--|-------------------|--------------------------|---------------------------|
|  | Loan Processing   | Pre-Release Requirements | Post Release Requirements |
| <b>Project development Phases</b><br>Milestone Documents/Certificates/Contracts/Agreements |                   |                          |                           |
| <b>1. Project preparation</b>  |                   |                          |                           |
| 1.3 RE Service Contract  | X                 |                          |                           |
| 1.4 Loan application (including feasibility study)   | X                 |                          |                           |
| <b>2. Pre-Development</b>  |                   |                          |                           |
| 2.2 NCIP Certificate   | X                 | X                        |                           |
| 2.3 DENR Environmental Compliance Certificate  | X                 | X                        |                           |
| 2.5 DAR Order of Conversion  | X                 |                          |                           |
| 2.6 LGU Resolution of Support from host barangays  | X                 |                          |                           |
| 2.7 LGU Resolution of Support from host municipality and provincial government             | X                 |                          |                           |
| 2.8 LGU Building / Construction Permit   |                   | X                        |                           |
| 2.12 DOE Certificate of Confirmation of Commerciality                                      |                   | X                        |                           |
| <b>3. Development</b>  |                   |                          |                           |
| 3.1 DOE Confirmation of Electromechanical Completion                                       |                   |                          | X                         |
| 3.2 DOE Certificate of Endorsement for FIT Eligibility                                     |                   |                          | X                         |
| <b>3.3 ERC Certificate of Compliance (COC)</b>   |                   |                          | X                         |
| <b>4. Registration and Connection</b>  |                   |                          |                           |
| 4.1 NGCP/DU Connection Agreement   |                   | X                        | X                         |
| 4.4 TRANSCO RE Payment Agreement   |                   |                          | X                         |
| 4.5 DU Power Supply Agreement  |                   |                          | X                         |
| 4.6 ERC Approval of the PSA  |                   |                          | X                         |
| 4.9 DU Connection Agreement  |                   |                          | X                         |

The above-listed milestones are described in detail in Section 5.

## Detailed description of milestones for on-grid SPV project development and implementation

### Phase 1: Project preparation

| 1.1 RE Application         |  |
|----------------------------|--|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:               | The first step for investors and developers who would enter the on-grid solar PV industry in the Philippines. This milestone entails the initial submission of pertinent documents and review by the Department of Energy (DOE).   |
| Legal Ref.:                | Republic Act 9513 – Renewable Energy Act of 2008; DOE’s Department Circular 2009-07-0011 (enhanced by DOE’s Department Circular 2013-10-0018)  |
| Official Ref.:             | Renewable Energy Law, published by the DOE   |
| Involved Authority:        | Department of Energy, DOE – Renewable Energy Management Bureau   |
| Applied Procedures:        | <ul style="list-style-type: none"> <li>• Submit documents to DOE</li> <li>• DOE to review completeness of documents submitted</li> <li>• If complete, DOE to issue order payment to RE applicant to pay application fee</li> <li>• RE applicant to submit proof of payment</li> </ul>  |
| Documents to be submitted: | <ol style="list-style-type: none"> <li>1) Legal requirements               <ol style="list-style-type: none"> <li>a) Individual or Single Proprietorship                   <ol style="list-style-type: none"> <li>i) Birth certificate – duly authenticated by National Statistic Office (NSO)</li> <li>ii) Business Permit (certified true copy) and</li> <li>iii) Department of Industry &amp; Trade Registration (if applicable)</li> </ol> </li> <li>b) Corporation/Joint venture/Consortium                   <ol style="list-style-type: none"> <li>i) Securities Exchange Commission (SEC) Registration (SEC certified)</li> <li>ii) By-Laws &amp; Articles of Incorporation (SEC Certified)</li> <li>iii) Certification authorizing representative to negotiate and enter into RE contract with the DOE</li> <li>iv) Business Permit</li> <li>v) Controlling stockholders and percentage of their holdings</li> <li>vi) Organizational Chart of the Company</li> <li>vii) Parent/Subsidiary/Affiliates (if applicable); and</li> <li>viii) Company Profile</li> </ol> </li> </ol> </li> <li>2) Technical requirements               <ol style="list-style-type: none"> <li>a) Track record or experience</li> <li>b) Work program with financial commitment per activities</li> <li>c) Curriculum Vitae of Management and Technical Personnel</li> <li>d) List of consultant with corresponding Contract between Developer and Consultants showing respective qualifications; and</li> <li>e) List of company-existing-owned and leased equipment appropriate for RE project with corresponding equipment</li> </ol> </li> </ol> |

## 1.1 RE Application

|                 |   |
|-----------------|---|
|                 | <ol style="list-style-type: none"><li>3) Financial requirement<ol style="list-style-type: none"><li>a) Audited financial statement for the last 2 years and unaudited financial statement if the filling date is 3 months beyond the date of submitted Audited Financial Statement</li><li>b) Bank certification to substantiate the cash balance</li><li>c) Projected cash flow statement for 2 years; and</li><li>d) For newly-organized or subsidiary corporation with insufficient funds – an Audited Financial Statement and duly notarized guarantee or Letter of Undertaking/Support from the mother company. For foreign companies – an Audited Financial Statement and guarantee or Letter of Undertaking/Support from duly authenticated by the Philippine Consulate Office that has consular jurisdiction over the parent said company.</li></ol></li><li>4) Other requirements<ol style="list-style-type: none"><li>a) Letter of Intent/Application</li><li>b) Duly accomplished RE Service/Operating Contract Application Form</li><li>c) Map showing the applied area (with DOE Blocking System)</li><li>d) Draft Pre-development or Development/Commercial Service Contracts</li></ol></li></ol> |
| Incurring fees: | 1,600.00 PHP per application<br>plus 6.50 PHP for every hectare of public domain area in the block/s applied for<br>plus 4,350 PHP processing fee   |
| Barriers:       | Delays due to failure to satisfy DOE documentary requirements   |
| Risks:          | Proposal rejected because: <ul style="list-style-type: none"><li>• Desired project area already has a developer/investor</li><li>• Failure to resubmit documents in 30 days after the applicant is informed</li></ul>   |

## 1.2 Net-metering application

|                            |   |
|----------------------------|---|
| Relevance:                 | Business Model: <input type="checkbox"/> FIT <input type="checkbox"/> PSA <input type="checkbox"/> B2B <input checked="" type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:               | Each DU is allowed to implement its own form for the issuing of net-metering applications. The first DU, which provided an own net-metering application form was MERALCO in 2013. Although not yet accessible on the MERALCO website, the form is meanwhile published in the internet and can be downloaded from the following site:<br><a href="http://thisisphilippines.files.wordpress.com/2013/12/meralco-renewable-energy-app.pdf">http://thisisphilippines.files.wordpress.com/2013/12/meralco-renewable-energy-app.pdf</a>   |
| Legal Ref.:                | ERC Resolution 09, Series of 2013 (Net-Metering Rules)<br>ERC Resolution No. 115, Series of 2001 (Distribution Code)  |
| Involved Authority:        | The distribution utility operating the local distribution grid.   |
| Applied Procedures:        | The owner of the net-metering plant has to provide the application for including all technical details on the plant. The DU decides then whether to perform a distribution impacts study at the cost of the applicant, or not.  |
| Documents to be submitted: | In the example of MERALCO:<br>Net-metering application including the following information: <ul style="list-style-type: none"> <li>- Name and address of the applicant</li> <li>- Address of the service point where the SPV plant shall be installed</li> <li>- Name and address of the person who prepared the information submitted in the application form</li> <li>- Information on the power generating facility <ul style="list-style-type: none"> <li>- Type (synchronous(induction(inverter)</li> <li>- Fuel source type (solar, biogas, wind)</li> <li>- kW rating (95F at location)</li> <li>- Kilovolt-Ampere Rating (95F at location)</li> <li>- Power factor</li> <li>- Voltage rating</li> <li>- Ampere rating</li> <li>- Number of phases</li> <li>- Frequency</li> <li>- Do you plan to export power (yes/no). If yes, maximum amount expected</li> <li>- Pre-certification of type number</li> <li>- Expected energizing and start-up date</li> <li>- Normal operation of interconnection (e.g. provide power to meet base load, demand management, stand-by, back-up, others...)</li> <li>- One-line diagram</li> <li>- Information whether the manufacturer has supplied its dynamic modelling values to the DU</li> <li>- Layout sketch showing lockable, "visible" disconnect device.</li> </ul> </li> <li>- Plant parameters for a distribution impact study</li> <li>- Impact assessment information (in particular for SPV and wind converters) <ul style="list-style-type: none"> <li>- Electric systems description</li> <li>- Load information: Customer and generating facility</li> <li>- Generator facility fault contribution for faults at the connection point</li> <li>- Generator facility characteristics</li> <li>- Interface transformer characteristics</li> <li>- Operation information</li> <li>- Expected monthly generation, load consumption and net consumption from the facility (12 month period) for the first year and annually for the remaining four years</li> </ul> </li> </ul> |
| Incurred fees:             | The applicant has to pay the fee for the distribution impact study if the DU sees it necessary. In the case of MERALCO the fee is 5,000 PH (for small SPV applications up to 5kWp) respectively 19,000 PHP (for bigger installations > 5kWp).   |
| Barriers:                  | The application form is very detailed and requires specialist know-how to complete it. The fee for the distribution impact study is creating an additional economic barrier.  |

### 1.3 RE Service Contract

|                            |   |
|----------------------------|---|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:               | A service agreement between the Philippine Government through the DOE, and an individual or juridical entity created, registered and/or authorized to operate in the Philippines in accordance with existing Philippine laws and engaged in the exploration, development or utilization or renewable energy resources and actual operation of RE systems/facilities converting RE resources into useful energy forms like e.g. electrical. Such individual or juridical entity is called the RE developer.<br>The DOE Certificate of Registration of the RESC issued to RE developer serves as proof of entitlement to incentives under the RE Act.           |
| Legal Ref.:                | Republic Act 9513 – Renewable Energy Act of 2008; DOE Department Circular 2009-05-0008  |
| Official Ref.:             | Renewable Energy Law, published by the DOE  |
| Involved Authority:        | Department of Energy, DOE – Renewable Energy Management Bureau  |
| Applied Procedures:        | <ol style="list-style-type: none"> <li>1. DOE evaluates legal qualification of the RE application</li> <li>2. DOE evaluates technical and financial capability of the RE application</li> <li>3. DOE negotiate the Terms and Conditions of the RE contract within 45 days</li> <li>4. RE Applicant pay the necessary fees</li> <li>5. Review committee recommends to the DOE Secretary the Award of RE Service Contract</li> <li>6. RE Applicant submit proof of payment</li> <li>7. DOE advises RE applicant the schedule of signing of RE contract</li> <li>8. Signing of RE Service Contract</li> <li>9. DOE issues Certificate of Registration</li> </ol> |
| Documents to be submitted: | All documents submitted during the RE Application phase are evaluated during this phase   |
| Incurred fees:             | Signing bonus – depends on the size of the project<br>Performance bond – upon DOE request   |
| Risks:                     | Delays due to the workload of DOE personnel doing the review  |
| Additional Remarks:        | DoE has for SPV projects in its official documents recently used the Term “Solar Energy Service Contract (SESC)” as a synonym to RESC.  |

