

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



IN THE MATTER OF THE
APPLICATION FOR THE APPROVAL
OF THE ENERGY SUPPLY
AGREEMENT BETWEEN ZAMBOANGA
DEL SUR II ELECTRIC COOPERATIVE,
INC. (ZAMSURECO II) AND THERMA
MARINE, INC. (TMI)

ERC CASE NO. 2011-126 RC

ZAMBOANGA DEL SUR II ELECTRIC
COOPERATIVE, INC. (ZAMSURECO II),
Applicant.

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Date: JAN 03 2012
By:

ORDER

On September 8, 2011, Zamboanga Del Sur II Electric Cooperative, Inc. (ZAMSURECO II) filed an application for approval of its Energy Supply Agreement (ESA) with Therma Marine, Inc. (TMI).

In support of its prayer for the issuance of a provisional authority, ZAMSURECO II alleged, among others, the following:

- 1. The Impending Shortage in Energy Supply and Current Power Crisis in Mindanao.** The Department of Energy's (DOE) Department Circular No. 2010-10-0011 has expressly recognized that despite the available power generating capacities, the Mindanao Grid is currently experiencing rotating brownouts as portions of these available capacities are allocated to meet the reserved requirements of Mindanao transmission system pursuant to the standards set under the Philippine Grid Code (PGC);
- 2. The Expiration of its Contract for the Supply of Electric Energy (CSEE) with the Power Sector Assets and Liabilities Management Corporation (PSALM) and PSALM Certification.** Its CSEE with PSALM is due to expire on August 25, 2011 and PSALM has confirmed that it has insufficient capacity to supply its additional power requirements beyond the contracted energy and equivalent demand of the existing CSEE; and

3. **The Projected Increase in Energy Requirements.** Its actual and forecasted Load Data for the contractual period reveal that the load requirements of its customers within its franchise area will consistently increase during the contracted period. Its latest load forecast shows that the load requirements of its customers takes into account the capacity that will be sourced from TMI.

Relative to its prayer for a provisional authority, the Commission initially reviewed the instant application, as follows:

I. PARTIES TO THE ESA

- 1.1 **ZAMSURECO II** is non-stock, non-profit electric cooperative duly organized and existing under and by virtue of Presidential Decree No. 269 (P.D. 269), as amended, with principal address at Pangi, Ipil, Zamboanga Sibugay. It is the exclusive franchise holder issued by the National Electrification Commission (NEC) to operate an electric light and power distribution service in Bayo, Zambaoanga Del Sur, the Municipalities of Buug, Diplahan, Imelda, Ipil, Kabasalan, Kumalarang, Lakewood, Mabuhay, Malangas, Naga, Olutanga, Payao, Siay, Talusan, Titay, Tungawan, all in the Province of Zamboanga Sibugay and the Municipalities of Sibuco, Siocon, Siraway, all in the Province of Zamboanga Del Norte and the District of Vitali in Zamboanga City; and
- 1.2 **TMI** is a generation company duly authorized and existing under and by virtue of the laws of the Republic of the Philippines, with principal office address at the Aboitiz Corporate Center, Gov. Manuel A. Cuenco Ave., Kasambagan, Cebu City.

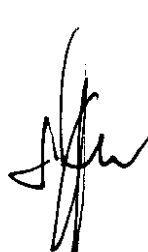
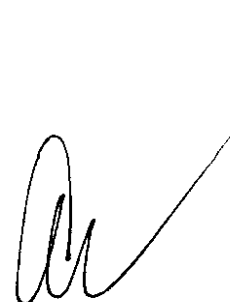
The primary purpose of this corporation is to bid, acquire and operate assets privatized by the government as well as to invest in, hold, own, purchase, acquire, lease, contract, operate, improve, develop, manage, grant, sell, exchange, or otherwise dispose of real and personal properties of every kind and description, including shares of stock, bonds and other securities or evidence of indebtedness of any corporation, partnership, association, firm, or entity domestic or foreign, where necessary or appropriate and to possess and exercise in respect thereof all the rights, powers and privileges of ownership, including all voting powers of any stock so owned, without acting as or engaging in the business of an investment company, or dealer or broker in securities.



II. ENERGY SUPPLY AGREEMENT (ESA)

2.1 Salient Features

Type of Plant	Non-propelled type barges (diesel engine)
Installed Capacity	Two (2) plants (PB 117 and PB 118) with an aggregate capacity of 200 MW
Contract Term	The ESA shall remain in force for a period of three (3) years from Effective Date, unless earlier terminated in accordance with its provisions
Effective Date	<p>The ESA shall govern the terms and conditions by which ZAMSURECO II will reserve, receive and pay for the capacity and energy made available by the Power Barges (PB) and shall take effect on the 26th day of the calendar month when the Completion Date occurs; Provided that if the Completion Date occurs anytime from the 27th to 31st day of a calendar month, Effective Date shall be on the 26th day of the succeeding calendar month unless otherwise agreed by the Parties. Completion Date shall be the later of the following dates:</p> <ul style="list-style-type: none">a) the date on which the ESA is signed by both ZAMSURECO II and TMI, provided, that if they shall have executed the ESA on separate dates, the date which is the later;b) the date of effectivity of the Dispatch Protocol;c) the approval by the Commission of the ESA, provided that any provisional approval or authority granted by the Commission shall be considered an approval for purposes of determining the Effective Date, without prejudice to Clause 9.2.4 of the ESA which states that "In the event that the ERC, despite its grant of approval (provisional or otherwise) of the Agreement, issues an order (a) revoking the approval, or (b) disapproving the Agreement, or (c) approving the Agreement under terms that are commercially different from the original intent of the Parties; Provided that, upon occurrence of Clause 9.2.4 (c), TMI may, at its option, propose a revision and/or reduction of the Billing Capacity and Contract Energy by issuing a written notice to ZAMSURECO II containing its proposed revision to Schedules II and III and the term of effectivity thereof, without prejudice to the exercise by either Party of its right to terminate should TMI or ZAMSURECO II fail to immediately and mutually agree on such revisions; and



d) the date of receipt by TMI of the Initial Security Deposit required to be posted by ZAMSURECO II; Provided that, if TMI issues a written waiver of the Initial Security Deposit requirement or if both ZAMSURECO II and TMI otherwise agree that the Initial Security Deposit requirement shall not be a condition for effectivity of the ESA, occurrence of the later among the three (3) abovementioned conditions shall be the Completion Date.

