

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



**IN THE MATTER OF THE
APPLICATION FOR
APPROVAL OF THE
ANCILLARY SERVICES
PROCUREMENT
AGREEMENT BETWEEN
THE NATIONAL GRID
CORPORATION OF THE
PHILIPPINES AND SPC
ISLAND POWER
CORPORATION, WITH
PRAYER FOR THE
ISSUANCE OF
PROVISIONAL
AUTHORITY**

ERC CASE NO. 2018-120 RC

**NATIONAL GRID
CORPORATION OF THE
PHILIPPINES AND SPC
ISLAND POWER
CORPORATION,
Applicants.**

Promulgated:
APR 03 2019

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ORDER

On 19 December 2018, the National Grid Corporation of the Philippines (NGCP) and SPC Island Power Corporation (SIPC) filed an *Application* dated 13 December 2018, seeking the approval of their Ancillary Services Procurement Agreement (ASPA), with prayer for the issuance of provisional authority.

In support of their prayer for the issuance of provisional authority, Applicant NGCP submitted the *Judicial Affidavit of Engr. Lisaflor Bacani-Kater*, explaining the need for the issuance of such authority. The pertinent portions of the said *Judicial Affidavit* are hereunder quoted as follows:

61

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Q14. What would be the effect to the Visayas Grid if the ASPA is approved by the Honorable Commission, either through a provisional or final approval?

A. 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). To this end, 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.

As mentioned above, the Honorable Commission has already declared that there is a necessity for NGCP to procure the contracted ancillary services capacity of SIPC to maintain the reliability of the operation of the transmission system and electricity supply in the Visayas Grid.

SIPC must continue to provide the current contracted ancillary services beyond the 2013 ASPA to maintain the reliability of the power grid. Based on the current levels of available contracted AS in the Visayas Grid, the firm contracted AS have not yet met the required levels.

NGCP must be guaranteed that there are available AS on a daily basis to assure reliability of the grid. There is no assurance that the non-firm capacities would be available when needed. NGCP cannot gamble on this chance. As the grid operator, the contracted capacity of SIPC, especially its firm capacities, are greatly needed.

Thus, NGCP and SIPC agreed to execute another ASPA for a period of another five years. With this ASPA, the Visayas Grid is assured of AS until 2023.

Also, as the demand for the power in the Visayas 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.

Proceedings Conducted By the Commission

On 11 February 2019, the Commission issued an *Order and Notice of Public Hearing* setting the instant *Application* for hearing on 13 March 2019 for the determination of jurisdictional requirements, expository presentation, pre-trial conference and evidentiary hearing.

26

DISCUSSION

Authority of the Commission to Grant Provisional Authority in the Instant Application

The authority of the Commission to grant provisional authority or interim relief is provided for in Section 8 of Executive Order No. 172¹, *to wit*:

Sec. 8. Authority to Grant Provisional Relief. The Board may, upon the filing of an application, petition or complaint or at any stage thereafter and **(1) without prior hearing, on the basis of supporting papers duly verified or authenticated, grant provisional relief on motion of a party in the case or (2) on its own initiative, without prejudice to a final decision after hearing,** should the Board find that the pleadings, together with such affidavits, documents and other evidence which may be submitted in support of the motion, substantially support the provisional order: Provided, That the Board shall immediately schedule and conduct a hearing thereon within thirty (30) days thereafter, upon publication and notice to all affected parties.

(Emphasis and underscoring supplied.)

The transfer of the Energy Regulatory Board's (ERB) authority to issue provisional authority or interim relief to the Commission was upheld by the Supreme Court in the landmark case of *Freedom from Debt Coalition (FDC) vs. Energy Regulatory Commission (ERC)*²:


The ERC is endowed with the statutory authority to approve provisional rate adjustments under the aegis of Sections 44 and 80 of the EPIRA. The sections read, thus:

SEC. 44. Transfer of Powers and Functions. — The powers and functions of the Energy Regulatory Board not inconsistent with the provisions of this Act are hereby transferred to the ERC. The foregoing transfer of powers and functions shall include all applicable funds and appropriations, records, equipment, property and personnel as may be necessary.

Sec. 80. Applicability and Repealing Clause. — The applicability provisions of Commonwealth Act No.

¹ Entitled, "Creating the Energy Regulatory Board";

² G.R. No. 161113, 15 June 2004;



146, as amended, otherwise known as the "Public Services Act;" Republic Act 6395, as amended, revising the charter of NPC; Presidential Decree 269, as amended, referred to as the National Electrification Decree; Republic Act 7638, otherwise known as the "Department of Energy Act of 1992;" Executive Order 172, as amended, creating the ERB; Republic 7832 otherwise known as the "Anti-Electricity and Electric Transmission Lines/Materials Pilferage Act of 1994;" shall continue to have full force and effect except insofar as they are inconsistent with this Act.

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Similarly, Sections 8 and 14 of E.O. No. 172 or the ERB Charter continue to be in full force by virtue of Sections 44 and 80 of the EPIRA.

