



REGIONAL PROCUREMENT HUB PROGRAM – REGION 8
SUPPLEMENTAL BID BULLETIN NO. 24-09
FOR THE
PROCUREMENT OF CONSIGNMENT, SUPPLY AND DELIVERY OF KWH
METERS
(PB-ITB-R8-1-2024)


In accordance with Section 4.3.2 of Annex "B" of the NEA Memorandum No. 2024-06, this Supplemental Bid Bulletin is hereby issued to clarify, modify or amend the following items for PB-ITB-R8-1-2024:


Table with 3 columns: Section/Item No., Issue in the Bidding Documents / Technical Specifications, and Clarification / Amendment. It contains two rows of clarifications regarding TOR 6.1 to 6.4 specifications for Auxiliary Energy Pulse Terminal and Meter Constant.



|  |  |  |
|--|--|--|
|  |  | <p><b>"1000imp/kWh</b> or<br/> 1600imp/kWh or<br/> 3200imp/kWh"</p>  |
| <p><b>TOR 6.3 and 6.4</b><br/> (Detailed Technical Specifications and applicable tests for Items C and D – Socket Type kWh Meters)</p> | <p>With respect to TOR 6.3 and 6.4, <b>Accuracy</b>, <i>First Bullet</i>, clarification was sought on whether a <math>\pm 5\%</math> Accuracy (instead of <math>\pm 2\%</math>) is acceptable.</p> | <p>For clarification, an accuracy of <math>\pm 5\%</math> is acceptable.</p> <p>TOR 6.3 and 6.4, <b>Accuracy</b>, <i>First Bullet</i>, is <b>amended</b> to read as "<math>\pm 5\%</math>".</p>  |
| <p><b>Section VII. Bid Forms</b></p>   |  |  |
| <p>Form#10 - Details of Technical Specifications</p>   | <p>Bid Form#10 (Details of Technical Specifications) requires revisions to conform with the revisions to Clauses 6.3 to 6.4 of the TOR as provided above.</p>                                      | <p>Bid Form#10 (Details of Technical Specifications) is <b>amended</b> to conform with the revisions to Clauses 6.3 to 6.4 of the TOR.</p> <p>Please see revised Details of Technical Specifications Form attached herein as <b>Annex "A"</b>.</p> |

Issued this 16<sup>th</sup> day of August 2024 for the guidance and information of all concerned.


  
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APPROVED:



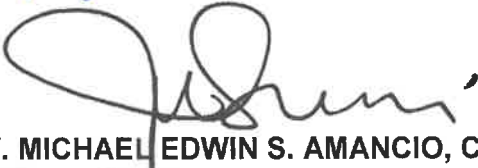
**ANTONIO MARIANO C. ALMEDA**  
*Administrator*

NATIONAL ELECTRIFICATION  
ADMINISTRATION  
Office of the Administrator



NEA-0A275208

CONFORME



**ATTY. MICHAEL EDWIN S. AMANCIO, CPA, MBM**  
*President*  
*RENAGMEC Power Corporation*

**Form#10: Details of Technical Specifications**

(Letterhead of the Bidder)

Date: \_\_\_\_\_, 2024

**NEA Special Bids and Awards Committee (NEA SBAC)**

#57 NEA Building, NIA Road,  
Barangay Pinyahan, Government Center Diliman,  
Quezon City