Contracted Capacity TMI shall make available and ZAMSURECO II shall receive the Contract Energy fixed on a monthly basis equivalent to 4,000 kW (4 MW) and to be delivered in accordance with the Schedule of Contract Energy fixed in daily and hourly basis, as provided in Schedule II of the ESA, to wit:

Hour	Time Interval	VOLUME (MW)*						
		Average Capacity for the Delivery of Energy in the One-hour Time Interval as Measured at the Generating Metering Point						
		Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	00:00-1:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1:00-2:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2:00-3:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3:00-4:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4:00-5:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	5:00-6:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	6:00-7:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	7:00-8:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	8:00-9:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	9:00-10:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	10:00-11:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	11:00-12:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	12:00-13:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	13:00-14:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	14:00-15:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	15:00-16:00	1.12	1.16	1.08	1.156	1.199	1.148	1.196
17	16:00-17:00	2.80	2.84	2.96	2.80	2.884	2.96	2.920
18	17:00-18:00	2.923	3.054	3.183	3.358	3.264	3.224	2.59
19	18:00-19:00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
20	19:00-20:00	2.96	3.119	2.902	2.78	3.112	2.882	3.277
21	20:00-21:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	21:00-22:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	22:00-23:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	23:00-00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*The volume in any delivery period shall not exceed the Billing Capacity

*The volume shall be subject to: (a) nomination protocol between ZAMSURECO II and TMI; (b) Dispatch Protocol implemented between MSO and TMI; and (c) Day Ahead Ancillary Service Schedule submitted by MSO to TMI, including any deviation or adjustment that MSO and/or MSO RCC may implement thereto

Generator Metering Point PB 117
 High Voltage Side (138 kV) of the Transformer at the 100 MW PB 117 presently located in Barangay Sta. Ana, Nasipit, Agusan del Norte, and/or

PB 118
 High Voltage Side (138 kV) of the Transformer at the 100 MW PB 118 presently located in Barangay San Roque, Maco, Compostella Valley

2.2 Fees and Charges

ZAMSURECO II shall pay, in respect of each billing period, the Contract Energy Fee which consists of variable and fixed charges, subject to annual adjustments. The Contract Energy Fee is computed under the ESA, as follows:

$$CEF = FC + VC$$

$$FC = [CF + (FOM) (IF_f)] BC + \left\{ \left(\frac{INS}{12} \right) \left(\frac{BC}{Total\ ESA\ BC} \right) \right\}$$

$$VC = [(EF) (IF_v) + FLR] ED_m$$

For Calendar month m=1, 2, ..., 12

Where:

- CEF = Contract Energy Fee in PhP
- EF = Energy Fee (before adding the applicable VAT) for the Billing Period in PhP/kWh
- FC = Fixed charge per month in Pesos
- VC = Variable charge per month in Pesos
- CF = The Capacity fee in PhP/kW/month for the current Contract Year
- FOM = Fixed O&M fee in PhP/kW/month
- IF_f = Inflation factor for Fixed O&M fee

BC = Billing Capacity in kW or 4,000 kW (4 MW)

INS = $INS_y - INS_1$

Where:

INS_y = Insurance cost, which shall be PhP33,000,000.00 for Year 1

INS_1 = PhP21,517,891.00

IF_v = Inflation factor for Energy Fee

Total ESA BC = Total billing capacity for all energy supply agreements entered into by Supplier which has achieved Effectivity Date and for the duration of such effectivity, as such terms and conditions are defined under the respective supply agreements

FLR = Fuel oil, lube oil and related fuel rate in PhP/kWh

ED_m = The Sum of the hourly volumes of Contract Energy as found in Schedule II (or as revised by the Parties or by MSO/MSO RCC) for the Billing Period primarily associated with calendar month *m* (for example December 26-January 25 is associated with January) (and adjusted for transmission losses, if any, imputed by the transmission service provider if measured at a meter other than the Generator Metering Point), in kWh

The Fixed Charge (FC) shall be proportionately adjusted if:

- a. The Contract Energy Delivery days in a Billing Period are less than the total number of days in the Billing Period (to adjust to first and last Billing Periods of this Agreement); and
- b. The non-delivery days (or fraction thereof) in any Billing Period caused by Allowed Downtime described under Section Eight of the ESA.

The Electricity Fees relevant to the computation of Contract Energy Fees are as follows:

Capacity Fee (CF)

Contract Year	PhP/kW/month
Year 1	636.00
Year 2	598.00
Year 3	559.00

Fixed O&M Fee (FOM)	PhP239.00/kW/month, escalated annually by the Inflation Factor
Energy Fee (EF)	PhP0.14891/kWh
Billing Capacity (BC)	4,000 kW (4 MW)

Fuel Oil and Lube Oil Rates (FLR) in PhP/kWh are adjusted using the most recent average Total Invoice Price from Supplier's fuel suppliers for the applicable Billing. Their computations are shown in Items #4 and #5 of this Schedule.

