



CANORECO

CAMARINES NORTE ELECTRIC COOPERATIVE, INC.

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NOTICE TO BIDDERS

SUPPLEMENTAL BULLETIN NO. 2021-01A

PROJECT DESCRIPTION : **INVITATION TO BID (ITB) for the Conduct of Competitive Selection Process (CSP) by Camarines Norte Electric Cooperative, Inc. (CANORECO) for its Base and Intermediate Load Requirements**

DATE : **June 23, 2021**

This notice is hereby issued also to clarify items in the Bidding Documents as a result of the conducted Pre-bid Conference held last June 16, 2021 (Wednesday) for the subject procurement, to wit:

No.	EXISTING PROVISION	AMENDED
1.	<p>Item 9.1 of Instruction to Bidders</p> <p>“9.1. Bidders who have purchased the Bidding Documents may request for clarification(s) on and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to CANORECO TPBAC at least ten (10) calendar days before DOSO.”</p>	<p>9.1 Bidders who have purchased the Bidding Documents may request for clarification and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to CANORECO TPBAC <u>on June 18, 2021 (Friday).</u></p>
2.	<p>Invitation to Bid</p> <p>A complete set of Bidding Documents may be acquired by prospective Bidders on 1 June to 8:59 am of 6 July 2021 from the address below upon payment of Five Hundred Thousand Pesos (PhP500,000.00) to the CANORECO cashier or by deposit to CANORECO’s account, as follows:</p> <p>Account Name: CAMARINES NORTE ELECTRIC COOPERATIVE, INC. (CANORECO) Bank/Branch: CHINABANK / 1467 DAET Account Number: 146700002084</p>	<p>A complete set of Bidding Documents may be acquired by prospective Bidders on 1 June to 8:59 am of 6 July 2021 from the address below upon payment of Five Hundred Thousand Pesos (PhP500,000.00) to the CANORECO cashier or by deposit the amount to CANORECO’s account, as follows:</p> <p>Account Name: CAMARINES NORTE ELECTRIC COOPERATIVE, INC. (CANORECO) Bank/Branch: CHINABANK / 1467 DAET Account Number: 146700002084 The Cost of bidding Documents is <u>non-refundable.</u></p>
3.	<p>TOR Summary</p> <p>Termination</p> <p>“Upon COD, any accumulated period of material non-performance, which consists of failure to deliver contracted quantities</p>	<p>Upon COD, any accumulated period of material non-performance, which consists of failure to deliver contracted quantities for at least two (2)</p>

	<p>for at least two (2) months within the immediately preceding six (6) months, which is not due to Force Majeure events, shall be sufficient grounds for possible termination of the PSA by CANORECO”</p>	<p>months within the immediately preceding six (6) months, which is not due to Force Majeure events, shall be sufficient ground for possible termination of the PSA by CANORECO, <u>and forfeiture of the Performance Security.</u></p>
<p>4.</p>	<p align="center">“COMPUTATION OF PASS-ON FUEL FEES (FF Calc) Under the Power Supply Agreement (PSA) Procured through Competitive Selection Process (CSP) by Camarines Norte Electric Cooperative, Inc. (CANORECO) for its Base and Intermediate Load Requirements</p> <p>1. Introduction</p> <p>Fuel cost is a pass-on cost. The winning Power Supplier shall not make profits from fuel consumed for generation, and shall only be reimbursed accordingly. Thus, for transparency, FF shall be calculated in accordance with the methodology herein.</p> <p>Heat Rate, typically expressed in BTU/kWh, is the ratio between the input thermal energy from the fuel and the output electrical energy. Lower Heat Rate amounts to higher efficiency. Heat Rate testing takes fuel calorific values into account. Regardless of the fuel’s energy content, the same Heat Rate curve will basically apply for the same unit.</p> <p>The winning Power Supplier provided its guaranteed Net Heat Rate during CSP. This shall serve as the cap for the purposes of pass-on charges.</p> <p>2. General Principles</p> <p>2.1. For each generating unit, Heat Rate tests (HRTs) shall be performed at least once every three hundred sixty (360) days preferably after a major overhaul, rehabilitation, or maintenance activity.</p> <p>2.2. HRTs shall be conducted by a qualified third party tester approved by CANORECO, with CANORECO as witness, and paid for by the winning Power Supplier.</p> <p>2.3. The winning Power Supplier shall be responsible for securing the necessary permits to conduct HRTs.</p>	<p align="center">COMPUTATION OF PASS-ON FUEL FEES (FFCalc) Under the Power Supply Agreement (PSA) Procured through Competitive Selection Process (CSP) by Camarines Norte Electric Cooperative, Inc. (CANORECO) for its Base and Intermediate Load Requirements</p> <p>1. Introduction</p> <p>Fuel cost is a pass-on cost. The winning Power Supplier shall not make profits from fuel consumed for generation, and shall only be reimbursed accordingly. Thus, for transparency, FF shall be calculated in accordance with the methodology herein.</p> <p>Heat Rate, typically expressed in BTU/kWh, is the ratio between the input thermal energy from the fuel and the output electrical energy. Lower Heat Rate amounts to higher efficiency. A Generating Unit Heat Rate Curve is a fifth-degree polynomial equation indicating the Heat Rate as a function of load for each generating unit. Said equation is determined by testing under different loading levels.</p> <p>Heat Rate testing takes fuel calorific values into account. Regardless of the fuel’s energy content, the same Heat Rate curve will basically apply for the same unit. Using the polynomial equations, the Heat Rate can be determined for any representative loading level by interpolation. Hence, pass-on costs can be more realistic.</p> <p>The winning Power Supplier provided its guaranteed Net Heat Rate during CSP. This shall serve as the cap for the purpose of determining pass-on charges.</p> <p>2. General Principles</p> <p>2.1. For each generating unit, Heat Rate tests (HRTs) shall be performed at least once every three hundred sixty (360) days preferably after a major overhaul, rehabilitation, or maintenance activity.</p> <p>2.2. HRTs shall be conducted by a qualified</p>

