

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



**IN THE MATTER OF THE
JOINT APPLICATION FOR
APPROVAL OF THE
ANCILLARY SERVICES
PROCUREMENT
AGREEMENT BETWEEN THE
NATIONAL GRID
CORPORATION OF THE
PHILIPPINES AND THERMA
MARINE, INC. (FOR MOBILE
2), AND APPROVAL OF THE
INCIDENTAL ENERGY
SUPPLY AGREEMENT
TEMPLATE, WITH PRAYER
FOR ISSUANCE OF
PROVISIONAL AUTHORITY,**

ERC CASE NO. 2017-076 RC

**NATIONAL GRID
CORPORATION OF THE
PHILIPPINES AND THERMA
MARINE, INC.,**

Applicants.

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D O C K E T E D

Date: MAR 09 2018

By: _____

ORDER

On 18 August 2017, the National Grid Corporation of the Philippines (NGCP) and Therma Marine, Inc. (TMI) filed an Application seeking the Commission's approval of their Ancillary Services Procurement Agreement (ASPA) and of their Incidental Energy Supply Agreement Template (IESAT), with prayer for the issuance of a provisional authority.

Relative to their prayer for the issuance of a provisional authority, NGCP and TMI alleged the following:

1. This Application is for the approval of the Ancillary Services Procurement Agreement (ASPA) between the NGCP and

TMI, pursuant to the Decision dated 3 October 2007 in ERC Case No. 2006-049RC, entitled: *"In the Matter of the Application for the Approval of Ancillary Services – Cost Recovery Mechanism (AS-CRM) of the Ancillary Services Procurement Plan, with Prayer for Provisional Authority" and approval of the accompanying "Incidental Energy Supply Agreement" template.*

PARTIES

2. Applicant NGCP is a corporation created and existing under the laws of the Philippines, with office address at NGCP Building, Quezon Avenue corner BIR Road, Diliman, Quezon City. It holds a franchise under Republic Act No. 9511¹ to engage in the business of conveying or transmitting electricity through high-voltage back-bone systems of interconnected transmission lines, substations and related facilities, and for other purposes. The franchise also includes the conduct of activities necessary to support the safe and reliable operation of the transmission system.
3. Applicant TMI is a generation company duly organized and existing under the laws of the Republic of Philippine with office address in Brgy Nasipit, Agusan del Norte. It owns and operates a 100MW Power Barge (Mobile 2) in Brgy Nasipit, Agusan del Norte, which has been certified and accredited by NGCP to be capable of providing Contingency Reserve ("CR") and Dispatchable Reserve ("DR"). The copies of the Securities and Exchange Commission Certificate of Filing of the Amended Articles of Incorporation, Amended Articles of Incorporation, General Information Sheet, and the Honorable Commission's issued Certificate of Compliance for Mobile 2, are attached hereto as **Annexes "A", "B", "C" and "D"**, respectively.

ANTECEDENT FACTS

4. Republic Act No. 9136 provides that it is the responsibility of NGCP to ensure and maintain the reliability, adequacy, security, stability and integrity of the nationwide electrical grid in accordance with the performance standards for its operations and maintenance, as set forth in the Philippine Grid Code (PGC), adopted and promulgated by the Honorable Commission, and to adequately serve generation companies, distribution utilities and suppliers requiring transmission service and/or ancillary services through the transmission system².

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 of Interconnected Transmission Lines, Substations and Related Facilities, and for other Purposes.

² Section 9 (c) and (d).

5. Similarly, the PGC provides that NGCP is responsible for determining, acquiring, and dispatching the capacity needed to supply the required Grid Ancillary Services and for developing and proposing Wheeling Charges and Ancillary Service tariffs to the ERC³.

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17. It is a declared policy of the State to ensure the quality, reliability, security and affordability of the supply of electric power (*Section 2b, EPIRA*). With this end in view, there is a need to comply with the system requirements for AS to ensure grid system reliability. As mentioned above, NGCP has the mandate to procure the required AS. However, the Honorable Commission must first approve the contract before the same could be implemented. As the demand for power in the Mindanao increases, the requirements of the system to ensure stability, reliability and security likewise increases. Ensuring the integrity of the system is essential to protect the interests of the public. The absence of system reliability and stability will certainly discourage investments and growth.
18. Based on the current levels of available contracted AS in the Mindanao Grid, the CR and DR have not yet met the required levels. The copies of the Mindanao CR Availability and Mindanao DR Availability showing the required and available levels of CR and DR are attached as **Annexes "I" and "I-1"**, respectively.
19. Applicants respectfully submit that the immediate approval of the ASPA and IESA template by this Honorable Commission is a necessity to ensure the reliability and security of the Grid. In support of these allegations, NGCP submits a copy of the Judicial Affidavit of Engr. Lisafior Bacani-Kater which is attached as **Annex "J"** and TMI submits a copy of the Judicial Affidavit of Mr. Benedick Salvador as **Annex "K"**.

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ISSUE

The issue for the Commission's resolution is whether or not the Applicants have satisfied the requirements provided by law for the grant of provisional authority.

³Section 6.3.1.2 of 2007 Philippine Grid Code.

