

Republic of the Philippines
ENERGY REGULATORY COMMISSION
Pasig City



**IN THE MATTER OF THE
APPLICATION FOR
AUTHORITY TO DEVELOP,
OWN, OPERATE AND
MAINTAIN DEDICATED
POINT-TO-POINT LIMITED
FACILITIES TO CONNECT TO
THE TRANSMISSION
SYSTEM OF NATIONAL GRID
CORPORATION OF THE
PHILIPPINES, WITH
PRAYER FOR PROVISIONAL
AUTHORITY**

ERC CASE NO. 2020-015 MC

TERASU ENERGY, INC.,
Applicant.

Promulgated:
July 06, 2021

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DECISION

Before the Commission for resolution is the *Application* dated 21 September 2020 filed by Terasu Energy, Inc. (TERASU) on 02 December 2020, seeking the Commission's approval of its authority to develop, own, operate and maintain a dedicated point-to-point limited transmission facility to connect its 40MW Concepcion Solar Power Plant (CSPP) Project via direct connection to the Concepcion 69kV Substation of the National Grid Corporation of the Philippines (NGCP).

FACTUAL ANTECEDENTS

The pertinent allegations in the *Application* are hereunder quoted, as follows:

1. "TERASU¹ is a power generation company duly organized and existing under and by virtue of the laws of the Republic of the

¹ A copy of TERASU's Secretary's Certificate dated November 13, 2019 authorizing the filing of the Application and designating Ms. Maria Carina L. Azores as the authorized representative is attached hereto as Annex "A" and made an integral part hereof.

Philippines, with principal office address at 18F Philamlife Tower, 8767 Paseo De Roxas, Bel-Air, Makati City, Philippines. It may be served orders and other legal processes through its undersigned counsel.

2. TERASU's primary purpose is to invest in or otherwise engage in the exploration, development, construction and other allied activities including the supply, assembly, erection, commissioning, constructing, enlarging, repairing, removing, developing and operating or otherwise engage in any work upon manufacturing plants, solar energy generating plants; and to make, execute, bid for and to take or receive contracts or assignment of contracts therefore, or in relation thereto, or connected therewith (the "Projects"), except contracts for the construction and repair of locally funded public works and other defense related structures; and the doing of any and all other activities contracting incidental thereto or therewith, and the doing and performing of any and all acts and things necessary, proper or convenient for and incidental to the furtherance and/or implementation of the purposes therein mentioned. Provided that the corporation shall not solicit, accept or take investments/placements from the public neither shall it issue investment contracts.²
3. TERASU is a registered renewable energy ("RE") developer with the Department of Energy ("DOE")³ and has a service contract for the exploration, development and utilization of solar energy resource, among others.
4. In the 2016-2040 Demand-Supply Outlook, the DOE recognized the growing demand for power in the Philippines. For the Luzon Grid, the DOE projected the energy demand to increase from 9,726 MW in 2016 to 29,852 MW by 2040. Based on the foregoing, the Luzon Grid still needs a total of 24,385 MW of additional capacities of 13,635 MW base-load plant, 8,300 mid-merit plants and 2,450 MW peaking plants to meet the electricity demand.⁴
5. Recent developments in the power industry, as indicated in the presentation by the DOE Secretary regarding a briefing on the Electric Power Industry⁵ showed that the required power system capacity addition for the Luzon Grid between the years 2016 to 2040 is 24,385 MW.
6. To help address the need for additional capacity in the Luzon Grid, TERASU will design, engineer, procure, construct,

² Copies of TERASU's Certificate of Incorporation, Articles of Incorporation and By-Laws are attached hereto as Annexes "B", "B-1" and "B-2" and made integral parts hereof.

³ A copy of TERASU's Certificate of Registration as an RE Developer is attached hereto as Annex "C" and made an integral part hereof.

⁴ A copy of the DOE's Power Development Plan 2016-2040 (*Please see* Figure 16, Luzon Demand-Supply Outlook, 2016-2040, p.45) is attached hereto as Annex "D" and made an integral part hereof.

⁵ A copy of the DOE presentation by Secretary Alfonso G. Cusi (*Please see* Slide 7, Required Power System Capacity Addition between 2016 to 2040) is attached hereto as Annex "E" and made an integral part hereof.

supply, start-up, test, commission, own, operate and maintain a Solar Power Plant with a capacity of approximately 40 MW located in Brgy. Sta. Rosa, Concepcion, Tarlac (the "Project"). The Project's target date of completion and energization is in March 31, 2021. Power for export generated from the Solar Power Plant shall be delivered to the Luzon Grid.

7. In connection thereto, the DOE approved and issued Solar Service Energy Contract No. 2019-07-519.⁶
8. On 25 November 2019, the DOE issued a letter addressed to the National Grid Corporation of the Philippines ("NGCP") granting clearance to Terasu to start negotiations with NGCP to undertake the System Impact Study ("SIS") for the Project.⁷
9. To test, commission and dispatch its generating facility, soon after completion, TERASU proposes to transmit its generated power to the NGCP Luzon Grid via direct connection to the 69kV Concepcion Substation, through the construction and installation of a dedicated point-to-point limited interconnection facility (the "Transmission Line")⁸ to be constructed by JS Engineering and Marketing Services.
10. TERASU intends to connect the Project to the Luzon Grid via a 0.6km, 69 kV, SP-SC 1-336.4 MCM ASCR direct connection to the existing NGCP Concepcion 69kV Substation.⁹ The Transmission Line will consist of around 0.6 kilometers.
11. The proposed connection of the Project is the most viable and reasonable option that will enable TERASU to dispatch the Project's capacity when the need arises, considering its close proximity to the NGCP Concepcion 69kV Substation.
 - 11.1. A System Impact Study ("SIS") on the proposed Transmission Line has been conducted and based on the results thereof, the said interconnection is technically feasible.¹⁰ NGCP has reviewed the SIS, and in a letter dated 15 July 2019, NGCP approved the integration of the Project to the Luzon Grid via a 69 kV direct connection to the NGCP Concepcion substation.¹¹
 - 11.2. A Facilities Study has been undertaken and approved by the NGCP.¹²

⁶ A copy of the Solar Energy Service Contract is attached hereto as Annex "F" and made an integral part hereof.

⁷ A copy of the DOE letter endorsement dated November 25, 2019 is attached hereto as Annex "G" and made an integral part hereof.

⁸ A copy of the description and scope of the project denominated as Description of the Project is attached as Annex "H" and made an integral part hereof.

⁹ A copy of the Conceptual Engineering Designs are attached as Annexes "I" and "I-1" and made an integral part hereof.

¹⁰ A copy of the System Impact Study is attached as Annex "J" and made integral part hereof.

¹¹ A copy of letter from NGCP dated July 15, 2019 is attached hereto as Annex "J-1" and made an integral part hereof.

¹² Copies of the Facilities Study and the NGCP Letter dated July 16, 2019 are attached as Annexes "K" and "K-1" respectively and made integral parts hereof.

12. The proposed connection configuration for the Transmission Line shall be as follows:

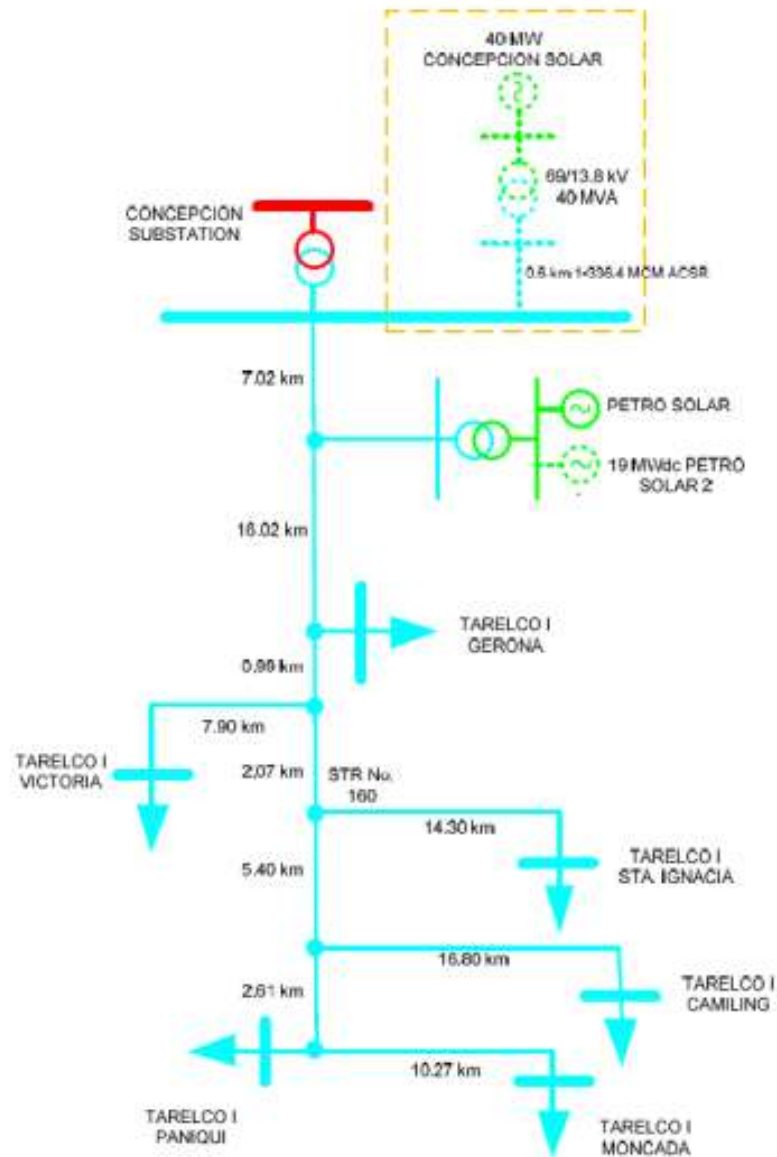


Figure 1. Connection Scheme Single Line Diagram¹³

13. The estimated cost for the construction and installation of the Transmission Line is Forty-Three Million Five Hundred Sixty-Nine Thousand One Hundred Ninety-Eight Pesos and Sixty-Seven Centavos (Php 43,569,198.67).¹⁴
14. Consistent with the projected date of energization of the Project, the target completion and commissioning of the Transmission Line is on 31 January 2021.¹⁵

¹³ NGCP, System Impact Study, *please see* p. 3 thereof. A copy of the NGCP System Impact Study is attached as Annex “J” and made an integral part hereof.

