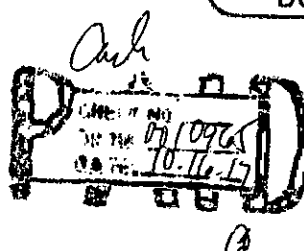
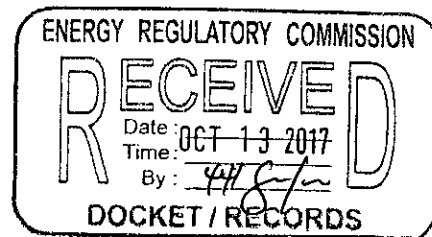


Republic of the Philippines
ENERGY REGULATORY COMMISSION
San Miguel Avenue, Pasig City

IN THE MATTER OF THE
APPLICATION FOR THE
APPROVAL OF THE
IMPLEMENTATION OF THE
CEBU-BOHOL 230 kV
INTERCONNECTION
PROJECT AND NABAS-
CATICLAN-BORACAY
TRANSMISSION PROJECT,
WITH PRAYER FOR
PROVISIONAL AUTHORITY.



ERC CASE NO 2017-0⁹³ RC

NATIONAL GRID
CORPORATION OF THE
PHILIPPINES,

Applicant.

X-----X

ERC COPY

APPLICATION

Applicant **NATIONAL GRID CORPORATION OF THE PHILIPPINES** (NGCP), by counsel, respectfully states that:

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 was granted the rights and obligation to construct, install, finance, manage, improve, expand, operate, maintain, rehabilitate, repair, refurbish, and replace the Transmission Assets 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.

2. Pursuant to R.A. 9511,¹ 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 backbone 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 system² and is authorized to charge its customers at the rates approved by the Honorable Commission.

3. This Application is filed pursuant to Section 9 (d) of the EPIRA which directs NGCP to submit any plan for expansion or improvement of its facilities for approval by the Honorable Commission. Hence, NGCP seeks authority from the Honorable Commission for the immediate implementation of the herein described capital expenditure projects.

4. The subject projects will support the increasing demand for electricity of Bohol and Boracay's load customers, and improve the reliability of the electrical system of the Visayas Grid.

I. CEBU-BOHOL 230 KV INTERCONNECTION PROJECT

5. The Cebu, Leyte and Bohol Islands are radially interconnected through the Cebu-Leyte 230 kilovolts (kV) and Leyte-Bohol 138 kV submarine cables. The Leyte-Bohol 138 kV submarine cable has a limited capacity of only 90 megawatts (MW).

6. Bohol is highly dependent on power coming from Leyte. Although Bohol hosts several hydro- and oil-based power plants, their aggregate capacities are not sufficient to supply Bohol's total demand. It is estimated that by year 2020, the demand of Bohol will reach 89 MW and by year 2021 will further increase to 95 MW. Thus, transmitting the needed power from the Leyte Island will absolutely overload the Leyte-Bohol 138 kV submarine cable.

¹ 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;

² Id, Section 1;

7. Shown in the table below is the actual demand (2015-2016) and forecasted demand of Bohol from 2017 to 2025.

Bohol Island, Actual and Forecast Demands, in MW										
2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
62	70	72	77	83	89	95	102	109	116	124

8. To avoid the expected overloading of the Leyte-Bohol submarine cable, NGCP proposes to interconnect the Cebu and Bohol Islands through a 230 kV submarine cable. With the interconnection, the overloading of Leyte-Bohol 138 kV submarine cable will be avoided, and will provide the Bohol Island with another source of power coming from the Island of Cebu.