THE COMMISSION'S RULING

The Commission grants provisional authority.

**I. THE LAW EMPOWERS
THE COMMISSION TO
GRANT PROVISIONAL
AUTHORITY IN THE
INSTANT CASE.**

The authority of the Commission to issue provisional authority is pursuant to Section 4(e), Rule 3 of the Implementing Rules and Regulations (IRR) of Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA), to wit:

SECTION 4. Responsibilities of the ERC. —

(e) Any application or petition for rate adjustment or for any relief affecting the consumers must be verified, and accompanied with an acknowledgment of receipt of a copy thereof by the LGU Legislative Body of the locality where the Applicant or petitioner principally operates together with the certification of the notice of publication thereof in a newspaper of general circulation in the same locality.

The ERC may grant provisionally or deny the relief prayed for not later than seventy-five (75) calendar days from the filing of the application or petition, based on the same and the supporting documents attached thereto and such comments or pleadings the consumers or the LGU concerned may have filed within thirty (30) calendar days from receipt of a copy of the application or petition or from the publication thereof as the case may be.

Thereafter, the ERC shall conduct a formal hearing on the application or petition, giving proper notices to all parties concerned, with at least one public hearing in the affected locality, and shall decide the matter on the merits not later than twelve (12) months from the issuance of the aforementioned provisional order.

This Section 4(e) shall not apply to those applications or petitions already filed as of 26 December 2001 in compliance with Section 36 of the Act.

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The above provision was upheld by the Supreme Court in the landmark case of *Freedom from Debt Coalition (FDC) vs. Energy Regulatory Commission (ERC)*⁴ (FDC Case). The Court, speaking

⁴ G.R. No. 161113, 15 June 2004.

through Justice Tinga, traced the origin and development of the Commission's authority to grant provisional rates, *to wit*:

Historically, therefore, in this jurisdiction, at least beginning with the Public Service Act in 1936, the regulatory bodies concerned have exercised the power to grant provisional rate adjustments only because there was a statutory grant of such power.

The foregoing recital establishes the following salient points: (1) Section 16(c) of the Public Service Act authorizing the approval of provisional rate increases has never been repealed and as such continues to be in full force and effect up to the present; (2) The BOPW had the power to grant provisional rate increases on the basis of the provision of the Integrated Reorganization Plan that the pertinent powers of the PSC were transferred to it; (3) The applicability clause found in Section 44 of the EPIRA is the same as or similar to the applicability clauses contained in Sections 11 and 21 of P.D. No. 1206 and Section 14 of E.O. No. 172; and, (4) The applicability clause or transfer of power provision is sufficient to effect the transfer of powers from a regulatory agency to its successor.

All told, the provisions of the Public Service Act and E.O. No. 172 which relate to the power of the regulatory body to approve provisional rates continue to have full force and effect, and the power was transferred to the ERC by virtue of Section 80 in relation to Section 44 of the EPIRA. Said provisions are not inconsistent with the EPIRA except the directives therein dispensing with the need for prior hearing. They are deemed modified to the extent that the EPIRA imposes a publication requirement and, through the IRR, assures the customers affected the opportunity to oppose or comment on the application for provisional rate adjustment before it is acted upon by the ERC.

Indeed, both the letter and spirit of the law require that the authority of the ERC to grant provisional power rate adjustments should be upheld. The law is so clear that it cannot be misread.

[Emphasis supplied.]

The instant Application seeks the Commission's approval of the ASPA and IESAT entered into between NGCP and TMI. The said ASPA and IESAT prescribe fees which will eventually form part of TMI's ancillary services capacity cost. The ancillary services capacity cost in turn forms part of NGCP's ancillary services cost. As such, the Commission is empowered to grant provisional approval in the instant Application.

**II. THE APPLICANTS
HAVE SATISFIED
THE DUE PROCESS
REQUIREMENTS
FOR THE GRANT OF
PROVISIONAL
AUTHORITY.**

Section 4(e), Rule 3 of the IRR of EPIRA provides the procedural requisites for the grant of provisional authority, to wit:

- (1) The Applicant must file with the ERC a verified application/petition for rate adjustment. It must indicate that a copy thereof was received by the legislative body of the LGU concerned. It must also include a certification of the notice of publication thereof in a newspaper of general circulation in the same locality.
- (2) Within 30 days from receipt of the application/petition or the publication thereof, any consumer affected by the proposed rate adjustment or the LGU concerned may file its comment on the application/petition, as well as on the motion for provisional rate adjustment.
- (3) If such comment is filed, the ERC must consider it in its action on the motion for provisional rate adjustment, together with the documents submitted by the Applicant in support of its application/petition. If no such comment is filed within the 30-day period, then and only then may the ERC resolve the provisional rate adjustment on the basis of the documents submitted by the Applicant.
- (4) However, the ERC need not conduct a hearing on the motion for provisional rate adjustment. It is sufficient that it consider the written comment, if there is any.
- (5) The ERC must resolve the motion for provisional rate adjustment within 75 days from the filing of the application/petition.