2.4. Only in-house loads that are normally operational for each loading level shall be permitted to be ran during the conduct of HRTs.

2.5. In-house loads that are normally operational shall be ran during the conduct of HRTs.

2.6. The weighted-average calorific value (CV_{Test} , in BTU/unit) of the five latest deliveries of fuel from the pertinent Certificates of Analysis shall be used in the subject HRT:

$$CV_{Test} = \frac{\sum_{i=1}^5 CV_i \times Qty_i}{\sum_{i=1}^5 Qty_i}$$

2.7. The representative Plant Use and Losses (PUAL, dimensionless) with sufficient documentation shall be used in the subject HRT. It shall be calculated for every HRT as the discrepancy of the total output at the metering point from the total output at the generator terminals:

$$PUAL = 1 - \frac{\sum MWh_{MP}}{\sum MWh_{Unit}}$$

2.8. The methodology hereunder may be revised subject to mutual agreement of CANORECO and the winning Power Supplier.

3. Heat Rate Tests

For each generating unit, Net Heat Rate shall be determined for a period T in hours, as follows:

3.1. Run the generating unit at fixed load kW_i equal to 90% of P_{max} .

3.2. Measure the Fuel Quantity (FQ_i , in appropriate fuel units) consumed.

3.3. Calculate Input Energy in BTU:

$$IE_i = CV_{Test} \times FQ_i$$

3.4. Calculate Gross Output Energy in kWh:

$$GOE_i = kW_i \times T$$

3.5. Calculate Net Heat Rate in BTU/kWh:

third party tester approved by CANORECO, with CANORECO as witness, and paid for by the winning Power Supplier.

2.3. The winning Power Supplier shall be responsible for securing the necessary permits to conduct HRTs.

2.4. Only in-house loads that are normally operational for each loading level shall be permitted to be ran during the conduct of HRTs.

2.5. In-house loads that are normally operational for each loading level shall be ran during the conduct of HRTs.

2.6. The weighted-average calorific value (CV_{Test} , in BTU/unit) of the five latest deliveries of fuel from the pertinent Certificates of Analysis shall be used in the subject HRT:

$$CV_{Test} = \frac{\sum_{i=1}^5 CV_i \times Qty_i}{\sum_{i=1}^5 Qty_i}$$

2.7. The representative Plant Use and Losses (PUAL, dimensionless) with sufficient documentation shall be used in the subject HRT. It shall be calculated for every HRT as the discrepancy of the total output at the metering point from the total output at the generator terminals:

$$PUAL = 1 - \frac{\sum MWh_{MP}}{\sum MWh_{Unit}}$$

2.8. The methodology hereunder may be revised subject to the mutual agreement between the CANORECO and the winning Power Supplier.