## 1.4 Loan Application

|                            |  |
|----------------------------|--|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:               | General procedures in getting bank loans in the Philippines  |
| Official Ref.:             | DOE's Energy Investors Guidebook, various bank web sites   |
| Involved Authority:        | Concerned banks  |
| Applied Procedures:        | <ol style="list-style-type: none"> <li>1) RE Applicant to submit letter of application</li> <li>2) Bank to inform RE applicant of application acceptance</li> <li>3) RE applicant to submit documents required</li> <li>4) Bank to review completeness of document submitted</li> <li>5) Bank to process, evaluate and analyse the loan proposal</li> <li>6) Bank review panel/s approved/disapproved loan proposal</li> <li>7) Bank inform RE applicant of approval of loan proposal</li> </ol>   |
| Documents to be submitted: | <ol style="list-style-type: none"> <li>1) Application letter</li> <li>2) Duly filled-up loan application form</li> <li>3) For Sole proprietorship <ol style="list-style-type: none"> <li>a) Certificate of Registration with DTI</li> <li>b) Bio-data of applicant</li> <li>c) Mayor's Permit</li> <li>d) Income Tax Return (last three years)</li> <li>e) Financial Statement (last three years, BIR-filed)</li> <li>f) Latest interim Financial Statement</li> <li>g) Statement of Assets and Liabilities</li> </ol> </li> <li>4) For corporations <ol style="list-style-type: none"> <li>a) Corporate documents</li> <li>b) List of Officers and Directors as certified by the Corporate Secretary and bio-data of officers/directors</li> <li>c) Alien Registration Certificate of Foreign Officers</li> <li>d) Statement of Asset &amp; Liabilities of Officers</li> <li>e) Board Resolution to borrow in the amount and sign I behalf of the company</li> <li>f) Financial Statement (last three years, BIR-filed)</li> <li>g) Latest interim Financial Statement</li> </ol> </li> <li>5) Project summary report</li> <li>6) Feasibility study</li> <li>7) Document/s pertaining to the collateral to be submitted</li> <li>8) Work plan</li> <li>9) Photographs of project sites and collateral (if applicable)</li> <li>10) RE Service Contract</li> <li>11) NCIP Certificate</li> <li>12) LGU certificate of support from the host barangay/s and municipality/ies</li> <li>13) DAR Order of Conversion (if applicable)</li> <li>14) Other documents as required by the bank</li> </ol> |
| Incurred fees:             | Depending on the bank  |
| Barriers:                  | No collateral that can be offered  |
| Risks:                     | Delays due to the workload of personnel doing the review   |
| Additional Remarks:        | Requirements, processes and fees will depend on the bank. Several banks have special loan facility for RE projects. Some of these bank are: Bank of Philippine Islands, Development Bank of the Philippines, Landbank of the Philippines and Allied Banking Corporation  |

## Phase 2: Pre-development

| <b>2.1 BOI Project Registration</b> |  |
|-------------------------------------|--|
| Relevance:                          | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:                        | Project registration for availing incentives   |
| Legal Ref.:                         | Book 1 of the Omnibus Investment Code of 1987, Executive Order No. 226   |
| Official Ref.:                      | DOE Energy Investors' Guidebook  |
| Involved Authority:                 | Department of Trade & Industry (DTI) – Board of Investments (BOI)  |
| Applied Procedures:                 | <ol style="list-style-type: none"> <li>1) Official filling of application (two sets) <ol style="list-style-type: none"> <li>a) Duly filled-up application form (BOI Form 501) signed by authorized officer and notarized</li> <li>b) Project report</li> <li>c) Supporting documents</li> </ol> </li> <li>2) Preparation of project evaluation by BOI's Project Evaluation &amp; Registration Department (PERD) that includes, among others: <ol style="list-style-type: none"> <li>a) Publication of Notice of Filing of Application</li> <li>b) BOI referral of the application to DOE</li> <li>c) Conduct project site visit, if necessary</li> </ol> </li> <li>3) Presentation of PERD of the project evaluation report to BOI Management Committee</li> <li>4) Action on the application by BOI Board of Governors</li> <li>5) Transmittal of Notice of Board Action</li> <li>6) Process of any request of the applicant for waiver of pre-registration requirement</li> <li>7) Applicant to comply with Pre-Registration requirements and pay required fees</li> <li>8) PERD prepares and issues Certificate of Registration (CR)</li> </ol> |
| Documents to be submitted:          | <ol style="list-style-type: none"> <li>1) Copy of RE applicant business registration documents</li> <li>2) DOE certificate of endorsement</li> <li>3) Copy of enterprise board resolution authorizing its offer to transact, execute and sign in behalf of the applicant enterprise</li> <li>4) Proof of assured market e.g. supply contract</li> <li>5) Financial capacity of Principal Stockholders</li> <li>6) Audited Financial report and Income Tax Return for the past three years or for the period the enterprise has been in operation if less than 3 years</li> <li>7) Official filling of application (two sets)</li> <li>8) Duly filled-up application form (BOI Form 501) signed by authorized officer and notarized</li> <li>9) Project report</li> <li>10) Other supporting documents, as required</li> </ol>  |
| Incurred fees:                      | <ol style="list-style-type: none"> <li>1) Filling fee will depend on the project cost and size of the business <ol style="list-style-type: none"> <li>a) Micro (P3M and less) – P1,500.00</li> <li>b) Small (exceeding P3M but less than P4M) – P1,500.00</li> <li>c) Small (exceeding P4M but less than P15M) – P3,000.00</li> <li>d) Medium (exceeding P15M but less than P20M) – P3,000.00</li> <li>e) Medium (exceeding P20M but less than P50M) – P4,500.00</li> <li>f) Medium (exceeding P50M but less than P100M) – P6,000.00</li> <li>g) Large (more than P100M) – P6,000.00</li> </ol> </li> <li>2) Registration fee will depend on the project cost and size of the business<br/>1/10 of 1% of project cost, but not less than P3,000.00 and not to exceed P15,000.00</li> </ol>   |
| Risks:                              | Delays due to the workload of personnel doing the review and approval<br>Tedious and costly procedures to avail fiscal incentives  |

## 2.2 NCIP Certificate

|                            |  |
|----------------------------|--|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input checked="" type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:               | <p>The National Commission of Indigenous People (NCIP) has the following options for the issuing of an appropriate Certificate:</p> <ul style="list-style-type: none"> <li>– Certificate of Non-Overlap (CNO): Issued by the NCIP attesting to the fact that the area where the particular plan, program, project or activity will be done does not overlap with, or affect, any ancestral domain.</li> <li>– Certification Precondition (CP): Issued by the NCIP attesting to the grant of Free and Prior Informed Consent (FPIC) by the concerned Indigenous Cultural Communities (ICCs) / Indigenous Peoples (IPs). The latter is referring to either a <ul style="list-style-type: none"> <li>– Resolution of Consent, or a</li> <li>– Resolution of Non-Consent issued by the affected ICCs/IPs</li> </ul> following a comprehensive process of information, hearings and negotiations.</li> </ul> <p>It is important to take into consideration before issuing an application for Issuance of Certificate Precondition that the following areas are excluded from any activity except for the exclusive purpose for which they are identified:</p> <ul style="list-style-type: none"> <li>– Sacred grounds and burial sites of indigenous communities</li> <li>– Identified international and local cultural and heritage sites</li> <li>– Critical areas identified or reserved by the ICCs/IPs for special purposes</li> <li>– Other areas specifically identified by ICCs/IPs in their Ancestral Domain Sustainable Development &amp; Protection Plan (ADSDPP)</li> </ul> |
| Legal Ref.:                | Indigenous Peoples Rights Act of 1997 -<br>NCIP Administrative Order No. 3 Series of 2012 entitled "The revised Guidebooks on free and prior informed consent (FPIC) and related processes of 2012"  |
| Official Ref.:             | DOE Energy Investors' Guidebook; NCIP Website ( <a href="http://www.ncip.gov.ph">www.ncip.gov.ph</a> )   |
| Involved Authority:        | National Commission on Indigenous People (NCIP)  |
| Applied Procedures:        | <ol style="list-style-type: none"> <li>1) Submission of documents (including DOE's Letter of Endorsement)</li> <li>2) Reviewed of completeness of documents</li> <li>3) Constitution and Composition of the NCIP's Field-Based Investigation (FBI) Team</li> <li>4) Pre-FBI Conference with RE applicant</li> <li>5) Develop work and financial plan</li> <li>6) Posting of announcements for IP concern/s</li> <li>7) Conduct of the FBI</li> <li>8) Development of report</li> <li>9) Issuance of Certificate of Non-Compliance (if no IPs are affected by the project)</li> <li>10) Submission of an affidavit by the RE applicant regarding that in case an IP was missed during the investigation the process will be repeated.</li> <li>11) If there is an IP involved the following steps will be taken: <ul style="list-style-type: none"> <li>– Pre-FPIC Conference</li> <li>– Conduct assembly/ies (with the IP, RE applicant, NCIP team and other stakeholders. The number of assemblies will depend on how long before the IP agrees.</li> <li>– Submit report with recommendations and memorandum of Agreement (MOA) to the concerned Regional Director</li> <li>– Conduct of review by Regional Review Team (RRT)</li> <li>– Submit for approval by the Commission</li> <li>– Post bond as required</li> <li>– Signing of MOA between IP and RE applicant</li> <li>– Release of Certification Precondition (CP)</li> </ul> </li> </ol>   |
| Documents to be submitted: | <ol style="list-style-type: none"> <li>1) Letter of Endorsement from DOE</li> <li>2) Company Profile which includes: <ul style="list-style-type: none"> <li>– Nature and purpose of the project</li> <li>– Location map of the project</li> <li>– Abstract of the proposed project</li> <li>– Duration</li> <li>– Preliminary Assessment of economic, social, cultural and environmental effects</li> </ul> </li> </ol>  |

## 2.2 NCIP Certificate

|                     |  |
|---------------------|--|
|                     | <ul style="list-style-type: none"><li>– Indicative budget</li><li>– Persons involved in the project</li><li>– Operational plan and activities</li><li>– Profile of applicant</li></ul> <ol style="list-style-type: none"><li>3) Environmental Impact Statement (EIS) from DENR</li><li>4) Applicant business documents</li></ol> |
| Incurring fees:     | For Certificate Precondition: Fees and other related expenses for the investigations and seeking the approval of the IPs, if applicable, will depend on the work and financial plan agreed by NCIP and the RE applicant.<br>For CNO: 500.00 PHP  |
| Barriers:           | IP/s opposition to the project.  |
| Risks:              | Delays will make the application dormant, resulting cancellation of the application by NCIP after  |
| Additional remarks: | As the procedure for the availing of a Certificate Precondition is complex and costly, and the IPs may require expensive compensations prior to issuing a Resolution of Consent, RE developers on the market recommend avoiding planning SPV installations in areas which are not qualified for a Certificate of Non-Overlap.    |

## 2.3 DENR Environmental Compliance Certificate

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|----------------------------|---|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input checked="" type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:               | All projects are generally required to secure an environmental clearance and/or Environmental Compliance Certificate (ECC). The ECC is part of the Environment Impact Assessment System that was established to facilitate the attainment and maintenance of rational and orderly balance between socio-economic development and environmental protection.<br>Depending on the size of the project, different types of certificates are required: <ul style="list-style-type: none"> <li>• &lt;5MW application for non-coverage;</li> <li>• 5-100 MW initial environmental checklist;</li> <li>• &gt;100M Environmental Impact Statement (EIS) needed</li> </ul>  |
| Legal Ref.:                | Presidential Decree no. 1586 of 1978  |
| Official Ref.:             | DOE Energy Investors' Guidebook; Environmental Management Bureau (EMB)'s website  |
| Involved Authority:        | Department of Environment & Natural Resources (DENR); DENR – Environmental Management Bureau (EMB)  |
| Applied Procedures:        | The processes will vary depending on the project type: <ul style="list-style-type: none"> <li>- Outside the purview of the Philippine Environment Impact Statement (EIS) system;</li> <li>- An environmentally-critical project (ECP); or</li> <li>- Located in an environmentally-critical area (ECA)</li> </ul> <ol style="list-style-type: none"> <li>1) Technical scoping and public consultation for Environmental Impact Assessment (EIA) coverage by RE applicant</li> <li>2) Conduct of EIA and preparation of EIA report by RE Applicant</li> <li>3) Submit report and documents by RE Applicant</li> <li>4) Screening of EIA by DENR-EMB</li> <li>5) Payment and processing of fees</li> <li>6) Encoding of project info on DENR on-line system for public viewing</li> <li>7) Review of various DENR-EMB units</li> <li>8) Endorsement to DENR Secretary</li> <li>9) Signing and release of ECC</li> <li>10) Posting of ECC on DENR website</li> </ol> |
| Documents to be submitted: | <ol style="list-style-type: none"> <li>1) Application form</li> <li>2) Proof of compatibility with existing Land Use Plan, if necessary</li> <li>3) Proof of ownership or authority over the project site</li> <li>4) Accountability statements of the proponent and EIS preparers</li> <li>5) Photographs or plate of the project site, impact areas an affected areas and communities</li> <li>6) Duly accomplished Project Environmental Monitoring System and Audit Prioritization Scheme (PEMAPS) Questionnaire</li> <li>7) Copy of previous ECC (if any)</li> <li>8) Latest Self-Monitoring Report</li> </ol>   |
| Incurred fees:             | <ol style="list-style-type: none"> <li>1) Application for ECC <ol style="list-style-type: none"> <li>a) Environmental Critical Areas – P6,000.00</li> <li>b) Non-environmental critical area – P3,000.00</li> </ol> </li> <li>2) Application for Non-Coverage – P600.00</li> </ol>  |
| Barriers:                  | Possible public opposition to the project   |
| Risks:                     | Project delays due to workload of staff reviewing and approving the report  |
| Additional Remarks:        | Depending on the location of the site and the land use on site, additional clearance may be required from e.g. National Forest Management Bureau (FMB), the Laguna Lake Development Authority (LLDA) or other local development authorities.  |