¹⁴ A copy of the Project Cost Estimates are attached hereto as Annexes “L” and “L-1” and made integral parts hereof.

¹⁵ A copy of the Project Schedule Gantt Chart is attached as Annex “M” and made an integral part hereof.

15. TERASU has secured the relevant permits for the Project and the Transmission Line.

15.1. On 3 May 2019, the Department of Environment and Natural Resources – Environmental Management Bureau (“DENR-EMB”) issued the Amended Environmental Compliance Certificate (“ECC”) for the Project.¹⁶

15.2. On 23 July 2019, the National Commission on Indigenous Peoples issued a Certificate of Non-Overlap for the Project.¹⁷

16. TERASU is in the process of finalizing the Connection Agreement, Transmission Service Agreement and Metering Service Agreement with NGCP.¹⁸

17. Section 9(f) of the Electric Power Industry Reform Act (“EPIRA”) provides:

A generation company may develop and own or operate dedicated point-to-point limited transmission facilities that are consistent with the TDP: Provided, that such facilities are required only for the purpose of connecting to the transmission system, and are used solely by the generating facility, subject to prior authorization by the ERC.

18. In accordance with the requirement of Section 9(f) of the EPIRA, TERASU hereby seeks this Honorable Commission’s authorization to develop, own, and operate a dedicated point-to-point limited interconnection facility, to connect the Project to the grid.

19. The proposed Transmission Line meets the requirements provided in Section 9 of the EPIRA and the relevant regulations issued by this Honorable Commission as follows:

19.1. The Transmission Line is a dedicated point-to-point limited interconnection facility whose sole purpose is to connect the Project to the grid and is considered a “Connection Asset” under ERC Resolution No. 23, Series of 2016 (“ERC Resolution”);

19.2. The Transmission Line will be exclusively used by TERASU for the operations of the Project and will not serve any end-user;

19.3. The Transmission Line is technically feasible; and

¹⁶ A copy of the Amended Environmental Compliance Certificate is attached as Annex “N” and made an integral part hereof.

¹⁷ A copy of the Certificate of Non-Overlap is attached as Annex “O” and made an integral part hereof.

¹⁸ A copy of the letter sent by NGCP on the status of the service agreements between NGCP and Terasu is attached as Annex “P” and made an integral part hereof.

19.4. TERASU has the technical and financial ability to develop, construct, operate, and maintain the Transmission Line.

The Transmission Line is a dedicated point-to-point transmission facility and will be used exclusively by TERASU.

20. To reiterate, the Transmission Line is designed for the sole purpose of connecting the Project to the grid. The single-line diagram of the proposed interconnection shows that the Transmission Line will be exclusively used by TERASU and is not designed and configured to serve end-users.

21. The Single Line Diagram of the Transmission Line is illustrated in Figure 2 below.

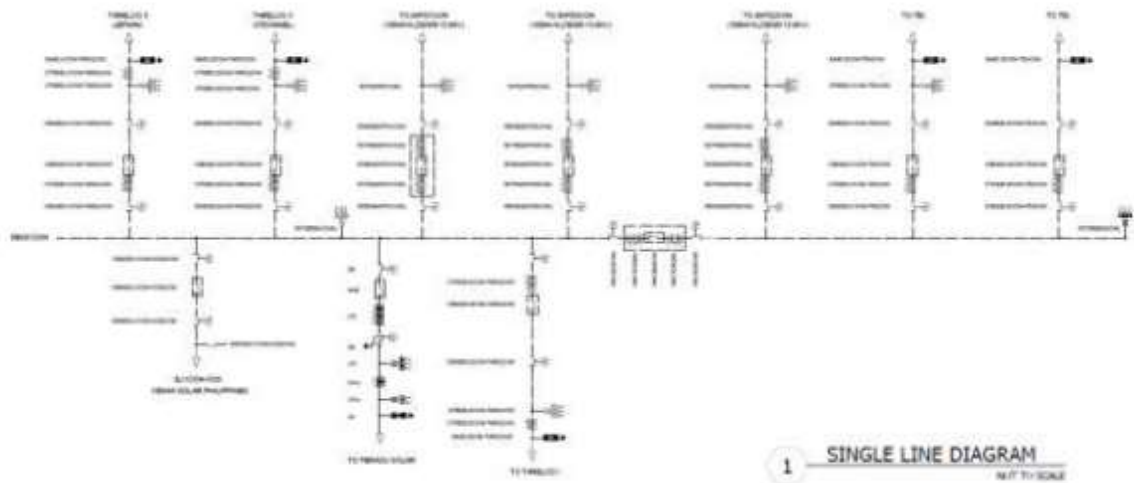


Figure 2. Single-line Diagram Transmission Line¹⁹

22. The Transmission Line is also classified as a “Connection Asset” under the ERC Resolution since it is primarily designed to connect the Project to the grid and will be used for the conveyance of electricity from the Project to the grid.²⁰ If the Transmission Line is taken out of the transmission system of NGCP, such disconnection will only affect TERASU and will have no effect on the grid, or other connected customers.

The Project is included in the DOE List of Private Sector-Initiated Power Projects for Luzon.

23. The Project is one of the indicative projects in the DOE List of Private Sector Initiated Power Projects for Luzon as of

¹⁹ A copy of the Line Diagram is attached as Annex “Q” and made an integral part hereof.

²⁰ Resolution Adopting the Amended Rules on the Definition and Boundaries of Connection Assets for Customers of Transmission Providers, ERC Resolution No. 16, Series of 2011, Annex A, § 2, p.1.

September 30, 2018²¹ and is consistent with the Transmission Development Plan of NGCP.²²

The Transmission Line is technically feasible.

24. The SIS conducted by NGCP shows that the connection of the Project through the Transmission Line is technically feasible. The connection poses no significant system impact to the stability, reliability and operating characteristics of the Luzon Grid. Further, the SIS review concluded that the proposed project could be safely and reliably integrated thereto.
25. TERASU proposed the Transmission Line connection because of its viability and technical feasibility for the connection of the Project. The Project will connect to the Luzon Grid via a 0.6 km 69 kV direct connection to the existing NGCP Concepcion 69 kV substation.²³
26. TERASU has likewise ensured that the design and technical specifications for the Transmission Line are consistent with the standards of the Philippine Grid Code.²⁴
27. The Project is also consistent with the Transmission Development Plan (“TDP”) of NGCP.²⁵

TERASU has the technical and financial capability to develop, construct, operate and maintain the Transmission Line

28. TERASU has the technical and financial capability to develop the Transmission Line.
 - 28.1. The Transmission Line will be constructed by JS Engineering and Marketing Services.²⁶
 - 28.2. TERASU likewise has the financial capability to undertake the development and construction of the Transmission Line. The development and construction of the Project and the Transmission Line will be funded by TERASU through project financing.²⁷

²¹ A copy of the DOE List of Private Sector-Initiated Power Projects (Luzon), as of September 30, 2018 is attached as Annex “R” and made an integral part hereof; *please see* p. 12 thereof.

²² A copy of the Transmission Development Plan 2016-2040 (*Please see* p. 32, Table 5.3(a)) is attached as Annex “S” and made an integral part hereof.

²³ *Id at 14.*

²⁴ A copy of the Statement of Compliance to the Philippine Grid Code is attached as Annex “T” and made an integral part hereof.

²⁵ Transmission Development Plan 2016-2040. A copy of the Transmission Development Plan 2016-2040 (*Please see* p. 32, Table 5.3(a)) is attached as Annex “S” and made an integral part hereof.

²⁶ A copy of the Company Profile of JS Engineering and Marketing Services with a list of the projects it has undertaken is attached as Annex “U” and made an integral part hereof.

²⁷ A copy of TERASU’s General Information Sheet and Audited Financial Statements are attached as Annexes “V” and “V-1” are made integral parts hereof.

29. Since TERASU will solely fund the development and construction of the Transmission Line, and the Transmission Line will be exclusively used by TERASU for the operations of the Project and will not serve any end-user, the Transmission Line will not have an impact on the transmission rates currently being charged to the public.
30. Once completed, TERASU will undertake the operations and maintenance of the Transmission Line through JS Engineering and Marketing Services, and TERASU will subsequently fund the operations of the Transmission Line from its generation sales.²⁸
31. JS Engineering and Marketing Services has the technical capability to operate and maintain the transmission line.²⁹
32. TERASU also undertakes to file an application for a Certificate of Compliance³⁰ with this Honorable Commission and submit a Compliance Plan³¹ to the PGC.
33. The foregoing clearly shows that the proposed Transmission Line complies with Section 9 of the EPIRA and the relevant regulations of this Honorable Commission.