Relative thereto, the Commission's *Rules of Practice and Procedure (RPP)*, particularly Sections 2, 3, and 4 of Rule 14 thereof, provide that:

Section 2. Allegations in Support of the Motion and Supporting Documents. - The motion must be accompanied by supporting affidavits and documents, and must allege such facts and circumstances as would justify the Commission's exercise of discretion by granting provisional authority or **interim relief** prior to a final decision.

Section 3. Action on the Motion. - Motions for provisional authority or interim relief may be acted upon with or without hearing. The Commission shall act on the motion on the basis of the allegations of the application or petition and supporting documents and other evidences that applicant or petitioner has submitted and the comments or opposition filed by any interested person, if there be any.

For motions filed in applications or petitions covered by Section 1 of Rule 6, the Commission shall hold in abeyance its resolution of the motion until after the lapse of thirty (30) days from the receipt of a copy of the application or petition by the LGU Legislative Body concerned or publication of the application or petition in a newspaper of general circulation, whichever comes later. The Commission shall also **resolve the motion within seventy-five (75) days from the filing of the application or petition.** If the Commission issues a provisional authority, it shall schedule and start the hearing on the application or petition within thirty (30) days from date of issuance of the provisional authority and resolve the same within twelve (12) months from the issuance of the provisional authority.

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Section 4. Refund. – The **interim relief granted** by the Commission shall be subject to refund if the Commission finds **after hearing** on the application or petition that the applicant or petitioner was not entitled thereto or to the full amount of any provisional rate adjustment allowed and to such other conditions that the Commission may impose.
(*Emphasis supplied.*)

It should be recalled that the ASPA subject of the instant *Application* was entered into to address the reliability of the grid. Considering that the current levels of available contracted Ancillary Services (AS) have not yet met the required levels, the necessity of allowing NGCP to contract for an additional AS is important.

Recognizing the situation of the Visayas Grid and the pivotal role of SIPC's operation, the Commission, in the exercise of its quasi-judicial power and after due consideration and deliberation, deems it necessary to grant a provisional authority in the instant case.

As elucidated by the Supreme Court in the case of *Romeo Gerochi et al. v. Department of Energy (DOE) et al*³, the Commission understands that “electric power generation and distribution is a traditional instrument of economic growth that affects not only a few but the entire nation. It is an important factor in encouraging investment and promoting business. The engines of progress may come to a screeching halt if the delivery of electric power is impaired. Billions of pesos would be lost as a result of power outages or unreliable electric power services.”

Significantly, in the same case, the Supreme Court declared that “the State thru the ERC should be able to exercise its police power with great flexibility, when the need arises.”

This flexibility was reiterated in *National Association of Electricity Consumers for Reforms (NASECORE) v. ERC*⁴, wherein the Supreme Court held that the ERC, as regulator, should have sufficient power to respond in real time to changes wrought by multifarious factors affecting public utilities.

³ G.R. No. 159796, 17 July 2007;

⁴ G.R. No. 163935, 2 February 2006, 481 SCRA 480, 515-516, citing *Freedom from Debt Coalition v. Energy Regulatory Commission*;

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This is consistent with Section 41⁵ of Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA) that mandated the Commission to promote and protect the interest of all electricity consumers against possible future power supply curtailment.

Basis for the ASPA Application

Under the EPIRA, Applicant NGCP, as the National Transmission Corporation's (TRANSCO) winning concessionaire, is mandated to "ensure and maintain the reliability, adequacy, security, stability and integrity of the nationwide electrical grid" and to "adequately serve generation companies, distribution utilities and suppliers requiring transmission service and/or ancillary services through the transmission system".

Section 4 (b) of the EPIRA defines Ancillary Services as "services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the transmission system." Such services are essential in ensuring not only the reliability in the operation of the transmission system as a whole, but also in the supply of electricity throughout the Luzon, Visayas, and Mindanao Grids.

On 29 March 2006, the Commission issued an *Order* in ERC Case No. 2002-253⁶, approving TRANSCO'S proposed Ancillary Services Procurement Plan (ASPP). In the same *Order*, the Commission directed TRANSCO to file a separate application for the approval of the Ancillary Services-Cost Recovery Mechanism (AS-CRM).

In consonance with this directive, on 12 September 2006, TRANSCO filed an *Application* under ERC Case No. 2006-049 RC⁷ which sought the Commission's approval of its proposed mechanism to recover costs accruing from procurement of Ancillary Services. On 03 October 2007, the Commission issued its *Decision* wherein it

⁵ SEC. 41. Promotion of Consumer Interests. – The ERC shall handle consumer complaints and ensure the adequate promotion of consumer interests;

⁶ Entitled, "Application for the Approval of the Proposed Rules, Terms and Conditions for Open Access Transmission Service (OATS) and Proposed Rates, Terms and Conditions of Ancillary Services";

⁷ Entitled, "In The Matter Of The Application For The Approval Of The Ancillary Services-Cost Recovery Mechanism (AS-CRM) Of The Ancillary Services Procurement Plan (ASPP) With Prayer For Provisional Authority";

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approved the AS-CRM to be used by TRANSCO to recover the cost of its AS, subject to the following conditions:

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

Hence, Applicants filed the instant *Application* for the approval of their ASPA.