## 2.4 DENR Permit to Operate

|                            |  |
|----------------------------|--|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:               | The certificate issued by DENR-EMB to allow an RE developer operate due to compliance with air pollution and hazardous waste standards   |
| Legal Ref.:                | Republic Act 8749 Philippine Clean Air Act of 1999 and Republic Act 6969 Toxic Substances, Hazardous and Nuclear Waste Control Act of 1990   |
| Official Ref.:             | Presidential Decree no. 1586 of 1978   |
| Involved Authority:        | DOE Energy Investors' Guidebook; Environmental Management Bureau (EMB)'s website   |
| Applied Procedures:        | <ol style="list-style-type: none"> <li>1) Submit application and necessary documents by RE applicant</li> <li>2) Screening of documents by DENR-EMB</li> <li>3) Payment and processing of fees</li> <li>4) Review of various DENR-EMB units</li> <li>5) Endorsement to DENR Secretary</li> <li>6) Signing and release of Permit to Operate</li> </ol>  |
| Documents to be submitted: | <ol style="list-style-type: none"> <li>1) For Air pollution and control installation <ul style="list-style-type: none"> <li>– Duly accomplished application form</li> <li>– Engineering report</li> <li>– Plans and specifications of the installations and its control facilities</li> <li>– Air quality analysis</li> <li>– Vicinity map</li> <li>– A compliance plan for sources not meeting regulatory requirements</li> </ul> </li> <li>2) For hazardous waste generator identification <ul style="list-style-type: none"> <li>– Duly accomplished application form</li> <li>– Process flow diagram of all waste streams</li> <li>– Mass balance of manufacturing process</li> <li>– Description of management plan</li> <li>– Analysis of waste</li> <li>– Other relevant information e.g. Vicinity map, etc.</li> <li>– On-site treatment, submit form A-4</li> </ul> </li> </ol> |
| Incurred fees:             | Registration fee PHP 600.00  |
| Risks:                     | Project delays due to workload of staff reviewing and approving the documents, report and permit   |

| 2.5 DAR order of conversion |   |
|-----------------------------|---|
| Relevance:                  | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:                | Processing of Land Use Conversion Application   |
| Legal Ref.:                 | DAR (Department of Agrarian Reform) Administrative Order No. 1, Series of 2002  |
| Official Ref.:              | DAR Memorandum Circular No. 02-02   |
| Involved Authority:         | Department of Agrarian Reform (DAR) – Central Office, Regional Office and/or Municipal Agriculture Office (MARO)  |
| Applied Procedures:         | <ul style="list-style-type: none"> <li>• Filing of Applications</li> <li>• Receipt of Application</li> <li>• Assessment of Fees, Inspection Cost and Bond</li> <li>• Evaluation of Application</li> <li>• Field Investigation</li> <li>• Deliberation and Resolution of Application</li> <li>• Conditions of Conversion Order</li> <li>• Release and Transmittal of Order</li> <li>• Disposition of Bond</li> <li>• Posting of Bond</li> <li>• <i>Notes: Each procedure contains several steps</i></li> </ul>   |
| Documents to be submitted:  | <ol style="list-style-type: none"> <li>1. Duly accomplished LUC Form No. 1 – Sworn Application for Land Use Conversion (LUC)</li> <li>2. Duly accomplished LUC Form No. 2 – Affidavit of Undertaking</li> <li>3. Duly accomplished LUC Form No. 3 – Certification for Land Use Conversion Application</li> <li>4. Official receipt showing proof of filing fee and inspection cost</li> <li>5. Official receipt showing proof of posting of bond or an original copy of GSID surety bond</li> <li>6. True copy of Original Certificate of Titles (OCT) or Transfer Certificate of Title (TCT) of the subject land certified by the Register of Deeds</li> <li>7. If case of untitled lands, (a) Certification from the Department of Environment Natural Department (DENR)-Community Environment and Natural Resources Office (CENRO) that the landholding has been classified as alienable and disposable; and (b) Certification from the DENR/CENRO/Clerk of Court that the titling process has commenced and that there are no adverse claimants.</li> <li>8. True copy of OCT/TCT as of 15 June 1988 and all successor Titles until the present Title/s of the subject landholding(s).</li> <li>9. True copy of the current Tax Declaration covering the subject property</li> <li>10. Project feasibility study</li> <li>11. Joint venture agreement or any business arrangement on the use of the land between landowner/land users and developer</li> <li>12. Narrative description of the development plan</li> <li>13. Proof of financial and organizational capability of the developer which include:</li> <li>14. Statement of project cost and availability of potential funding source/s: <ul style="list-style-type: none"> <li>– Developer profile;</li> <li>– Certificate of Registration; and</li> <li>– Recent General Information Sheet (GIS) issued by the Security Exchange Commission.</li> </ul> </li> <li>15. Socio-economic benefit cost Study of the proposed project;</li> <li>16. Photographs of the land and billboards (based specifications of DAR);</li> <li>17. Notice of Land Use Conversion in English language (LUC Form No. 4) and in local dialect (LUC Form No. 4A);</li> <li>18. Certification from the (HLRUB) Regional Officer on the actual zoning or classification of the subject land;</li> <li>19. Certification from authorized DENR official stating, among others, that the land has ceased to be economically feasible and sound for agricultural purposes;</li> <li>20. Certification from DENR (LUC Form No. 6) stating that the land is not within the National Integrated Protected Area System (NIPAS); within Environmentally Critical Area (ECA); or will involve the establishment of an Environmentally Critical Project (ECP);</li> <li>21. Environmental Compliance Certificate when the subject land is within an ECA or involve the establishment of an ECP;</li> <li>22. If applicable, Special Power of Attorney (SPA) when the applicant is not the registered owner;</li> <li>23. If applicable, concurrence letter of the mortgagee or individual or entity in whose favour the encumbrance was constituted when property is encumbered;</li> <li>24. If applicable, endorsement from the concerned government agency (i.e., DOE) when the application involves a priority development area or project;</li> <li>25. If applicable, Land Bank of the Philippines (LBP) Certification (LUC Form No. 8) attesting that the</li> </ol> |

| 2.5 DAR order of conversion |   |
|-----------------------------|---|
|                             | <p>applicant-landowner has fully paid his obligations to the LBP when the applicant-landowner is a beneficiary of the agrarian reform program;</p> <p>26. If applicable, Provincial Agrarian Reform Officer (PARO) Certification (LUC Form No. 9);</p> <p>27. Vicinity map and lot plan prepared by a duly-licensed geodetic engineer;</p> <p>28. Directional sketch (based on DAR specifications) to the property;</p> <p>29. Map of the development plan;</p> <p>30. Topographic map if the property is within an upland, hilly or mountainous area;</p>  |
| Incurred fees:              | <p>Area applied: (Five (5) hectares or below:</p> <p>Filing fee: P1,000.00</p> <p>Inspection Cost:</p> <ul style="list-style-type: none"> <li>• P10,000.00 if the subject property is within the same island as that of the Office of the Regional Director</li> <li>• P15,000.00 if the subject property is not within the same island as that of the Office of the Regional Director</li> </ul> <p>Area applied: More than 5 hectares:</p> <p>Filing fee P2,000.00</p> <p>Inspection Cost</p> <ul style="list-style-type: none"> <li>• P10,000.00 if the property is in the island of Luzon (except Bicol Peninsula).</li> <li>• P15,000.00 if the property is in Regions I to IV but not located in the main island of Luzon.</li> <li>• P15,000.00 if the property is in Bicol Peninsula or the Visayas group of islands; or</li> <li>• P20,000.00 if the property is in the Mindanao group of island.</li> </ul> <p>Cash Bond (assessment form - LUC Form C) against premature conversion computed at 2.5% of the zonal value of the land. In lieu of a cash bond, the applicant may post a surety bond issued by the Government Service Insurance System (GSIS)</p> |
| Barriers:                   | <ol style="list-style-type: none"> <li>1. Local opposition to the conversion of the land use.</li> <li>2. Subject land is not alienable or disposable. The property is still economically feasible and sound for agricultural purposes and within protected or critical areas as defined by DENR;</li> <li>3. Subject land has adverse claimants.</li> </ol>  |
| Risks:                      | <ol style="list-style-type: none"> <li>1. Delays due to bureaucratic system resulting to opportunity losses.</li> <li>2. High cost of compensation to displaced tenants.</li> <li>3. Security problems from people adversely affected by the project such as displaced locals whose livelihood is based on the subject property.</li> <li>4. Revocation of the Conversion Order</li> </ol>  |
| Additional Remarks:         | <p>Depending on the type of previous land use, additional clearance may be required e.g. from National Irrigation Administration (NIA), Philippine Coconut Authority (PCA), Sugar Regulatory Administration (SRA), etc.</p>   |

| 2.6 LGU Resolution of Support from host barangays |  |
|---|--|
| Relevance:  | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:                                      | As part of the project acceptance by its host community, an RE Applicant must seek a resolution of support from the local populace. Furthermore, the Local Government Code gives the local officials authority to plan the development of its area.  |
| Legal Ref.:                                       | Local Government Code of 1991  |
| Official Ref.:                                    | The Local Government Code of the Philippines   |
| Involved Authority:                               | Barangays level officials  |
| Applied Procedures:                               | <i>Note: procedures will vary from one barangay to another</i><br>1) Submit request for Barangay Resolution of Support<br>2) Barangay will request RE applicant for documents<br>3) Conduct preliminary meeting with local officials<br>4) Plan and announce public consultation on the project<br>5) Conduct public consultations<br>6) The barangay as a whole or the barangay council will vote for the resolution<br>7) Barangay will issue resolution of support and certificate of public consultation conducted |
| Documents to be submitted:                        | <i>Note: Document/s require will vary from one barangay to another</i><br>1) Letter of request<br>2) Project profile<br>3) Business documents  |
| Incurring fees:                                   | Fees vary from one barangay to barangay  |
| Barriers:   | Opposition to the project<br>The local government has different plans for the proposed site  |
| Risks:  | Request for additional items in exchange for the approval of resolution  |
| Additional Remarks:                               | If the project site encompasses more than one barangay, the RE developer must seek the resolution of support from all barangay concern.<br>DOE-REMB considers the social preparation steps under the CBRED <sup>a</sup> Guidebook on RE Project Development as best practice of the conduct of public consultations on LGU level   |

<sup>a</sup> Capacity Building to Remove Barriers to Renewable Energy Development (CBRED) is a joint project of the Department of Energy, United Nations Development Programme and the Global Environment Facility. The CBRED Project aims to reduce greenhouse gas emissions by the removal of major barriers to RE that will lead to the development and widespread utilization of RE systems and application.