**Motion for Provisional Authority
and Allegations in Support of Prayer for Provisional
Authority**

34. Rule 14 of the Honorable Commission's Rules of Practice and Procedure authorizes the issuance of a provisional authority or an interim relief prior to a final decision, provided that the facts and circumstances warrant the issuance of the same.
35. TERASU respectfully prays that the Honorable Commission provisionally authorize the development, ownership, and operation of the Transmission Line considering that the facts, circumstances and the magnitude of the opportunity costs entailed by any further delay in the interconnection of the Project warrants the issuance of a Provisional Authority.
 - 35.1. TERASU hopes to be able to complete development and construction of the facilities at the soonest possible time in order to be able to dispatch electric power supply to the grid.
 - 35.2. The Project is one of the energy projects under Republic Act No. 9513 or the Renewable Energy Act of 2008, which aims to accelerate the development and

²⁸ A copy of names and addresses of personnel responsible for the design, installation, maintenance, and repair of equipment for the proposed system are attached as Annex "W" and made integral parts hereof.

²⁹ Copies of proof of the technical capability of JS Engineering and Marketing Services to operate the transmission line are attached as Annexes "X", "X-1", "X-2", "X-3" and "X-4" and made integral parts hereof.

³⁰ A copy of the Affidavit of Compliance is attached as Annex "Y" and made an integral part hereof.

³¹ A copy of the Compliance Plan is attached as Annex "Z" and made an integral part hereof.

utilization of the country's renewable energy sources. Thus, it is in the interest of the government to help RE developers such as TERASU to achieve commerciality and commence operations at the soonest practicable time.

- 35.3. The construction of the Transmission Line is a prerequisite for the testing and commissioning, and ultimately, the commercial operations of TERASU. The Project is projected to be completed and energized in 31 March 2021. Consistent with this timeline, TERASU intends to complete the development and construction of the Transmission Line by 31 January 2021;
 - 35.4. Moreover, the use of solar energy reduces the country's dependence on fossil fuels, which not only minimizes harmful carbon greenhouse emissions in the environment but also reduces the country's exposure to price fluctuations in the international markets.
 - 35.5. Further, given the immediate need for additional capacity, the completion of the Project within the timeframe is critical to ensure additional capacity will be available to the grid in a timely manner.
36. It is in such context that TERASU respectfully prays that provisional authority be immediately issued for the development and construction of the proposed Transmission Line.

PRAYER

WHEREFORE, TERASU respectfully prays that this Honorable Commission:

1. Immediately ISSUE an order provisionally authorizing TERASU to implement the development, ownership and operation of a dedicated point-to-point limited transmission facility to connect the Project to the Luzon Grid; and
2. After due notice and hearing, GRANT TERASU the authority to develop, own, operate, and maintain a dedicated point-to-point limited transmission facility to connect the Project to the Luzon Grid.

Other reliefs as may be appropriate under the circumstances are likewise prayed for.”

On 07 January 2021, the Commission issued an *Order* and *Notice of Virtual Hearing*, both dated 05 January 2021, setting the case for hearing for the determination of compliance with the jurisdictional requirements and expository presentation on 09

February 2021. The pre-trial conference and presentation of evidence was also set on 16 February 2021.

On 04 February 2021, TERASU submitted a soft copy of its *Expository Presentation* and its *Compliance (with Jurisdictional Requirements)* on 05 February 2021.

During the 09 February 2021 hearing, only TERASU appeared. There was no intervenor or oppositor who appeared nor was there any intervention or opposition that was filed.

Thereafter, TERASU presented documents as proof of its compliance with the Commission's publication and posting of notice requirements, *to wit*:

1. *Affidavit of Publication* executed by Mario R. Policarpio, Chief Accountant of *The Manila Standard*, dated 25 January 2021, attesting the publication of the *Notice of Virtual Hearing* on *The Manila Standard*;³²
2. *Page C2*³³ of the 25 January 2021 issue of *The Manila Standard* where the *Notice of Virtual Hearing* was published;
3. *Transmittal Letters* showing that a complete copy of the *Order and Notice of Virtual Hearing* were furnished by the Applicant and were received by the following offices: Office of the Solicitor General (OSG),³⁴ Commission on Audit (COA),³⁵ Committee on Energy of the Senate,³⁶ Committee on Energy of the House of Representative,³⁷ and the Philippine Chamber of Commerce and Industry (PCCI);³⁸
4. *Transmittal Letters* showing that a complete copy of the *Order and Notice of Virtual Hearing* were furnished by the Applicant to the following: Offices of the Provincial Governor³⁹ and Sangguniang Panlalawigan of the Province of Tarlac,⁴⁰ Offices of the Municipal Mayor⁴¹ and

³² Exhibit "U".

³³ Exhibit "U-1".

³⁴ Exhibit "V".

³⁵ Exhibit "W".

³⁶ Exhibit "X".

³⁷ Exhibit "Y".

³⁸ Exhibit "Z".

³⁹ Exhibit "CC".

⁴⁰ Exhibit "DD".

⁴¹ Exhibit "AA".

Sangguniang Bayan of the Municipality of Concepcion, Tarlac;⁴²

5. *Certificates of Posting* issued by the Offices of the Provincial Governor⁴³ and Sangguniang Panlalawigan of the Province of Tarlac,⁴⁴ and the Offices of the Municipal Mayor⁴⁵ and Sangguniang Bayan of the Municipality of Concepcion, Tarlac;⁴⁶ and
6. *Affidavit* dated 03 February 2021 from TERASU showing that the *Order* and *Notice of Virtual Hearing* was posted in the bulletin boards at TERASU's main office.⁴⁷

Upon perusal of the documents submitted, the Commission noticed that the scanned copies of the certificates of posting have no apparent dry seals. Applicant TERASU explained that since the certifications were scanned, the dry seals are not apparent. However, TERASU stated that the hard copies of the said certificates are all original and all bear dry seals. In addition, the Commission likewise inquired if the said hard copies were already filed before the Commission, pursuant to Section 2, Rule V⁴⁸ of Resolution No. 09, Series of 2020.⁴⁹ According to the Applicant, it only submitted photocopies of the said certifications.

Considering the said manifestations, the Commission declared that it acquired jurisdiction over the instant *Application*, subject to the submission and validation of the original certifications bearing dry seals.

Thereafter, TERASU, through Engr. Samuel S. Julio (Engr. Julio) conducted its expository presentation under oath, discussing in detail the following: (a) the 40MW CSPP project description and components; (b) the target commercial operations date; (c) the project purpose; (d) the interconnection schemes; (e) the technical capability; and (f) the financial capability of TERASU.

⁴² Exhibit "BB".

⁴³ Exhibit "CC-1".

⁴⁴ Exhibit "DD-1".

⁴⁵ Exhibit "AA-1".

⁴⁶ Exhibit "BB-1".

⁴⁷ Exhibit "EE".

⁴⁸ Section 2. Post Submission of Pleadings for Pending Cases. – Within five (5) working days from the date of the acknowledgment e-mail received from the CRD, the Applicant/Petitioner shall submit to the CRD, one (1) set of original or certified true hard copies of its motion, petition, compliance, manifestation, submission, or any other pleading by personal service, registered or ordinary mail or by private courier. x x x

⁴⁹ Entitled, "*Guidelines Governing Electronic Applications, Filings, and Virtual Hearings before the Energy Regulatory Commission*".

In the course of the presentation, the Commission propounded questions relative thereto. Likewise, the Commission directed TERASU to submit the following documents prior to the next scheduled hearing on 16 February 2021:

1. Detailed Single Line Diagram, with the revenue meter;
2. Relevant dates of the *Point-to-Point Application*; and
3. Actual photos of the substation, switch bay, transmission line and revenue meter.

Thereafter, the expository presentation was terminated and the 09 February 2021 hearing was adjourned.

On 11 February 2021, TERASU filed its *Pre-trial Brief*.

On 15 February 2021, TERASU filed its *Compliance* of even date, submitting therewith the required documents during the 09 February 2021 hearing, along with the original certificates of posting from the appropriate provincial and municipal offices.

On 16 February 2021, the hearing proceeded with the conduct of the pre-trial conference where TERASU moved for a declaration of general default, in light of the absence of any intervenor or oppositor on record. Likewise, TERASU moved to adopt the facts and issues stated in its *Pre-trial Brief*. The Commission granted both Motions.

Prior to the termination of the pre-trial conference, the Commission inquired if the witnesses to be presented, namely, Engr. Julio and Ms. Maria Nerissa Cordoba (Ms. Cordoba), were authorized to testify on behalf of TERASU, considering that Engr. Julio is the technical consultant of TERASU, while Ms. Cordoba is the Business Development Manager of Sindicatum Renewable Energy Holdings Philippines, Inc. (SINDICATUM).

Further, the Commission inquired if Ms. Cordoba is competent to testify and to identify the documents pertaining specifically to TERASU, which include, TERASU's Articles of Incorporation, By-Laws, and Certificate of Registration, among others.

Considering the above observations, the Commission directed TERASU to submit a Secretary's Certificate which authorizes Engr. Julio and Ms. Cordoba to testify on its behalf, and the documents that would prove TERASU's relationship with SINDICATUM. In the meantime, the Commission proceeded with TERASU's presentation of evidence, subject to the condition to submit the said documents.