3. Heat Rate Tests

For each generating unit, Net Heat Rates shall be determined for six (6) loading levels distributed evenly from P_{min} through P_{max} for a period T in hours, as follows:

3.1. Run the generating unit at fixed load kW_i .

3.2. Measure the Fuel Quantity (FQ_i , in appropriate fuel units) consumed.

3.3. Calculate Input Energy in BTU:

$$IE_i = CV_{Test} \times FQ_i$$

3.4. Calculate Gross Output Energy in kWh:

$$GOE_i = kW_i \times T$$

$$NHR_i = \frac{IE_i}{GOE_i \times (1 - PUAL)}$$

4. Monthly Net Heat Rates

The calculation for monthly net Heat Rate shall be supported by proper documentation in order to be valid and acceptable to CANORECO:

4.1. Obtain the total metered quantity (MQ, in kWh) for the Power Plant from NGCP.

4.2. Apportion MQ among the generating units accordingly as MQ_i .

4.3. Calculate the weighted-average NHR:

$$NHR_{Ave} = \frac{\sum(NHR_i \times MQ_i)}{MQ}$$

4.4. Calculate **NHR** as the lesser of the weighted average NHR and the guaranteed NHR as provided in the bid:

$$NHR = \min(NHR_{Ave}, NHR_{bid})$$

5. Monthly Fuel Fee

5.1. **FC** or the fuel cost in P/unit shall be the total cost of fuel inclusive of hauling charges divided by the quantity of fuel delivered to the Power Plant, as evidenced by official receipts (or any proof of payment) of the five latest deliveries of fuel:

$$FC = \frac{\sum_{i=1}^5 PhP_i}{\sum_{i=1}^5 Qty_i}$$

5.2. **CV** shall be the calorific value in BTU/unit for the five latest deliveries of fuel to the Power Plant as evidenced by a Certificates of Analysis or equivalent:

$$CV = \frac{\sum_{i=1}^5 CV_i \times Qty_i}{\sum_{i=1}^5 Qty_i}$$

5.3. **FF** in P/kWh for the billing month shall be calculated as follows:

$$FF = \frac{NHR \times FC}{CV}$$

6. Alternative Calculations

6.1. If the sales contract for fuel is in terms of the energy content of fuel, the

3.5. Calculate Net Output Power in kW:

$$kW_{net,i} = kW_i \times (1 - PUAL)$$

3.6. Calculate Net Heat Rate in BTU/kWh:

$$NHR_i = \frac{IE_i}{GOE_i \times (1 - PUAL)}$$

4. Generating Unit Heat Rate Curves

4.1. After the tests, for each generating unit, tabulate the pairs ($kW_{net,i}$, NHR_i)

4.2. For each generating unit, create the Generating Unit Heat Rate Curve represented by a fifth-degree polynomial equation,

$$y = Ax^5 + Bx^4 + Cx^3 + Dx^2 + Ax + F$$

where x stands for $kW_{net,i}$ and y stands for NHR_i .

4.3. The coefficients A through F of the polynomial shall be determined mathematically from the HRT results.

5. Monthly Net Heat Rates

The calculation for monthly net Heat Rate shall be supported by proper documentation in order to be valid and acceptable to CANORECO:

5.1. Obtain the total metered quantity (MQ, in kWh) for the Power Plant from NGCP.

5.2. Apportion MQ among the generating units accordingly as MQ_i .

5.3. For each generating unit, the overall Heat Rate shall be determined for every billing period, as follows:

5.3.1. Obtain the generating unit's number of generating hours, T_i .

5.3.2. Calculate the representative load for the billing month:

$$kW_{net,i} = \frac{MQ_i}{T_i}$$

5.3.3. Substitute $kW_{net,i}$ into x in the Generating Unit Heat Rate Curve to obtain NHR_i , the representative Heat Rate for the generating unit for the billing month.