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Applicants have complied with the requirement of filing a verified application. Moreover, Applicants indicated and provided proof in said Application that the legislative bodies of the Local Government Units (LGUs) concerned (i.e. Municipality of Nasipit and the Cities of Davao, Iligan, and Quezon and the Provinces of Agusan del Norte and Davao del Sur) have been furnished with copies of the Application. As proof of receipt by the said LGUs, Applicants attached

the Certification and its Affidavit of Service to that effect altogether as Annex "A".

Applicants further provided proof of publication of the Application in a newspaper of national circulation. The affidavit of publication, including the copy of the newspaper and the relevant page thereof where the application appears, is attached to the Application (no markings).

NGCP and TMI filed their Application on 18 August 2017. No Comment on the said Application was received by the Commission within the thirty (30) day period within which the said Comment may be filed, or until 16 September 2017. Thus, the prayer for provisional authority is being resolved on the basis of the documents submitted by Applicants. Likewise, the instant Order granting provisional authority is being issued within the seventy-five (75) day reglementary period which is set to end on 31 October 2017.

In light of these circumstances, the Commission has determined that the procedural requirements for the issuance of a provisional authority have been complied with.

**III. THE APPLICANTS
HAVE SATISFIED
THE SUBSTANTIAL
REQUIREMENTS
FOR THE GRANT
OF PROVISIONAL
AUTHORITY.**

More importantly, the Commission looked into the alleged necessity in the issuance of the provisional authority to implement Applicants' ASPA and IESAT, as prayed for in their Application. After initial review thereof, the Commission determined the need for ASPA based on the following considerations:

1. Ancillary Service Background

Under the EPIRA, the National Transmission Corporation (TransCo) through the NGCP⁵, is mandated to ensure and maintain the reliability, adequacy, security, stability and integrity of the nationwide electrical grid and to adequately serve generation

⁵ *Supra* note, 1.

companies, distribution utilities and suppliers requiring transmission service and/or ancillary services through the transmission system.

Ancillary services are services necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the transmission system in accordance with good utility practice and the Grid Code (Section 4b, R.A. 9136). Such services are essential in ensuring reliability in the operation of the transmission system and in the reliability of the electricity supply in the Luzon, Visayas and Mindanao Grids.

On 09 March 2009, the Commission approved TransCo's proposed Ancillary Services Procurement Plan (ASPP) and directed it to file a separate application for the approval of the Ancillary Services-Cost Recovery Mechanism (AS-CRM). In the Decision dated 03 October 2007 in ERC Case No. 2006-049 RC, the Commission approved with finality, the AS-CRM, subject to certain conditions, to wit:

- a) The cost of procuring the ancillary services under the ASPP shall be recovered one hundred percent (100%) from load customers but only until such time that such ancillary services are already traded in the Wholesale Electricity Spot Market; and
- b) All contracts for the procurement of ancillary services shall be submitted to the Commission for approval.

The ancillary services are essential in maintaining the power quality, reliability, and security of the national grid. NGCP invited and negotiated with all prospective generation companies (Gencos) capable of providing AS, one of which is TMI. For this ASPA between NGCP and TMI, the latter will supply Contingency Reserve (CR) and Dispatchable Reserve (DR) for a period of five (5) years under a Non-Firm arrangement.

CR refers to the synchronized generation capacity from Qualified Generating Units and Qualified Interruptible Loads allocated to cover the loss or failure of a synchronized generating unit or a transmission line or the power import from a single circuit interconnection in order to maintain the balance between generation and load on a real time basis. DR refers to the generating capacity that is not scheduled for Regular Energy Supply, Regulating Reserve or Contingency Reserve, or interruptible loads not scheduled for Contingency Reserve, and that are readily available for dispatch in order to replenish the Contingency Reserve Service whenever a

generating unit trips or a loss of a single transmission interconnection occurs. This type of Ancillary Service can be provided by Qualified Generators that are not synchronized to the Grid but have fast start capabilities and can ramp up their output with the offered DR within thirty (30) minutes.

Thus, on the basis of Applicants' allegations on urgency and necessity, and eligibility of the power supplier, as supported by several documents, and without prejudice to further findings by the Commission as may be determined during the actual hearing in this case, it appears that, in so far as provisional approval is concerned, there is justifiable basis in granting the immediate relief prayed for.

2. Procurement Process

In view of the urgency and necessity for ancillary services for Mindanao Grid, NGCP invited and negotiated with generation companies, the details of which are as follows:

8. Pursuant to its mandate, NGCP invited and negotiated with all prospective generation companies capable of providing ancillary services, one of which is TMI.
9. On 22 November 2016, NGCP issued *Accreditation Certificate No. 2016-M012 for TMI-Mobile 2*, certifying that the power plant has met and complied with the Standard Ancillary Services Technical Requirements of the ASPP. The copy of the Accreditation Certificate No. 2016-M012 for TMI-Mobile 2, dated 22 November 2016 is attached as **Annex "E"**.
10. Consequently, on 31 July 2017, NGCP and TMI entered into an Ancillary Services Procurement Agreement ("ASPA") for TMI to provide the Mindanao Grid, on a non-firm basis for CR and DR.