Thereafter, TERASU presented its first witness, Engr. Julio, its Technical Consultant, whose testimony under the same oath was offered to prove the following: (a) that he is the Technical Consultant of TERASU as evidenced by the Technical Consultancy Contract dated 02 June 2020; (b) that TERASU will design, engineer, procure, construct, supply, start-up, test, commission, own, operate and maintain a Solar Power Plant with a capacity of approximately 40 MW located in Brgy. Sta. Rosa, Concepcion, Tarlac (Project); (c) that TERASU will connect the Project to the NGCP Luzon Grid via direct connection to the 69kV Concepcion Substation, through the construction and installation of a dedicated point-to-point limited interconnection facility to be constructed by JS Engineering and Marketing Services; (d) that TERASU intends to connect the Project to the Luzon Grid via a 0.6 km, 69kV, SP-SC 1-795 MCM ASCR direct connection to the existing NGCP Concepcion 69kV Substation; (e) that the proposed connection of the Project is the most viable and reasonable option that will enable TERASU to dispatch the Project's capacity when the need arises, considering its close proximity to the NGCP Concepcion 69kV Substation; (f) that the issuance of a provisional authority is warranted under the circumstances; and (g) such other matters relevant to the *Application*.

The foregoing was contained in Engr. Julio's *Judicial Affidavit*, which he identified and marked as Exhibit "FF".

Thereafter, TERASU presented its second witness, Ms. Cordoba, who testified under oath the following: (a) she is the Business Development Manager of SINDICATUM, which entered into a Service Agreement dated 01 April 2019 with TERASU to provide services related to the business of construction, development, and assembly of solar energy generating plants of TERASU; (b) TERASU is a power generation company duly organized and existing under and by virtue of the laws of the Republic of the Philippines; (c) TERASU undertakes to design, engineer, procure, construct, supply, start-up, test, commission, own, operate and maintain a Solar Power Plant with a capacity of approximately 40 MW located at Brgy. Sta. Rosa, Concepcion, Tarlac; (d) TERASU will connect the Project to the Luzon Grid via a 0.6 km, 69kV, SP-SC 1-795 MCM ASCR direct connection to the existing NGCP Concepcion 69kV Substation; (e) TERASU has the

financial ability to develop, construct and fund the proposed Transmission Facility; and (f) other matters relevant to the *Application*.

In the course of her direct examination, Ms. Cordoba identified her *Judicial Affidavit* and the same was duly marked as Exhibit “GG”.

After their direct examinations, the Commission propounded clarificatory questions to the witnesses. Likewise, the Commission directed the Applicant to submit its Formal Offer of Evidence, within fifteen (15) days from 16 February 2021.

On 22 February 2021, TERASU filed a *Motion to Admit Supplemental Judicial Affidavit and Set the Case for Hearing* (Motion). In the said *Motion*, TERASU alleged that it inadvertently attached the version of the Agreement for the Supply of Services which was never implemented and eventually amended, as proof of Ms. Cordoba’s relationship with TERASU. Thus, TERASU prayed that another hearing be set for Ms. Cordoba to identify the documents attached to the said *Supplemental Judicial Affidavit*.

On 03 March 2021, TERASU filed its *Formal Offer of Evidence* (FOE), attaching thereto their documentary evidence, *to wit*:

1. “The following documentary exhibits and their sub-markings, duly marked and identified, are offered and submitted for the admission and consideration of this Honorable Commission as independent evidence and where appropriate, as part of the testimony of TERASU’s witnesses, Engr. Samuel S. Julio and Ms. Maria Nerissa Cordoba, who have identified the same in their respective affidavits:

EXHIBIT	DESCRIPTION	PURPOSE/S
“A”	Technical Consultancy Contract between TERASU and JS Engineering and Marketing Services dated June 2, 2020	To prove that Engr. Samuel S. Julio is engaged as TERASU’s technical consultant.
“B”	TERASU’s Solar Energy Service Contract No. 2019-07-519 dated October 24, 2019	To prove, among others, that DOE authorized TERASU to design, engineer, procure, construct, supply, start-up, test, commission, own, operate and maintain a Solar Power Plant with a capacity of approximately 40 MW located in Brgy. Sta. Rosa, Concepcion, Tarlac.
“C”	Project Description	To prove, among others, that:

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EXHIBIT	DESCRIPTION	PURPOSE/S
“D”	Conceptual Engineering Design for the Switch Bay	<ol style="list-style-type: none"> 1. The transmission of the generated power to the NGCP Luzon Grid is via direct connection to the 69kV Concepcion Substation, through the construction and installation of a dedicated point-to-point limited interconnection facility. 2. The connection to the Luzon Grid shall be via a 0.6km, 69 kV, SP-SC 1-336.4 MCM ASCR direct connection to the existing NGCP Concepcion 69kV Substation. 3. The Transmission Line will be around 0.6 kilometers.
“E”	Conceptual Engineering Design for the Transmission Line	
“F”	Single Line Diagram	
“G”	System Impact Study dated June 2019	<p>To prove, among others, that:</p> <ol style="list-style-type: none"> 1. The connection of the Project to the Luzon Grid via a 0.6km, 69 kV, SP-SC 1-336.4 MCM ASCR direct connection to the existing NGCP Concepcion 69kV Substation; and 2. Studies have been conducted on the proposed connection and based on the results thereof, the proposed connection is technically feasible.
“H”	Facilities Study dated June 2019	
“H-1”	NGCP Letter to TERASU dated July 16, 2019	
“I”	NGCP Letter to TERASU dated July 15, 2019	
“J”	Transmission Development Plan 2016-2040 of NGCP	To prove, among others, that the Project is consistent with the Transmission Development Plan of NGCP.
“K”	Project Schedule Gantt Chart	To prove that the target completion of the development and construction, including the testing and commissioning of the Transmission Line is on March 31, 2021.
“L”	Amended Environmental Compliance Certificate dated January 17, 2020	To prove that TERASU has secured the relevant permits for the Project.
“M”	Certificate of Non-Overlap dated July 23, 2019	
“N”	Certificate of Employment issued to Maria Nerissa Cordoba dated February 8, 2021	To prove that Nerissa Cordoba is engaged as SINDICATUM’s Business Development Manager.
“O”	Amendment Agreement to the Agreement for the Supply of	To prove that SINDICATUM is obligated to render services related

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EXHIBIT	DESCRIPTION	PURPOSE/S
	Services between Sindicatum Renewable Energy Holdings Philippines, Inc., and Terasu Energy, Inc. dated September 9, 2020	to the business of construction, development, and assembly of solar energy generating plants of TERASU.
“O-1”	Signature of Mr. Michael Yamazoe on the Amendment Agreement to the Agreement for the Supply of Services between Sindicatum Renewable Energy Holdings Philippines, Inc., and Terasu Energy, Inc.	
“O-2”	Signature of Ms. Maria Cecilia O. Canimo on the Amendment Agreement to the Agreement for the Supply of Services between Sindicatum Renewable Energy Holdings Philippines, Inc., and Terasu Energy, Inc.	
“P”	TERASU’s Certificate of Incorporation	To prove, among others, that TERASU is a power generation company duly organized and existing under and by virtue of the laws of the Republic of the Philippines.
“P-1”	TERASU’s Articles of Incorporation	
“P-2”	TERASU’s By-Laws	
“Q”	DOE Certificate of Registration of TERASU dated October 24, 2019	To prove, among others, that TERASU has been registered with the DOE as a renewable energy developer of solar energy resources.
“R”	Secretary’s Certificate dated November 13, 2019	To prove, among others, that the Board of Directors of TERASU authorized the filing of the Application.
“S”	Project Cost Estimate for the kV Transmission Line	To prove, among others, that the estimated cost for the Project is Forty-Three Million Five Hundred Sixty-Nine Thousand One Hundred Ninety-Eight Pesos and Sixty-Seven Centavos (PhP43,569,198.67).
“S-1”	Project Cost Estimate for the Concepcion Solar Power Plant Switch Bay	
“T”	TERASU 2020 General Information Sheet	To prove, among others, that TERASU has the financial capability to undertake the development and construction of the Transmission Facility.
“T-1”	TERASU’s Audited Financial Statement	
“FF”	Judicial Affidavit of Engr. Samuel S. Julio dated February 10, 2021	To prove, among others, that: <ol style="list-style-type: none"> 1. He is the Technical Consultant of TERASU as evidenced by the Technical Consultancy Contract dated June 2, 2020; 2. TERASU will design, engineer, procure, construct, supply, start-up,

EXHIBIT	DESCRIPTION	PURPOSE/S
		<p>test, commission, own, operate and maintain a Solar Power Plant with a capacity of approximately 40 MW located in Brgy. Sta. Rosa, Concepcion, Tarlac (the “Project”);</p> <ol style="list-style-type: none"> 3. TERASU will connect the Project to the National Grid Corporation of the Philippines (“NGCP”) Luzon Grid via direct connection to the 69kV Concepcion Substation, through the construction and installation of a dedicated point-to-point limited interconnection facility (the “Transmission Line”) to be constructed by JS Engineering and Marketing Services; 4. TERASU intends to connect the Project to the Luzon Grid via a 0.6km, 69 kV, SP-SC 1-336.4 MCM ASCR direct connection to the existing NGCP Concepcion 69kV Substation; 5. The proposed connection of the Project is the most viable and reasonable option that will enable TERASU to dispatch the Project’s capacity when the need arises, considering its close proximity to the NGCP Concepcion 69kV Substation; 6. The issuance of a provisional authority is warranted under the circumstances; and 7. Other matters relevant to the <i>Application</i>, identification of documents, material and relevant to the instant <i>Application</i>, in the course of his testimony.
“GG”	Judicial Affidavit of Ms. Maria Nerissa Cordoba dated February 10, 2021	<p>To prove, among others, that:</p> <ol style="list-style-type: none"> 1. She is the Business Development Manager of Sindicatum Renewable Energy Holdings Philippines, Inc., which
“GG-1”	Supplemental Judicial Affidavit of Ms. Maria Nerissa Cordoba dated February 22, 2021	

