

Republic of the Philippines  
**ENERGY REGULATORY COMMISSION**  
San Miguel Avenue, Pasig City



**IN THE MATTER OF THE  
APPLICATION FOR THE  
APPROVAL OF THE  
IMPLEMENTATION OF  
ADDITIONAL CAPITAL  
EXPENDITURE PROGRAM  
FOR CALENDAR YEARS  
2017- BEYOND 2020, WITH  
PRAYER FOR THE  
ISSUANCE OF  
PROVISIONAL APPROVAL,**

**ERC CASE NO. 2017-110 RC**

**NATIONAL GRID  
CORPORATION OF THE  
PHILIPPINES (NGCP),  
Applicant.**

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DOCKETED  
Date: MAR 27 2018  
By: [Signature]

**ORDER**

On 01 December 2017, National Grid Corporation of the Philippines (NGCP) filed an *Application* dated 24 November 2017 (Application) seeking the Commission's approval of the implementation of additional capital expenditure (CAPEX) Program for Calendar Years 2017- beyond 2020, with prayer for the issuance of provisional approval.

NGCP alleged the following in its *Application*:

**The Applicant**

1. NGCP is a corporation created and existing under the laws of the Philippines, with principal office address at NGCP Building, Quezon Avenue corner B.I.R. Road, Diliman, Quezon City. It is the concessionaire which assumed the power transmission functions of the National Transmission Corporation (TRANSCO) pursuant to R.A. 9136, otherwise known as the: "*Electric Power Industry Reform Act of 2001*" (EPIRA). It may be served with notices and other processes of this Honorable Commission through its counsel at the address indicated below.

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2. Pursuant to R.A. 9511<sup>1</sup>, NGCP was granted the franchise to operate, manage and maintain, and in connection therewith, to engage in the business of conveying or transmitting electricity through a high-voltage back-bone system of interconnected transmission lines, substations and related facilities, system operations, and other activities that are necessary to support the safe and reliable operation of the transmission system<sup>2</sup> and is authorized to charge its customers at the rates approved by the Honorable Commission.
3. This Application is filed pursuant to paragraph d, Section 9 of the EPIRA, which directs the transmission operator to seek prior approval from the Honorable Commission of any plan for expansion or improvement of its facilities in the pursuit of its mandate to construct, install, finance, improve, expand, rehabilitate and repair the nationwide transmission system and the grid.
4. NGCP's Final Determination for the Third Regulatory Period (3<sup>rd</sup> RP) covering calendar years 2011 to 2015, as approved by the Honorable Commission in ERC Case No. 2009-180RC has already ended in December 2015 and under the Rules for Setting Transmission Wheeling Rates (RTWR), the Final Determination for the Fourth Regulatory Period (4<sup>th</sup> RP) covering calendar years 2016 to 2020 shall commence immediately thereafter. However, NGCP has yet to undergo its regulatory reset for the 4<sup>th</sup> RP as it is still awaiting the Honorable Commission's position paper to guide NGCP in the submission of its 4<sup>th</sup> RP Application.
5. Notwithstanding the absence of the Final Determination for the 4<sup>th</sup> RP, NGCP is mandated to ensure and maintain the quality, reliability, adequacy, security, stability and integrity of the nationwide grid. Hence, NGCP seeks authority from this Honorable Commission for the immediate implementation of various capital expenditure projects.
6. NGCP has the legal mandate to ensure the non-discriminatory, reliable and high-performance operation of the transmission system; including a secured, reliable, and efficient management of the high-voltage grid of the Philippines. To perform such functions, NGCP submits to the Honorable Commission, for its approval, additional Capital Expenditure (CAPEX) program for CY 2017- beyond 2020 consisting of vital grid expansion and reliability projects, together with their respective justifications.
7. One of the core mandates of NGCP is to improve and expand its transmission facilities<sup>3</sup>, and to ensure and maintain the reliability, adequacy, security, stability and integrity of the

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<sup>1</sup> 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 or Interconnected Transmission Lines, Substations and Related Facilities, and For Other Purposes;

<sup>2</sup> Id, Section 1;

<sup>3</sup> Section 9 d, EPIRA;

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nationwide electrical grid<sup>4</sup> to guarantee that grid meets: forecast demand, system reliability, demand market requirements, and capacity of new generators. Thus, NGCP is seeking approval for the following new projects:

<b>PROJECT NAME (Luzon)</b>		<b>BRIEF JUSTIFICATION</b>
1.	<b>Tower Structure Upgrading of Bicol Transmission Facilities</b>	<p>The project involves the upgrading of the transmission facilities in the Bicol area. It involves the construction of 82 new steel tower structures with improved wind design that could withstand strong typhoons.</p> <p>The estimated cost of the project is PhP986.56Mn and the implementation period is 10 months.</p>
2	<b>Concepcion-Sta. Ignacia 69 kV Transmission Line Project</b>	<p>This project aims to address the heavy loading issue in the existing Concepcion-Paniqui 69 kV Line which serves the loads of Gerona, Victoria, Sta. Ignacia, Camiling, Paniqui and Moncada of Tarlac I Electric Cooperative (TARELCO I).</p> <p>With Concepcion-Sta. Ignacia 69 kV Transmission Line in place to separately accommodate the loads of TARELCO I Camiling, Paniqui and Moncada, the power requirements of the area will be adequately served.</p> <p>The estimated cost of the project is PhP667.57Mn and the implementation period is 40 months.</p>
3	<b>Marilao EHV Substation Project</b>	<p>This project will serve as another drawdown substation for the bulk power being delivered to the 500 kV system. This is driven by further generation capacity additions in Bataan which will result in heavy loading for both the existing San Jose EHV Substation and the proposed Taguig EHV Substation. As the demand in Metro Manila increases, more power will be drawn by these substations, thus, it is expected that the power transformers in these facilities will already be overloaded by 2023.</p> <p>The estimated cost of the project is PhP7,392.98Mn and the implementation period is 47 months.</p>
4	<b>San Simon 230 kV Transmission Line Project</b>	<p>The proposed project aims to support the power requirements of the existing and new steel plants and other industrial loads in San Simon, Pampanga. Also, this will serve as an alternate source substation for loads connected to the Mexico Substation.</p> <p>The estimated cost of the project is PhP2,318.15Mn and the implementation period is 36 months.</p>
5	<b>Nagsaag-Tumana</b>	This project aims to address the heavy loading issue

<sup>4</sup> Section 9, c, EPIRA;

	<b>69 kV Transmission Line Project</b>	<p>in the existing Nagsaag-Umingan 69 kV Line which serves the loads of Pangasinan III Electric Cooperative, Inc. (PANELCO III). and Central Pangasinan Electric Cooperative, Inc. (CENPELCO). Due to the increasing power demand in these distribution utilities, the Nagsaag-Umingan 69 kV Line is projected to be overloaded already by 2021.</p> <p>The estimated cost of the project is PhP683.65Mn and the implementation period is 40 months.</p>
6	<b>Tuy 500/230 kV Substation Project Stage 1</b>	<p>The project involves the development of the Tuy 500/230 kV Substation (Stage 1) which will serve as the connection point of the 2x350 MW plant of St. Raphael Power Generation Corporation and other future generation additions in the area. This project is associated with the construction of a new 500 kV-designed transmission backbone from the area going to Dasmariñas Substation. Also, the project involves the installation of a 100 MVA 230/69 kV power transformer at the Calaca 230 kV Substation.</p> <p>The estimated cost of the project is PhP8,454.09Mn and the implementation period is 34 months.</p>
7	<b>Pagbilao – Tayabas 500 kV Transmission Line Project</b>	<p>This is the next stage of transmission development in Quezon Province associated with the new Pagbilao 500 kV Substation. With this additional line segment, the overall reliability of the outgoing transmission lines from Pagbilao 500 kV Substation will be improved and it will allow the connection of the 2 X 600 MW Atimonan CFPP project.</p> <p>The estimated cost of the project is PhP3,934.30Mn and the implementation period is 50 months.</p>
8	<b>Pinili 230kV Substation Project</b>	<p>This project aims to address the reliability and adequacy issues in the existing Currimaog 115 kV Substation which serves Ilocos Norte Electric Cooperative (INEC) and the 20 MW Mirae Solar Power Plant. The project will also help relieve the loading in Laoag Substation and will provide adequate space that can allow the connection of additional loads and generators.</p> <p>The estimated cost of the project is PhP1,631.73Mn and the implementation period is 40 months.</p>
9	<b>San Manuel – Nagsaag 230 kV Line Transmission Line Project</b>	<p>This project aims to provide grid reliability improvement by upgrading the capacity of the tie-line between San Manuel and Nagsaag 230 kV Substations. Also, this project includes the installation of additional transformer at Nagsaag EHV Substation which has one (1) 600 MVA 500/230 kV transformer unit only.</p> <p>The estimated cost of the project is PhP1,873.52Mn and the implementation period is 27 months.</p>
10	<b>Taguig-Taytay 230</b>	<p>The project aims to address the overloading on the</p>