TMI entered into an ASPA with NGCP on 31 July 2017 for a period of five (5) years. The salient features⁶ of the said ASPA are as follows:

1. The term of the ASPA shall be for a period of five (5) years subject to Annual Performance Evaluation of the provider;

⁶ Judicial Affidavit (p.6) of Engr. LisaFlor Bacani-Kater, NGCP.

2. The daily declaration of the available capacity; and
3. With the following Non-Firm CR and DR capacities and rates:

Type of AS	Contracted Capacity (MW)	Applicable Rates (Maximum Hourly Rate)
Contingency Reserve (Primary Reserve)	48 MW, less Pmin ⁷ for Mobile 2 Unit 1	PhP2.25/kW/Hr
Contingency Reserve (Primary Reserve)	48 MW, less Pmin for Mobile 2 Unit 2	PhP2.25/kW/Hr

Type of AS	Contracted Capacity (MW)	Applicable Rates (Maximum Hourly Rate)
Dispatchable Reserve (Tertiary Reserve)	Up to 48 MW for Mobile 2 Unit 1	PhP1.25/kW/Hr
Dispatchable Reserve (Tertiary Reserve)	Up to 48 MW for Mobile 2 Unit 2	PhP1.25/kW/Hr

The capacities listed above are the maximum offer for each generating unit and the basis for TMI's nomination and scheduling shall be the capacities listed in the valid AS Certificate.

3. Justification for the Provisional Authority

In the Application, NGCP and TMI prayed for the issuance of a provisional authority to implement the subject ASPA to maintain the present reliability and security of the grid. Based on the current levels of available contracted AS in the Mindanao Grid, the non-firm contracted AS have not yet met the required levels of the ASPP. The entry of TMI as an additional AS service provider ensures competition between and among AS service providers which will ultimately initiate a downward pressure to current prices.

⁷ Pmin is the minimum stable load of each generating unit, as indicated in TMI's Certificate of Compliance (COC).

Further, NGCP's Engr. Lisaflor Bacani-Kater, Division Head of the Special Accounts Portfolio, Network Access and Customer Account Division, Revenue and Regulatory Affairs, alleged in her Judicial Affidavit that NGCP guaranteed that there are available AS on a daily basis to assure reliability of the grid. Furthermore, she alleged that the immediate approval of the ASPA between NGCP and TMI will improve the availability of AS in the Mindanao Grid and significantly lower the AS cost to the benefit of the consumers and assures the Mindanao Grid of AS until year 2022.

Applicants manifested that as the demand for power in the Mindanao increases, the requirements of the system to ensure stability, reliability, and security likewise increases. Thus, ensuring the integrity of the system is essential to protect the interests of the public.

They likewise stressed that absence of system reliability and stability will certainly discourage investments and growth, thus, there is a need for the immediate issuance of Provisional Approval of the subject ASPA to maintain the reliability and security of the Grid.

NGCP provided an illustration of the available level of CR and DR in the Mindanao Grid for the period July 2016 to June 2017, thus:

Month	Contingency Reserve			
	Scheduled (MW)	Required (MW)	Availability (%)	Deficiency (%)
July 2016	61	150	40.90	59.10
August 2016	54	155	34.61	65.39
September 2016	109	155	70.37	29.63
October 2016	114	150	75.73	24.27
November 2016	109	145	75.32	24.68
December 2016	107	135	79.31	20.69
January 2017	111	140	79.33	20.67
February 2017	114	140	81.47	18.53
March 2017	109	140	77.78	22.22
April 2017	121	155	78.02	21.98

May 2017	116	150	77.05	22.95
June 2017	119	155	76.72	23.28

Month	Dispatchable Reserve			
	Scheduled (MW)	Required (MW)	Availability (%)	Deficiency (%)
July 2016	0	105	0.00	100.00
August 2016	0	109	0.00	100.00
September 2016	0	155	0.00	100.00
October 2016	0	150	0.00	100.00
November 2016	0	155	0.00	100.00
December 2016	0	140	0.00	100.00
January 2017	0	145	0.00	100.00
February 2017	0	133	0.00	100.00
March 2017	0	140	0.00	100.00
April 2017	0	155	0.00	100.00
May 2017	0	150	0.00	100.00
June 2017	0	155	0.00	100.00

4. ASPA Rate Proposal/Formula

Schedule 4 of the ASPA provides for the agreed upon formula for the computation of the ancillary fees as well as the applicable maximum hourly rate for the Non-Firm AS, to wit:

Ancillary Service	Applicable Rates (Maximum Hourly Rate)
Contingency Reserve (Primary Reserve)	Php2.25/kW/Hr
Dispatchable Reserve (Tertiary Reserve)	Php1.25/kW/Hr

TMI provided the IESA template as part of its ASPA Application. TMI shall supply Incidental Energy to TMI's customers when it has been dispatched for ancillary services. TMI's customers

shall pay the corresponding Incidental Energy Fee relative to Contingency or Dispatchable Reserves computed as follows:

$$\text{Incidental Energy Fee (IEF)} = (G \times (\text{Fuel} + \text{VOM}))$$

Applicants proposed the following scenario for settlement under the subject ASPA:

Schedule 4(a): Applicable Rates in a Pre-WESM Scenario

Until such time when the Wholesale Electricity Spot Market (WESM), or any similar market, is in commercial operations in Mindanao, NGCP shall be liable to pay for the Capacity Payments for the Non-Firm AS in accordance with Sections A and B thereof while the Load Customers shall pay for the Incidental Energy Fee in accordance with Section C of the said Schedule 4(a) of the subject ASPA, as shown in the following formula:

A. Dispatchable Reserve or Tertiary Reserve (TR)

$$\text{Payment of TR} = 1.25 \text{PhP/kW/hr} \times \sum_{j=1}^n \sum_{i=1}^{\text{intervals}} \text{Capacity}_{ij}$$

Where:

Capacity_{ij} = schedule capacity, in kW, for trading interval i and day j.

n = the number of days in the billing month.