EXHIBIT	DESCRIPTION	PURPOSE/S
		<p>entered into a Service Agreement dated 1 April 2019 with TERASU to provide services related to the business of construction, development, and assembly of solar energy generating plants of TERASU;</p> <ol style="list-style-type: none"> 2. TERASU is a power generation company duly organized and existing under and by virtue of the laws of the Republic of the Philippines; 3. TERASU undertakes to design, engineer, procure, construct, supply, start-up, test, commission, own, operate and maintain a Solar Power Plant with a capacity of approximately 40 MW located at Brgy. Sta. Rosa, Concepcion, Tarlac (the "Project"); 4. TERASU will connect the Project to the Luzon Grid via a 0.6km, 69 kV, SP-SC 1-336.4 MCM ASCR direct connection to the existing National Grid Corporation of the Philippines ("NGCP") Concepcion 69kV Substation ("Transmission Line"); 5. TERASU has the financial ability to develop, construct and fund the proposed Transmission Facility; 6. Other matters relevant to the Application, identification of documents, material and relevant to the instant Application, in the course of her testimony.
"LL"	Secretary's Certificate dated 16 February 2021	To prove, among others, that the Board of Directors of TERASU authorized Engr. Samuel Julio and Ms. Maria Nerissa Cordoba to appear as witnesses for TERASU.

2. The following documents relative to TERASU's compliance with the jurisdictional requirements of the case are likewise offered, as stated below:

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EXHIBIT	DESCRIPTION	PURPOSE/S
"U"	Affidavit of Publication executed by the Chief Accountant of Manila Standard dated January 25, 2021	To prove that the Notice of Virtual Hearing dated January 5, 2021 was published in the January 25, 2021 issue of the Manila Standard in compliance with the Order of the Honorable Commission dated January 5, 2021.
"U-1"	Page C2 of the January 25, 2021 issue of Manila Standard	
"V"	Letter to the Office of the Solicitor General, Hon. Jose C. Calida, stamped received	To prove that the Office of the Solicitor General, Hon. Jose C. Calida, was furnished copies the Order and Notice of Virtual Hearing both dated January 5, 2021 in compliance with the jurisdictional requirements of this case and the Order of the Honorable Commission dated January 5, 2021.
"W"	Letter to the Commission on Audit, stamped received	To prove that the Commission on Audit, was furnished copies of the Order and Notice of Virtual Hearing both dated January 5, 2021 in compliance with the jurisdictional requirements of this case and the Order of the Honorable Commission dated January 5, 2021.
"X"	Letter to the Senate of the Philippines Committee on Energy, Hon. Sherwin T. Gatchalian, stamped received	To prove that the Senate of the Philippines Committee on Energy, was furnished copies the Order and Notice of Virtual Hearing both dated January 5, 2021 in compliance with the jurisdictional requirements of this case and the Order of the Honorable Commission dated January 5, 2021.
"Y"	Letter to the House of Representatives, Committee on Energy, Hon. Lord Allan Jay Q. Velasco, stamped received	To prove that the House of Representatives, Committee on Energy, was furnished copies the Order and Notice of Virtual Hearing both dated January 5, 2021 in compliance with the jurisdictional requirements of this case and the Order of the Honorable Commission dated January 5, 2021.
"Z"	Letter to the Philippine Chamber of Commerce and Industry, Amb. Benedicto V. Yujuico, stamped received	To prove that the Philippine Chamber of Commerce and Industry, was furnished copies the <i>Order</i> and Notice of Virtual Hearing both dated January 5, 2021 in compliance with the jurisdictional requirements of this case and the Order of the

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EXHIBIT	DESCRIPTION	PURPOSE/S
		Honorable Commission dated January 5, 2021.
“AA”	Letter to the Office of the Mayor, Municipality of Concepcion, Hon. Andres D. Lacson, dated January 13, 2021, with registry receipt	To prove that the Office of the Mayor, Municipality of Concepcion, was furnished copies the Order and Notice of Virtual Hearing both dated January 5, 2021, and that Applicant requested that said documents be posted on their bulletin board for the viewing of the general public and all interested parties in compliance with the jurisdictional requirements of this case and the Order of the Honorable Commission dated January 5, 2021.
“AA-1”	Certification from the Office of the Mayor, Municipality of Concepcion	
“BB”	Letter to the Office of the Sangguniang Bayan, Municipality of Concepcion, Hon. Joey L. Baluyut, dated January 13, 2021, with registry receipt	To prove that the Office of the Sangguniang Bayan, Municipality of Concepcion, was furnished copies the Order and Notice of Virtual Hearing both dated January 5, 2021, and that Applicant requested that said documents be posted on their bulletin board for the viewing of the general public and all interested parties in compliance with the jurisdictional requirements of this case and the Order of the Honorable Commission dated January 5, 2021.
“BB-1”	Certification from the Office of the Sangguniang Bayan, Municipality of Concepcion	
“CC”	Letter to the Office of the Governor, Provincial Government of Tarlac, Hon. Susan A. Yap-Sulit, dated January 13, 2021, with registry receipt	To prove that the Office of the Governor, Provincial Government of Tarlac, was furnished copies the Order and Notice of Virtual Hearing both dated January 5, 2021, and that Applicant requested that said documents be posted on their bulletin board for the viewing of the general public and all interested parties in compliance with the jurisdictional requirements of this case and the Order of the Honorable Commission dated January 5, 2021.
“CC-1”	Certification from the Office of the Governor, Provincial Government of Tarlac	
“DD”	Letter to the Office of the Sangguniang Panlalawigan, Province of Tarlac, Hon. Carlito S. David, dated January 13, 2021, with registry receipt	To prove that the Office of the Sangguniang Panlalawigan, Province of Tarlac, was furnished copies the Order and Notice of Virtual Hearing both dated

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EXHIBIT	DESCRIPTION	PURPOSE/S
“DD-1”	Certification from the Office of the Sangguniang Panlalawigan, Province of Tarlac	January 5, 2021, and that Applicant requested that said documents be posted on their bulletin board for the viewing of the general public and all interested parties in compliance with the jurisdictional requirements of this case and the Order of the Honorable Commission dated January 5, 2021.
“EE”	Affidavit dated February 3, 2021 on the posting of the Notice of the Virtual Hearing and the Date of Scheduled Hearing	To prove that TERASU employed means available to it to inform the consumers within the franchise area of the filing of the Application, its reasons and the scheduled hearing.

3. Pursuant to the Honorable Commission’s directive during the initial virtual hearing for the Determination of compliance with jurisdictional requirements and Expository Presentation on February 9, 2021, the following documents relative to the connection and status of the Project are likewise offered to establish the existence thereof and for the purpose stated below:

Exhibit	Document	Purpose
“F-1”	Detailed Single Line Diagram	To prove, among others, that: <ol style="list-style-type: none"> 1. The transmission of the generated power to the NGCP Luzon Grid is via direct connection to the 69kV Concepcion Substation, through the construction and installation of a dedicated point-to-point limited interconnection facility. 2. The connection to the Luzon Grid shall be via a 0.6km, 69 kV, SP-SC 1-336.4 MCM ASCR direct connection to the existing NGCP Concepcion 69kV Substation. 3. The Transmission Line will be around 0.6 kilometers.
“HH”	Point-to-Point Application Relevant Dates Form	To prove that the target completion of the development and construction, including the
“II”	Actual photos with percentage of completion of the substation	

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Exhibit	Document	Purpose
“JJ”	Actual photos with percentage of completion of the switchbay	testing and commissioning of the Transmission Line is on March 31, 2021.
“KK”	Actual photos with percentage completion of the transmission line	

**All the allegations stated above are directly quoted from the FOE of the Applicant.*

On 16 March 2021, the Commission issued an *Order* dated 08 March 2021 granting TERASU’s *Motion*. Thus, for purposes of offering the additional testimony of Ms. Cordoba and identifying her *Supplemental Judicial Affidavit*, as well as the documentary evidence attached thereto, the Commission set the same for hearing on 19 March 2021.

During the 19 March 2021 hearing, TERASU appeared. Thereafter, Ms. Cordoba was recalled as witness wherein she testified, under oath, the following: (a) that she is the Business Development Manager of SINDICATUM, which entered into an Amended Agreement (to the Agreement for the Supply of Services dated 01 April 2019, as amended by the Supplemental Agreement dated 18 March 2020) on 09 September 2020 with TERASU to provide technical advisory services related to the business construction, development and assembly of the solar energy generating plants of TERASU; and (b) other matters relevant to the *Application*.

The foregoing was contained in her *Supplemental Judicial Affidavit*, which was duly marked as Exhibit “GG-1”.

The Commission propounded additional clarificatory questions and thereafter, directed TERASU to submit its supplemental offer of evidence within five (5) days from 19 March 2021.