**Commission's Evaluation for
the Issuance of Provisional
Authority**

Pending the final resolution of the instant *Application* and recognizing the importance of ensuring reliability of the grid, the Commission deemed it necessary to grant Applicants' prayer for provisional authority.

**I. The Applicants have
satisfied the substantial
requirements for the
grant of provisional
authority**

In their *Application*, NGCP and SIPC 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 Visayas Grid, the firm contracted AS have not yet met the required levels of the ASPP. Also, the continued participation of SIPC as AS service provider ensures competition between and among AS service providers that would ultimately initiate a downward pressure to current prices.

As stated in the *Judicial Affidavit* executed by Engr. Bacani-Kater, the current levels of available contracted firm AS in the Visayas Grid, and firm contracted AS have not yet met the required levels of the ASPP. NGCP should guarantee that there

are available AS on a daily basis to ensure reliability of the grid. The immediate approval of the ASPA between NGCP and SIPC would improve the availability of AS in the Visayas Grid and significantly lower the AS cost to the benefit of the consumers.

NGCP and SIPC manifested in their *Application* that as the demand for power in the Visayas 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.

Likewise, NGCP and SIPC alleged in their *Application* that absence of system reliability and stability will certainly discourage investments and growth. The importance of the Dispatchable Reserve (DR) and Black Start Service (BSS) to be provided by SIPC to ensure and maintain the reliability, adequacy, security, stability and integrity of the Visayas Grid cannot be overemphasized. Thus, there is a need for the immediate issuance of provisional authority of the subject ASPA to maintain the reliability and security of the Visayas Grid.

The factual milieu surrounding the instant *Application*, as discussed herein below, satisfied the substantial requirements for the grant of provisional authority. Thus, the Commission finds merit in the Applicants' allegations.

a) Available Dispatchable Reserve in the Visayas Grid

In support of their allegations, Applicant NGCP provided an illustration of the available level of DR in the Visayas Grid for the period January 2018 to December 2018, as shown in the table below:

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**Table 1. Available Dispatchable Reserve in the
Visayas Grid
(January 2018 to December 2018)**

Month	Dispatchable Reserve	
	Average Scheduled (MW)	Average Required (MW)
January 2018	82.8	103
February 2018	97.46	124
March 2018	78.76	107
April 2018	117.01	132
May 2018	116.69	120
June 2018	119.35	124
July 2018	112.75	120
August 2018	105.05	114
September 2018	100.29	111
October 2018	104.66	117
November 2018	110.99	122
December 2018	106.61	114

In the evaluation of the data provided in Table 1 above, it shows that there is a deficiency in the available levels of DR in the Visayas Grid for the period January 2018 to December 2018.

b) Average Required and Scheduled and Maximum dispatched DR

The Table below shows the average required and scheduled and maximum dispatched DR for January 2018 to December 2018:

**Table 2. Average Required and Scheduled and Maximum Dispatchable Reserve
(From January 2018 to December 2018)**

Month	Average Required (MW)	Average Scheduled (MW)	Availability (%)	Average DR Dispatch	Maximum DR Dispatch (MW)	Time of Occurrence of Maximum DR
January 2018	103	82.8	80.39	15.24	93.84	1 PM
February 2018	124	97.46	78.60	9.51	80.65	7 PM
March 2018	107	78.76	73.61	7.16	81.83	4 PM
April 2018	132	117.01	88.64	7.57	95.75	6 PM
May 2018	120	116.69	97.24	4.76	66.43	12 NN
June 2018	124	119.35	96.25	7.95	116.99	3 PM
July 2018	120	112.75	93.96	9.98	101.18	11 AM
August 2018	114	105.05	92.15	10.34	88.22	3 PM
September 2018	111	100.29	90.35	16.90	88.39	2 PM
October 2018	117	104.66	89.45	6.44	86.04	7 PM
November 2018	122	110.99	90.98	5.07	78.47	11 AM
December 2018	114	106.61	93.52	7.62	88.48	11 PM
Average	117	104.37	88.76	9.05	81.04	



Based on the data in Table 2 above, the highest average DR dispatch was 16.90 MW in September 2018 and the average for the whole year was 9.05 MW. However, the average DR dispatch per month may not be reflective of the requirement of the grid to ensure the reliability of the system in Visayas. This is because while the highest average dispatch is at 16.90 MW, actual maximum dispatch at a particular time can go as high as 116.99 MW.

116.99 MW is the highest maximum dispatch for the entire year of 2018. The said highest maximum dispatch occurred at 3PM sometime in June 2018. Thus, the average maximum dispatch may be considered as the least capacity needed by the grid to ensure reliability of the system in Visayas.

Ideally, since this is the minimum requirement, it would be best if such capacity would be sourced from firm contract. The remaining requirement of the grid for the DR, shall then be sourced from the non-firm ASPA.