Computation of Fuel and Lube Oil Rate

Fuel Oil and Lube Oil Rate: $FLR = \text{PhP}6.1574/\text{kWh} \times [(0.962 \times HFO_n/HFO_o) + (0.038 \times LOR_n/LOR_o)] + \text{related actual fuel cost}$

Where:

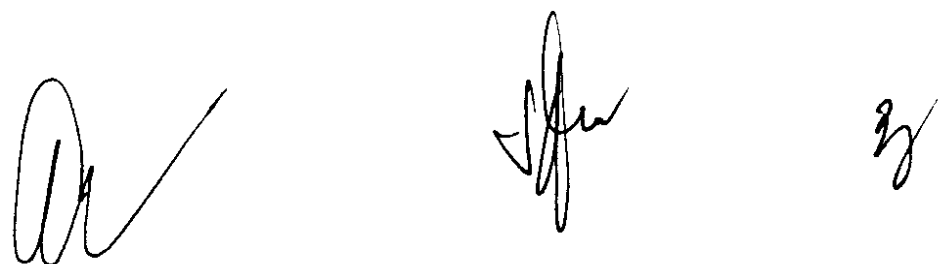
- FLR = Fuel and Lube Oil Rate in PhP/kWh
- HFO_n = Most recent average Total Invoice Price from Supplier's Heavy Fuel Oil Suppliers for the applicable Billing Period
- HFO_o = PhP25.12 per liter
- LOR_n = Most recent average Total Invoice Price from Supplier's Lube Oil Fuel Suppliers for the applicable Billing Period
- LOCR = PhP95.98 per liter

The monthly actual cost per liter of fuel oil, lube oil and related fuel shall be calculated on a "first in, first out" basis using the data of actual monthly invoices of deliveries, inventories and consumption.

Inflation Factor

For Fixed O & M Fee:

$$IF_f = 0.21731 + 0.78269 \times (PCPI_m/PCPI_b)$$



For Energy Fee:

$$\begin{aligned} IF_v = & 0.06897 + 0.10982 \times (PCPI_m/PCPI_b) + \\ & 0.13370 \times (PUX_m/PUX_b) \times (UCPI_m/UCPI_b) + \\ & 0.22917 \times (PEX_m/PEX_b) \times (ECPI_m/ECPI_b) + \\ & 0.45834 \times (PYX_m/PYX_b) \times (JCPI_m/JCPI_b) \end{aligned}$$

Where:

- PCPI_m = Philippine CPI of the current billing month
- PCPI_b = Philippine CPI on the effectivity month of the ESA
- UCPI_m = US CPI of the current billing month
- UCPI_b = US CPI on the effectivity month of the ESA
- ECPI_m = Euro CPI of the current billing month
- ECPI_b = Euro CPI on the effectivity month of the ESA
- JPI_m = Japan CPI of the current billing month
- JCPI_b = Japan CPI on the effectivity month of the ESA
- 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/EUR 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

If the CPI of the current billing month is not published and available within two (2) days from the end of the Billing Period, the most recent available published index shall be used.

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 TMI.

If any of the foregoing indices are re-based during the duration of the ESA, TMI has the option to apply a corresponding adjustment to the inflation formula to conform with the re-basing of the subject indices.

2.3 Additional Energy

TMI may, at its option, make available to ZAMSURECO II such capacity and energy in excess of the Contract Energy (Additional Energy) and schedule the same for delivery upon ZAMSURECO II's notice of acceptance. ZAMSURECO II shall pay



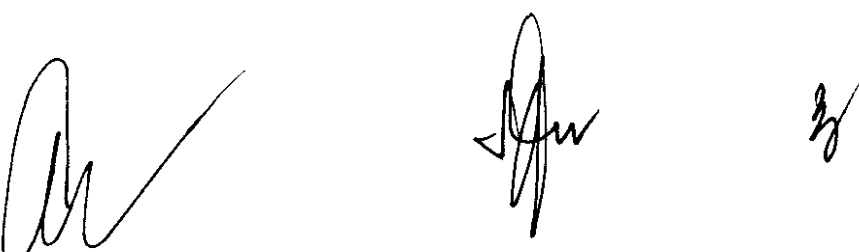
the Additional Energy Fee which consists of variable and fixed charges pro-rated for the hours of delivery of such Additional Energy, subject to annual adjustments; Provided that, ZAMSURECO II shall pay the Additional Energy Capacity Fee Rate in lieu of the Capacity Fee component of the fixed charges. The Additional Energy Fee per month is computed under the ESA in accordance with the following formula:

$$AEF = FC + VC$$

Where:

- AEF = Additional Energy Fees in PhP
- FC = as previously defined, except that:
CF shall be replaced by AECFR
BC shall be replaced by AE_m
- VC = as previously defined, except that:
 ED_m shall be replaced by ED_{AE_m}
- ED_{AE_m} = The sum of the hourly volumes in excess of the Contract Energy for the Billing Period primarily associated with calendar month m (for example December 26-January 25 is associated with January) and adjusted for transmission losses imputed by the transmission service provider, in kWh
- AE_m = Additional Energy Capacity in kW as may be agreed by the Parties for the Billing Period primarily associated with calendar month m (for example December 26-January 25 is associated with January)
- AECFR = Additional Energy Capacity Fee Rate for the current year

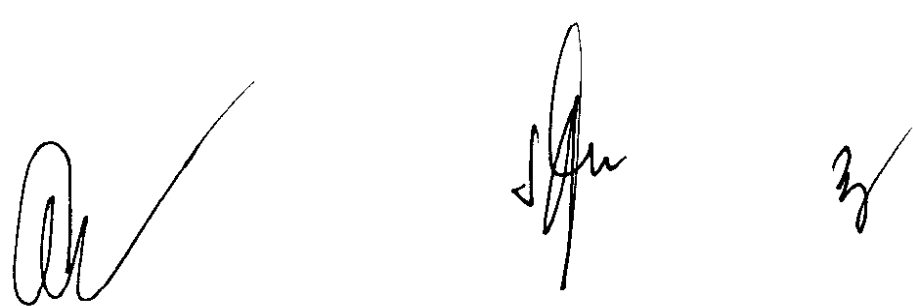
AECFR	
Contract Year	PhP/kWh
Year 1	0.8707
Year 2	0.8185
Year 3	0.7664



2.4 Replacement Energy

TMI has the option to source replacement or alternative supply of energy from its own back-up facility and/or any third party to supply all or part of the Contract Energy to ZAMSURECO II (and Additional Energy, if applicable). Supply of replacement energy shall be subject to payment by ZAMSURECO II at the same Contract Energy Fee (and Additional Energy, if applicable), provided that such supply of replacement energy does not reduce the total Contract Energy (and Additional Energy, if applicable).