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	<b>kV Transmission Line Project</b>	<p>Taguig-Paco 230 kV line segment during N-1 contingency, further decongest the San Jose EHV Substation, and optimize the utilization of the new Taguig 500/230 kV Substation.</p> <p>The estimated cost of the project is PhP3,823.47Mn and the implementation period is 63 months.</p>
11	<b>Tanauan 230kV Substation Project</b>	<p>The project aims to cater the load growth and improve the power quality in Batangas and Laguna areas, particularly for the loads being served by MERALCO in Batangas and Calamba; Batangas Electric Cooperative II, First Industrial Township Utilities, Inc. and Lima Enerzone Corporation.</p> <p>The estimated cost of the project is PhP2,493.48Mn and the implementation period is 50 months.</p>

<b>PROJECT NAME (Visayas)</b>		<b>BRIEF JUSTIFICATION</b>
1	<b>Panay-Guimaras 138 kV Interconnection Project</b>	<p>The project aims to accommodate the entry of the 40 MW Sibunag Wind Power Plant by 2020. With this new plant in place, the total installed generation capacity in Guimaras Island is already 97.4 MW.</p> <p>The estimated cost of the project is PhP2,424.42Mn and the implementation period is 15 months.</p>
2	<b>Laray 230 kV Substation Project</b>	<p>At present, the Quiot Substation is heavily loaded due to the increase of power demand of Metro Cebu. Due to space constraint in the substation, the installation of additional transformer is no longer feasible. Thus, the development of a new drawdown substation is necessary to support the long-term power supply requirement of the area.</p> <p>The estimated cost of the project is PhP5,029.49Mn and the implementation period is 38 months.</p>
3	<b>Babatngon-Palo 138 kV Transmission Line Project</b>	<p>The forecasted demand of Tacloban will cause heavy loading in the existing 69 kV line serving the area and also in Ormoc Substation which can only accommodate a maximum load of 90 MW to maintain its N-1 contingency provision. To address these capacity limitation issues, 138 kV backbone extension in the north-eastern part of Leyte is proposed.</p> <p>The estimated cost of the project is PhP3,060.52Mn and the implementation period is 17 months.</p>
4	<b>Calbayog-Allen 69 kV Transmission Line</b>	<p>This project aims to improve the reliability of transmission service to the loads in the northern part of Samar. The 69 kV line serving the area traverses the mountainous area of Calbayog and Catarman making the clearing operation more challenging. The proposed Calbayog-Allen 69 kV line will provide alternate source and it will also traverse mostly along the roads.</p>

		The estimated cost of the project is PhP934.91Mn and the implementation period is 18 months.
5	<b>Visayas Substation Upgrading Project</b>	<p>The purpose of the project is to accommodate projected demand, avoid overloading and comply with the N-1 requirement of the Philippine Grid Code through additional power transformers in Maasin, Calbayog, Tabango and Daanbantayan substations.</p> <p>The estimated cost of the project is PhP1,184.46Mn and the implementation period is 28 months.</p>
6	<b>Amlan-Dumaguete 138 kV Transmission Project</b>	<p>This project aims to address the projected overloading of the existing Amlan-Siaton 69 kV line serving Negros Oriental II Electric Cooperative (NORECO II). It will involve 138 kV backbone extension to the southern part of Negros and development of new drawdown substation close to the load area.</p> <p>The estimated cost of the project is PhP2,495.09Mn and the implementation period is 17 months.</p>
7	<b>Barotac Viejo-Natividad 69 kV Transmission Line Project</b>	<p>This project aims to improve the reliability of supply for Iloilo III Electric Cooperative (ILECO III) during N-1 contingency by providing loop configuration in the 69 kV facilities in the area. This will also address the overloading issue in the transformers in Dingle Substation by 2022 because of the resulting operational flexibility.</p> <p>The estimated cost of the project is PhP57.23Mn and the implementation period is 31 months.</p>