Likewise, as shown in Table 2, the average maximum dispatched DR for 2018 amounted to 81.04 MW. There is a need for NGCP to contract a minimum DR to match the said average maximum dispatched DR.

The data in Table 2 also shows that the occurrence of the maximum dispatched DR were mostly during the daytime peak hours. These were typically due to the variable nature of the solar plants in the Visayas Grid. During the irregular generation of the solar plants, there will be a need to dispatch the generating plants providing the Contingency Reserve (CR) service for a maximum period of thirty (30) minutes to immediately stabilize the system. After the fifteen (15) minutes dispatched of the CR, the generating units providing the DR will start to come into the system to replace the CR and continue to do so until the CR generating units reach its minimum generating capacity (Pmin) and start to replenish⁸. The DR generating units on the other hand shall be able to sustain the capacity for a maximum period of eight (8) hours depending on the need of the system.

⁸ Section 3.2.3 ERC Case No. 2002-253 Ancillary Services Procurement Plan (ASPP);

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The instances below also requires the dispatch of the CR and DR to stabilize the system:

1. Inadequate generation resources due to forced outages and sudden deration of scheduled generating units;
2. High system demand resulting to frequency incursion outside the set limitations;
3. Inadequate reserve capacity due to economic shutdown of generating units; and
4. Scheduled Preventive Maintenance Schedule (PMS) resulting to generation deficiency.

In Table 3 below shows the actual major reported causes of AS dispatch in the Visayas grid by NGCP for the year 2018.

Table 3. Actual Report of Causes of AS Dispatch in Visayas Grid

Date	Reported Causes of AS Dispatch
01/08/18	Visayas Grid Red Alert - estimated demand affected = 183 MW
02/10/18	Forced Outage of EDC-MAHA (1701H to 1919H Load=38 MW
03/15/18	Visayas Grid Yellow Alert - generation deficiency and high system demand
04/25/18	Visayas Grid Yellow Alert - inadequate reserve and high system demand
06/05/18	Forced outages of the following base load plants: MAHA A U1 1129H to 2025H Load=56 MW & PCPC U1 0920H(6/4) to 1130H Load=103.3 MW
07/23/18	1st Level ALD activation in Negros, sudden load drop of PCPC and deteriorating frequency
08/25/18	Visayas Grid Yellow Alert due to inadequate generation Resources Estimated Demand affected = 180 MW
09/11/18	Visayas Grid Yellow Alert due to generation deficiency, PCPC on Annual PMS 8/16 to 9/14
10/06/18	Visayas Grid Yellow Alert due to Major generation inadequacy
12/24/18	Visayas Grid Yellow Alert status due to inadequate generation resource

Without the availability of the DR, the whole Visayas Grid may be compromised with the risk relative to the necessary implementation of automatic load dropping by NGCP.



c) Existing ASPA in the Visayas Grid

In Table 4 below shows the existing ASPA in the Visayas Grid and the necessity for the procurement of Regulating Reserve (RR), CR and DR in the grid to ensure that there will be sufficient generating units to provide AS as required by the system:

Table 4. Existing ASPA in the Visayas Grid

ASPA	ERC Case No.	AS Provider	Regulating Reserve		Contingency Reserve		Dispatchable Reserve	
			Firm	Non-Firm	Firm	Non-Firm	Firm	Non-Firm
1	2017-025 RC ⁹	GreenCore Geothermal, Inc. [(GCGI)-(PGPP II)]		30.0				
2	2017-024 RC ¹⁰	Energy Development Corp. [(EDC)-(Nasulo DPP)]		20.0				
3	2017-088 RC ¹¹	Global Business Power Corp. - Panay Energy Development Corporation (PEDC)			26.0	13.0		
4	2017-089 RC ¹²	Global Business Power Corp. - Cebu Energy Development Corporation (CEDC)			30.0	10.0		
5	2017-070 RC ¹³	Phinma Energy Corp. [(Phinma)-(PB 101 & PB 102)]						64.0
6	2013-181 RC ¹⁴	SPC Island Power Corp. [(SIPC) (BDPP, PDPP1 & PDPP3)]						65.0
7	2018-043 RC ¹⁵	Palm Concepcion Power Corporation (PCPC)			15.0	15.0		
8	2018-108 RC ¹⁶	Panay Power Corporation (PPC)					6.4	
9	2018-109 RC ¹⁷	Toledo Power Company (TPC)					40	
10	2018-120 RC (instant case)	SPC Island Power Corporation (SIPC) - BDPP					16.2	
Total				50	71	23		129.0

⁹ Entitled, "In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the NGCP and (GCGI), with Prayer for the Issuance of Provisional Authority";

¹⁰ Entitled, "In the Matter of the Application for Approval of the ASPA Between the NGCP and EDC, with Prayer for the Issuance of Provisional Authority";

¹¹ Entitled, "In the Matter of the Application for Approval of the ASPA Between the NGCP and PEDC, with Prayer for the Issuance of Provisional Authority";