On 24 March 2021, TERASU filed its *Supplemental Formal Offer of Evidence* and attached therewith the following exhibits as part of its documentary evidence:

EXHIBIT	DESCRIPTION	PURPOSE/S
“N”	Certificate of Employment issued to Maria Nerissa Cordoba dated February 8, 2021	To prove that Nerissa Cordoba is engaged as SINDICATUM’s Business Development Manager.
“O”	Amendment Agreement to the Agreement for the Supply of Services between Sindicatum Renewable Energy Holdings Philippines, Inc., and Terasu	To prove that SINDICATUM is obligated to render services related to the business of construction, development, and assembly of

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EXHIBIT	DESCRIPTION	PURPOSE/S
	Energy, Inc. dated September 9, 2020	solar energy generating plants of TERASU.
"O-1"	Signature of Mr. Michael Yamazoe on the Amendment Agreement to the Agreement for the Supply of Services between Sindicatum Renewable Energy Holdings Philippines, Inc., and Terasu Energy, Inc.	
"O-2"	Signature of Ms. Maria Cecilia O. Canimo on the Amendment Agreement to the Agreement for the Supply of Services between Sindicatum Renewable Energy Holdings Philippines, Inc., and Terasu Energy, Inc.	
"GG-1"	Supplemental Judicial Affidavit of Ms. Maria Nerissa Cordoba dated February 22, 2021	<p>To prove, among others, that:</p> <ol style="list-style-type: none"> 1. She is the Business Development Manager of Sindicatum Renewable Energy Holdings Philippines, Inc., which entered into a Service Agreement dated 1 April 2019 with TERASU to provide services related to the business of construction, development, and assembly of solar energy generating plants of TERASU; 2. TERASU is a power generation company duly organized and existing under and by virtue of the laws of the Republic of the Philippines; 3. TERASU undertakes to design, engineer, procure, construct, supply, start-up, test, commission, own, operate and maintain a Solar Power Plant with a capacity of approximately 40 MW located in Brgy. Sta. Rosa, Concepcion, Tarlac (the "Project"); 4. TERASU will connect the Project to the Luzon Grid via a 0.6km, 69kV, SP-SC 1-336.4 MCM ASCR direct connection to the existing National Grid Corporation of the Philippines ("NGCP")

EXHIBIT	DESCRIPTION	PURPOSE/S
		Concepcion 69kV Substation (“Transmission Line”); 5. TERASU has the financial ability to develop, construct and fund the proposed Transmission Facility; 6. Other matters relevant to the Application, identification of documents, material and relevant to the instant Application, in the course of her testimony.
“LL”	Secretary’s Certificate dated 16 February 2021	To prove, among others, that the Board of Directors of TERASU authorized Engr. Samuel Julio and Ms. Maria Nerissa Cordoba to appear as witnesses for TERASU.

**All the allegations stated above are directly quoted from the Supplemental FOE of the Applicant.*

The Commission found the foregoing exhibits contained in TERASU’s *FOE* and *Supplemental FOE* relevant and material in the final resolution of the case. Thus, the Commission admitted the same and declared the instant case for resolution.

ISSUES

The issues for the Commission’s resolution are the following:

1. Whether or not the Commission should approve the instant case and authorize TERASU to develop and own the subject facilities to connect its 40 MW Concepcion Solar Power Plant (CSPP) Project to the Luzon Grid through the Concepcion 69 kV Substation of NGCP;
2. Whether or not the Commission should authorize TERASU to operate and maintain the subject facilities; and
3. If the subject assets were to be required for competitive purposes, and ownership of the same shall be transferred to National Transmission Corporation (TRANSCO)/NGCP, how should the cost be treated or recovered?

THE COMMISSION'S RULING

After thorough evaluation of all the evidence submitted, and after consideration of all information gathered by the Commission pursuant to its regulatory powers, the Commission hereby resolves to rule on the issues presented, as follows:

1. The *Application* for authority of TERASU to develop and own the subject facilities to connect its 40MW CSPP to the Luzon Grid through the Concepcion 69kV Substation of NGCP is hereby **APPROVED**.
2. The *Application* for authority of TERASU to operate and maintain the subject facilities is hereby **DENIED**. NGCP shall operate and maintain the subject dedicated point-to-point limited facilities subject to applicable charges to TERASU; and
3. In case the subject assets were to be required for competitive purposes, the ownership of the same shall be transferred to TransCo/NGCP at a fair market price, subject to optimization.

DISCUSSION

In determining the merits of the instant *Application*, the Commission focused its evaluation on five (5) major aspects: (1) The proposed project; (2) The legal basis of TERASU's authority to develop and own the dedicated point-to-point limited transmission facilities; (3) The technical capability of TERASU to develop the subject facilities; (4) The operation of the dedicated point-to-point limited transmission facilities; and (5) The mode of recovery of cost in case the subject assets were to be required for competitive purposes and the ownership of the same is transferred to TransCo/NGCP.

1. The Proposed Project

1.1 The Power Plant

As alleged in the *Application*, TERASU is a generation company engaged in the development of clean and renewable energy sources for power generation facilities and is registered with the Department of Energy (DOE) as Renewable Energy Developer for its 40MW CSPP project. On 24 October 2019, the

DOE signed with TERASU a Solar Energy Service Contract (SESC) with No. 2019-07-519 (Service Contract) for the said 40MW CSPP project.

Pursuant to the said Service Contract, TERASU was authorized to engage in the development, construction, and installation of the 40MW CSPP located at Brgy. Sta. Rosa, Concepcion, Tarlac. The capacity of the CSPP is still subject to further verification by the Commission in its Certificate of Compliance (COC) application.

TERASU intends to dispatch the generated energy of the CSPP to the Retail Electricity Supplier.

On 17 January 2020, the Department of Environment and Natural Resources (DENR) issued the Environmental Compliance Certificate (ECC) with No. R03-1407-0331 to TERASU, which covers the dedicated facilities.

1.2 Project Description

1.2.1 Technical Configuration

In the *Application*, TERASU alleged that for it to fully dispatch the generated power of its 40MW CSPP to the Luzon Grid, the Plant shall be connected to the Concepcion 69kV Substation of NGCP.

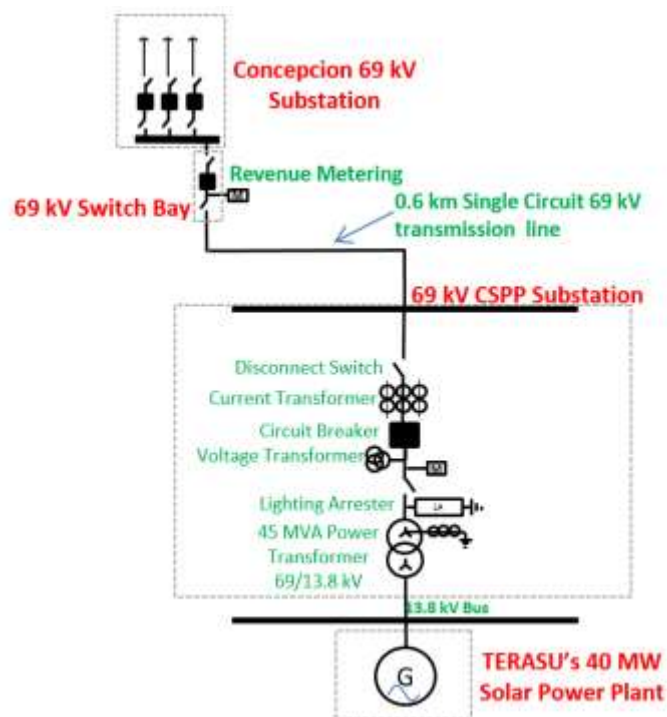
The components of the subject facilities to be constructed by TERASU are the following:

- (1) A Substation composed of 45MVA Power Transformer, including its associated accessories;
- (2) A 0.60 km, single circuit 69kV transmission line utilizing 336.4 MCM ACSR;
- (3) A 69kV Switch Bay near the NGCP's Substation; and
- (4) The protection, metering, and telecommunication equipment.

1.2.2 Single Line Diagram

Figure 1 shows the detailed Single Line Diagram of the connection of TERASU's CSPP to the Concepcion 69kV Substation of NGCP, as submitted by TERASU.

Figure 1: Single Line Diagram of TERASU's Connection Scheme



Based on Figure 1, the connection of TERASU's 40MW CSPP is through a direct connection to the Concepcion 69kV Substation of NGCP.

1.2.3 Project Cost

Based on its *Application*, TERASU estimated the total cost of the project in the amount of **Forty-Three Million Five Hundred Sixty-Nine Thousand One Hundred Ninety-Eight Pesos and Sixty-Seven Centavos (PhP43,569,198.67)**. The breakdown of the submitted estimated cost is shown in Table 1:

Table 1: Estimated Cost Breakdown

Description	Total Cost (PhP)
General Requirements	320,000.00
Line Materials & Accessories	6,476,868.00
Labor Cost 30%	1,943,060.40
Contractor's Profit 10%	841,992.84
12% VAT	1,149,830.55
Switch Bay at NGCP Substation	32,837,446.88
Grand Total Cost (PhP)	43,569,198.67

Note: The Total Cost of the Project is inclusive of Engineering, Procurement, Installation and Construction Costs.

In case the assets that are considered dedicated point-to-point limited transmission facilities under this *Decision* will eventually be required for competitive purposes, and ownership of the same shall be transferred to TRANSCO/NGCP, the subject amounts do not necessarily constitute the fair market value that will be used as basis for payment for the subject assets by TRANSCO/NGCP.