In the event that TMI is unable to supply, in whole or in part, the Contract Energy (and Additional Energy, if applicable) due to: a) Force Majeure and/or its effects (except for Force Majeure in the nature of restricted energy delivery, whether full or partial, due to actions of the transmission service provider, metering service provider or any third party enabler, including any form of load shedding or transmission line failure, or in any case the failure and/or the inability of the existing transmission line to transmit power from either PB); or b) allowed downtime, TMI has the option to source replacement or alternative supply of energy from its own back-up facility and/or any third party. Provision of energy by TMI shall be subject to the consent of ZAMSURECO II and payment of fees to TMI equivalent to the higher between (i) the actual cost of obtaining replacement energy based on supporting documents that were furnished to ZAMSURECO II; or (ii) the Contract Energy Fee (and Additional Energy, if applicable). Such applicable fee shall form part of the invoice.



In the event that the Contract Energy (and Additional Energy, if applicable) cannot, in whole or in part, be supplied to ZAMSURECO II due to restricted energy delivery because of actions of the transmission service provider, metering service provider or any third party enabler, including any form of load shedding or transmission line failure, or in any case of failure and/or inability of the existing transmission line to transmit power from either PB which results in reduced energy delivery or load curtailment of ZAMSURECO II:

- a) For the portion of Contract Energy (Schedule II of the ESA) (and energy component of the Additional Energy, if applicable) subject of curtailment, ZAMSURECO II shall pay the Load Curtailment Adjustment in lieu of the Capacity Fee component of the Contract Energy Fee for such affected period. Similarly, if applicable, ZAMSURECO II shall pay the Load Curtailment Adjustment in lieu of the Additional Energy Capacity Fee Rate component of the Additional Energy.
- b) TMI has the option to offer any person or third party (all or part of) the capacity and energy subject of load curtailment, in which event, ZAMSURECO II shall pay the Load Curtailment Adjustment only for such curtailed portion of the Contract Energy, which was not supplied by TMI, to such other person or third party (similarly, if applicable, ZAMSURECO II shall pay the Load Curtailment Adjustment only for such curtailed portion of Additional Energy, which was not supplied by TMI, to such other person or third party).
- c) ZAMSURECO II continues to be liable for the Variable Charge component of the Contract Energy Fee (and Additional Energy, if applicable) for the portion that was not subject to reduced energy or load curtailment.

The Load Curtailment Adjustment shall be computed in accordance with the formula below:

$$LCA = \sum_{h=1}^m LCAR \times LC_h$$



Where:

- h = One-hour time interval
- m = Number of hours in the Billing Month
- LC = Load Curtailment (in kW) for hour interval h
- LCAR = Load Curtailment Adjustment Rate for the current year

LCAR	
Contract Year	PhP/kW/h
Year 1	0.8707
Year 2	0.8185
Year 3	0.7664

2.5 Start-Up Fee

ZAMSURECO II and TMI acknowledge that the fees provided under the ESA, including the fees indicated for the Contract Energy, Additional Energy and Load Curtailment Adjustment, are based on the PB which is undergoing only one (1) start-up and one (1) shutdown per day. If any of the PBs shall require additional start-up and shutdown, ZAMSURECO II shall pay TMI the Start-Up Fee, in addition to such fees, which shall form part of the invoice.

$$\text{Start-Up Fee} = \text{PhP}119,216.00 \text{ per additional Start-Up} \times \frac{\text{BC}}{\text{Total ESA BC}}$$

Said fee is subject to changes based on actual fuel costs and adjustments to capital and Fixed O&M costs.

TMI should submit supporting documents to provide basis for the Start-Up cost of PhP119,216.00. The recovery of Start-Up Fee shall be made only after verification of the Commission.



2.6 Marketing Fee

ZAMSURECO II may request TMI to make available to third parties all or a certain portion of the Contract Energy, at such hours specified by the former. Upon receipt of such request, TMI may, at its sole option, proceed to facilitate the trade between ZAMSURECO II and third party/parties of such portion of the Contract Energy which may be less but not more than the portion of the Contract Energy indicated as available by ZAMSURECO II at such specified hours (Available Contract Energy). ZAMSURECO II shall pay a Marketing Fee equivalent to PhP0.02/kWh of the Available Contract Energy, which shall form part of ZAMSURECO II's Invoice.

2.7 Penalty

Not later than seven (7) business days after the end of the Billing Period, TMI shall furnish ZAMSURECO II with the invoice of the capacity and energy supplied. ZAMSURECO II shall pay in full the amounts indicated in the invoice not later than the last business day of the succeeding calendar month after the end of the Billing Period. Failure by ZAMSURECO II to remit or cause the remittance of such payments shall cause the unpaid portion of the invoice to earn interest at the rate of two percent (2%) per month until actual payment is made.

2.8 Costs, Taxes, Fees and Charges

Any cost, tax, fee and charge (other than TMI's income taxes) accruing on the amounts due and/or paid for the supply of energy shall be for the account of



ZAMSURECO II and may form part of the invoice. Such charges shall include any fuel cost, insurance cost, system loss, transmission and other similar fee and any variation or adjustment related to the delivery of energy from the Generator's Metering Point to ZAMSURECO II's metering point and value added tax (if any) imposed on or required to be collected by TMI for the energy or capacity supplied.

2.9 Security Deposit

Prior to the commencement of the ESA, ZAMSURECO II shall post and provide TMI the Initial Security Deposit equivalent to Six Million Seven Hundred Seventy-Nine Thousand Nine Hundred Thirty-Nine and 63/100 Philippine Pesos (PhP6,779,939.63) in the form of a Standby Letter of Credit or such other security acceptable to TMI, in all cases in the form and issued by an entity acceptable to TMI.

Not later than thirty (30) days before the anniversary of the Effective Date, ZAMSURECO II shall post and provide TMI a Renewal Security Deposit in an amount equivalent to the estimated average one (1) month invoice projected for the next twelve (12) months as agreed upon by ZAMSURECO II and TMI. If both ZAMSURECO II and TMI cannot agree on the estimate of the average one (1) month invoice at least thirty (30) days before the said Effective Date anniversary, the Renewal Security Deposit shall be in an amount equal to the highest invoice issued by TMI to ZAMSURECO II in the twelve (12) months immediately preceding such Effective Date anniversary.