¹² Entitled, "In the Matter of the Application for Approval of ASPA Between the NGCP and CEDC, with Prayer for the Issuance of Provisional Authority";

¹³ Entitled, "In the Matter of the Application for Approval of the ASPA Between the NGCP and Phinma, with Prayer for the Issuance of Provisional Authority";

¹⁴ Entitled, "In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and SPC Island Power Corporation, with Prayer for the Issuance of Provisional Authority";

¹⁵ Entitled, "In the Matter of the Application for Approval of the ASPA Between the NGCP and PCPC, with Prayer for the Issuance of Provisional Authority";

¹⁶ Entitled, "In the Matter of the Application for Approval of the ASPA Between the NGCP and PPC, with Prayer for the Issuance of Provisional Authority";

¹⁷ Entitled, "In the Matter of the Application for Approval of the ASPA Between the NGCP and TPC, with Prayer for the Issuance of Provisional Authority";

18

II. Analysis of the Applicants' Proposed Rates

AS are essential in maintaining the power quality, reliability, and security of the national grid. Thus, NGCP invited and negotiated with all prospective Generation Companies (GenCos) capable of providing AS, one of which was the Applicant SIPC.

a) Salient Features of the ASPA of NGCP with SIPC

Under the ASPA of NGCP with SIPC, the latter agreed to supply DR and BSS under a firm and a non-firm arrangement.

The salient features of the ASPA of NGCP with SIPC are the following:

1. The term of the ASPA is for five (5) years from the issuance by the Commission of a Provisional Authority (PA) or Final Approval (FA);
2. The proposed rates and the contracted capacity for each type of AS shall be as follows:

Table 5. Proposed Rates and Contracted Capacity for Each Type of Ancillary Service

Type of Ancillary Service	Contracted Capacity (MW)	Applicable Rate
Dispatchable Reserve (DR) (FIRM)	Up to 16.2 MW	PhPo.85/kW/hr
Black Start Service (BSS) (Non-FIRM)	16.2 MW with 200 kW EDG	Payment for the service provider is based on hourly rate per occurrence BDPP=PhP1.7570/kWh + VOM + Actual Fuel Cost

*Note: the capacities listed above are the maximum ancillary service capacity that can be provided for each generating unit. However, nomination and schedule shall be based on the latest AS Certification.

45

3. An Annual Performance Evaluation as provided under Schedule 5 of the ASPA shall be required by NGCP as basis of monitoring and evaluating the performance of SIPC for the type of AS it contracted. The total number of Hours Complied by SIPC shall be at least 97% of the total number of Scheduled Hours in a year, as shown in the following formula:

$$\text{(Hours Complied in a year/Scheduled Hours in a year)} \times 100 \geq 97\%$$

4. The AS fees to be paid by NGCP in each billing period as provided in Schedule 3 of the ASPA shall consist of the proposed Capacity Payment and the Incidental Energy (IE) payment in case of dispatch and shall be calculated as follows:

$$\text{IE} = \{[G * (\text{AR} + \text{Fuel} + \text{VOM})] - \text{REV}_{\text{WESM-G}}\}$$

Where:

G = Summation of energy generated or dispatched due to scheduled capacity, in kWh.

AR = Applicable Rate per AS type, in PhP/kW/hr

Fuel = shall be the rate, in PhP/kWh, submitted by the Service Provider every month based on their actual Stock Inventory Consumption Report and their actual generator for that month.

VOM = is the Variable Operation and Maintenance (O&M) costs set at PhP/0.6705/kWh

REV_{WESM-G} = Summation of WESM revenue based

on Final Ex-post market clearing price of the Service Provider's trading Node arising from G above.

b) Methodology Used by NGCP

In the Application, NGCP alleged that its goal is to lower the cost of electricity. AS are pass-through costs and are revenue neutral for NGCP. Thus, NGCP opted to procure the AS at the lowest possible rate for the benefit of the consumer.

In deriving the appropriate rate for the instant ASPA, NGCP considered a number of methodologies, such as the New Build Methodology, the Opportunity Cost Methodology, and the Comparative Revenue Methodology. NGCP believes the operating profit is the true Opportunity Cost for generators. Operating profit refers to the amount the generator would earn after taking out the fuel cost and variable O&M costs, which they would incur in operating the plant.

Ultimately, NGCP needed to encourage the generators to sign and commit their capacity, for as long as the rate is within NGCP's benchmark range.

However, in the 2013 ASPA Application of NGCP and San Roque Power Corporation (SRPC) under ERC Case No. 2013-009 RC¹⁸, NGCP's proposed rates were based on the New Build Methodology. In this Methodology, NGCP considered the cost of building a new hydro-electric plant (dam type) that could provide all types of AS.