**Attention:** **Engr. Ernesto O. Silvano, Jr.**  
*Chairperson of the NEA SBAC  
for the RPH Program*

**Subject:** Details of Technical Specifications of [Name of Bidder]

| <i>Detailed Technical Specifications for:<br/>Item A (Meter, kWh, 1 Phase, Class 1, 240V, 10(60) A, Bottom Connected, Electronic)</i> |  |                         |  |
|---|--|-------------------------|--|
| Particulars   | Specifications Prescribed in Bidding Documents   | Statement of Compliance | Details of Added Technical Specifications (if any) |
| <b>Accuracy</b>   | <ul style="list-style-type: none"> <li>● Class 1</li> <li>● Compliance to IEC 62052-11, IEC 62053-21</li> </ul>  |                         |  |
| <b>Voltage</b>  | <ul style="list-style-type: none"> <li>● Nominal: 220V - 240V</li> <li>● Operating Range: 0.7Un - 1.2Un (Max: 276V)</li> <li>● Power consumption: &lt;10VA 0.2W</li> </ul> |                         |  |
| <b>Current</b>  | <ul style="list-style-type: none"> <li>● Basic current: 10A (Ib)</li> <li>● The maximum current within the range of #10A - 60A</li> </ul>                                  |                         |  |
| <b>Frequency</b>  | <ul style="list-style-type: none"> <li>● 60Hz, ±2%</li> </ul>  |                         |  |
| <b>Meter Constant</b>   | <ul style="list-style-type: none"> <li>● 1600imp/kWh or 3200imp/kWh</li> </ul>   |                         |  |
| <b>Measurement Modes</b>  | <ul style="list-style-type: none"> <li>● Single Phase 2 wire with optional neutral current measurement</li> <li>● Measurement Sensor: CT/CT or CT/Shunt</li> </ul>         |                         |  |

|  |   |  |  |
|--|---|--|--|
| <b>Measured Values</b>                 | <ul style="list-style-type: none"> <li>• Energy: W-h</li> <li>• Others: Voltage, Current, Line Frequency, PF</li> <li>• Storage of last 3-6 monthly billing data (energy)</li> </ul>  |  |  |
| <b>Auxiliary Energy Pulse Terminal</b> | <ul style="list-style-type: none"> <li>• Available</li> </ul>   |  |  |
| <b>Pulsing Output</b>                  | <ul style="list-style-type: none"> <li>• Pulsing LED for energy indication, LED for communication indication</li> <li>• Visible IR LED test pulse for energy</li> <li>• Red LED for alarm indication</li> <li>• The meter display should have at least two LED indicators, Pulse Energy and Reverse</li> </ul>                |  |  |
| <b>Display and LEDs</b>                | <ul style="list-style-type: none"> <li>• Large digit LCD (at least 17 x 8 mm) with optional backlight</li> <li>• Number of digits in value field 5+1,5+2,6+1 or 7+0</li> <li>• Display shall be fixed at kWh</li> </ul>   |  |  |
| <b>Tamper Evident Features</b>         | <ul style="list-style-type: none"> <li>• Present</li> </ul>   |  |  |
| <b>Communications</b>                  | <ul style="list-style-type: none"> <li>• Optical interface to IEC 62056-21</li> <li>• Type serial, asynchronous, half-duplex</li> <li>• Max. transmission rate 9600</li> <li>• Protocol IEC 62056-21</li> </ul>   |  |  |
| <b>Environmental</b>                   | <ul style="list-style-type: none"> <li>• Temperature test IEC62053-21, IEC62052-11</li> <li>• Temperature range to IEC62052-11</li> <li>• Limit Operating Range of -40°C to +75°C</li> <li>• Limit Storage Range of -40°C to +80°C</li> <li>• Limit -45°C to +80°C</li> <li>• Design to fit for Tropical Countries</li> </ul> |  |  |
| <b>Terminal Cover</b>                  | <ul style="list-style-type: none"> <li>• Transparent, Extended (Long terminal cover with aperture for cables)</li> </ul>  |  |  |
| <b>Terminal Block</b>                  | <ul style="list-style-type: none"> <li>• With Brass terminals and screws suitable for #10-#2AWG wire; Block material must be specified</li> </ul>   |  |  |
| <b>Weight &amp; Dimensions</b>         | <p><b>Note:</b> Please indicate the following Weight &amp; Dimension specifications in the third column:</p> <ul style="list-style-type: none"> <li>• Weight</li> <li>• External dimensions Width</li> <li>• External dimensions Height</li> </ul>  |  |  |