9. The proposed 230 kV interconnection will have the following components:

- a. Sibonga CTS – Loon CTS: 4x1600mm² 230kV XLPE, Submarine Cable, 30 km;
- b. Sibonga S/S – Sibonga CTS: ST-DC, 4x795MCM ACSR, 230 kV Overhead line, 2 km;
- c. Loon CTS – Corella S/S: ST-DC, 4x795MCM ACSR, 230 kV Overhead line, 17 km;
- d. Corella S/S: 2x300 MVA, 230/138kV;
- e. Sibonga S/S: 6x230kV PCB + Associated Equipment;
- f. Corella S/S: 8x230kV PCB and 2x138kV PCB + Associated Equipment;
- g. Sibonga S/S: 2x40MVAR 230kV Reactor; and
- h. Corella S/S: 2x40MVAR 230kV Reactor.

10. The estimated cost of the proposed project is PhP8,139.26Mn, with an implementation period of 50 months. The Cebu-Bohol 230kV Interconnection Project is exhaustively discussed in the *ERC Documentary Requirements on the Proposed Cebu-Bohol 230 kV Interconnection Project* attached as **Annex “A.”**

II. NABAS-CATICLAN-BORACAY TRANSMISSION LINE PROJECT

11. The demand of the Island of Boracay is served only by the Nabas Substation through the single-circuit Nabas-Caticlan-Boracay 69 kV overhead line and submarine cable system. However, the demand in Boracay is projected to increase, which can no longer be accommodated by the Caticlan-Boracay 69 kV line.

12. Shown below are the historical and projected non-coincident peak demands of the load-end substations (LES) in Caticlan and Boracay Island:

Historical Peak Demand³ of Loads Being Served by Nabas Substation, in MW

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Boracay	10.6	13.2	15.7	16.2	20.4	21.6	19.4	22.6	25.5
Caticlan							2.6	2.7	3.0
TOTAL	10.6	13.2	15.7	16.2	20.4	21.6	22.0	25.3	28.5

Peak Demand Forecast⁴ of Loads Connected to the Existing 69 kV Line, in MW

	2017	2018	2019	2020	2021	2022	2023	2024	2025
Boracay	30.4	35.7	39.7	43.7	52.9	55.8	58.9	62.0	65.3
Caticlan	4.6	5.1	5.6	6.1	6.6	7.2	7.8	8.5	9.2
TOTAL	35.0	40.8	45.3	49.8	59.5	63.0	66.7	70.5	74.5

Monitored Facilities			2017	2018	2019	2020	2021 and beyond	
Nabas S/S 50 MVA T1&T2	Normal	MW	18	21	24	21	S Y S T E M C O L L A P S E	
		%	35	43	49	43		
	N-1	MW	36	42	48	42		
		%	70	86	98	86		
Nabas-Caticlan 69 kV TL	Normal	MW	36	42	47	51		
		%	61	74	84	94		
	N-1	MW	-	-	-	-		
		%	-	-	-	-		
Caticlan - Boracay 69 kV S/C	Normal	MW	30	36	40	44		
		%	84	102	116	131		
	N-1	MW	-	-	-	-		
		%	-	-	-	-		
Manoc-manoc LES 30 MVA	Normal	MW	30	36	40	44		
		%	109	130	146	163		
	N-1	MW	-	-	-	-		
		%	-	-	-	-		

³ Based on actual meter reading;

⁴ Based on the coincident demand forecast as of May 2017;

Projected Power Curtailment	2017	2018	2019	2020	2021	2022	2023	2024	2025
Normal Condition	5	11	15	19	28	31	34	37	40
N-1 Condition	35	41	45	50	60	63	67	71	75

13. As shown in the abovementioned data, the demand of Boracay Island will already exceed the capacities of the existing transformer in Manoc-manoc LES in the year 2017, and Caticlan - Boracay 69 kV submarine cable by 2018. The same simulation also clearly shows that by 2021, the cumulative demand of the load-end substations in Caticlan and Boracay will already exceed the capacity of the 69 kV line from Nabas Substation which will result to system collapse.

14. To avoid the system collapse, NGCP proposes to construct an additional transmission line and substation facilities to cater the growing demand of Boracay Island.