5.4. Calculate **NHR** as the weighted average of all NHR_i :

	<p>Input Energy Cost (IEC, in P/BTU) shall be the total cost of energy delivered to the Power Plant inclusive of hauling charges divided by the quantity of said energy, as evidenced by official receipts of the latest delivery of fuel. FF in P/kWh for the billing month shall be calculated as follows:</p> $FF = NHR \times IEC$ <p>6.2. If fuel is not required by the Power Plant or does not come at a cost, FF shall be zero.”</p>	$NHR = \frac{\sum(NHR_i \times MQ_i)}{MQ}$ <p>6. Monthly Fuel Fee</p> <p>6.1. FC or the fuel cost in P/unit shall be the total cost of fuel inclusive of hauling charges divided by the quantity of fuel delivered to the Power Plant, as evidenced by official receipts (or any proof of payment) of the five latest deliveries of fuel:</p> $FC = \frac{\sum_{i=1}^5 PhP_i}{\sum_{i=1}^5 Qty_i}$ <p>6.2. CV shall be the calorific value in BTU/unit for the five latest deliveries of fuel to the Power Plant as evidenced by a Certificates of Analysis or equivalent:</p> $CV = \frac{\sum_{i=1}^5 CV_i \times Qty_i}{\sum_{i=1}^5 Qty_i}$ <p>6.3. FF in P/kWh for the billing month shall be calculated as follows:</p> $FF = \frac{NHR \times FC}{CV}$ <p>7. Alternative Calculations</p> <p>7.1. If the sales contract for fuel is in terms of the energy content of fuel, the Input Energy Cost (IEC, in P/BTU) shall be the total cost of energy delivered to the Power Plant inclusive of hauling charges divided by the quantity of said energy, as evidenced by official receipts of the latest delivery of fuel. FF in P/kWh for the billing month shall be calculated as follows:</p> $FF = NHR \times IEC$ <p>7.2. If fuel is not required by the Power Plant or does not come at a cost, FF shall be zero.</p>
5.	<p>Form “D” in the Instruction to Bidders</p> <p>“We, the undersigned, declare that the following tables of Contracted vs Delivered MWh per year per Counterparty for each of our Plants is true.</p> <p>Include all COMPLETED and EXISTING PSAs/ASPAs with DUs and NGCP within the last five (5) years.</p> <p>Completed and existing PSAs with RES</p>	<p>We, the undersigned, declare that the following tables of Contracted vs Delivered MWh per year per Counterparty for each of our Plants is true.</p> <p>This includes all completed and existing PSAs/ASPAs with DUs and NGCP within the last five (5) years.</p> <p>We reserve the right to exclude PSAs with RES as per confidentiality agreements.</p>

	may be included depending on confidentiality agreement.”	
6.	<p>Item 3.3. Contract Quantities of TOR</p> <p>3.3.2. Monthly MEOT shall be reduced accordingly upon occurrence of Force Majeure events and transmission-side outages</p>	<p>3.3.2. Monthly MEOT shall be reduced accordingly upon occurrence of Force Majeure events or transmission-side outages</p>
7.	<p>Item 3.5 of Information Memorandum</p> <p>3.5. Downward-adjustable MEOT</p> <p>Monthly MEOT shall be reduced accordingly upon occurrence of Force Majeure events and transmission-side outages. CANORECO shall not be made to pay for quantities it is not physically capable of offtaking in the first place.</p> <p>Monthly MEOT shall also be reduced accordingly in cases where the Power Plant is unavailable and the winning Power Supplier failed to provide Replacement Power. CANORECO shall not be made to pay for quantities that are not delivered in the first place</p>	<p>3.5. Downward-adjustable MEOT</p> <p>Monthly MEOT shall be reduced accordingly upon occurrence of Force Majeure events or transmission-side outages. CANORECO shall not be made to pay for quantities it is not physically capable of offtaking in the first place.</p> <p>Monthly MEOT shall also be reduced accordingly in cases where the Power Plant is unavailable and the winning Power Supplier failed to provide Replacement Power. CANORECO shall not be made to pay for quantities that are not delivered in the first place</p>
8.	<p>For Replacement Power, Force Majeure, MEOT and Penalties</p>	<p>Explanation:</p> <p>Under normal conditions, the winning Power Supplier shall supply CANORECO’s requirements from a single Power Plant which it shall indicate in its bid. Should the Power Plant be unable to supply CANORECO’s requirements fully or partially for any reason, the winning Power Supplier shall immediately provide Replacement Power from any other of its generation facilities, or from other GenCos, or from WESM.</p> <p>Put another way, if CANORECO is capable of offtaking, the winning Power Supplier shall provide from the Power Plant or provide Replacement Power. The requirement for Replacement Power will only be waived if CANORECO is not capable of offtaking. Further, the winning Power Supplier will only be penalized if it is on outage and it did not provide Replacement Power which CANORECO is capable of offtaking. To illustrate:</p>