ZAMSURECO II shall post and provide TMI, within seven (7) days from TMI's demand, an Adjustment Security Deposit effective for the remainder of the contract year in an amount equivalent to the estimated average Additional Energy. If



ZAMSURECO II does not agree with the amount of estimated average Additional Energy as demanded by TMI, ZAMSURECO II must issue a written notification to TMI of such disagreement and the Adjustment Security Deposit shall, thus, be in an amount equal to the highest monthly Additional Energy requested by and provided to ZAMSURECO II in the twelve (12) months immediately preceding TMI's demand.

ZAMSURECO II has the obligation to maintain the Security Deposit at all times. In the event that TMI draws upon the Security Deposit, ZAMSURECO II shall immediately replenish or reinstate the Security Deposit to restore the value to its original amount prior to TMI having drawn thereon and in no case later than the next business day after issuance of notice by or on behalf of TMI.

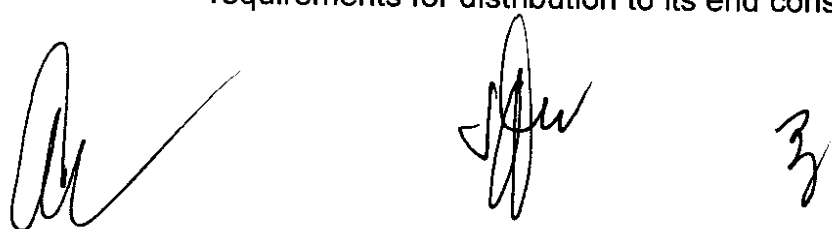
In the event that ZAMSURECO II fails to post and submit the Security Deposit after being required by TMI to post and provide the same, or the Renewal Security Deposit, or the Adjustment Security Deposit or fails to replenish the Security Deposit within the period prescribed by the ESA or by mutual agreement, TMI shall have the following options:

- a) increase the Contract Energy Fee (and Additional Energy Fee, if applicable) by an additional PhP0.20/kWh until such time that ZAMSURECO II shall have submitted or replenished the Security Deposit to the satisfaction of TMI; or
- b) suspend or reduce the supply or terminate the ESA.

III. DISCUSSION

3.1 ZAMSURECO II's Power Requirement

ZAMSURECO II sourced one hundred percent (100%) of its electricity requirements for distribution to its end consumers from the NPC pursuant to a CSEE



which was subsequently assigned to PSALM. The CSEE had a term of three (3) years which expired on August 25, 2011.

PSALM, in its letter dated June 3, 2011, has confirmed its insufficient capacity to supply ZAMSURECO II's additional power requirements beyond the contracted energy and equivalent demand of the existing CSEE. Based on the Distribution Development Plan (DDP) submitted by ZAMSURECO II to the DOE, it is expected that its energy requirements will increase in the next few years as demonstrated in the table below:

		2009	2010	2011	2012	2013	2014
Energy Requirement							
Total: Direct Sales to Customers	mWh	71,912	81,309	87,023	96,790	104,169	112,102
Total: Utility's Energy Consumption	mWh	12,682	12,637	12,632	12,995	13,405	13,845
Total	mWh	84,594	93,946	99,655	109,785	117,574	125,947
Growth Rate			11.06%	6.08%	10.17%	7.09%	7.12%
Average Growth Rate							8.30%

3.2 Procurement Process

In 2010, TMI conducted a series of road shows to market among interested distribution utilities and electric cooperatives in Mindanao the capacities of its PBs which are not covered by its Ancillary Services Procurement Agreement (ASPA) with the National Grid Corporation of the Philippines (NGCP). Thereafter, ZAMSURECO II commenced negotiations with TMI for the execution of the ESA. On May 23, 2011, they signed and executed the ESA.

3.3 TMI'S PBs 117 AND 118

TMI assumed ownership and operation of PBs 117 and 118 by virtue of the public bidding conducted by the PSALM for the privatization of said assets pursuant to Section 47 of the EPIRA. On July 31, 2009, TMI won the negotiated bid with PSALM for the 100 MW PB 117 and 100 MW PB 118 with a bid price of US\$16 Million and US\$14 Million, respectively. TMI and PSALM, then, entered into an Asset Purchase Agreement (APA) over PBs 117 and 118. Upon compliance with their respective condition precedents under the APA, both proceeded with the closing and payment of the full purchase price for PBs 117 and 118 on February 26, 2010 and February 5, 2010, respectively. TMI paid the bid price of US\$16 Million (converted to PhP739,467,200.00 at the exchange rate of US\$1.00-PhP46.2167) for PB 117 and US\$14 Million (converted to PhP651,233,800.00 at the exchange rate of US\$1.00-PhP46.5167)¹. TMI took over the operations of PBs 117 and 118 on March 1 and February 6, 2010, respectively.

Both PBs are power plants mounted on a barge where PB 117 is located in Barangay Sta. Ana, Nasipit, Agusan del Norte, while PB 118 is located in Barangay San Roque, Maco, Compostella Valley. Each of the PBs has two (2) separate fifty MW (50 MW) power generating trains, which are designed to meet intermediate, peaking and voltage-regulation requirements and allow extended operation at partial loads as well as frequent startup, shutdown and load changes.

¹ As per Memorandum for ERC Case No. 2010-011 RC and ERC Case No. 2010-014 RC filed with the Commission on October 1, 2010



3.4 Certificate of Compliance (COC) and Other Permits

In a letter dated October 4, 2010, the Department of Environment and Natural Resources (DENR) granted the transfer of the Environmental Compliance Certificates (ECC) under ECC-CO-9206-018-120 to TMI which was issued to NPC on August 10, 1993 on the 2x100 MW Mindanao Diesel Power Barges.

The Commission issued COCs to PBs 117 and 118 on April 6 and 19, 2006, respectively.