A hydro-electric plant was chosen by NGCP because of its capability to provide all three types of AS, namely, Regulating Reserve (RR), Contingency Reserve (CR), and DR. It is also the desirable type of technology in view of its minimal fuel costs. In its 2013 Application, NGCP further used the cost of SRPC power plant as benchmark based on

¹⁸ Entitled "In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and San Roque Power Corporation, with Prayer for the Issuance of Provisional Authority;"



the following assumptions: a) it was built fairly recently (2003) compared to Magat Hydro-electric Power Plant (1983) or CBK Power Company Ltd. Hydro-electric Power Plants (1950-1982); b) it has a large capacity at 411 MW; and c) the plant is certified for all three types of AS.

Thus, NGCP used the following assumptions to project the cost of building a similar power plant, pursuant to the New Build Methodology:

San Roque Build Cost	:	US\$ 1.17 bn ¹⁹
Installed Capacity	:	411 MW
Actual Build Cost	:	US\$2.89/MW
Range	:	+/- 15%
New Build Cost Range	:	US\$ 2.17-3.33mn per MW
Weighted Average Cost of Capital (WACC)	:	15%
Plant Life	:	25 years
Estimated Capital Cost	:	PhP 1.57 – PhP 2.41/kWh

Based on the foregoing assumptions on the actual build cost to construct a hydroelectric power plant, and applying a range of plus or minus 15%, a return on capital of 15%, and with a projected plant life of 25 years, NGCP estimated the cost range to be between PhP1.57/kWh to PhP2.41/kWh. The same assumptions were used by NGCP in determining the ASPA rate it offered to the SIPC.

c) Rate Impact

NGCP and SIPC simulated the indicative rate impact of their ASPA and yield the following results as shown in the Table below:

Table 6. Indicative Rate Impact

AS Type	Simulation	
	PhP/kW-mo	PhP/kWh Equivalent
DR	8.8006	0.0187
BSS	0.0871	0.0002

¹⁹ http://www.eca-watch.org/problems/asia_pacific/philippines/sanroqueproject.html;

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d) Power Plant of Applicant SIPC

SIPC is the owner and operator of the 22.0 MW rated capacity Bohol Diesel Power Plant (BDPP) under COC No. 16-06-M-00286nL issued on 13 June 2016. Based on the issued COC, SIPC has four (4) generating units with rated capacity of 5.50 MW per unit and total plant net dependable capacity of 16.2 MW.

NGCP issued to SIPC an Accreditation Certificate No. 2018-V0007 dated 20 August 2018 and valid until 09 March 2019, wherein SIPC has successfully proven its capability to provide 16.2 MW for the DR and 16.2 MW with 200 kW EDG for the BSS. SIPC was further certified to have met and complied with the Standard Ancillary Services Technical Requirements of the System Operations during the actual testing of its power plant.

e) Commission's Findings

e.1. Rate Comparison

In evaluating the proposed rate, in the instant *Application*, the Commission compared the same with the previously approved rates, as shown in the table below, *to wit*:

Table 7. Comparison of SIPC Proposed Rate and the Previously Approved ASPA Rates of other Gencos

Ancillary Service	SPC Island Power Co. BDPP (Instant Application)	Toledo Power Co. (ERC Case No. 2018-109 RC ²⁰)	Panay Power Corp. (ERC Case No. 2018-108 RC ²¹)	PANASIA Limay Diesel (ERC Case No. 2017-083 RC ²²)	PHINMA Power (ERC Case No. 2018-017 RC ²³)
DR	PhPo.85/kW/Hr (Firm)	PhPo.85/kW/Hr (Firm)	PhPo.85/kW/Hr (Firm)	PhP1.12/kW/Hr (Non-Firm)	PhP1.25/kW/Hr (Non-Firm)

²⁰ *Supra*, note 17;

²¹ *Supra*, note 16;

²² Entitled, "In the Matter of the Application for Approval of the ASPA Between the NGCP and Panasia Limay Diesel, with Prayer for the Issuance of Provisional Authority";

²³ Entitled, "In the Matter of the Application for Approval of the ASPA Between the NGCP and Phinma Energy Corporation, with Prayer for the Issuance of Provisional Authority;



In Table 7 above, it shows that the proposed ASPA rate of SIPC is the same with DR rates of other existing AS providers of different technology, except PANASIA and PHINMA. However, it should be noted that the difference primarily lies on the type of contract, which is either on a firm or non-firm basis.

In the final evaluation of this case, the Commission will address the issue on the appropriate benchmark to use for different power plant technologies to establish the reasonableness of the proposed ASPA rates.

e.2. Modified Formula

The Commission notes that the proposed formula by the Applicants for the payment of the AS in the subject ASPA is not consistent with the previously approved ASPA by the Commission. Further, it was noted that the formula for recovery of IE needs modification.

Thus, the Commission modified the formula for the DR and BSS, *to wit*:

e.2.1. DR

e.2.1.1. Scheduled Capacity without Energy Dispatched

$$\text{AS Cost}_{\text{DR}} = \text{AS Rate} \times \text{Summation of Undispatched MW}$$

e.2.1.2. Scheduled Capacity with Energy Dispatched

The Cost of AS with Incidental Energy for DR (IE_{DR}) shall be computed using the formula below:

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$$IE_{DR} = G * (AR + \text{Fuel Costs} + VOM) - (REV_{WESM-G})$$

Where:

G = Summation of energy generated or dispatched due to scheduled capacity, in kWh.