		Scenario	Is RP required?	Will MEOT be reduced?	Will penalties be imposed?
		1. Total System Black-out	No	Yes	No
		2. The Power Plant is on planned or unplanned outage and CANORECO is not capable of offtaking	No	Yes	No
		3. The Power Plant is on planned or unplanned outage and CANORECO is capable of offtaking fully or partially	Yes	No, if RP is provided; otherwise, yes	No, if RP is provided; otherwise, yes
		4. The Power Plant is online and CANORECO is not capable of offtaking due to transmission-side outages	No	Yes	No
		5. The Power Plant is online and CANORECO is not capable of offtaking due to distribution-side outages caused by major storm/disaster	No	Yes	No
		6. The Power Plant is online and CANORECO is not capable of offtaking due to distribution-side outages for reasons other than major storm/disaster	No	No	No
		7. The Power Plant is online and CANORECO is capable of offtaking fully or partially	No	No	No
9.	<p>Item 3.7.2.1 of TOR</p> <p>The value to be used for NHR in the evaluation shall be that which is guaranteed for a condition where all generating units (excluding black start units) are running at 90% generation capacity based on nameplate rating. The guarantee may come from the manufacturer or from the prospective Power Supplier itself. This shall serve as the cap for the purposes of pass-on charges.</p>	<p>The value to be used for NHR in the evaluation shall serve as the cap for the purpose of determining pass-on charges.</p>			
10.	<p>Item 22.2(b)(i) of InsTB</p> <p>The value to be used for NHR in the evaluation shall be that which is guaranteed for a condition where all generating units (excluding black start units) are running at 90% generation capacity based on nameplate rating. The guarantee may come from the manufacturer or from the prospective Power Supplier itself. This shall serve as the cap for the purposes of pass-on charges</p>	<p>The value to be used for NHR in the evaluation shall serve as the cap for the purpose of determining pass-on charges</p>			
11.	<p>Item 5. Eligible Bidders of InsTB</p> <p>5.1.To be eligible, the Bidder's Power Plant shall have a minimum dependable Grid-connected generation capacity of 63 MW.For the purpose of confirmation, the Bidder must provide a summary following Form "C" herewith and copies of its Certificates of Compliance (COCs)</p>	<p>5.1. To be eligible, the Bidder's Power Plant shall have a minimum dependable Grid-connected generation capacity of 63 MW. For the purpose of confirmation, the Bidder must provide a summary following Form "C" herewith and copies of its Certificates of Compliance (COCs) issued by ERC as well as</p>			

<p>issued by ERC as well as copies of its Generation Company Information Sheet (GCIS) and Generation Company Management Report (GCMR) submitted to ERC, as applicable.</p>	<p>copies of its Generation Company Information Sheet (GCIS) and Generation Company Management Report (GCMR) submitted to ERC, as applicable. If Generation Company Information Sheet (GCIS) and Generation Company Management Report (GCMR) are not available, Monthly Operation Report may be submitted.</p>
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For your information,

 4/28/2021


GEDDIE C. ORCALES
TPBAC Chairperson



ATTY. FERNANDO F. DIALOGO
TPBAC Vice-Chairman/Lawyer



MELITA B. ESTRELLADO
TPBAC CPA



MARY ANN A. MORENO
TPBAC Member




ENGR. REYMOND L. RADA
TPBAC Member



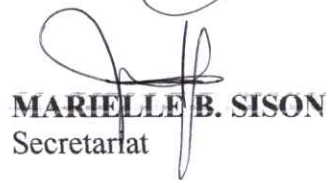
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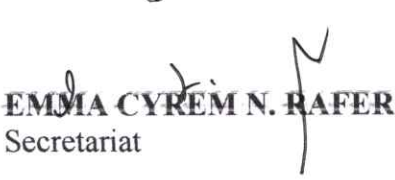
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