On April 4, 2011, the Commission renewed the COCs of the PBs until April 4, 2016.

3.5 Evaluation of TMI's Proposed Fees and Charges

The Contract Fees of TMI consist of Fixed and Variable Charges and are designed in such a way that ZAMSURECO II pays TMI based on the Billing Capacity and Energy Fee. The rate design is structured to segregate the components, in terms of Capacity Fee, Operations and Maintenance (O&M) and Fuel, which reflect the different costs and expense recoveries. Said Contract Fees of ZAMSURECO II are subject to adjustment for the different indices, such as inflation and the foreign exchange rates.

The Commission considered the following rate components in determining the reasonableness of the proposed rates:

- a. **Capacity Fee** - a capital-related element that will allow TMI to recover its investment together with a reasonable rate of return over its remaining useful life;



- b. **O&M Fee** - a component to recover recurring O&M costs. The O&M cost is commonly composed of local and foreign components which change proportionately with the changes in the predetermined economic factor, such as the Consumer Price Index (CPI) and foreign exchange rate; and
- c. **Fuel Fee** - a component to recover fuel costs incurred in generating electricity.

3.5.1 Capacity Fee (CF)

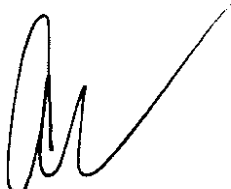
TMI's proposed CF is based on an annual declining asset base which makes the rates vary every year (if and when the said ESA is renewed). It is based on a capital cost of PhP2,056,106,463.00 (90 MW Contracted Capacity of TMI) and a working capital using a Weighted Average Cost of Capital (WACC) of eighteen percent (18%).

Based on the Capital Cost and WACC provided in the January 24, 2011 Orders of the Commission in ERC Case No. 2010 - 011 RC² and ERC Case No. 2010 - 014 RC³, the Commission arrived at a CF of **PhP400.00/kW/month** computed as follows:

Asset Value, PhP ($\$84,700,000.00 \times \text{PhP}45.8360 \times 4/190$)	81,732,825.26
Annuity, PhP/year	16,285,434.01
PhP/kW/year ($\text{PhP}16,285,434.01 / 4,000$)	4,071.36
PhP/kW/month ($\text{PhP}4,071.36 / 12$)	339.00
Return on WC, PhP/kW/month	61.00
Capacity Fee Total, PhP/kW/month	400.00

² "In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National Grid Corporation of the Philippines (NGCP) and Therma Marine, Inc. (TMI), NGCP and TMI – Applicants"

³ "In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National Grid Corporation of the Philippines (NGCP) and Therma Marine, Inc. (TMI), NGCP and TMI – Applicants"



The Commission's computation of the CF is consistent with its policy that the CF should be a levelized rate based on a declining asset base. This is contrary to TMI's methodology where its CF was based on an annual declining asset base, thus, resulting to different rates (unlevelized rates) every year. The Commission adopted a levelized rate since the asset cost should be recovered and spread evenly during the economic life of the asset. Having different rates for each year using the annual declining asset would not be fair for the DUs that have contracts with TMI during the early stage of TMI's asset life since the major portion of the asset value/cost will be borne by them. The computed CF of PhP400.00/kW/month was derived from the 4 MW proportion of the Approved Capital Cost approved in the ASPA cases, levelized rate based on a ten-(10)-year asset life, at 15% WACC and a return on two (2) months working capital.

Shown below is a comparison of the levelized CF rates as against the annual declining rate proposal of TMI:

	TMI's Declining Rate Proposal (PhP/kW/month)	Commission's Computation	
		Declining Rate (PhP/kW/month)	Levelized (PhP/kW/month)
1st Year	636	461	400
2nd Year	598	435	
3rd Year	559	410	

3.5.2 Operation and Maintenance (O&M) Fees (Fixed O&M and Energy Fee [EF])

The ESA stipulates that TMI will charge ZAMSURECO II a Fixed O&M Fee of PhP239.00/kW/month which will be multiplied by the Billing Capacity and an EF of PhP0.14891/kWh which shall be based on the sum of the hourly volumes of

Contract Energy for the Billing Period. Both O&M Fees are subject to inflation factor indexed to CPI and foreign exchange rates.

TMI derived its Fixed O&M and EF of PhP239.00/kW/month and PhP0.14891/kWh, respectively, based on its forecasted Annual Fixed and Variable O&M Costs, as shown below:

Cost Components	PB 117	PB 118	Both Plants
Fixed O&M Costs in Pesos			
Insurance	21,517,891.00	21,517,891.00	43,035,782.00
Real Property Taxes	21,741,607.00	21,741,607.00	43,483,214.00
Business Taxes	10,495,332.00	10,495,332.00	20,990,664.00
CO ₂ Fire System	475,944.00	475,944.00	951,888.00
Barge Maintenance	2,401,550.00	2,401,550.00	4,803,100.00
Labor & Burden	88,000,000.00	88,000,000.00	176,000,000.00
Outside Services	24,500,000.00	24,500,000.00	49,000,000.00
General Business Expenses	60,159,867.00	60,159,867.00	120,319,734.00
Towing & Drydocking Costs	14,587,860.00	17,947,860.00	32,535,720.00
Total Fixed O&M	243,880,051.00	247,240,051.00	491,120,102.00

Variable O&M Costs in Pesos			
(Based on 377,790 MWh net, 424,356 MWh gross)			
Diesel Generator Units	42,975,467.00	42,975,467.00	85,950,934.00
Auxillary Systems	9,402,431.00	9,402,431.00	18,804,862.00
DOE ER 1-94 Payments	3,880,370.00	3,880,370.00	7,760,740.00
Total Variable O&M	56,258,268.00	56,258,268.00	112,516,536.00

Based on the forecasted O&M costs, TMI derived its Annual Fixed O&M of PhP232,635,837.79 by multiplying the proportion of its Contracted Capacity by the Total Fixed O&M for both plants amounting to PhP491,120,102.00. Shown below is the derivation of its proposed Fixed O&M of PhP239.00/kW/month:

Annual Non-Var O&M	(491,120,102 x 90/190)	PhP232,635,837.79
Non-Var. O&M/mon.	(232,635,837.79 / 12)	PhP19,386,319.82/month
Non-Var. O&M fee/kW/mon.	(19,386,319.82 / 90,000) x [8,760 / (8,760 - 876)]	PhP 239.00/kW/month

TMI derived its EF of PhP0.14891/kWh by dividing the Annual Variable O&M Costs of PhP112,516,536.00 by the net annual energy production of 755,580,000 kWh.