| 2.7 LGU Resolution of Support from host municipality, and provincial government, and provincial government |  |
|--|--|
| Relevance:   | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input checked="" type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:   | As part of the project acceptance by its host community, an RE Applicant must seek a resolution of support from the local populace. Furthermore, the Local Government Code gives the local officials authority to plan the development of its area.  |
| Legal Ref.:  | Local Government Code of 1991  |
| Official Ref.:   | The Local Government Code of the Philippines   |
| Involved Authority:  | Municipality level officials   |
| Applied Procedures:  | <i>Note: procedures will vary from one municipality to another</i><br><ol style="list-style-type: none"> <li>1. Submit request for Municipality Resolution of Support</li> <li>2. Municipality will request RE applicant for documents</li> <li>3. Conduct preliminary meeting with local officials</li> <li>4. Plan and announce public consultation on the project</li> <li>5. Conduct public consultations</li> <li>6. The Municipality as a whole or the Sanguniang Bayan (town council) will vote for the resolution</li> <li>7. Municipality will issued the resolution of support and certificate of public consultation conducted</li> </ol> |
| Documents to be submitted:   | <i>Note: Document/s require will vary from one municipality to another</i><br><ol style="list-style-type: none"> <li>1) Letter of request</li> <li>2) Project profile</li> <li>3) Business documents</li> </ol>  |
| Incurred fees:   | <i>Note: Fees will vary from one municipality to another</i>   |
| Barriers:  | Opposition to the project.<br>The local government may have different plans for the proposed site, which may either be publicly documented in the local comprehensive land use plan, or based on some hidden agenda of individual local actors.  |
| Risks:   | Request for additional items in exchange for the approval of resolution  |
| Additional Remarks:  | Some RE Developers have in the past also submitted a Resolution of Support from the host province, in order to be on the safe side, although this is not explicitly required in the IRR.<br>If the project site encompasses more than one municipality, the RE developer must seek the resolution of support from all municipalities concern.  |

| 2.8 LGU Building Permit    |  |
|----------------------------|--|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input checked="" type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input checked="" type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:               | General Guidebooks for preparing, submitting, evaluation and approval of building permit   |
| Legal Ref.:                | National Building Code of the Philippines (RA 6541)  |
| Official Ref.:             | <i>Information came from the Quezon City Government Website</i>  |
| Involved Authority:        | LGU's Building Official  |
| Applied Procedures:        | <i>Note: procedures will vary from one LGU to another</i><br><ol style="list-style-type: none"> <li>1. Prepare documents for submission</li> <li>2. Submit application form and all necessary documents</li> <li>3. Receiving officer verifies the completeness of your documents</li> <li>4. Building officials review and evaluate RE applicant plans</li> <li>5. RE applicant pay the necessary fees</li> <li>6. Building official releases building permit</li> </ol>  |
| Documents to be submitted: | <i>Note: the type and number of documents required will vary from one LGU to another</i> <ul style="list-style-type: none"> <li>• Duly filled-up application form</li> <li>• Locational clearance certificate from the City Planning and Development Office (CPDO), with the following CPDO-initialled photocopied attachments: <ul style="list-style-type: none"> <li>– Transfer certificate of title</li> <li>– Real estate tax receipt and bill (current year)</li> <li>– (if applicable) Lease contract/ award notice, deed of sale, memorandum of agreement or joint venture agreement</li> <li>– Barangay clearance</li> </ul> </li> <li>• One (1) set of architectural plans</li> <li>• Fire safety correction sheet</li> <li>• A set of the following, signed by the appropriate professional <ul style="list-style-type: none"> <li>– Lot/location plan</li> <li>– Architectural plans</li> <li>– Sanitary/plumbing plans</li> <li>– Electrical plans</li> <li>– Mechanical plans</li> <li>– Fire protection plans</li> <li>– Geotechnical plans</li> <li>– Structural computation</li> <li>– Project specifications</li> <li>– Bill of materials/ cost estimate</li> </ul> </li> </ul> |
| Incurred fees:             | Will depend on the LGU   |
| Risks:                     | Delays due to workload of Building Official staff  |

| <b>2.9 LGU Electrical Permit</b> |  |
|----------------------------------|--|
| Relevance:                       | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input checked="" type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:                     | General Guidebooks for preparing, submitting, evaluation and approval of Certificate of Electrical Inspection (CFEI) or electrical permit  |
| Legal Ref.:                      | National Building Code of the Philippines (RA 6541)  |
| Official Ref.:                   | Engineering Department, City of Manila   |
| Involved Authority:              | LGU's Building Official/Engineering Department   |
| Applied Procedures:              | Procedures may vary from one LGU to another. In most municipalities, the application for the electrical permit goes together with the application for the building permit.<br><ol style="list-style-type: none"> <li>1) Prepare documents for submission</li> <li>2) Submit application form and all necessary documents</li> <li>3) Receiving officer verifies the completeness of your documents</li> <li>4) Assess fees</li> <li>5) Applicant pays fees</li> <li>6) Building officials review and evaluate RE applicant electrical plans</li> <li>7) Building officials Process wiring permit</li> <li>8) Building officials Approves wiring permit</li> <li>9) Release wiring permit to Applicant</li> <li>10) Applicant to proceed with construction/installation</li> <li>11) Applicant applies for Inspection (after substantial work has been done)</li> <li>12) Final inspection will be conducted by LGU's field engineer</li> <li>13) Building official assess additional fees</li> <li>14) Applicant pays necessary additional fees</li> <li>15) Applicant submit OR to building official</li> <li>16) Building process Certificate of Electrical Inspection (CFEI) or electrical permit</li> <li>17) Building official releases Certificate of Electrical Inspection (CFEI) to applicant</li> </ol> |
| Documents to be submitted:       | <ol style="list-style-type: none"> <li>1) Application form</li> <li>2) Duly-filled DPWH Form 90-001C</li> <li>3) Electrical plan/s duly signed by a Professional Electrical Engineer (PEE)</li> <li>4) Other documents as may be required</li> </ol>   |
| Incurred fees:                   | Varies on the LGU's schedule of payments   |
| Risks:                           | Delays due to workload of Building Official/Engineering staff  |

| 2.10 Distribution impact study (performed by the DU) |  |
|--|--|
| Relevance:   | Business Model: <input type="checkbox"/> FIT <input type="checkbox"/> PSA <input type="checkbox"/> B2B <input checked="" type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Relevance:   | Business Model: <input type="checkbox"/> FIT <input type="checkbox"/> PSA <input type="checkbox"/> B2B <input checked="" type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:   | With the submission of a complete net-metering application, the application proceeds to the technical evaluation phase. The DU will perform an initial assessment to determine if a Distribution Impact Study (DIS) will be needed, in accordance with the Distribution Services and Open Access Rules (DSOAR), and inform the applicant accordingly. The DIS is performed to assess the ability of the Distribution system to safely and reliably accommodate a proposed interconnection of a generation source and if any upgrades may be required.  |
| Legal Ref.:  | ERC Resolution 09, Series of 2013 (Net-Metering Rules)<br>ERC Resolution No. 115, Series of 2001 (Distribution Code)   |
| Involved Authority:                                  | Distribution utility operating the local distribution grid   |
| Applied Procedures:                                  | <p>If the conduct of DIS is deemed necessary, the DU informs the applicant and relays the following details on the DIS:</p> <ul style="list-style-type: none"> <li>• Scope of the Study</li> <li>• Estimated Time of DIS Completion</li> <li>• DIS Fee</li> </ul> <p>Within 30 days from receipt of the details on the DIS, the applicant informs the DU of his decision on whether or not to proceed with the DIS. If the applicant decides to continue with the DIS, the applicant settles the DIS fee with the DU. During the conduct of the DIS, additional information may be requested from the applicant.</p> <p>From receipt of complete information for the DIS, the DU has sixty 60 days to complete the study. Within 5 days from completion of the DIS, the DU forwards to the applicant the results of the study and the DU's findings on whether a subsequent stage of a Distribution Assets Study (DAS) is necessary.</p> <p>If the conduct of a DAS is necessary, the DU issues an offer of DAS service to the applicant. Within 15 days from receipt of the DAS offer, the applicant informs the DU whether or not to proceed with the DAS. Upon acceptance of the DAS offer and payment of the DAS fee by the applicant, the DU has thirty 30 days to complete the study.</p> <p>Within 5 days from completion of the DAS, the DU informs the applicant of the results of the study.</p> |
| Documents to be submitted:                           | All information required for the DIS is requested to be submitted with the net-metering applications (see above 1.2).  |
| Incurred fees:                                       | The applicant has to pay the fee for the distribution impact study, if the DU sees it necessary.<br>In the case of MERALCO the fee is 5,000 PH (for small SPV applications up to 5kWp) respectively 19,000 PHP (for bigger installations > 5kWp).  |
| Barriers:  | The application form is very detailed and requires specialist know-how from the solar installer to complete the data requested for the DIS.<br>The fee for the distribution impact study is creating an additional economic barrier.   |

| 2.11 LGU Certificate of final inspection |  |
|--|--|
| Relevance:                               | Business Model: <input type="checkbox"/> FIT <input type="checkbox"/> PSA <input type="checkbox"/> B2B <input checked="" type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:                             | The Office of the City Engineer through the Electrical Section conducts electrical safety inspection, testing, and verification of the electrical wirings of residential, institutional, commercial, and industrial building before the installation of electric meters by the electric power service provider to ensure their conformance to the provisions of the Philippine Electrical Code and issue Certificate of Final Electrical Inspection if they are found compliant to the code. |
| Legal Ref.:                              | National Building Code of the Philippines (RA 6541); Philippine Distribution Code of 2001; Philippine Electric Code  |
| Involved Authority:                      | LGU  |
| Applied Procedures:                      | After receiving the application for a certificate of final inspection, the LGU has to perform a physical inspection of the electrical installations, connections, switches etc.<br>If the inspection/verification results does not meet the electrical standards, the LGU informs the owner/ representative about the defects/deficiencies and the recommendations to be undertaken in order to become compliant to the provisions of the Philippine Electrical Code.                        |
| Documents to be submitted:               | Electrical Plan duly signed and sealed by a Professional Electrical Engineer.  |
| Incurred fees:                           | May vary between LGUs  |

| 2.12 DOE Certificate of Confirmation of Commerciality |  |
|---|--|
| Relevance:  | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input checked="" type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:  | With the Confirmation of Commerciality, DOE approves the successful completion of the pre-development stage of the project and converts the RESC to the development stage.   |
| Legal Ref.:   | Republic Act 9513 – Renewable Energy Act of 2008; DOE’s Department Circular 2009-07-0011 enhanced by DOE’s Department Circular 2013-10-0018  |
| Official Ref.:  | Renewable Energy Law, published by the DOE   |
| Involved Authority:                                   | Department of Energy, DOE - Renewable Energy Management Bureau   |
| Applied Procedures:                                   | <ol style="list-style-type: none"> <li>1. Submit letter of Declaration of Commerciality to DOE</li> <li>2. Submit all documents required</li> <li>3. DOE evaluates documents submitted by RE applicant</li> <li>4. Draft Development/Commercial RE Contract</li> <li>5. DOE negotiate the Terms and Conditions of the RE contract</li> <li>6. Applicant pays necessary fees</li> <li>7. Review committee recommends to the DOE management</li> <li>8. RE Applicant submit proof of payment</li> <li>9. Signing of Development/Commercial RE Contract</li> <li>10. DOE issues Confirmation of Commerciality</li> </ol>  |
| Documents to be submitted:                            | <ol style="list-style-type: none"> <li>1) Letter of Declaration of Commerciality</li> <li>2) Feasibility study and / or detailed engineering design of the RE project with the following corresponding documents: <ol style="list-style-type: none"> <li>a) Resolution on of Support from host communities and host municipality;</li> <li>b) Proof of Public Consultation;</li> <li>c) Any form of legal documents showing the consent of the landowner if the project falls under a private land;</li> <li>d) Department of Environment and Natural Resources (DENR) Permits: <ol style="list-style-type: none"> <li>i) Environmental Impact Study</li> <li>ii) Environmental Compliance Certificate (ECC) or Certificate of Non-Coverage (CNC)</li> <li>iii) Forest Land Use Agreement (FLAg) / Special Land Use Agreement (SLUP) for area applied in public domain</li> </ol> </li> <li>e) National Grid Corporation of the Philippines (NGCP): <ol style="list-style-type: none"> <li>i) Grid System Impact Study</li> <li>ii) Interconnection Agreement, if applicable</li> <li>iii) Energy (Electricity) Sales Agreement;</li> </ol> </li> <li>f) Other clearances from other concerned agencies (i.e., Maritime Industry Authority, Bureau of Fisheries and Aquatic Resources, Philippine Coast Guard, etc.);</li> <li>g) Proof of Financial Closing;</li> <li>h) Final area for development (geographical coordinates /Philippine Reference System of 1992 (PRS92);</li> <li>i) Payment of corresponding Application/Processing Fee; and</li> <li>j) Draft Development/Commercial RE Contract.</li> </ol> </li> </ol> |
| Barriers:   | Insufficient time to complete the requirement based on the agreed work plan with DOE   |
| Risks:  | Delays due to the workload of DOE personnel doing the review   |
| Additional Remarks:                                   | If the RE Developer opt for FIT eligibility it must submit a notarized proof and/or declaration that the project is not bound under any contract to supply it generated energy to any Distribution Utility (DU) or consumer in accordance with Section1.4 of the Fit Rules   |