B. Contingency Reserve or Primary Reserve (PR)

$$\text{Payment of PR} = 2.25 \text{PhP/kW/hr} \times \sum_{j=1}^n \sum_{i=1}^{\text{intervals}} \text{Capacity}_{ij}$$

Where:

Capacity_{ij} = schedule capacity, in kW, for trading interval i and day j.

n = the number of days in the billing month.

C. Applicable Rate for Incidental Energy

The energy fees that TMI shall charge its Load Customers for the sale and purchase of incidental energy generated by TMI arising from the delivery of the AS under the relevant Incidental Energy Contracts shall be computed using the formula below:⁸

$$\text{Incidental Energy Fee (IEF)} = (G \times (\text{Fuel} + \text{VOM}))$$

$$G = \sum_{j=1}^n \sum_{i=1}^{\text{intervals}} \text{Energy}_{ij}$$

Fuel = HFR + LOR + related actual fuel cost, in Php/kWh

HFR = HFCR x Actual HF cost per liter, in Php/kWh

LOR = LOCR x Actual LO cost per liter, in Php/kWh

$$\text{VOM} = 0.15245 \frac{\text{Php}}{\text{kWh}} \times \text{IF}_v + \text{SSC}$$

IF_v = Inflation factor for VOM

$$= 0.06897 + 0.10982 \times \left(\frac{\text{PCPI}_m}{\text{PCPI}_b} \right) + 0.13370 \times \left(\frac{\text{PUX}_m}{\text{PUX}_b} \right) \times \left(\frac{\text{UCPI}_m}{\text{UCPI}_b} \right) + 0.22917 \times \left(\frac{\text{PEX}_m}{\text{PEX}_b} \right) \times \left(\frac{\text{ECPI}_m}{\text{ECPI}_b} \right) + 0.45834 \times \left(\frac{\text{PVX}_m}{\text{PVX}_b} \right) \times \left(\frac{\text{ICPI}_m}{\text{ICPI}_b} \right)$$

SSC = start-up fees applicable to DR, in PhP/ kWh, for the current billing period

$$= \frac{s \times [(V_{\text{HFO}} \times \text{Actual HF cost per liter}) + (V_{\text{lube}} \times \text{Actual LO cost per liter})]}{\text{Total Energy}}$$

Where:

G = Summation of Energy generated or dispatched in a particular interval hour due to Non-Firm Contracted Capacity, in kWh.

n = the number of days in the billing month.

Fuel = fuel oil, lube oil and related fuel rates, in PhP/kWh.

= The monthly actual cost per liter of fuel oil, lube oil and related fuel shall be calculated based on the "first in, first out"

⁸ Notes:

- a. If the CPI of current billing month is not published and available within two days from the end of the billing period, the most recent available published index shall be used.
- b. If the source of any of the foregoing indices is no longer available or has not been published or available for a prolonged period, the replacement index shall be selected by Service Provider.
- c. If any of the foregoing indices are re-based during the duration of this Agreement, Service Provider has the option to apply a corresponding adjustment to the inflation formula to conform with the rebasing of the subject indices.

procedure using the data of actual monthly invoices of deliveries, inventories and consumption.

HFR = Heavy fuel oil rate in Php/kWh

LOR = Lube oil rate in Php/kWh

HFCR = Heavy fuel oil consumption rate of 0.23580 liters/kWh or actual, whichever is lower.

LOCR = Lube oil consumption rate of 0.00240 liters/kWh or actual, whichever is lower.

PCPI_m = Philippine CPI of the current billing month

PCPI_b = Philippine CPI of 126.4 as of June 2011

UCPI_m = US CPI of the current billing month

UCPI_b = US CPI of 225.722 as of June 2011

ECPI_m = EURO CPI of the current billing month

ECPI_b = EURO CPI of 96.050 as of June 2011 [2015=100]

JCPI_m = Japan CPI of the current billing month

JCPI_b = Japan CPI of 96.4 as of June 2011 [2015=100]

PUX_m = Peso to US Dollar exchange rate at the end of the current billing month

PUX_b = Peso to US Dollar exchange rate of 44.8210 PHP/USD as of 17 May 2010

PEX_m = Peso to EURO exchange rate at the end of the current billing month

PEX_b = Peso to EURO exchange rate of 55.4032 PHP/EURO as of 17 May 2010

PYX_m = Peso to Yen exchange rate at the end of the current billing month

PYX_b = Peso to Yen exchange rate of 0.4851 PHP/JPY as of 17 May 2010

S = total number of start-ups for the current billing month based on customers' dispatch instructions.