In the January 24, 2011 Order of the Commission in ERC Case No. 2010-011 RC, it was stated that:

“TMI argued that the expense for towing and dry-docking in the amount of PhP17,947,860.00 cannot be avoided since dry-docking of PB 118 is required to be conducted twice within a period of five (5) years in accordance with Memorandum No. 152, Series of 1999 of the Maritime Industry Authority (MARINA).”

In the said case, the Commission reconsidered the allowable O&M costs to include two-fifths (2/5) of the proposed costs by reason of the requirement of the MARINA and the frequency of the occurrence of towing and dry-docking.

Based on the foregoing, the Commission arrived at a Fixed O&M of **PhP207.00/kW/month**, applying 2/5 of the Towing and Dry-docking proposed costs for both barges.

The Commission, likewise, adopted TMI's proposed formula for the computation of the Fixed Charges (FC) to allow it to recover the difference between the proposed (updated) Insurance Cost in the amount of PhP33,000,000.00 and the Insurance Cost in the amount of PhP21,517,891.00 which was already included in the computation of the Fixed O&M, as follows:



$$FC = [CF + (FOM)(IF_i)] BC + [(INS/12)(BC/TotalESABC)]$$

The amount of PhP33,000,000.00 is the average of the four (4) invoices supported by Insurance Invoice Nos. 024309, 024286, 023916 and 023935 from Lockton Philippines Insurance and Reinsurance Brokers, Inc.

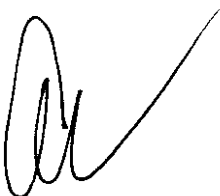
In the computation of the Contract Energy Fee, TMI set the Total ESA BC at 87,200 kW. However, the Commission deems it appropriate to use the total BC of all the ESAs which were already filed and to be filed by TMI for approval of the Commission. At present, the total BC is 100,000 kW (100 MW).

Although the Commission approved the same Variable O&M Costs of PhP112,516,536.00 in the said ASPA cases without disallowance, thereby arriving at an EF of PhP0.14891/kWh, it deemed it necessary to adjust the DOE Energy Regulations (ER) No. 1-94 for each plant from PhP3,880,370.00 to PhP3,777,900.00 since E.R. 1-94 states that the Generation Company and/or energy resource developer shall set aside one centavo per kilowatt-hour (PhP0.01/kWh) of the total electricity sales as Financial Benefit of the Host Communities (FBHC) of such Generation Facility. Hence, taking this into account, the Commission arrived at an EF of **PhP0.14864/kWh**.⁴

3.5.3 Fuel and Lube Oil Rates

In support of the proposed fixed fuel consumption rates of 0.2358 liter/kWh for Heavy Fuel Oil and 0.0024 liter/kWh for Lube Oil, TMI submitted a Plant

⁴ Computed as Variable O&M Cost of PhP112,311,596/Net Annual Energy Production of 755,580,000



Performance Test Report made by the National Power Corporation (NPC) on the test it conducted on PBs 117 and 118 on January 24 to 27, 2011.

Adopting the approved fuel consumption rates for Heavy Fuel Oil and Lube Oil as provided in its January 24, 2011 Orders in ERC Case Nos. 2010-011 RC and 2010-014 RC, the Commission adopts the fuel consumption rates of **0.2210 liter/kWh** for Heavy Fuel Oil or actual, whichever is lower, and **0.00313 liter/kWh** for Lube Oil or actual, whichever is lower.

The Commission believes that in the efficiency cap concept, any extra fuel quantity (liters) in producing a specific quantity of energy (kWh) shall not be allowed to be recovered. A maximum of 0.2210 liter/kWh for Heavy Fuel Oil and 0.00313 liter/kWh for Lube Oil shall be sufficient to generate a single energy (kWh). Any extra fuel quantity (liters) should be attributable to plant inefficiency and any deviation from the threshold of efficiency should be assumed by the Generation Company and should not be passed on to the consumers. This means, the same is not recoverable. TMI should not earn revenue from the fuel cost since an efficient fuel cost is a pass on cost to the end users. If TMI saves fuel consumption due to its efficient operations and maintenance of the plant, then, the savings in fuel will benefit ZAMSURECO II's consumers in terms of lower rate. Any inefficiency should not be passed on to the end-users but should be borne by TMI. In case there is an increase in fuel consumption due to fuel quality, deterioration of the equipment or other reasons, it will be the responsibility of TMI to shoulder the cost of the increase in fuel consumption and the additional cost of improving efficiency.



3.5.4 Additional Energy Capacity Fee Rate (AECFR) and Load Curtailment Adjustment Rate (LCAR)

The ESA stipulates that TMI will charge ZAMSURECO II an AECFR of PhP0.8707/kWh and LCAR of PhP0.8707/kWh. Both AECFR and LCAR are based on the CF of TMI converted into PhP/kWh. Thus, the Commission adopts the PhP/kWh equivalent of the computed CF of PhP400.00/kW/month which is PhP0.6176/kWh.