## Phase 3: Development

| <b>3.1 DOE Confirmation of Electromechanical Completion</b> |  |
|---|--|
| Relevance:  | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input checked="" type="checkbox"/> Post Release  |
| Description:  | The certification issued by DOE that the whole power plant including all substation and other facilities for grid or distribution system connection is in place but not yet connected and the RE project is ready for commissioning.   |
| Legal Ref.:   | Section 7 of the RA 9513 or the RE Act of 2008.  |
| Official Ref.:  | DOE Website (www.doe.gov.ph), Department Circular No. DC 2013-05-0009  |
| Involved Authority:   | Department of Energy, DOE Renewable Energy Management Bureau (REMB)  |
| Applied Procedures:   | <ol style="list-style-type: none"> <li>1. The RE Developer shall inform the DOE that it has attained the Electromechanical Completion.</li> <li>2. DOE, within 15 working days, shall conduct a site validation and inspection of the project including the interconnection facility. The plant must have at least attained 80% completion based on its approved work plan.</li> <li>3. DOE shall issue a confirmation or denial within 15 working days</li> </ol> |
| Documents to be submitted:                                  | The RE Developer Letter informing DOE that it has attained the Electromechanical Completion.   |
| Incurred fees:  | Actual cost of inspection by the DOE team.   |
| Risks:  | Delays on targets due to unavailability of DOE personnel to inspect the facility   |

| <b>3.2 DOE Certificate of Endorsement for FIT Eligibility</b> |   |
|---|---|
| Relevance:  | Business Model: <input checked="" type="checkbox"/> FIT <input type="checkbox"/> PSA <input type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input checked="" type="checkbox"/> Post Release   |
| Description:  | This certification is issue by DOE to a RE project, once the former determined that the plant is ready for the FIT system.  |
| Legal Ref.:   | Section 7 of the RA 9513 or the RE Act of 2008.   |
| Official Ref.:  | Department of Energy, DOE Renewable Energy Management Bureau (REMB)   |
| Involved Authority:   | Department of Energy, DOE Renewable Energy Management Bureau (REMB)   |
| Applied Procedures:   | <ol style="list-style-type: none"> <li>1. In In the event of the DOE confirms Electromechanical Completion of the project, it shall within a period of 5 days from the issuance thereof, nominate the eligibility of the project under the FIT system to the ERC for processing of Certificate of Compliance (COC) provided that the interconnection facility is fully in place.</li> <li>2. Once it received it confirmation of Electromechanical Completion, the RE Developer shall inform DOE on the date of successful commissioning of the RE plant</li> <li>3. DOE shall validate this date.</li> <li>4. In the event the DOE validates the Successful Commissioning, it shall within 15 working days from the date thereof, issue a Certificate of Endorsement for Fit Eligibility to ERC on a first-come-first-serve basis. The COE for Fit Eligibility shall be issued by DOE until the installation cap is fully subscribed.</li> </ol> |
| Documents to be submitted:                                    | Letter from the RE Developer informing DOE on the date of successful commissioning of the RE plant.   |
| Risks:  | Delays due to failure of DOE to validate the date of Successful Commissioning<br>Delays due to technical problem/s with interconnection   |

| <b>3.3 ERC Certificate of Compliance (COC)</b> |  |
|--|--|
| Relevance:                                     | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input checked="" type="checkbox"/> Post Release  |
| Description:                                   | A Certificate of Compliance (CoC) is issued by ERC to a Generation Company that conforms to the obligations, cross-ownership and market restrictions stipulated in the implementing rules and regulations of RA 9136. No Person may engage in the Generation of Electricity as a Generation Company unless such person has secured a CoC from ERC to operate facilities used in the generation of electricity. □The certificate is good for 5 years.   |
| Legal Ref.:                                    | Section 6 of Republic Act No. 9136, its Implementing Rules and Regulations, the Philippine Grid and Distribution Codes, and the Wholesale Electricity Spot Market (WESM) Rules   |
| Official Ref.:                                 | ERC Website (www.erc.gov.ph)   |
| Involved Authority:                            | Energy Regulatory Commission (ERC)   |
| Applied Procedures:                            | <ol style="list-style-type: none"> <li>1. Secure the application form and checklist of appropriate requirements for CoC application at the Licensing &amp; Market Monitoring Division (LMMD) located at the 12th Floor or through www.erc.gov.ph: Normal processing time: 5 minutes</li> <li>2. Accomplish the forms and submit together with the appropriate requirements in the checklist, in two (2) hard copies and one (1) soft copy (diskette or CD), to any LMMD Officer at the 12th Floor. Normal processing time: 10 minutes</li> <li>3. Secure assessment form in five (5) copies from the LMMD Officer. Normal processing time: 5 minutes</li> <li>4. Proceed to the Cashier at the 14th Floor for payment of appropriate CoC application fee in accordance with the fees and charges, as amended. The Cashier shall give the applicant three (3) copies of the Assessment Form and an Official Receipt (O.R.). Normal processing time: 10 minutes</li> <li>5. Proceed to the LMMD Officer at the 12th Floor and submit two (2) copies of the Assessment Form duly signed by the Cashier and show proof of payment i.e., Official Receipt for verification purposes. Normal processing time: 1 minute</li> <li>6. ERC reviews and evaluates the submitted documents and data to determine compliance to standards (i.e., financial, technical and environmental). If complete, ERC will issue a decision within 30-60 days.</li> <li>7. ERC conducts plant inspection/s if needed.</li> <li>8. Field/review team submit recommendation to the commission</li> <li>9. Commission review and approve/disapprove application</li> <li>10. If approved, ERC Issue CoC to concerned applicant</li> </ol>   |
| Documents to be submitted:                     | <ol style="list-style-type: none"> <li>1) General Requirements <ol style="list-style-type: none"> <li>a) Company Profile; and</li> <li>b) Three (3) year Operational History, if applicable.</li> </ol> </li> <li>2) Technical Qualification <ol style="list-style-type: none"> <li>a) Sworn Statement that each of the Facility complies with and will continue to comply with the Philippine Grid and Distribution Code (PGDC) for the duration of the COC;</li> <li>b) Sworn Statement that the company and its generating facilities comply with and will continue to comply with the Wholesale Electricity Spot Market (WESM) Rules for the duration of the CoC, when applicable;</li> <li>c) Management Contracts in force, when applicable;</li> <li>d) General Plant Description;</li> <li>e) Location Map;</li> <li>f) Connection Agreement between the Grid Owner (TRANSCO) and the Existing Generation Facility or Interconnection plans/details with the high voltage backbone transmission system/grid or Distribution System (for Embedded Generators) and or Transmission/Distribution Use of System Agreement, if available; and</li> <li>g) PGDC Requirements: <ol style="list-style-type: none"> <li>i) Electrical/Mechanical Plans and Diagrams;</li> <li>ii) Plant Specifications including plant efficiency and heat rate;</li> <li>iii) Technical Description of the Load to be served (for those in isolated areas and those serving dedicated loads);</li> <li>iv) Safety Rules/Guidebooks;</li> <li>v) WESM membership, if applicable; and</li> <li>vi) Details of its Communication and SCADA</li> <li>vii) Requirements, if applicable.</li> </ol> </li> </ol> </li> <li>3) Financial Capability <ol style="list-style-type: none"> <li>a) Audited financial statements for the 2 most recent 12-month periods, if available;</li> <li>b) Schedule of liabilities, to include the following information: name of creditor, type of credit, credit terms;</li> </ol> </li> </ol> |

### 3.3 ERC Certificate of Compliance (COC)

|                 |   |
|-----------------|---|
|                 | <ul style="list-style-type: none"> <li>c) 5-year financial plan; and</li> <li>d) Documentation on financial track record of the Generation Company and of its principal stockholder, if available.</li> </ul> <p>4) Ownership/Control</p> <ul style="list-style-type: none"> <li>a) Articles of Incorporation/Partnership (for Corporation / Partnership) with Certificate of Registration;</li> <li>b) Business</li> <li>c) Name Registration Certificate (for Single Proprietorship);</li> <li>d) Updated listing of shareholders and corresponding equity shares;</li> <li>e) Complete list of its Board of Directors and Senior Officials down to the level of Plant Managers;</li> <li>f) Types of long term debt and equity instrument, including amount and proportion to total capitalization;</li> <li>g) Sworn Statement that the company complies with and will continue to comply with the provisions on cross ownership and market share restrictions under Republic Act No. 9136, its Implementing Rules and Regulations, and the Guidebooks for Issuance of Certificates of Compliance for Generation Companies/Facilities for the duration of the CoC;</li> <li>h) Comprehensive and complete listing of Affiliates and Related Groups, including ownership and management structure; and</li> <li>i) Philippine Stock Exchange (PSE) Certificate to the effect that they are listed with PSE, when applicable.</li> </ul> <p>5) Other Requirements</p> <ul style="list-style-type: none"> <li>a) Power Purchase Agreements;</li> <li>b) Power Supply Contracts;</li> <li>c) Memorandum of Agreement on the Establishment of Trust Accounts by the Generation Company and/or the Energy Resource Developer and the Department of Energy on Benefits to Host Communities as required under Rule 29 of the IRR; 15</li> <li>d) Environmental Compliance Certificate (ECC) duly approved by the Department of Environment and Natural Resources; and</li> <li>e) Department of Energy (DOE) Endorsement indicating that the power plant project is consistent with the Power Development Program of the Government; and</li> <li>f) Such other information or document that ERC may require</li> </ul> |
| Incurring fees: | P10,000 exclusively of actual cost of plant inspection  |
| Barriers:       | Failure to comply with the standards (i.e., technical, financial and environmental)   |
| Risks:          | Failure to seek a CoC or renew your CoC from ERC, and continue to operate the plan will result to penalties and operation stoppage.   |

## Phase 4: Registration and connection

| 4.1 NGCP/DU Connection Agreement |   |
|----------------------------------|---|
| Relevance:                       | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input checked="" type="checkbox"/> Pre-Release <input checked="" type="checkbox"/> Post Release  |
| Description:                     | This agreement secures the consent of NGCP that the RE Developer can be connected to the national grid system.  |
| Legal Ref.:                      | Open Access Transmission Service (OATS) Rules (ERC Case No. 2006-015RC),<br>Philippine Grid Code (ERC Resolution No. 14-2007)<br>NGCP Open Access Procedure   |
| Official Ref.:                   | Revised Rules, Terms and Conditions for the provision of OPEN ACCESS TRANSMISSION SERVICE<br>PHILIPPINE GRID CODE, Amendment No. 1, April 2, 2007   |
| Involved Authority:              | National Grid Corporation of the Philippines  |
| Applied Procedures:              | Prospective transmission customer submits application following OATS Rules B13, Grid Code and NGCP Open Access Procedure<br>Together with the other documents submitted, NGCP shall review and evaluates the application.<br>If the documents passed the standards of NGCP, the customer will be asked to pay for the system impact study.<br>Upon payment, an Impact Study will be conducted to ensure, among others, the adequacy and capability of the grid per OATS Rules B14.<br>After a favourable Impact Study, a Facilities Study will be conducted to determine the requirements needed to connect to the transmission provider facilities per OATS Rules B15.<br>If the Facilities study is favourable, a Connection Agreement will be drafted for review of the customer.<br>The signing of the agreement will take place after the customer agreed on the provisions stated in the agreement. |
| Documents to be submitted:       | <ol style="list-style-type: none"> <li>1. Letter of Intent</li> <li>2. DOE clearance</li> <li>3. Plant description and other technical data</li> <li>4. Connection scheme</li> <li>5. Target Completion</li> <li>6. BIR/SEC Registrations</li> <li>7. Feasibility study</li> <li>8. Signed Offer of Service</li> <li>9. System Impact Study, if found necessary</li> <li>10. Facilities Study</li> <li>11. Transmission Service Application Form</li> </ol>   |
| Incurred fees:                   | Impact study fee (NGCP to conduct) : <50MM = P600,000; >50MM = P1M;<br>Impact study to be conducted by third party: NGCP will charge for the review at P150,000 for 50MW and below, and P200,000 for more than 50MW.  |
| Barriers:                        | Prospective customer fails to pass the impact study or facilities study (i.e., facilities does not conform on the OATS standards).  |
| Risks:                           | Additional CAPEX or OPEX to answer the defects found during the studies (i.e., Impact/Facilities)<br>Disputes with NGCP will cause longer delays for the project  |