V_{HFO} = 200 liters per engine per start-up/shutdown cycle.

V_{Lube} = 10 liters per engine per start-up/shutdown cycle.

Total Energy = total energy delivered to all customers of Supplier for the current Billing Period.

Schedule 4(b). Applicable Rates in a WESM Scenario

Upon commercial operations of the WESM, or any similar market in Mindanao, NGCP shall be liable to pay for the AS in accordance with the following formula:

A. Tertiary Reserve (TR)

$$\text{Payment of TR} = 1.25 \text{PhP/kW/hr} \times \sum_{j=1}^n \sum_{i=1}^{\text{intervals}} \text{Capacity}_{ij} + \text{IE Fee}$$

Where:

Capacity_{ij} = schedule capacity, in kW, for trading interval i and day j.

n = the number of days in the billing month.

B. Primary Reserve (PR)

$$\text{Payment of PR} = 2.25 \text{PhP/kW/hr} \times \sum_{j=1}^n \sum_{i=1}^{\text{intervals}} \text{Capacity}_{ij} + \text{IE Fee}$$

Where:

Capacity_{ij} = schedule capacity, in kW, for trading interval i and day j.

n = the number of days in the billing month.

C. Applicable Rate for Incidental Energy:

$$\text{Incidental Energy Fee (IEF)} = (G \times (\text{Fuel} + \text{VOM})) - \text{REWESM}$$

Where:

G = as stated in Section C of Schedule 4(a), with respect to energy generated by TMI arising from its delivery of Contingency Reserve to NGCP.

Fuel = as stated in Section C of Schedule 4(a).

VOM = as stated in Section C of Schedule 4(a).

REWESM = WESM revenue, or revenue from a similar market, arising from G.

However, if IE FEE is less than 0, then IE Fee = 0.

5. ASPA Rate Derivation

NGCP's end goal in establishing the ASPA rates is to lower cost to consumers. Ancillary Services are pass-through costs and are revenue neutral for NGCP. However, as a party to the ASPA, NGCP felt it was proper that it procure the ASPA at the lowest possible rate for the benefit of the consumers.

From NGCP's side, it considered rates that it felt were appropriate, using a number of methodologies such as New Build, Opportunity Cost, and Comparative Revenue. Ultimately, NGCP needs to entice the generators to sign and commit their capacity, for as long as the rate fell within NGCP's benchmark range.

In the year 2013 ASPA application of NGCP and San Roque Power Corporation (SRPC) under ERC Case No. 2013-009 RC, the proposed rates were based on the new build assumption wherein it considered the build cost of a new hydro-electric plant (dam type) that could provide all ancillary services. A hydro-electric plant was chosen because of its capability to provide all ancillary services (Regulating, Contingency, and Dispatchable reserve), as well as its low fuel cost operations. For comparison, NGCP believed that the build cost of San Roque was the most appropriate benchmark, because (a) it was built fairly recently (2003) compared to Magat (1983) or Caliraya-Botocan-Kalayaan (CBK) (1950-1982), (b) it has a fairly large size (411 MW), and (c) the plant is certified for all 3 aforementioned services, thus:

San Roque Build Cost: US\$ 1.17 bn⁹
Installed Capacity: 411 MW
Actual Build Cost: US\$2.89/MW
Range: +/- 15%
New Build Cost Range: US\$ 2.17-3.33mn per MW
WACC: 15%
Plant Life: 25 years
Estimated Capital Cost: PhP 1.57 – PhP 2.41/kWh

Based on the actual build cost to construct a significant hydro-power plant, applying a range of +/- 15%, and a return on capital of 15% with a project life of 25 years, NGCP estimates the cost range to be between PhP 1.57 – PhP 2.41/kWh.

⁹ http://www.eca-watch.org/problems/asia_pacific/philippines/sanroqueproject.html.

In the Accreditation Certificate No. 2016-M012 issued by NGCP dated 22 November 2016 with an expiry date until 21 November 2017, TMI's Mobile Unit 1 and Unit 2 has successfully proven its capability to provide the following AS Services:

Contingency Reserve Service	
Unit 1	18 MW
Unit 2	20 MW

Dispatchable Reserve Service	
Unit 1	44 MW
Unit 2	44 MW

The said plant was further certified to have met and complied with the Standard Ancillary Services Technical Requirements of the System Operations during the actual testing of the said plant.

The contract is on a non-firm basis. The contracted capacity for the aforesaid AS shall be made available at all times for NGCP's instruction and dispatch except upon the existence of any of the circumstances specified in the ASPA. NGCP shall pay TMI at the proposed rate for the said non-firm capacity upon schedule for dispatch.

Under the non-firm basis, TMI has the right or option not to nominate any capacity for ancillary service even if it is available while NGCP may or may not schedule the capacity nominated without any corresponding penalty or payment. This allows NGCP the flexibility to evaluate or decide for optimum ancillary service considering the prevailing economic and technical circumstances.