15. The proposed 138kV transmission line has the following components:

- a. Caticlan CTS – Boracay SS: 1 circuit XLPE Submarine Cable of 100 MW capacity at 138kV, 2 km;
- b. Caticlan: 1 circuit XLPE Underground Cable of 100 MW capacity at 138kV, 8 km;
- c. Boracay: 1 circuit XLPE Underground Cable of 50 MW capacity at 69kV, 1 km;
- d. Nabas – Caticlan: ST/SP-DC, 1x795 MCM ACSR, 138 kV overhead line, 14km;
- e. Boracay S/S: 1x100 MVA, 138/69kV and 2 x 50 MVA, 69/13.2 kV;
- f. Nabas S/S: 2x138kV PCB + Associated Equipment; and
- g. Boracay S/S: 1x138 kV PCB and 4x69kV PCB + Associated Equipment.

16. The estimated cost of the proposed project is PhP4,269.302Mn, with an implementation period of 35 months. The Nabas-Caticlan-Boracay Transmission Line Project is discussed in the *ERC Documentary Requirements on the Proposed Nabas-Caticlan-Boracay Transmission Line Project* attached as **Annex “B.”**

Justifications for the Issuance of Provisional Approval

17. NGCP is mandated to plan and construct transmission facilities to ensure reliable transmission service to its customers. Thus, it needs adequate transmission capacity to foster economic growth and serve growing demand of the load customers. Considering that planning, site development, right-of-way concerns and construction of the transmission facilities would take more than 3 years to develop and complete, it is critical for NGCP to act immediately and address issues early by undertaking the abovementioned projects.

18. A system collapse is imminent and will be experienced as early as 2021, if the projects are not undertaken. It must be emphasized that the implementation periods of the projects are 50 and 35 months for the Cebu-Bohol and Nabas-Caticlan-Boracay, respectively. Thus, it is necessary for NGCP to immediately commence the implementation of the proposed projects.

19. In support of this application, NGCP submits the Judicial Affidavit of Engr. Christian B. Ereño, Head of the Visayas System Planning Division, Transmission Planning Department of NGCP attached as **Annex "C."**

PRAYER

WHEREFORE, premises considered, NGCP most respectfully prays that this Honorable Commission:

1. Immediately **ISSUE** an Order **PROVISIONALLY AUTHORIZING** the implementation of Cebu-Bohol 230 kV Interconnection and Nabas-Caticlan-Boracay Transmission Line Projects; and

2. After notice and hearing, **APPROVE** the Application for the implementation of the Cebu-Bohol 230 kV Interconnection and Nabas-Caticlan-Boracay Transmission Line Projects.

NGCP prays for other equitable relief.

Quezon City for Pasig City, 9 October 2017.

**OFFICE OF THE GENERAL COUNSEL
NATIONAL GRID CORPORATION OF THE PHILIPPINES**
NGCP Building, Quezon Avenue corner
BIR Road, Diliman, Quezon City
Tel. No. 981-2100 (Trunk Line)

By:


LUIS MANUEL U. BUGAYONG

PTR No. 3804021 / 01.04.17 / Quezon City
IBP Lifetime No. 010191/RSM
MCLE Compliance No. V-0006616 / 02.24.15
Roll of Attorneys No. 38002
Email address: lubugayong@ngcp.ph


MARK ANTHONY S. ACTUB

PTR No. 3804020 / 01.04.17 / Quezon City
MCLE Compliance No. V-0006614 / 02.24.15
IBP Lifetime No. 04514/ Misamis Oriental
Roll of Attorneys No. 45707
Email address: msactub@ngcp.ph


RAYCELL D. BALDOVINO

PTR No. 3803221 / 01.03.17 / Quezon City
MCLE Compliance No. V-0008304 / 06.03.15
IBP Lifetime No. 010195/ RSM
Roll of Attorneys No. 50672
Email address: rdbaldovino@ngcp.ph

Courtesy copy:

NATIONAL TRANSMISSION CORPORATION
Office of the President
Power Center Building, Quezon Avenue corner
BIR Road, Diliman, Quezon City

NATIONAL TRANSMISSION CORPORATION
Office of the General Counsel
Power Center Building, Quezon Avenue corner
BIR Road, Diliman, Quezon City

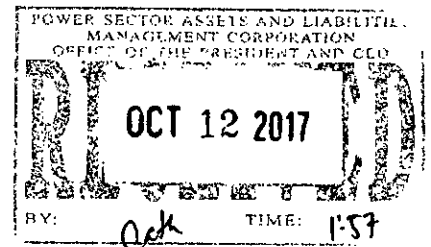
**POWER SECTOR ASSETS AND LIABILITIES
MANAGEMENT CORPORATION**
Office of the President
Power Center, Quezon Avenue corner
BIR Road, Diliman, Quezon City

APPROVED BY:

ES
AM

6872 17 OCT 12 P1:50

6872 17 OCT 12 P1:50



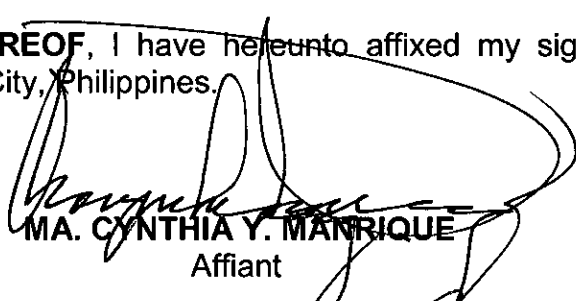
REPUBLIC OF THE PHILIPPINES)
QUEZON CITY) S.S.

**VERIFICATION AND
CERTIFICATION OF NON-FORUM SHOPPING**

I, **MA. CYNTHIA Y. MANRIQUE**, Filipino, of legal age, single, after having been duly sworn to in accordance with law, hereby depose and say that:

1. I am presently the Head of the Revenue Regulatory Affairs Group of the National Grid Corporation of the Philippines (NGCP);
2. I am duly authorized to sign the Verification and Certification of Non-Forum Shopping in this case for and in behalf of NGCP as evidenced by the Secretary's Certificate hereto attached as **Annex "A-Verification;"**
3. I have caused the preparation of the foregoing Application and I have read it. I attest that the allegations therein are true and correct of my personal knowledge and based on authentic records;
4. I further attest that NGCP has not filed any similar case or action before any court, tribunal or quasi-judicial agency involving the properties subject of this case and, to the best of my knowledge, no such other case or action is pending therein; and
5. If I should thereafter learn that a similar case, action or claim other than those mentioned above, is filed or pending before any court, tribunal or quasi-judicial agency, I shall report that fact to this Honorable Office within five (5) days therefrom;

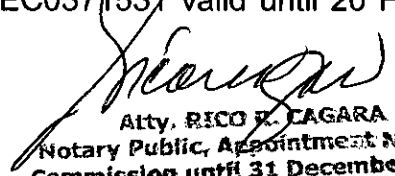
IN WITNESS WHEREOF, I have hereunto affixed my signature this 9 October 2017, in Quezon City, Philippines.



MA. CYNTHIA Y. MANRIQUE
Affiant

SUBSCRIBED AND SWORN to before me this 9 October 2017, affiant exhibited to me her Philippine Passport No. EC0371531 valid until 20 February 2019 issued by the DFA NCR North East.

Doc. No. 316 :
Page No. 65 :
Book No. 28 :
Series of 2017.



Atty. RICO E. CAGARA
Notary Public, Appointment No. 038
Commission until 31 December 2017
PTR No. 3803217; 01-03-17; Quezon City;
IBP Lifetime No. 06600; Bulacan
Roll of Attorney's No. 53664
MCLE Compliance No. V-0005735, until 4-14-19
Unit 305, J. Rosa Condominium
44 Matimtiman St., Teacher's Village East
Diliman, Quezon City