Shown below is a comparison of the levelized and unlevelized AECFR and LCAR rates as against the proposed rates of TMI:

	TMI's Proposal	Commission's Computation	
		Unlevelized	Levelized
1st Year	0.8707	0.7016	0.6176
2nd Year	0.8185	0.6627	
3rd Year	0.7664	0.6239	

3.6 Comparative Analysis Between the Proposed and Approved Rates

The base rates of TMI as computed by the Commission are lower than its proposed rates:

Cost Component	TMI's Proposal	Commission's Computation	Increase/ (Decrease)
Capacity Fee (PhP/kW/month)	636	400	(236)
Fixed O&M Fee (PhP/kW/month)	239	207	(32)
Energy Fee (PhP/kWh)	0.14891	0.14864	(0.00027)
Fuel and Lube Oil Rate	Pass thru cost based on a fixed fuel consumption rate of 0.2358 liter/kWh for HFO and 0.0024 liter/kWh for Lube Oil	Pass thru cost based on a fuel consumption rate of 0.2210 liter/kWh for HFO or actual, whichever is lower, and 0.00313 liter/kWh for Lube Oil or actual, whichever is lower	HFO=(0.0148) liter/kWh LO=0.0007 liter/kWh

3.7 Rate Impact

The estimated rate impact of ZAMSURECO II's generation rate when it draws energy from TMI is shown below:

DESCRIPTION	FIGURES
Monthly Energy (May 2011) (kWh)	8,676,484
Monthly Energy (TMI) (kWh)	430,000
Monthly Energy (NPC) (kWh)	8,246,484
Rate (TMI) (PhP/kWh)	14.5654
Rate (NPC) (PhP/kWh)	2.8000
Cost (TMI) (PhP)	6,263,139
Cost (NPC) (PhP)	23,090,155
Total Cost (PhP)	29,353,294
Generation Mix Rate Without VAT (PhP/kWh)	3.3831
Indicative Rate Increase Without VAT (PhP/kWh)	0.5831

3.8 Issuance of Provisional Authority

It is imperative that a provisional authority be granted for the ESA allowing TMI to deliver and ZAMSURECO II to receive power for the following reasons:

1. The DOE Department Circular No. 2010-10-0011 has expressly recognized that despite the available power generating capacities, the Mindanao Grid is currently experiencing rotating brownouts as portions of these available capacities are allocated to meet the reserved requirements of the Mindanao transmission system pursuant to the standards set under the Philippine Grid Code (PGC).

2. PSALM has confirmed, in its Certification dated June 14, 2011, that owing to the present power supply situation in Mindanao, it cannot commit to supply the total contracted levels in the CSEE due to generation constraint.

3. ZAMSURECO II used to source one hundred percent (100%) of its electricity requirements for distribution to its consumers from NPC pursuant to their CSEE which expired on August 25, 2011.

4. The load forecast projections of ZAMSURECO II during the contractual period of the ESA reveal that the load requirements of its customers will consistently increase during the contracted period. Its latest load forecast shows that the load requirements of its customers took into account the capacity that will be sourced from TMI.

The provisional approval of the instant application will address not only the impending shortfall in energy supply available to ZAMSURECO II's customers within its franchise area but will also cushion the impact of the current power crisis being experienced by load customers in Mindanao.

An initial evaluation of the instant application discloses that the ESA entered into by and between ZAMSURECO II and TMI will redound to the benefit of ZAMSURECO II's consumers in terms of continuous, reliable, efficient and affordable power supply as mandated by the EPIRA [Section 2. Declaration of Policy – (b) “to ensure the quality, reliability, security and affordability of the supply of electric power”].

WHEREFORE, the foregoing premises considered, the Commission hereby **PROVISIONALLY APPROVES** the application filed by Zamboanga Del Sur II Electric



Cooperative, Inc. (ZAMSURECO II) for the approval of its Energy Supply Agreement (ESA) with Therma Marine, Inc. (TMI), subject to the following conditions:

1) Applicable Rates:

Cost Components	Provisionally-Approved Rates
Capacity Fee	PhP400.00/kW/month
Fixed O&M Fee	PhP207.00/kW/month
Energy Fee	PhP0.14864/kWh
Fuel and Lube Oil Rate	Pass thru cost based on a fuel consumption rate of 0.2210 liter/kWh for HFO or actual, whichever is lower, and 0.00313 liter/kWh for Lube Oil or actual, whichever is lower

2) The Fixed Charge Formula per month in pesos is as follows:

$$FC = [CF + (FOM)(IF_i)] BC + [(INS/12)(BC/TotalESABC)]$$

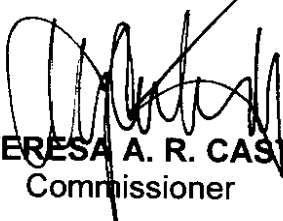
- 3) The Total ESA BC in the Insurance portion of the FC Formula shall be the total BC of all the ESAs which were already filed and to be filed by TMI for approval of the Commission.
- 4) The Additional Energy Capacity Fee Rate (AECFR) and Load Curtailment Adjustment Rate (LCAR) shall be PhP0.6176/kWh.
- 5) TMI is hereby directed to submit supporting documents for verification of the Start-Up cost.
- 6) TMI is hereby directed to show as a separate item in its bill to ZAMSURECO II the Additional Contract Energy Fee of PhP0.20/kWh representing the increase in the Contract Energy Fee (and Additional Energy Fee, if applicable) to be imposed by it on ZAMSURECO II in the event that ZAMSURECO II fails to post and submit the Security Deposit after being required by TMI to post and provide the same, or the Renewal Security Deposit, or the Adjustment Security Deposit or fails to replenish the Security Deposit within the period prescribed by the ESA or by mutual agreement pursuant to Section 6.3.1 of the Agreement. This is for transparency and validation purposes. The same shall not be passed on by ZAMSURECO II to its consumers.

- 7) The final generation cost that can be recovered shall be determined by the Commission in its Decision in the instant application.
- 8) In the event that the rates provisionally approved are found to be higher than the final rates, the amount corresponding to the excess shall be refunded by ZAMSURECO II to its customers by crediting the same in their electric bills over a period to be determined by the Commission.

SO ORDERED.

Pasig City, November 8, 2011.



ZENAIDA G. CRUZ - DUCUT
Chairperson *quasi*


MARIA TERESA A. R. CASTAÑEDA
Commissioner


JOSE C. REYES
Commissioner

(On Official Travel)
ALFREDO J. NON
Commissioner


GLORIA VICTORIA C. YAP-TARUC
Commissioner

MVA/MAS/NJC


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