<b>PROJECT NAME (Mindanao)</b>		<b>BRIEF JUSTIFICATION</b>
1.	<b>Kabacan Substation Project</b>	<p>This project aims to develop a common substation to connect together the Kibawe-Kabacan 138 kV double-circuit line and Kabacan-Sultan Kudarat and Kabacan-Tacurong 138 kV single circuit line. The resulting configuration will provide reliability and power quality improvement even during line outages in the area.</p> <p>The estimated cost of the project is PhP4,167.87Mn and the implementation period is 37 months.</p>
2	<b>Nasipit Substation Bus-in Project</b>	<p>The project involves the bus-in of the existing Jasaan – Butuan 138 kV Single-Circuit Transmission Line to Nasipit Substation and the installation of additional 50 MVA transformer at Nasipit Substation in compliance to the single-outage contingency (N-1) criterion of the Philippine Grid Code. Also included in the project is the replacement of defective power circuit breakers in Nasipit Substation.</p>

		The estimated cost of the project is PhP1,171.71Mn and the implementation period is 50 months.
3	<b>San Francisco-Tandag 138 kV Transmission Line Project</b>	<p>The project aims to provide reliability of supply to the loads being served by the existing San Francisco-Tandag 69 kV Line by providing alternate source. The project will be implemented by stages involving 69 kV looping and 138 kV backbone extension in the north-eastern part of Mindanao.</p> <p>The estimated cost of the project is PhP4,198.64Mn and the implementation period is 48 months.</p>
4	<b>Maco-Mati 138 kV Transmission Line Project</b>	<p>The project aims to provide reliability of supply to the loads being served by the existing Maco-Mati 69 kV Line by providing alternate source. The project involves 138 kV backbone extension in the south-eastern part of Mindanao and development of new drawdown substation.</p> <p>The estimated cost of the project is PhP2,344.51Mn and the implementation period is 48 months.</p>
5	<b>Mindanao Substation Expansion 3 Project</b>	<p>The project aims to increase the substation capacity of Pitogo, Placer, San Francisco and Matanao to accommodate the anticipated load growth. This development will provide N-1 contingency which will allow continuous transmission service even during transformer outage.</p> <p>The estimated cost of the project is PhP1,464.64Mn and the implementation period is 33 months.</p>

A copy of the compilation of the Detailed Project Discussion for the projects is attached as **Annex "A,"** and a copy of the detailed cost of the projects is attached as **Annex "B."**

**Justifications for the Issuance of Provisional Approval**

8. To reiterate, NGCP is required under paragraph d, Section 9 of the EPIRA to seek prior approval from the Honorable Commission of any plan for expansion or improvement of its facilities in relation to its authority and responsibility to construct, install, finance, improve, expand, rehabilitate and repair the nationwide transmission system and the grid.
9. Along with its responsibility for the planning, construction and centralized operation and maintenance of its high voltage transmission facilities, it is indispensable for NGCP to ensure a reliable and high-performance operation of the transmission system.
10. Thus, to avoid disruption of operation and ensure continuous compliance with NGCP's mandate under the EPIRA as the transmission operator, it is imperative that the implementation of the proposed CAPEX projects be immediately approved.

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11. In support thereof, NGCP submits the judicial affidavit of Engr. Redi Allan B. Remoroza, Head of the Transmission Planning Department of NGCP attached as **Annex "C."**

**PRAYER**

**WHEREFORE**, NGCP most respectfully prays this Honorable Commission to:

1. Immediately **ISSUE** an Order provisionally authorizing the implementation of the proposed CAPEX projects; and
2. **APPROVE**, after notice and hearing, the proposed CAPEX projects.

NGCP prays for other equitable relief.

On 02 March 2018, Applicant filed a *Motion to Set Case for Initial Hearing* dated 01 March 2018 (Motion) praying that the instant case be set for hearing. Finding said Motion in order, the Commission grants the same.