AR = Applicable Rate per AS type, in PhP/kW/hr

Fuel Cost = shall be the rate, in PhP/kWh, submitted by the Service Provider every month based on their actual Stock Inventory Consumption Report and their actual generator for that month

VOM = is the Variable O&M costs set at PhP/0.6705/kWh

REV_{WESM-G} = Summation of WESM revenue based on Final Ex-post market clearing price of the Service Provider's trading Node arising from G above.

In the final evaluation of this case, SIPC will be required to provide the derivation of the component of O&M Costs to validate the accuracy of these amounts.

e.2.2. BSS

The payment for the Incidental Energy of BSS (IE_{BSS}) per occurrence shall be computed using the formula below:

$$IE_{BSS} = \text{PhP1.7570/kWh} + VOM + \text{Actual Fuel Costs}$$

The Commission finds that only the IE cost per occurrence should be considered for the BSS of SIPC. The BSS is on a per occurrence basis during total outage of the grid and the energy generated by the BSS AS provider was for the start-up of other



generating plants in the grid. Thus, the IE generated is not traded in the market. Therefore, the BSS AS provider should be allowed to recover the full cost of providing the BSS.

In the final evaluation of this case, SIPC will be required to provide the derivation of the component of PhP1.7570/kWh to validate the reasonableness of these amounts.

e.3. Cost Savings

In Table 8 below shows the savings in AS cost between the non-firm rate and firm rate based on the actual scheduled DR without energy dispatch:

Table 8: Comparison of Dispatchable Reserve Cost

Month	Total Scheduled Capacity w/o Dispatch	Actual DR Cost w/o Dispatch (Non-firm)	AS Cost (Firm)	SAVINGS
2018	(kW)	Maximum @ Php1.25	@PhPo.85	in PhP
January	43,806,000	54,757,418	37,235,044.06	17,522,373.68
SIPC	43,806,000	54,757,417.74	37,235,044.06	17,522,373.68
Phinma				
February	54,980,000	68,725,196	46,733,133.34	21,992,062.74
SIPC	54,980,000	68,725,196.08	46,733,133.34	21,992,062.74
Phinma				
March	49,252,000	61,565,500	41,864,539.87	19,700,959.97
SIPC	49,252,000	61,565,499.84	41,864,539.87	19,700,959.97
Phinma				
April	76,249,000	92,641,670	64,811,665.69	27,830,004.46
SIPC	49,888,000	62,253,250.50	42,405,120.03	19,848,130.47
Phinma	26,361,000	30,388,419.65	22,406,545.66	7,981,873.99
May	81,192,000	91,860,404	69,013,013.36	22,847,390.39
SIPC	54,823,000	67,440,617.75	46,599,703.36	20,840,914.39
Phinma	26,369,000	24,419,786.00	22,413,310.00	2,006,476.00
June	76,450,000	83,885,674	64,982,533.55	18,903,140.27
SIPC	49,153,000	59,705,119.71	41,779,675.55	17,925,444.16
Phinma	27,297,000	24,180,554.11	23,202,858.00	977,696.11
July	75,442,000	79,432,423	64,125,473.75	15,306,949.11
SIPC	44,568,000	54,997,089.78	37,882,828.75	17,114,261.03
Phinma	30,874,000	24,435,333.08	26,242,645.00	- 1,807,311.92
August	68,003,000	67,268,703	57,802,727.19	9,465,976.22

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Month	Total Scheduled Capacity w/o Dispatch	Actual DR Cost w/o Dispatch (Non-firm)	AS Cost (Firm)	SAVINGS
<i>SIPC</i>	36,588,000	45,381,933.15	31,099,977.19	14,281,955.96
<i>Phinma</i>	31,415,000	21,886,770.26	26,702,750.00	- 4,815,979.74
September	49,684,000	55,241,735	42,231,257.69	13,010,477.55
<i>SIPC</i>	32,496,000	40,516,407.86	27,621,423.69	12,894,984.17
<i>Phinma</i>	17,188,000	14,725,327.38	14,609,834.00	115,493.38
October	67,977,000	76,370,554	57,780,200.52	18,590,353.88
<i>SIPC</i>	44,352,000	55,440,508.10	37,699,545.52	17,740,962.58
<i>Phinma</i>	23,624,000	20,930,046.30	20,080,655.00	849,391.30
November	72,570,000	84,449,194	61,684,134.60	22,765,059.78
<i>SIPC</i>	47,566,000	59,414,402.65	40,431,261.60	18,983,141.05
<i>Phinma</i>	25,003,000	25,034,791.73	21,252,873.00	3,781,918.73
December	69,897,000	80,799,171.49	59,412,278.70	21,386,892.79
<i>SIPC</i>	46,318,000	57,841,125.63	39,370,512.69	18,470,612.94
<i>Phinma</i>	23,579,000	22,958,045.86	20,041,766.01	2,916,279.85

The data in the Table 8 above shows that the monthly AS costs comes from the non-firm transactions with the AS Provider particularly from Phinma and SIPC. The Commission simulated the same for a firm rate of PhPo.85/kW/hr to arrive at the estimated savings.