| 4.2 NGCP Transmission Service Agreement |   |
|---|---|
| Relevance:                              | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:                            | The NGCP Transmission Service Agreement shall allow the grid customer to connect with the national grid system.   |
| Legal Ref.:                             | Open Access Transmission Service (OATS) Rules (ERC Case No. 2006-015RC),<br>Philippine Grid Code (ERC Resolution No. 14-2007)<br>NGCP Open Access Procedure   |
| Official Ref.:                          | Revised Rules, Terms and Conditions for the provision of OPEN ACCESS TRANSMISSION SERVICE<br>PHILIPPINE GRID CODE, Amendment No. 1, April 2, 2007   |
| Involved Authority:                     | National Grid Corporation of the Philippines  |
| Applied Procedures:                     | <ol style="list-style-type: none"> <li>1. Upon the signing of Connection Agreement with NGCP, the grid customer can submit all the documents needed for the transmission service.</li> <li>2. NGCP reviews the documents and assess the technical design</li> <li>3. The customer/developer can construct the facilities at the connection point approved by NGCP per OATS Rules 18.3.</li> <li>4. Once the facility is completed, NGCP will conduct Pre-energization activities together with the grid customer.</li> <li>5. NGCP can now start processing the Transmission Service Agreement</li> <li>6. If satisfied with evaluation of the interconnection facilities, NGCP will issue a readiness to connect</li> <li>7. Grid customer shall submit all documents (including signed CTRC and Provisional Connection Agreement) prior to interconnection testing</li> <li>8. After satisfying the provisional connection requirements, Grid customer shall conduct on-line testing witness by NGCP.</li> <li>9. Final connection validation shall be conducted by NGCP.</li> <li>10. Signing of the Transmission Service agreement</li> </ol>   |
| Documents to be submitted:              | <ol style="list-style-type: none"> <li>1) Letter of Application for Transmission Service</li> <li>2) ERC Load Approval</li> <li>3) Connection Agreement</li> <li>4) Issuance of Certificate of Technical Requirements <ol style="list-style-type: none"> <li>a) District Office Clearance</li> <li>b) Metering Services Group (MSG) Clearance</li> <li>c) Maintenance and Testing Division (MTD) Clearance</li> <li>d) System Operator (SO) Clearance (if applicable)</li> </ol> </li> <li>5) Serving of Transmission Service Agreement (TSA)</li> <li>6) Relevant Schedules <ol style="list-style-type: none"> <li>a) Open Access Transmission Service (OATS) Services</li> <li>b) Standard Planning Data</li> <li>c) Detailed Planning Data (for Generator Customers)</li> <li>d) Electrical Drawings</li> <li>e) Connection Point Drawings</li> <li>f) Asset Boundary</li> <li>g) Protection Arrangement and Settings</li> <li>h) Metering Requirements</li> <li>i) Notices</li> <li>j) Provisional Maintenance Schedule</li> <li>k) Testing and Commissioning (new delivery Point)</li> <li>l) Load Shedding</li> <li>m) Contingency Actions</li> <li>n) Critical Events List</li> <li>o) Statement of Readiness to Connect (new delivery Point)</li> </ol> </li> <li>7) Issuance of Approval to Connect</li> <li>8) Energization of Customer's Facilities</li> <li>9) Payment of Security Deposit</li> </ol> |
| Incurred fees:                          | <ol style="list-style-type: none"> <li>1) Generation Customers and Load Customers shall pay the following charges for Regulated Transmission Services: <ol style="list-style-type: none"> <li>a) The Power Delivery Service Charge as determined by the method set out in Annex I of Module F. (OATS Rules)</li> <li>b) The System Operator Charge as determined by the method set out in Annex II of Module F. (OATS Rules)</li> <li>c) The Metering Service Provider Charge as determined by the method set out in Annex III of Module F. (OATS Rules)</li> </ol> </li> <li>2) Generation and Load. Generation Customers shall pay the following charges for Excluded Services and other services:</li> </ol>   |

#### 4.2 NGCP Transmission Service Agreement

|           |  |
|-----------|--|
|           | <ul style="list-style-type: none"> <li>a) The Connection Charge as determined by the method set out in Annex IV of Module F. (OATS Rules)</li> <li>b) (b) The Residual Sub-transmission Charge as determined by the method set out in Annex IV of Module F. (OATS Rules)</li> <li>c) Any charges for technical services such as System Impact Studies, as determined by the methods set out in Annex V of Module F. (OATS Rules)</li> <li>d) Ancillary Services Charges as determined by the methods set out in Ancillary Services Charges as determined by the methods set out in Annex VI of Module F. (OATS Rules)</li> </ul> <p>3) Embedded Generator. Embedded Generators shall pay the following charges for Regulated Transmission Services:</p> <ul style="list-style-type: none"> <li>a) The System Operator Charge as determined by the method set out in Annex II of Module F. (OATS Rules)</li> </ul> <p>4) Embedded Generator. Embedded Generators shall pay the following charges for Excluded Services and other services:</p> <ul style="list-style-type: none"> <li>a) Any charges for technical services such as System Impact Studies, as determined by the methods set out in Annex V of Module F. (OATS Rules)</li> <li>b) Ancillary Services Charges as determined by the methods set out in Annex VI of Module F. (OATS Rules)</li> </ul> |
| Barriers: | Disputes on the technical design and/or specifications with NGCP<br>Failed interconnection tests   |
| Risks:    | Technical problems that will delay the project   |

| 4.3 NGCP/DU Metering Service Agreement |  |
|--|--|
| Relevance:                             | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:                           | NGCP is mandated to provide revenue meters to all RE installations even if the installation is a small RE generating facilities that is embedded to load customers. The metering assets to be provided to embedded generators shall be limited to the meters only. Thus a metering agreement has to be signed between an RE generator and NGCP.  |
| Legal Ref.:                            | R.A. 9136, or the Electric Power Industry Reform Act (EPIRA), Open Access Transmission Service (OATS) Rules (ERC Case No. 2006-015RC),   |
| Official Ref.:                         | Open Access Transmission Service (OATS) Rules (ERC Case No. 2006-015RC),<br>Philippine Grid Code (ERC Resolution No. 14-2007)<br>NGCP Open Access Procedure<br>NGCP TRANSMISSION DEVELOPMENT PLAN 2012 VOLUME II PART 2  |
| Involved Authority:                    | NGCP   |
| Applied Procedures:                    | The following steps are the same with NGCP Transmission Service Agreement milestone. However, a new document – the Metering Service Agreement will be signed<br><br><ol style="list-style-type: none"> <li>1) Upon the signing of Connection Agreement with NGCP, the grid customer can submit all the documents needed for the transmission/metering service.</li> <li>2) NGCP reviews the documents and assess the technical design</li> <li>3) The customer/developer can construct the facilities at the connection point approved by NGCP per OATS Rules 18.3.</li> <li>4) Once the facility is completed, NGCP will conduct Pre-energization activities together with the grid customer.</li> <li>5) NGCP can now start processing the Metering Service Agreement</li> <li>6) If satisfied with evaluation of the interconnection facilities, NGCP will issue a readiness to connect</li> <li>7) Grid customer shall submit all documents (including signed CTTC and Provisional Connection Agreement) prior to interconnection testing</li> <li>8) After satisfying the provisional connection requirements, Grid customer shall conduct on-line testing witness by NGCP.</li> <li>9) Final connection validation shall be conducted by NGCP.</li> <li>10) Signing of the Metering Service Agreement</li> </ol> |
| Documents to be submitted:             | (Documents submitted for the milestone – Transmission Service Agreement – suffice the documents needed for this milestone).  |
| Incurred fees:                         | The Metering Service Provider Charge as determined by the method set out in Annex III of Module F (OATS)   |
| Barriers:                              | Failure to provide the proper technical requirement for the installation of a revenue meter  |
| Risks:                                 | Unavailable meter from NGCP which will result to loss revenue<br>Poorly calibrated revenue meter resulting to loss revenue   |

#### 4.4 TRANSCO RE Payment Agreement

|                            |  |
|----------------------------|--|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input type="checkbox"/> PSA <input type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:               | National Transmission Corporation (TRANSCO) is in-charge of the FIT settlement. Its duties in relation to the implementation of the FIT system include: <ul style="list-style-type: none"> <li>– Collect information for all RE injections in any distribution or transmission network across the Philippines, including those of the FIT Eligible RE Plants that are embedded in the distribution networks;</li> <li>– Audit the metering;</li> <li>– Calculate the payments for each FIT Eligible RE Plant based on the applicable FIT and actual injections;</li> <li>– File the application for the setting of the FIT All before the ERC;</li> <li>– Enter into a RE Payment Agreement (REPA) with FIT Eligible RE Developers</li> </ul> The REPA forms the basis for the participation of a RE project in the FIT system, in particular for the receipt of payments from TRANSCO under the FIT scheme. |
| Legal Ref.:                | ERC Resolution Nr. 15 of 2012  |
| Involved Authority:        | TRANSCO  |
| Documents to be submitted: | ERC Certificate of Compliance under the FIT system.  |
| Barrier:                   | The Fit allocation system is not yet fully established and Transco has to learn to play its role as Fit administrator.   |
| Risk:                      | FIT administration not yet fully operational.  |

| 4.5 Registration to WESM   |   |
|----------------------------|---|
| Relevance:                 | Business Model: <input checked="" type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input checked="" type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:               | The Wholesale Electricity Spot Market (WESM) is the market where trading of electricity will be made. WESM establishes the basic rules, requirements and procedures that govern the operation of the Philippine electricity market. The following are the registration procedures in the wholesale electricity spot market.   |
| Legal Ref.:                | Republic Act No. 9136, also known as the "Electric Power Industry Reform Act of 2001" (Act), mandates the DOE to establish the WESM within one (1) year from its effectively. The Act also mandates the DOE, jointly with the electric power industry participants, to formulate the detailed rules for the WESM.   |
| Involved Authority:        | Philippine Electricity Market Corporation (PEMC)  |
| Applied Procedures:        | <p>There are five (5) registration classification/categories with some differences in documentation, and procedures:</p> <p>A. Registration of Generation Companies (Direct WESM Members and Trading Participants);</p> <p>B. Registration of Distribution Utilities and Network Service Providers (Direct WESM Members and Trading Participants);</p> <p>C. Registration of Distribution Utilities and Network Service Providers (Indirect WESM Members);</p> <p>D. Registration of Industrial Customers and Bulk-users (Direct WESM Members and Trading Participants);</p> <p>E. Registration of Industrial Customers and Bulk-users (Indirect WESM Members):</p> <p>Only item A is applicable for this Solar SPV Guidebook.</p> <p><b>A. Procedures in applying for Registration of Generation Companies (Direct WESM Members and Trading Participants):</b><br/>(Application Form for Direct WESM Members shall be used for registration of Generation Companies in the WESM. The form can be downloaded from the WESM Website at <a href="http://www.wesm.ph">www.wesm.ph</a>)</p> <ol style="list-style-type: none"> <li>1. All applications shall be made using the forms provided by PEMC and must satisfy all requirements stated above. Completed Application forms and documents must be submitted to the Institutional Relations - Participant Support (IR-PS), Corporate Planning and Communications Department of PEMC located at 9th Floor Robinsons Equitable Tower, ADB Avenue, Ortigas Center, Pasig City.</li> <li>2. The IR-PS staff will determine whether the application has complied with the requirements and inform the Applicant of any lacking requirement. An initial assessment notice in the form of e-mail shall be transmitted to the Applicant.</li> <li>3. Upon submission of complete requirements, the application will undergo assessment by different PEMC departments and the level of participation will be determined. Additional information/document may be required as a result of the assessment.</li> <li>4. The Applicant shall register with PEMC prior to participation in the WESM. Provided all the requirements have been complied with, PEMC shall approve or reject an application within fifteen (15) working days from the date of completion of requirements. The Approval Letter indicating the level of participation, the notarized Market Participation Agreement, and WESM Registration Information Sheet shall be issued upon approval of an application.</li> <li>5. Thereafter, PEMC will issue a Billing Statement for the WESM registration fee.</li> <li>6. Upon receipt of the Billing Statement from PEMC, the Applicant shall pay the non-refundable WESM registration fee.</li> <li>7. The Applicant shall then present proof of payment of the registration fee for digital certificate and WESM training availment.</li> <li>8. Level of Participation: <ol style="list-style-type: none"> <li>a. If a provisional COC is submitted by the Applicant, participation in the WESM will only be limited to settlement of spot market transactions due to on-going testing and commissioning of its registered facility.</li> <li>b. If the final license is submitted, the Applicant shall formally notify PEMC and NGCP of its start date and interval of the commercial operations of its registered facility in the WESM. Notification shall be made at least ten (10) working days before the intended start date. PEMC will send a formal letter to the Applicant confirming the start date of commercial operations.</li> </ol> </li> </ol> |
| Documents to be submitted: | <p><b>A. Registration of Generation Companies (Direct WESM Members and Trading Participants);</b></p> <ol style="list-style-type: none"> <li>a. Application Form (2 original copies and 1 softcopy)</li> <li>b. Market Participation Agreement for Direct WESM Members (5 original copies)</li> <li>c. Settlement Information Sheet (original copy, notarized)</li> <li>d. Digital Certificate Service Request Form</li> <li>e. Corporate Documents and Authorizations</li> <li>f. Certificate of Compliance (COC) issued by the ERC</li> </ol>   |