2. The legal basis of TERASU's authority to develop and own the subject facilities

As a general rule, TransCo or its concessionaire, the NGCP, has the responsibility of providing grid interconnection for generating facilities pursuant to Section 8 and Section 21 of Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA), *to wit*:

“Section 8. Creation of the National Transmission Company. – x x x. The TRANSCO shall assume the authority and responsibility of NPC for the planning, construction and centralized operation and maintenance of its high voltage transmission facilities, including grid interconnections and ancillary services. x x x.

Section 21. TRANSCO Privatization, – x x x. The buyer/concessionaire shall be responsible for the improvement expansion, operation, and/or maintenance of its transmission assets and the operation of any related business. x x x.”

However, Section 9 of the same Act provides for an exception, *to wit*:

“x x x. A generation company may develop and own or operate dedicated point-to-point limited transmission facilities that are consistent with the [Transmission Development Plan (TDP)]: Provided, that **such facilities are required only for the purpose of connecting to the transmission system, and are used solely by the generating facility, subject to prior authorization by the [Energy Regulatory Commission (ERC)]:** x x x”

[Emphasis and underscoring supplied.]

In the instant case, TERASU opted to avail of the exemption under Section 9 of the EPIRA to connect its CSPP to the Luzon Grid. In order for TERASU’s proposed project to qualify under said exemption, it must be able to comply with the parameters set forth in the above-quoted EPIRA provision, namely: (1) such facilities are required only for the purpose of connecting to the transmission system; (2) the same will be used solely by the generating facility; and (3) the project is with prior approval of the Commission.

In view of the abovementioned provisions, TERASU filed the instant *Application*.

2.1 Necessity of the Proposed Project to Connect TERASU’s CSPP to the Luzon Grid

As of 31 December 2020, the 40MW CSPP of TERASU was included in the committed power project, as declared and posted by the DOE in its website.⁵⁰ This committed capacity of TERASU’s CSPP will help address the power requirements of the Luzon Grid, which, as published by the DOE in its 2019 Power Demand and Supply Highlights, has a total existing available capacity of 17,289MW. Meanwhile, the system peak demand is 11,344MW for the year 2019, as shown in Table 2, *to wit*:

Table 2: Demand Supply Scenario in Luzon

Year	Capacity (MW)		Demand (MW)
	Installed	Dependable	
2017	15,743	14,430	10,054
2018	16,549	14,973	10,876
2019	17,289	15,598	11,334

⁵⁰ Entitled “*Private Sector Initiated Power Projects (Luzon) committed as of 31 December 2020*” https://www.doe.gov.ph/sites/default/files/pdf/electric_power/luzon_committed_2020_december.pdf.

TERASU's CSPP will deliver its committed capacity to the Luzon Grid once it starts its commercial operations. This committed capacity will help in fulfilling the supply requirements of the Luzon Grid.

As stated in the *Application*, the generated power of CSPP is intended to be dispatched to the Grid through the Retail Electricity Supplier.

Likewise, for TERASU to commence its commercial operations, the CSPP should be connected to the Luzon Grid. Hence, the development of the subject facilities is necessary for the said connection.

2.2 Functions of the Subject Facilities

The second parameter required under Section 9 of the EPIRA is that the subject facilities must be a dedicated point-to-point limited transmission facility or one that is used solely by the generating facility.

In determining whether the subject facilities are compliant with the second parameter under the EPIRA, the Commission, in its Resolution No. 23, Series of 2016,⁵² defines a connection asset, *to wit*:

“Connection Assets are those assets that are put in place primarily to connect a Customer/s to the Grid and used for purposes of Transmission Connection Services for the conveyance of electricity which *if taken out of the System, will only affect the Customer connected to it and will have minimal effect on the Grid, or other connected Customers.*”

[Emphasis and underscoring supplied.]

Based on the foregoing definition, a dedicated point-to-point limited facility functions similarly with connection assets.

Considering the above, the Commission finds that the assets connecting the 40MW CSPP of TERASU to the Concepcion 69kV Substation are dedicated point-to-point limited transmission facilities (Connection Assets), because if

⁵² Entitled, *Resolution Adopting the Amended Rules on the Definition and Boundaries of Connection Assets for Customers of Transmission Provider.*

these assets were to be removed or cut from the system, only the CSPP of TERASU will be affected. Thus, the subject facility is used solely by the generating facility.

In view of the foregoing, TERASU should be authorized to develop and own the said assets.

2.3 Project Status

Based on TERASU's *Compliance* dated 15 February 2021, the Commission noted that TERASU has already commenced the construction of the subject facilities.

Table 3 shows the schedule of implementation of the subject facilities and the CSPP:

Table 3: Schedule of Implementation

Description	Start of Construction	Completion Date
Power Plant	28 November 2019	On-Going
Subject Facilities	27 January 2021	On-Going

Section 9 of the EPIRA provides that:

xxx A generation company may develop and own or operate dedicated point-to-point limited transmission facilities that are consistent with the TDP: Provided, that such facilities are required only for the purpose of connecting to the transmission system, and are used solely by the generating facility, **subject to prior authorization by the ERC:** x x x

[Emphasis and underscoring supplied.]

Based on the abovementioned provision, TERASU should have first sought authorization from the Commission prior to the implementation of the subject facilities. It is worthy to note that the instant *Application* was filed only on 02 December 2020.

Considering that the subject facilities were developed and constructed without prior approval by the Commission, the same will be further investigated by the Commission for purposes of determining the propriety of imposition of sanctions, if warranted.

3. Technical capability of TERASU to develop the subject facilities

3.1 System Impact Study and Facility Study

In June 2019, NGCP conducted a System Impact Study (SIS) to determine the technical feasibility of the connection of TERASU's CSPP to the Luzon Grid.

Based on the results of the SIS, the entry of the CSPP of TERASU to the Luzon Grid is technically feasible. The excerpts from the submitted SIS are quoted as follows:

“x x x

The simulation results show that the Concepcion 2x100 MVA 230/69 kV Transformers are sufficient to transmit the full capacity of the proposed project.

Also, upon connection of the proposed solar project no overloading issues were observed in the 230 kV and 69 kV transmission line during normal (intact network) and N-1 contingency condition for years 2019 and 2024.

As regards the voltage analysis, no voltage problems were identified as a result of connecting the proposed Solar Project. The SIS confirms that the voltage levels of the monitored substations are within the 0.95 and 1.05 p.u. during normal and N-1 contingency condition.

The increase in fault level in the 230 kV and 69 kV substations associated to the entry of the proposed Solar Project are within the acceptable limits and will not breach the installed PCBs in year 2019.

While for year 2024, the fault level at Concepcion 69 kV Substation will already breach the 19 kA and 20 kA Interrupting Capacity of the existing PCBs even prior to the entry of the Solar Project. This issue will be resolved by NGCP's PCB replacement program that will upgrade the affected PCBs to 40 kA.

With the connection of the Solar Project, transient stability study conducted showed that there will be no stability problem from three-phase faults during normal and delayed fault clearance time for years 2019 and 2024 peak load condition.

The results of frequency assessment show that the loss of the Solar Project while supplying full capacity to the grid will not cause the frequency of the system to drop below 59.2 Hz and will not trigger Automatic Load Dropping (ALD).”

On 15 July 2019, NGCP reviewed the SIS. Based on its report, it is technically feasible to connect TERASU’s CSPP to the Luzon Grid.

Thereafter, a Facility Study (FS) was conducted for the connection of the CSPP to determine which facilities and equipment should be installed by TERASU based on the requirements of the SIS and the Philippine Grid Code (PGC).

NGCP approved the said FS on 16 July 2019. The approval was based on the provisions of Rule B15 of the Open Access Transmission Service (OATS) Rules,⁵³ the PGC, and the requirements of NGCP. The SIS and FS were the bases of the technical design and specifications of the facilities subject of the instant *Application*.

For the construction of the proposed project, TERASU engaged the services of JS Engineering and Marketing Services (JSEMS) for the supply, construction, and installation of the subject facilities.

As to technical capability of JSEMS, it provides solar power solutions and also offers On-Grid, Off-Grid, and Hybrid Solar Power Solutions.

JSEMS has been involved in several electrical projects in the Philippines and rendered services to its various generation, transmission, distribution, industrial and commercial clients. Some of its projects in the Philippines include the 22.3MW Clark Solar Power Plant Project, including the 69kV Transmission Line; the 28.6MW Digos Solar Power Plant Project, including the 69kV Transmission Line and the substation; and the 10MVA Power Substation, including the 69kV line of KCC Mall De Zamboanga.

⁵³ Annex “A” of the Decision dated 13 December 2006 in ERC Case No. 2006-015 RC entitled, *In the Matter of the Approval of the Amendments/Revisions on the Rules, Terms and Conditions for Open Access Transmission Service (OATS Rules)*.

Thus, the foregoing contractor engaged by TERASU is deemed to possess the technical capability and competence to construct and develop the subject facilities.

3.2 Compliance with the Technical Requirements

As a generator seeking connection to the Luzon Grid, TERASU must comply with the following standards, among others, as provided in the PGC, *to wit*:

x x x

GCR 4.2.9.2 At the nominal voltages below 115 kV, the Transmission Network Provider shall specify the Grounding requirements and the applicable Earth Fault Factor at the Connection Point.

GCR 4.2.10.2 All Equipment at the Connection point shall be designed, manufactured, and tested in accordance with the quality assurance requirements of the ISO 9000 series.

x x x

GCR 4.4.1.1.3 The Connection Point shall be controlled by a Circuit Breaker that is capable of interrupting the maximum short circuit current at the point of connection.

GCR 4.4.1.1.4 Disconnect switches shall also be provided and arranged to isolate the Circuit Breaker for maintenance purposes.