The shift from non-firm to firm contracts for the DR for the minimum of the average maximum capacity required will result to cheaper cost for load customers of the system. The procurement of firm AS by NGCP from the BDPP of SIPC will contribute to the minimum requirement of the system to ensure reliability in the Visayas Grid and will result to cheaper electric rate for load customers of the system.

The contracted AS capacity provided by SIPC 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 Visayas Grid.

The subject ASPA is governed by the Open Access Transmission Service (OATS) Rules, the Philippine Grid Code (PGC), and other relevant issuances, orders, rules and regulations as promulgated by proper government agencies and authorities. However, with the

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approval of the 2016 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 AS. Also in the 2016 PGC, the current types of reserves were amended, new types of reserves and their order of priority were developed, and the respective modes and frequency controls that must be reflected in the ASPP were provided. Thus, NGCP filed with the Commission on 31 March 2017, the petition seeking the approval of its proposed amended ASPP under ERC Case No. 2017-005 RM²⁴.

Pending the resolution of the proposed amended ASPP, Applicants NGCP and SIPC were allowed to continue using the current type of AS under the existing ASPP and 2001 PGC (Amendment 1). Meanwhile, the following shall apply during the transition period as proposed by NGCP in the amended ASPP, *to wit*:

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. | Contingency Reserve- | Primary Reserve; |
| ii. | Dispatchable Reserve- | Tertiary Reserve; and |
| iii. | Regulating Reserve - | Secondary Reserve. |

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 EPIRA mandates the Commission to exercise regulatory oversight in NGCP's performance of its responsibility to construct, install, finance, improve, expand, rehabilitate, and repair the nationwide transmission system and the grid. The Commission's initial evaluation of the instant *Application* disclosed that the contracted ancillary service capacity is needed to augment the deficiency of DR 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 Visayas Grid.

Upon implementation of the amended ASPP and other relevant rules of the Commission, the Commission will review the existing ASPA to determine if the AS provider complies thereto. Otherwise,

²⁴ Entitled, "In the Matter of the Petition for the Approval of Amended Ancillary Services Procurement Plan".

the non-compliant ASPA shall be dismissed upon due notice and without prejudice to refileing.

WHEREFORE, the foregoing premises considered, the National Grid Corporation of the Philippines (NGCP) and SPC Island Power Corporation (SIPC) are hereby **GRANTED PROVISIONAL AUTHORITY** to implement their Ancillary Services Procurement Agreement (ASPA), subject to the following conditions:

1. **Applicable Rates:**

SIPC 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 AS, the pricing shall be as follows:

a. **Scheduled Capacity Without Energy Dispatched**

NGCP shall pay SIPC the corresponding nominated price of that 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 Rate (Maximum Hourly Rate)	
	Firm	Non-Firm
Dispatchable Reserve (DR)	PhP0.85/kW/hr	
Black Start Service (BSS)		Payment for the service provided is based on hourly rate per occurrence

b. **Scheduled Capacity With Energy Dispatched**

The ASPA rate shall be recovered through settlement in the Wholesale Electricity Spot Market (WESM). Thus, in this case, the ancillary capacity is free of charges as the cost is recovered through the market.


24

SIPC shall be entitled to a Monthly Minimum Incidental Energy Cost for the Dispatchable Reserve (DR) based on actual dispatch and the cost of generation computed using the formula as previously discussed.

Further, 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.

2. NGCP must ensure that the AS rates applied by SIPC should not exceed that of the approved maximum AS rates by the Commission. In the event that the final rates are lower than the provisional rate granted in this *Order*, the amount corresponding to the reduction shall be refunded by SIPC to NGCP and the latter shall pass it on to its customers.
3. NGCP is hereby **DIRECTED** to:
 - a. 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;
 - b. Strictly observe the approved Ancillary Service- Cost Recovery Mechanism (AS-CRM) in passing on to its customers the ancillary services cost; and
 - c. 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 every month after the computed billing month.

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RELATIVE THERETO, the approved provisional rates shall be effective on the next billing cycle of NGCP from receipt of this Order.

SO ORDERED.

Pasig City, 26 February 2019.



AGNES VST DEVANADERA
Chairperson & CEO

(On Leave)

JOSEFINA PATRICIA A. MAGPALE-ASIRIT
Commissioner

ALEXIS M. LUMBATAN
Commissioner

CATHERINE P. MACEDA
Commissioner

PAUL CHRISTIAN M. CERVANTES
Commissioner

LS: CRC/LSP/GLO ord.2018-120 RC NGCP SIPC ASPA/pa

ROS: CEB/ATP/AJMO/FHD

ERC CASE NO. 2018-120 RC
ORDER/26 FEBRUARY 2019
PAGE 26 OF 26 *qv*

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