The Commission used the comparison of the proposed maximum rate with that of the previously approved ASPA rate, to wit:

Ancillary Service	SNAP-BI Binga HEPP (ERC Case No. 2017-016 RC)	San Roque HEPP (ERC Case No. 2013-009 RC)	SNAP-MI Magat HEPP (ERC Case No. 2016-164 RC)	SNAP-BI Ambuklao HEPP (ERC Case No. 2016-165 RC)
CR	PhP2.25/kW/Hr (Non-Firm)	PhP2.25/kW/Hr (Non-Firm)	PhP2.25/kW/Hr (Non-Firm)	PhP2.25/kW/Hr (Non-Firm)

Ancillary Service	SNAP-BI Binga HEPP (ERC Case No. 2017-016 RC)	San Roque HEPP (ERC Case No. 2013-009 RC)	PANASIA Limay Diesel (ERC Case No. 2012-134 RC)	CIP II (ERC Case No. 2017-009 RC)	1590 EC (ERC Case No. 2017-017 RC)
DR	PhP1.25/kW/Hr (Non-Firm)	PhP1.50/kW/Hr (Non-Firm)	PhP1.12/ kW/Hr (Non-Firm)	PhP1.25/kW/Hr (Non-Firm)	PhP1.25/kW/Hr (Non-Firm)

The above table shows that the CR and DR rates proposed by TMI approximates other existing AS providers provisionally approved by the Commission, except for the DR rate of PANASIA which is lower than that of TMI. However, based on historical records, PANASIA is not being scheduled for DR since it functions best as Regulating Reserve (RR) especially during the times that hydro plants are not available. NGCP prioritizes the high availability of RR in the grid regardless of its source. The DR rate of SRPC of PhP1.50/kW/Hr becomes the “ceiling” for the DR across all generating facilities regardless of technology.

The Commission will address the issue on the appropriate benchmark to use to establish the reasonableness of the proposed ASPA rates in the final evaluation of this case. The Commission observed that the proposed CR and DR rates of TMI, although they are in the same level with the AS rates approved for hydroelectric power plants, may not be a reasonable benchmark considering the difference in technology. PANASIA (Limay Diesel), CIP II, and 1590 EC may be the appropriate benchmark considering that these power plants are of the same technology with TMI.

Further, in terms of capital investment, a hydro plant may be more expensive than a diesel/bunker plant. However, a hydro plant is cheaper in terms of Operating & Maintenance (O&M) compared to the former.

Applicants made a rate simulation of the ASPA, to wit:¹⁰

AS Type	SIMULATION	
	P/kW-mo.	P/kWh equivalent
Contingency Reserve (Primary Reserve)	18.0618	0.0383
Dispatchable Reserve (Tertiary Reserve)	24.0824	0.0511

The Commission agrees that the contracted ancillary service capacity is needed to augment the deficiency of ancillary reserve capacity, to be able to maintain the reliability in the operation of the transmission system and in the reliability of the electricity supply in the Mindanao Grid.

However, the proposed formula by the Applicants for the payment of the AS in the subject ASPA, particularly the proposal for an IESA, requires further clarification. It was observed that the recovery of incidental energy will be directly charged by TMI to the Distribution Utilities (DUs) as load customers. This is not consistent with the previous ASPA approval by the Commission. Moreover, this proposal should likewise be further scrutinized considering that the DUs, as TMI's load customers, may pass this on to its customers.

Thus, the Commission requires additional time, as well as documents, to evaluate the said proposal.

In view thereof and consistent with the previous approval by the Commission, the following formula be used by the Applicants for the Monthly Minimum Incidental Energy Cost (IE) either during the Pre-WESM and WESM scenario in Mindanao:

The IE shall be computed using the formula below:

$$IE = G \times (CP + VOM + Fuel) - REV_{WESM}$$

Wherein:

G = Summation of energy generated or dispatched per interval as per scheduled by NGCP, in kWh

¹⁰ Item 13, page 4 of the ASPA Application.

- CP = Capacity payment for the dispatch portion of the AS capacity scheduled by NGCP and shall be computed based on the weighted average of the hourly dispatched portion of the Non-Firm Contracted Capacity scheduled and the nominated AS price
- VOM = as stated in Section C of Scheduled 4(a) of the subject ASPA
- Fuel = as stated in Section C of Scheduled 4(a) of the subject ASPA
- REV_{WESM} = Monthly WESM revenue, or revenue from a similar market, arising from G

During the Pre-WESM period, the REV_{WESM} shall be equal to zero and the corresponding IE shall be settled by NGCP and recovered through the AS Charges. In this case, there is no need for TMI to enter into a supply agreement with its load customer that necessitates approval of the IESA template.

In the event that revenue from WESM exceeds the calculated Monthly Minimum Incidental Energy Cost, the excess shall be used to off-set any positive amount determined within the relevant period or to the immediately succeeding billing month.

The subject ASPA is governed by the Open Access Transmission Service (OATS) Rules, the Philippine Grid Code (PGC), and other relevant issuances, orders, and rules and regulations as promulgated by proper government agencies and authorities. However, with the approval of the PGC on 05 October 2016, there is a need to amend the ASPP to harmonize with the provisions of the 2016 PGC. The 2016 PGC adopted the latest international standards and practices in the operation of ancillary services. Also in the 2016 PGC, the current types of reserves were amended and instead developed new types of reserves and order of priority, and also provides the respective modes and frequency controls that must be reflected in the ASPP.