Finding the said *Application* sufficient in substance with the required fees having been paid, the same is hereby set for determination of compliance with the jurisdictional requirements, expository presentation, Pre-trial Conference, and presentation of evidence on **15 May 2018 (Tuesday) at two o'clock in the afternoon (2:00 P.M.), at ERC Hearing Room, 15th Floor, Pacific Center Building, San Miguel Avenue, Pasig City.**

Accordingly, NGCP is hereby directed to:

- 1) Cause the publication of the attached Notice of Public Hearing in two (2) newspapers of nationwide circulation in the Philippines at its own expense, twice (2x) within two (2) successive weeks, the dates of publication not being less than seven (7) days apart and the date of the last publication to be made not later than ten (10) days before the date of the scheduled initial hearing;
- 2) Furnish with copies of this Order and the attached Notice of Public Hearing the Offices of the City Mayor, and the Local Government Unit (LGU) legislative body of Quezon City for appropriate posting thereof on their respective bulletin boards;

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- 3) Inform of the filing of the *Application*, its reasons therefor, and of the scheduled hearing thereon the consumers within the affected area, by any other means available and appropriate;
- 4) Furnish with copies of this Order and the attached Notice of Public Hearing the Office of the Solicitor General (OSG), the Commission on Audit (COA), and the Committees on Energy of both Houses of Congress. They are hereby requested, if they so desire to send their duly authorized representatives at the scheduled hearing; and
- 5) Furnish with copies of the *Application* and its attachments all those making requests therefor, subject to reimbursement of reasonable photocopying costs.

On the date of the initial hearing, Applicant must submit to the Commission its written compliance with the aforementioned jurisdictional requirements attaching therewith, methodically arranged and duly marked the following:

- 1) The evidence of publication of the attached Notice of Public Hearing, consisting of the affidavits of the Editor or Business Manager of the newspapers where the said Notice of Public Hearing was published, and the complete issue of the said newspapers;
- 2) The evidence of actual posting of this Order and the attached Notice of Public Hearing, consisting of certifications issued to that effect, signed by the aforementioned Mayor, and LGU legislative body or their duly authorized representatives, bearing the seals of their offices;
- 3) The evidence of the means employed by Applicant to inform of the filing of the *Application*, its reasons therefore, and of the scheduled hearing thereon, the consumers within the affected franchise area;
- 4) The evidence of receipt of copies of this Order and the attached Notice of Public Hearing, by the Office of the Solicitor General (OSG), the Commission on Audit (COA), and the Committees on Energy of both Houses of Congress;

- 5) The evidence of receipt of copies of the *Application* and its attachments by all those making requests therefor, if any; and
- 6) Such other proofs of compliance with the requirements of the Commission.

Applicant and all interested parties are also required to submit, at least five (5) days before the date of initial hearing and Pre-Trial Conference, their respective Pre-Trial Briefs containing, among others:

- 1) A summary of admitted facts and proposed stipulation of facts;
- 2) The issues to be tried or resolved;
- 3) The documents or exhibits to be presented, stating the purposes and proposed markings therefore; and
- 4) The number and names of the witnesses, with their written testimonies in a Judicial Affidavit form attached to the Pre-trial Brief.

Failure of Applicant to submit the required Pre-Trial Brief and Judicial Affidavits of its witnesses within the prescribed period shall be a ground for cancellation of the scheduled hearing, and the resetting of which shall be six (6) months from the said date of cancellation.

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NGCP must also be prepared to make an expository presentation of the instant *Application*, aided by whatever communication medium that it may deem appropriate for the purpose, in order to put in plain words and explain, for the benefit of the consumers and other concerned parties, what the *Application* is all about and the reasons and justifications being cited in support thereof.

**SO ORDERED.**

Pasig City, 08 March 2018.

FOR AND BY AUTHORITY  
OF THE COMMISSION:

  
**AGNES VST DEVANADERA**  
*Chairperson and CEO*

  
LS: KUP/LSE/APV



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COPY FURNISHED:

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2. National Grid Corporation of the Philippines  
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3. National Transmission Commission (TRANSCO)  
*Intervenor*  
Attention: Attys. Noel Z. De Leon, Leon T. Tapel, Jr.,  
Nyerson Dexter Tito Q. Tualla and Donna L. Caloza-Aleria  
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5. Office of the Solicitor General  
134 Amorsolo Street, Legaspi Village  
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6. Commission on Audit  
Commonwealth Avenue  
Quezon City, Metro Manila
7. Senate Committee on Energy  
GSIS Bldg. Roxas Blvd., Pasay City  
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8. House Committee on Energy  
Batasan Hills, Quezon City, Metro Manila
9. Philippine Chamber of Commerce and Industry (PCCI)  
3<sup>rd</sup> Floor, Chamber and Industry Plaza (CIP)  
1030 Campus Avenue corner Park Avenue  
McKinley Town Center, Fort Bonifacio, Taguig City
10. Regulatory Operations Service  
Energy Regulatory Commission  
17<sup>th</sup> Floor, Pacific Center Building,  
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