| <b>4.5 Registration to WESM</b> |  |
|---------------------------------|--|
|                                 | <ul style="list-style-type: none"> <li>g. ERC Certification of maximum stable load, minimum stable load, ramp rates and test results</li> <li>h. Metering Installation Registration Form (MIRF) and supporting documents from the NGCP</li> <li>i. Transmission Service Agreement with NGCP</li> <li>j. Metering Services Agreement with NGCP</li> <li>K. WESM Training Enrolment Form</li> </ul>  |
| <b>Incurred fees:</b>           | <p>Registration fee is Fifty Thousand Pesos plus twelve percent VAT (PHP 50,000 + 12% VAT) to be paid to the PEMC Cashier (located at the 18th Floor), through any of the following forms of payment:</p> <ul style="list-style-type: none"> <li>a. Cash;</li> <li>b. Company check (local or regional clearing only) payable to the Philippine Electricity Market Corporation; or</li> <li>c. Manager's/Cashier's Check (local or regional clearing only) payable to the Philippine Electricity Market Corporation.</li> </ul> <p>Payment can also be deposited to PEMC's BPI Current Account No. 4021007124. Upon payment, the Applicant shall fax the validated deposit slip together with the copy of the Billing Statement to Fax number (02) 636-7435.</p> |
| <b>Barriers:</b>                | <ol style="list-style-type: none"> <li>1. Failure to comply with the documentation/requirements.</li> <li>2. Failure to satisfy the assessment made by the various units of PEMC</li> </ol>  |
| <b>Risks:</b>                   | Delays due to incomplete documents and inquiries during the assessment phase.  |

| 4.6 Registration to Interim Mindanao Electricity Market IMEM |  |
|--|--|
| Relevance:   | Business Model: <input checked="" type="checkbox"/> FIT <input type="checkbox"/> PSA <input type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:   | Since the WESM is not operational in Mindanao, the Interim Mindanao Electricity Market has recently been established for the trading of electricity in Mindanao. The following are the registration procedures in the wholesale electricity spot market for the island of Mindanao only.   |
| Legal Ref.:  | Republic Act No. 9136, also known as the "Electric Power Industry Reform Act of 2001" (Act), mandates the Department of Energy (DOE) to establish the WESM within one (1) year from its effectively. The Act also mandates the DOE, jointly with the electric power industry participants, to formulate the detailed rules for the WESM.   |
| Involved Authority:  | Philippine Electricity Market Corporation (PEMC)   |
| Applied Procedures:  | Procedures for Mandatory Registration of Grid-Connected and Embedded Generation Companies (IMEM Resources) in the island of Mindanao:<br><ol style="list-style-type: none"> <li>1. All submissions shall be made using the forms provided by PEMC and must satisfy all requirements stated above. Completed forms and documents must be submitted to the Institutional Relations - Participant Support (IR-PS), Corporate Planning and Communications Department of PEMC located at 9th Floor Robinsons Equitable Tower, ADB Avenue, Ortigas Center, Pasig City.</li> <li>2. The IR-PS staff will determine whether the submission has complied with the requirements and inform the Member of any lacking requirement. An initial assessment letter shall be transmitted to the Mandatory Participant.</li> <li>3. Upon completion of requirements, the submission will undergo assessment by different PEMC departments. Additional information/document may be required as a result of the assessment.</li> <li>4. The Mandatory Participant shall be registered by PEMC prior to participation in the IMEM. Provided all the requirements have been complied with, PEMC shall approve or reject submission within fifteen (15) working days from the date of completion of requirements. The Approval Letter, the notarized IMEM Participation Agreement, and IMEM Registration Information Sheet shall be issued upon approval of an application.</li> <li>5. The Mandatory Participant shall also send its personnel to attend the IMEM Training.</li> </ol> |
| Documents to be submitted:                                   | Membership Form shall be used for mandatory registration of grid-connected and embedded Generation Companies in the IMEM. The form can be downloaded from the WESM Website at <a href="http://www.wesm.ph">www.wesm.ph</a> .<br><ol style="list-style-type: none"> <li>a. Membership Form (2 original copies and 1 softcopy)</li> <li>b. IMEM Participation Agreement (3 original copies)</li> <li>c. Settlement Information Sheet (original copy, notarized)</li> <li>d. Corporate Documents and Authorizations (certified true copies)</li> <li>e. Certificate of Compliance issued by the Energy Regulatory Commission (ERC) (certified true copy)</li> <li>f. Metering Installation Registration Form (MIRF) and supporting documents from the National Grid Corporation of the Philippines (NGCP) (certified true copies)</li> <li>g. Transmission Service Agreement with NGCP (certified true copy)</li> <li>h. Metering Services Agreement with NGCP (certified true copy)</li> <li>i. IMEM Training Enrolment Form</li> </ol>  |
| Incurred fees:   | None   |
| Barriers:  | <ol style="list-style-type: none"> <li>1. Failure to comply with the documentation/requirements.</li> <li>2. Failure to satisfy the assessment made by the various units of PEMC</li> </ol>  |
| Risks:   | Delays due to incomplete documents and inquiries during the assessment phase.  |

#### 4.7 DU Power Supply Agreement

|                            |   |
|----------------------------|---|
| Relevance:                 | Business Model: <input type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release  |
| Description:               | The terms of reference to be used by the DU shall include the following:<br>a. Required/Contracted Capacity and/or Energy Volumes.<br>b. Generation sources (hydro, coal, natural Gas, diesel, solar, wind, biomass ...).<br>c. Method of procurement for fuel, if applicable.<br>d. Cooperation/Contract Period.<br>e. Fee Structure unbundled to Capacity Fees, Variable and Fixed Operating and Maintenance (O&M) Fee, Fuel Fee and others, including the derivation of each component.<br>f. Base Fee adjustment formula, if any.<br>g. Form of Payment (Pesos or Foreign Currency Denominated).<br>h. Penalties (if applicable).<br>i. If applicable, details regarding any transmission projects or Grid connection projects necessary to complement the proposed generation capacity, including identification of the parties what will develop and/or own such facilities, any costs related to such projects and specification of the parties responsible for recovery of any cost related to such projects. |
| Official Ref.:             | ERC Draft Resolution on the PSA rules   |
| Involved Authority:        | DU  |
| Applied Procedures:        | Competitive selection process (call for tenders).   |
| Documents to be submitted: | As specified in the call for tenders (ToR structure see above).   |

| 4.8 ERC Approval of the PSA |  |
|-----------------------------|--|
| Relevance:                  | Business Model: <input type="checkbox"/> FIT <input checked="" type="checkbox"/> PSA <input type="checkbox"/> B2B <input type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:                | The ERC shall determine/approve the reasonable generation cost under the said PSA. Without such an approval, the PSA is not valid.   |
| Official Ref.:              | ERC Draft Resolution on the PSA rules  |
| Involved Authority:         | ERC  |
| Applied Procedures:         | Following the execution of the PSA, the parties thereto shall file with the ERC, within 30 days therefrom; a joint application for its approval of said PSA and for the determination of the reasonable generation costs that the DU can recover from its captive market as part of its retail rate. The ERC shall determine the reasonable generation cost under the said PSA, taking into account the following fees, if applicable: <ul style="list-style-type: none"> <li>• Capital Recovery Fee (CRF).</li> <li>• O&amp;M Fee</li> <li>• Fuel Fee</li> </ul>  |
| Documents to be submitted:  | <p>The application for approval of the PSA shall be accompanied by the following supporting documents: 4</p> <ul style="list-style-type: none"> <li>• The duly signed PSA.</li> <li>• All details on the procurement process used by the DU leading to the selection of the Generation Company including the terms of reference used by the DU, and the proposals received by the DU.</li> <li>• A sworn certification that a public bidding was conducted.</li> <li>• All the information enumerated in the preceding Article.</li> <li>• Other information that ERC shall require.</li> </ul> <p>In support of the proposed pricing under the PSA, the following shall be required:</p> <ul style="list-style-type: none"> <li>• Executive Summary.</li> <li>• Sources of Funds/Financial Plans. <ul style="list-style-type: none"> <li>– Debt/Equity Ratio.</li> <li>– Project/Asset Cost and the economic life.</li> <li>– Computation of Return on Investment /Weighted Average Cost of Capital (WACC) with justification/s.</li> <li>– Certification from the Bank/Lending Institution specifying the principal amortization, term and interest during the period of the loan agreement.</li> </ul> </li> <li>• Purchased Power Rate: <ul style="list-style-type: none"> <li>– Breakdown of the base prices of Operation and Maintenance, Capacity Fee, Fixed Operation Fee; and Energy Fee, Sample Computation of Power Rates with supporting documents on the proposed fees and on the assumptions taken.</li> <li>– Statement of its impact on the overall rates of the DU once the contract is approved.</li> <li>– Basis/rationale of indexation and level of indexation, if applicable.</li> </ul> </li> <li>• Cash Flow specifying the following: <ul style="list-style-type: none"> <li>– Initial Costs.</li> <li>– Breakdown of Operating and Maintenance expenses.</li> <li>– Minimum Energy Off-take (MEOT), if applicable</li> </ul> </li> <li>• All details on the procurement process of fuel, including requests, proposals received, tender offers, etc.</li> <li>• All costs analysis related to the generation in support of the proposed pricing provisions of the contract.</li> <li>• Sworn Statement detailing how the fuel was competitively procured, contract terms and unbundled price components (product cost, trans-shipment, delivery, container, etc.), if applicable. 6</li> </ul> <p>The following supporting documents/information are required to be attached to the application or petition to be filed by Applicants for applications involving new generation facilities:</p> <ul style="list-style-type: none"> <li>• General Information <ul style="list-style-type: none"> <li>– (Articles of Incorporation/Partnership (for Corporation/Partnership) of Generation Company with Securities and Exchange Commission (SEC) Certificate of Registration;</li> <li>– Latest General Information Sheet (GIS) of the Generation Company (SEC Form); and</li> <li>– Board of Investment (BOI) Certificate of Registration, if applicable.</li> </ul> </li> <li>• Financial Information <ul style="list-style-type: none"> <li>– Latest and Complete Set of Audited Financial Statements of the Generation Company (Balance Sheet, Income Statement, and Statement of Cash Flows), including the audit opinion, the statement of management’s responsibility on the financial statements, if available;</li> <li>– Bank Certification of Long-term Loans, to include the following information: Amortization Schedule of Loan Payments (Principal and Interest), interest rates and credit terms (period and applicable penalties); and</li> <li>– Other documents showing proof of its entitlement to any tax incentives and exemptions.</li> </ul> </li> </ul> |

#### 4.8 ERC Approval of the PSA

|  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>• Technical Information             <ul style="list-style-type: none"> <li>– Certificate of Compliance (CoC) issued by the Energy Regulatory Commission (ERC), if available;</li> <li>– Technical characteristics of the Generation Company's Power Plant, to include: Type of Technology, Installed Capacity and, Dependable Capacity, Capacity Factor, and Mode of Operation (Base load, Peaking, Intermediate-Peaking);</li> <li>– If applicable, details regarding any transmission projects or Grid connection projects necessary to complement, the proposed generation capacity including identification of the parties what will develop and/or own such facilities, any costs related to such projects and specification of the parties responsible for recovery of any cost related to such projects;</li> <li>– Certification that states the consistencies and inconsistencies between the proposed generation capacity and the Department of Energy's (DOE) Philippine Development Plan (PDP). Any inconsistencies shall be supported by relevant analysis including but not limited to, forecasts and assessment of available generation capacity and technology mix; and</li> <li>– Details regarding the load forecast projections in accordance with the latest Distribution Development Plan of the Distribution Utility and the variability of those projections over the proposed contractual period. An estimation of the potential for a reduction in load supplied by the Distribution Utility due to retail competition.</li> </ul> </li> </ul> |
|--|--|

#### 4.9 DU Connection Agreement

|                     |  |
|---------------------|--|
| Relevance:          | Business Model: <input type="checkbox"/> FIT <input type="checkbox"/> PSA <input type="checkbox"/> B2B <input checked="" type="checkbox"/> Net-metering<br>Financing: <input type="checkbox"/> Loan procedure <input type="checkbox"/> Pre-Release <input type="checkbox"/> Post Release   |
| Description:        | The connection agreement is the last step towards the implementation of SPV plant under the net-metering business model (see page 17). It is the contract concluded between the DU and the owner of a net-metering RE installation.  |
| Legal Ref.:         | ERC Resolution 09, Series of 2013; RE Act Sec. 10  |
| Involved Authority: | DU   |
| Applied Procedures: | Subject to technical considerations and without discrimination and upon request by distribution end users, the DUs shall enter into net-metering agreements with qualified end users who will be installing the RE system <sup>7</sup> . Thereafter, the DU or QE shall furnish the executed net-metering agreement to ERC, DOE and NREB. The executed net-metering agreement shall be deemed approved and effective upon submission thereof to ERC. |
| Incurred fees:      | No other fees than the DIS fee is charged for a DU Connection Agreement by MERALCO   |

## Conclusions and recommendations

The administrative procedures related to the licensing and permitting of on-grid SPV power plants in the Philippines are complex, time-consuming and costly. In the beginning of 2014, RE developers of SPV power plants in the range of 20-30 MWp, who had already achieved a COE Certificate of Conformation of Commerciality for at least one of their planned plants estimated the total cost of project development, including all administrative procedures, to be in the range of 1 million USD, or even more.<sup>6</sup> They complained that the entire administrative procedure can take two years or more.