On 31 March 2017, NGCP filed with the Commission a petition seeking the approval of its proposed amended ASPP under ERC Case No. 2017-005 RM. Pending approval of the same, the subject ASPA is allowed to continue using the current type of AS under the existing ASPP and 2001 PGC (Amendment 1). The Commission adopts

NGCP's proposal in the amended ASPP to apply during the transition period, viz:

All approved and existing ASPA shall remain in full force and effect until the termination date, unless the accredited power plant of the AS Provider cannot comply with the technical requirements provided in the 2016 PGC. Accordingly, the AS categories of the ASPA will be converted as follows:

- | | | |
|------|-----------------------------|--------------------------------|
| i. | <i>Contingency Reserve</i> | - <i>Primary Reserve;</i> |
| ii. | <i>Dispatchable Reserve</i> | - <i>Tertiary Reserve; and</i> |
| iii. | <i>Regulating Reserve</i> | - <i>Secondary Reserve.</i> |

However, the AS Provider with an existing ASPA may opt to renegotiate its offer in a new ASPA that will be filed to the Honorable Commission for approval.

The Commission has a mandate to protect the interest of the electricity consumers insofar as they are affected by the rates, by ensuring that the tariffs imposed are consistent with the principle of full recovery of prudent and reasonable costs.

The initial evaluation of the instant Application disclosed that the ASPA entered into by and between NGCP and TMI will redound to the benefit of all member-consumers in the Mindanao Grid in terms of maintaining the power quality, reliability, and security of the energy from resources to loads as mandated by the EPIRA.

WHEREFORE, the foregoing premises considered, the Commission hereby grants **PROVISIONAL AUTHORITY** to Applicants National Grid Corporation of the Philippines (NGCP) and Therma Marine, Inc. (TMI) for the implementation of their Ancillary Services Procurement Agreement (ASPA), subject to the following conditions:

1. **Applicable Rates:**

TMI shall nominate the corresponding price (in per kW capacity per hour) for the ancillary service capacity to NGCP. In the event that said nominated capacity is scheduled for ancillary service (AS), the pricing shall be as follows:

a. Scheduled capacity without energy dispatched

NGCP shall pay TMI the corresponding nominated price of the scheduled capacity. Provided, however, that the nominated price shall in no case exceed the following Fixed Fee Rate, without any minimum cost:

Ancillary Service	Applicable Rates (Maximum Hourly Rate)
	Non-Firm
Contingency Reserve	PhP2.25/kW/Hr
Dispatchable Reserve	PhP1.25/kW/Hr

b. Scheduled capacity with energy dispatched

The ASPA rate shall be recovered through settlement by the NGCP in the absence of the WESM in Mindanao or in the WESM or similar market thereat, whichever is applicable. Thus, in the WESM scenario, the ancillary capacity is free of charges as the cost is recovered through the market.

Provided that TMI shall be entitled to a Monthly Minimum Incidental Energy Cost based on actual dispatch and the cost of generation computed using the following formula:

$$IE = G \times (CP + VOM + Fuel] - REV_{WESM}$$

Provided further that in the event that the revenue from WESM exceeds the calculated Monthly Minimum Incidental Energy Cost, the excess shall be used to off-set any positive amount determined within the relevant period or to the immediately succeeding billing month.

2. NGCP is enjoined to optimize economic and technical dispatch of the available ancillary service capacity wherein it shall schedule a mix of hourly ancillary service capacity at least cost for a reserve needed to maintain power quality, security, reliability and integrity of the grid;
3. The rate to be paid by NGCP as ancillary services cost should be passed on to its customers in accordance with the approved AS-CRM. Further, NGCP is directed to submit its

monthly computation of ancillary service rates that it passed on to its customers, with supporting documents on or before the 5th day of the month; and

4. The above provisional rates is effective on the next billing cycle of NGCP from receipt hereof. In the event that the final rates are higher than that provisionally granted, the resulting additional charges shall be collected by TMI from NGCP and the latter shall pass it on to its customers. On the other hand, if the final rates are lower than that provisionally granted, the amount corresponding to the reduction shall be refunded by TMI to NGCP and the latter shall pass it on to its customers.

The above approval is consistent with the Commission's Provisional Approval of the previous ASPAs between the NGCP and other AS Providers.

Meanwhile, the proposed formula by the Applicants for the payment of the AS in the subject ASPA, particularly the proposal for an Incidental Energy Supply Agreement Template (IESA), is hereby **DEFERRED** for further evaluation.

SO ORDERED.

Pasig City, 26 October 2017.



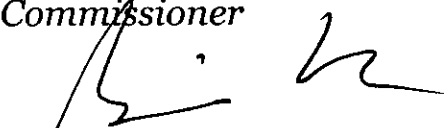
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Commissioner



JOSEFINA PATRICIA A. MAGPALE-ASIRIT
Commissioner



GERONIMO D. STA. ANA
Commissioner

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