GCR 4.6.1.4 If the line between the Connection Point and the substation of the Distribution Utility (or other Grid User) is greater than 500 meters (m), a Circuit Breaker of appropriate rating shall be provided at the Connection Point. However, a line equal to or less than 500 m between Connection Point and substation of the Distribution Utility (or other Grid User) shall at least be provided with Disconnect Switch.

x x x

GCR 4.7.1.1 A communication system shall be established so that the Transmission Network Provider, the System Operator, and the Users can communicate with one another, as well as exchange data signals for

monitoring and controlling the Grid during normal and emergency conditions.

X X X

GRM 9.2.1.1 The metering point between the Grid and User System shall be at the Connection Point.

GRM 9.2.1.2 The metering facility shall be located between the disconnect switch and Circuit Breaker.

X X X

The Single Line Diagram in Figure 1 shows TERASU's compliance with the foregoing provisions of the PGC and the requirements of NGCP.

In compliance with the GCR, 4.4.1.1.3 of the PGC, and requirements of NGCP, the Point of Interconnection (POI) located at the Concepcion 69 kV Substation of NGCP will be controlled by a circuit breaker which will be installed inside TERASU's 69 kV Switch Bay. In addition, the connection point will be equipped with disconnect switches, surge arresters, instrument transformers, protective relays and its accessories which are all compliant with the standards of PGC.

Likewise, TERASU will be constructing a substation inside its power plant compound which is equipped with 45 MVA power transformers. The said transformer shall be used to step up the voltage from 13.8 kV to 69 kV. Other facilities installed by TERASU include surge arresters, instrument transformers, protective relays and its accessories at the said substation which are all compliant with the requirements of NGCP.

Further, TERASU complied with the standards on equipment grounding. TERASU also provided a Remote Terminal Unit (RTU) for the communication and control between the switchyard and the substations. Aside from the RTU, TERASU will provide other related equipment (e.g., network switches, firewall, patch panels, racks, etc.). This system is also compliant with the requirements in communication system and control as provided in the PGC.

Based on Annex “A,”⁵⁴ which was attached to its *Compliance* dated 15 February 2021, the metering facility of TERASU’s 40MW CSPP will be installed at the connection point. The said location of the meter is compliant with the above-mentioned standard under GRM 9.2.1.1 of the PGC.

4. Operation of the dedicated point-to-point limited transmission facilities

As to the authority to operate the dedicated point-to-point limited transmission facilities, the Commission rules that these assets should be operated by NGCP. TRANSCO or its concessionaire, NGCP, is mandated under Section 9 (c) of the EPIRA to ensure and maintain the reliability, adequacy, security, stability, and integrity of the nationwide electrical grid.

Moreover, NGCP was granted by the Congress of the Philippines the exclusive franchise to operate and maintain the transmission system pursuant to Republic Act No. 9511.⁵⁵

Therefore, as a general rule, the dedicated point-to-point limited transmission facilities should be operated by NGCP because there should be an assurance that the subject facility will be operated without adverse effect to the reliability of the Grid.

The only exception provided in the EPIRA is when a generation company is able to acquire prior approval from the Commission to operate such dedicated point-to-point limited facility. This exception, however, is bound by numerous strict conditions. One of which is that the generation company, applying for such authority, should be able to prove that it is capable of operating a point-to-point facility, and that its operation of the said facility is in the best interest of the consumers.

To support its claim that it has the technical capability to operate and maintain the dedicated point-to-point facilities, TERASU submitted its *Statement of Compliance* and *Compliance Plan* to the PGC, and the names and addresses of

⁵⁴ Detailed Single Line Diagram.

⁵⁵ An Act Granting the National Grid Corporation of the Philippines a Franchise to Engage in the Business of Conveying or Transmitting Electricity through High Voltage Back-Bone System of Interconnected Transmission Lines, Substations and Related Facilities, and for Other Purposes.

JSEMS's personnel, and not its own personnel. Such personnel, who are not organic to TERASU, were proposed to operate the said assets.

Based on the foregoing, it is evident that TERASU, on its own, does not possess the technical capability and may be planning to contract JSEMS personnel to undertake the operation and maintenance tasks on its behalf.

It should be noted that one of the main considerations of the Commission in resolving the issue of whether or not to allow a generator to operate a dedicated facility, other than the authorized entity by law, is the consumers' interest. The Applicant failed to present proof that operating the same, other than by the authorized entity, in this case NGCP, will be more beneficial to the consumers.

Accordingly, NGCP should undertake the operation, service, and maintenance of the dedicated facility involving, among others, the periodic inspection of the dedicated point-to-point limited facilities and the regular assessment of poles and wire conditions, subject to applicable charges to TERASU.

5. Recovery in case the subject facilities were to be required for competitive purposes and ownership of the same is transferred to TransCo/NGCP

As previously discussed, the assets connecting TERASU's CSPP to the Concepcion 69 kV Substation are considered dedicated point-to-point limited transmission facilities. However, if such assets were to be required for competitive purposes, or if the same were to be used to connect any other user, the ownership of the same shall be immediately transferred to TRANSCO/NGCP. In such a case, TRANSCO/NGCP shall pay TERASU at fair market price for the subject facilities, subject to optimization.

6. Payment of Permit Fee

Section 40 of Commonwealth Act No. 146⁵⁶ provides the legal basis for the collection of permit fee, *to wit*:

“The Commission is authorized and ordered to charge and collect from any public service or applicant, as the case may be, the following fees as reimbursement of its expenses in the authorization, supervision, and/or regulation of the public services:

xxx

g) For each permit authorizing the increase of equipment, the installation of new units or authorizing the increase of capacity, or the extension of means or general extensions in the service, xxx”

Based on the estimated project cost, the total amount of permit fee is **Three Hundred Twenty-Six Thousand Seven Hundred Sixty-Eight Pesos and Ninety-Nine Centavos (PhP326,768.99)**, computed as follows:

$$\frac{\text{PhP}43,569,198.67}{\text{PhP}100.00} \times \text{PhP}0.75 = \text{PhP}326,768.99$$

The permit fee shall be considered in the determination of the fair market price, in the event that the dedicated point-to-point limited transmission facilities were to be required for competitive purposes, or the same were to be used to connect any other user to the grid, and ownership of the same is transferred to TRANSCO/NGCP.

A perusal of the evidence presented herein shows that the resolution of TERASU’s *Application* for authority to develop, own, operate, and maintain the dedicated point-to-point limited transmission facilities to connect its 40MW CSPP to the Luzon Grid through the Concepcion 69 kV Substation of NGCP will redound to the benefit of the electricity consumers in terms of continuous, quality, reliable, and efficient power supply as mandated by Section 2 of the EPIRA.

⁵⁶ Entitled, *The Public Service Law*.

WHEREFORE, the foregoing premises considered, the *Application* of Terasu Energy, Inc. (TERASU) to develop, own, operate and maintain the dedicated point-to-point limited transmission facilities to connect its 40MW Concepcion Solar Power Plant (CSPP) Project to the Luzon Grid through the Concepcion 69 kV Substation of the National Grid Corporation of the Philippines (NGCP), is hereby **RESOLVED** as follows:

1. TERASU is hereby **AUTHORIZED** to develop and own the dedicated point-to-point limited transmission facilities to connect its 40MW CSPP to the Concepcion 69kV Substation of NGCP, subject to the following conditions:
 - 1.1. NGCP shall operate and maintain the subject dedicated point-to-point limited transmission facilities to ensure and maintain the reliability, adequacy, security, stability, and integrity of the nationwide electrical grid, subject to applicable charges to TERASU;
 - 1.2. The metering point shall be at the connection point in accordance with the Philippine Grid Code (PGC);
 - 1.3. The dedicated point-to-point limited transmission facilities shall be used solely by the generating facility; and
 - 1.4. Should any portion of the dedicated point-to-point limited transmission facilities be required for competitive purposes or to connect any other user, the ownership of the same shall be transferred immediately to TRANSCO/NGCP. TERASU, in turn, shall be paid by TRANSCO/NGCP the cost of the facilities at a fair market price, subject to optimization.

RELATIVE THERETO, TERASU is hereby **DIRECTED** to pay **within fifteen (15) days** from receipt of the *Decision* resolving the instant case, the full amount of **Three Hundred Twenty-Six Thousand Seven Hundred Sixty-Eight Pesos and Ninety-Nine Centavos (PhP326,768.99)**, as payment for the permit fee, pursuant to Section 40 (g) of Commonwealth Act No. 146, and the Commission's Revised Schedule of Fees and Charges. The permit fee computed herein shall be considered in the determination of the fair market price of the assets in case of transfer of ownership to

TRANSCO/NGCP.

FURTHERMORE, TERASU is hereby **DIRECTED** to submit a Compliance Report showing that it has complied with all the directives of the Commission within thirty (30) days from receipt hereof.

FINALLY, the resolution of the instant case shall be without prejudice to TERASU's compliance with other government agencies' requirements, rules and regulations; and any administrative action that the Commission may undertake for any violation committed by TERASU.

SO ORDERED.

Pasig City, 28 April 2021.



AGNES VST DEVANADERA
Chairperson and CEO



ALEXIS M. LUMBATAN
Commissioner



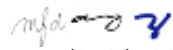
CATHERINE P. MACEDA
Commissioner



FLORESINDA G. BALDO-DIGAL
Commissioner



MARKO ROMEO L. FUENTES
Commissioner



LS: MFD/ARG/MCCG



ROS: AFC/REGR/REM/LLG

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Copy Furnished:

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