The long duration and high cost of these procedures, together with the fact that RE developers do not know whether DOE and ERC endorse them to avail the FIT before they have completed their plants, are seen by many potential investors as major risks incurred on new project developments.

For the simplification of the administrative procedures for the development and implementation of on-grid solar PV projects, DOE should take the lead in facilitating a stakeholder dialogue with the energy sector institutions involved and with the private sector.

Equal importance should be given to further adjustments to the feed-in tariff and the net-metering scheme, for example:

- Introducing a flexible adjustment scheme for the degression of the FIT rate for on-grid SPV projects based on annual capacity additions.
- Introducing differentiated FIT rates according to the size of the project, potentially including small-scale SPV projects (below 100kWp) into the FIT system.
- Privileged permitting of on-grid SPV installations under the FIT on existing roofs (the applied procedure could be similar as today's procedure for on-grid SPV installations under the net-metering scheme).
- Adjusting the refund for power exported from SPV installations under the net-metering to make private investments in SPV more attractive.
- Waiving the qualified end users obligation to pay for a distribution impact study for micro-scale on-grid SPV plants planned to be connected to the local distribution grid, for example, in the range below 20 kWp.

The financial sector in the Philippines has yet little contribution to the development of the market for on-grid SPV projects. Most of the projects currently under development, as far as they are depending on loans, have been financed by international financing institutes.

Mitigation of the risks related to the duration and cost of administrative procedures imposed on on-grid SPV projects and to the availing of FIT rates for a SPV plant, when completed, should encourage national financial institutions to engage more in the financing of on-grid SPV projects in the Philippines.

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<sup>6</sup> Result of stakeholder consultations performed in 2014



## Annex

### List of legal documents referred to in the Guidebook

| Ref.                           | Document  | Online sources<br>(status 17 May 2014)  |
|--------------------------------|---|---|
| EPIRA                          | Republic Act No. 9136<br>An act ordaining reforms in the electric power industry (Electric Power Industry Reform Act of 2001)   | <a href="http://www.lawphil.net/statutes/repacts/ra2001/ra_9136_2001.html">http://www.lawphil.net/statutes/repacts/ra2001/ra_9136_2001.html</a>                                 |
| EPIRA-IRR                      | Implementing rules and regulations of Republic Act No. 9136 (EPIRA)   | <a href="http://www.cenergy.ph/downloads/IRR_RA9136.pdf">http://www.cenergy.ph/downloads/IRR_RA9136.pdf</a>   |
| RA 9513<br>RE ACT              | Republic Act No. 9513<br>An act promoting the development, utilization and commercialization of renewable energy resources (RE Act)   | <a href="http://www.senate.gov.ph/republic_acts/ra%209513.pdf">http://www.senate.gov.ph/republic_acts/ra%209513.pdf</a>   |
| IRR                            | DOE Department Circular No. 2009-05-0008<br>Implementing rules and regulations (IRR) of Republic Act No. 9513   | <a href="https://www.doe.gov.ph/doe_files/pdf/issuances/DC/DC2009-05-0008.pdf">https://www.doe.gov.ph/doe_files/pdf/issuances/DC/DC2009-05-0008.pdf</a>                         |
| RESC Rules                     | DOE Department Circular (DC) 2009-07-0011<br>Guidebooks governing a transparent and competitive system of awarding renewable energy service /operating contracts and providing for the registration process of renewable energy developers (enhanced by DOE DC2013-10-0018) | <a href="https://www.doe.gov.ph/doe_files/pdf/issuances/DC/DC2009-07-0011.pdf">https://www.doe.gov.ph/doe_files/pdf/issuances/DC/DC2009-07-0011.pdf</a>                         |
| FIT Rules                      | DOE Department Circular 2013-05-0009<br>Guidelines for the selection process of renewable energy projects under feed-in tariff system and the award of certification for feed-in tariff eligibility   | <a href="http://www.doe.gov.ph/doe_files/pdf/issuances/DC/DC2013-05-0009.pdf">http://www.doe.gov.ph/doe_files/pdf/issuances/DC/DC2013-05-0009.pdf</a>                           |
| Omnibus Investment Code        | Executive Order No. 226<br>The Omnibus Investments Code of 1987 (as amended)  | <a href="http://www.sme.com.ph/downloads/pronouncements/FILE279_001.pdf">http://www.sme.com.ph/downloads/pronouncements/FILE279_001.pdf</a>                                     |
| RA 6541<br>Building Code       | Republic Act No. 6541<br>An act to ordain and institute a national building code of the Philippines (National Building Code of the Philippines)   | <a href="http://www.chanrobles.com/republicactno6541.htm#U3dgNLIzqpo">http://www.chanrobles.com/republicactno6541.htm#U3dgNLIzqpo</a>   |
| Indigenous Peoples Rights Act  | Republic Act No. 8371<br>An act to recognize, protect and promote the rights of indigenous cultural communities/indigenous peoples, creating a National Commission on Indigenous Peoples, establishing implementing mechanisms (Indigenous Peoples Rights Act of 1997)      | <a href="http://www.opapp.gov.ph/resources/indigenous-peoples%E2%80%99-rights-act-1997">http://www.opapp.gov.ph/resources/indigenous-peoples%E2%80%99-rights-act-1997</a>       |
| FPIC                           | NCIP Administrative Order No. 3 Series of 2012<br>The revised guidebooks on free and prior informed consent (FPIC) and related processes of 2012  | <a href="http://bantaykita.ph/wp-content/uploads/2012/06/Revised-FPIC-Guidebooks_2012.pdf">http://bantaykita.ph/wp-content/uploads/2012/06/Revised-FPIC-Guidebooks_2012.pdf</a> |
| Environmental Impact Statement | Presidential Decree No. 1586 of 1978<br>Establishing an environmental impact statement system, including other environmental management related measures  | <a href="http://www.emb.gov.ph/embgovph/Portals/12/flowcharts%20and%20fees/PD%201586.pdf">http://www.emb.gov.ph/embgovph/Portals/12/flowcharts%20and%20fees/PD%201586.pdf</a>   |

| Ref.                                    | Document   | Online sources<br>(status 17 May 2014)  |
|---|--|---|
| Clean Air Act                           | Republic Act No. 8749<br>Philippine Clean Air Act of 1999  | <a href="http://www.chanrobles.com/philippine/cleanairact.htm#_U3dhj7lZqpo">http://www.chanrobles.com/philippine/cleanairact.htm#_U3dhj7lZqpo</a>   |
| Toxic Substances Act                    | Republic Act No. 6969<br>An act to control toxic substances and hazardous and nuclear wastes, providing penalties for violations thereof, and for other purposes (Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990) | <a href="http://www.lawphil.net/statutes/repacts/ra1990/ra_6969_1990.html">http://www.lawphil.net/statutes/repacts/ra1990/ra_6969_1990.html</a>   |
| Conversion of private agricultural land | DAR Administrative Order No. 1, Series of 2002<br>Revised rules and regulations governing conversion of private agricultural lands to non-agricultural uses  | <a href="http://www.lis.dar.gov.ph/documents/377">http://www.lis.dar.gov.ph/documents/377</a>   |
| Land use conversion                     | DAR Memorandum Circular No. 02-02<br>Guidebooks for the processing of land use conversion applications pursuant to Administrative Order No. 1, series of 2002 (2002 Comprehensive Rules on Land Use Conversion)                          | <a href="http://www.lis.dar.gov.ph/documents/2161">http://www.lis.dar.gov.ph/documents/2161</a>   |
| Local Government Code                   | Republic Act No. 7160<br>The Local Government Code of the Philippines (Local Government Code of 1991)  | <a href="http://www.chanrobles.com/localgovfulltext.html#_U3dklrIzqpo">http://www.chanrobles.com/localgovfulltext.html#_U3dklrIzqpo</a>   |
| Distribution Code                       | ERC Resolution No. 115, Series of 2001<br>Adoption of the Philippine Grid Code and the Philippine Distribution Code  | <a href="http://www.abernales.com/discode.pdf">http://www.abernales.com/discode.pdf</a>   |
| WESM Rules                              | Wholesale electricity spot market rules (WESM Rules and Amendments)  | <a href="http://www.wesm.ph/inner.php/downloads/wesm_rules_and_amendments/page/2">http://www.wesm.ph/inner.php/downloads/wesm_rules_and_amendments/page/2</a>   |
| OATS Rules                              | ERC Case No. 2006-015 RC<br>Decision in the matter of the approval of the amendments/revisions on the rules, terms and conditions for open access transmission service (OATS Rules)  | <a href="https://www.ngcp.ph/savefiles/news/ERC/Decision_ERC%20Case%202006-015RC_OATS%20Rules_December%2013%202006.pdf">https://www.ngcp.ph/savefiles/news/ERC/Decision_ERC%20Case%202006-015RC_OATS%20Rules_December%2013%202006.pdf</a> |
|   | ERC Case No. 2006-015 RC<br>Revised rules, terms and conditions for the provision of open access transmission service  | <a href="http://www.erc.gov.ph/admin/UploadFiles/Documents/OATS_Rules_Dec2006.pdf">http://www.erc.gov.ph/admin/UploadFiles/Documents/OATS_Rules_Dec2006.pdf</a>   |
| NGCP Open Access Procedure              | ERC Case No. 2002-253<br>Rules, terms and conditions for the provision of open access transmission service   | <a href="https://www.ngcp.ph/savefiles/news/ERC/Approved_ASPP_2006-03_ERC_Case_No_2002-253_Mar2006.pdf">https://www.ngcp.ph/savefiles/news/ERC/Approved_ASPP_2006-03_ERC_Case_No_2002-253_Mar2006.pdf</a>                                 |
| Net-Metering Rules                      | ERC Resolution 09, Series of 2013<br>Rules enabling the net-metering program for renewable energy  | <a href="http://www.erc.gov.ph/IssuancesDownload/FileDownload/5919">http://www.erc.gov.ph/IssuancesDownload/FileDownload/5919</a>   |
| Role of TRANSCO in the FIT system       | ERC Resolution No. 15 of 2012<br>Resolution adopting the position of the Commission in the issues paper published on 02 April 2012 and the corresponding amendments to the feed-in rules   | <a href="http://www.erc.gov.ph/Issuances/resolutions">http://www.erc.gov.ph/Issuances/resolutions</a>   |
| PSA Rules                               | ERC Draft Resolution<br>Rules governing the execution, review, and evaluation of power supply agreements entered into by distribution utilities for the supply of electricity to their captive market                                    | <a href="http://www.erc.gov.ph/admin/UploadFiles/Documents/DRAFTPSARULES2.202013.pdf">http://www.erc.gov.ph/admin/UploadFiles/Documents/DRAFTPSARULES2.202013.pdf</a>   |







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