|                                    |  |  |  |
|------------------------------------|--|--|--|
|                                    | <ul style="list-style-type: none"> <li>External dimensions Depth</li> </ul>  |  |  |
| <b>Compliance</b>                  | <ul style="list-style-type: none"> <li>Energy Regulatory Commission Type Approved Certified (ERC Resolution No. 22 Series of 2010)</li> </ul>  |  |  |
| <b>Applicable Test and Sealing</b> | <ul style="list-style-type: none"> <li>To be delivered to RPH and Member ECs as inspected and sealed by the ERC or ERC Accredited Third Party Metering Shop in accordance with (ERC Resolution No. 4, Series of 2021)</li> </ul> |  |  |

| <i>Detailed Technical Specifications for:<br/>Item B (Meter, kWh, 1 Phase, Class 1, 240V, 5(100) A, Bottom Connected, Electronic)</i> |  |                                |   |
|---|--|--------------------------------|---|
| <b>Particulars</b>  | <b>Specifications Prescribed in Bidding Documents</b>  | <b>Statement of Compliance</b> | <b>Details of Added Technical Specifications (if any)</b> |
| <b>Accuracy</b>   | <ul style="list-style-type: none"> <li>Class 1</li> <li>Compliance to IEC 62052-11, IEC 62053-21</li> </ul>  |                                |   |
| <b>Voltage</b>  | <ul style="list-style-type: none"> <li>Nominal: 220V - 240V</li> <li>Operating Range: 0.7Un - 1.2Un (Max: 276V)</li> <li>Power consumption: &lt;10VA 0.2W</li> </ul>           |                                |   |
| <b>Current</b>  | <ul style="list-style-type: none"> <li>Basic current: 5/10A (Ib)</li> <li>The maximum current within the range of #60A - 100A</li> </ul>                                       |                                |   |
| <b>Frequency</b>  | <ul style="list-style-type: none"> <li>60Hz, ±2%</li> </ul>  |                                |   |
| <b>Meter Constant</b>   | <ul style="list-style-type: none"> <li>1600imp/kWh or 3200imp/kWh</li> </ul>   |                                |   |
| <b>Measurement Modes</b>  | <ul style="list-style-type: none"> <li>Single Phase 2 wire with optional neutral current measurement</li> <li>Measurement Sensor: CT/CT or CT/Shunt</li> </ul>                 |                                |   |
| <b>Measured Values</b>  | <ul style="list-style-type: none"> <li>Energy: W-h</li> <li>Others: Voltage, Current, Line Frequency, PF</li> <li>Storage of last 3-6 monthly billing data (energy)</li> </ul> |                                |   |
| <b>Auxiliary Energy Pulse Terminal</b>  | <ul style="list-style-type: none"> <li>Available</li> </ul>  |                                |   |
| <b>Pulsing Output</b>   | <ul style="list-style-type: none"> <li>Pulsing LED for energy indication, LED for communication indication</li> <li>Visible IR LED test pulse for energy</li> </ul>            |                                |   |

|                                    |   |  |  |
|------------------------------------|---|--|--|
|                                    | <ul style="list-style-type: none"> <li>• Red LED for alarm indication</li> <li>• The meter display should have at least two LED indicators, Pulse Energy &amp; Reverse</li> </ul>   |  |  |
| <b>Display and LEDs</b>            | <ul style="list-style-type: none"> <li>• Large digit LCD (at least 17 x 8 mm) with optional backlight</li> <li>• Number of digits in value field 5+1,5+2,6+1 or 7+0</li> <li>• Display shall be fixed at kWh</li> </ul>   |  |  |
| <b>Tamper Evident Features</b>     | <ul style="list-style-type: none"> <li>• Present</li> </ul>   |  |  |
| <b>Communications</b>              | <ul style="list-style-type: none"> <li>• Optical interface to IEC 62056-21</li> <li>• Type serial, asynchronous, half-duplex</li> <li>• Max. transmission rate 9600</li> <li>• Protocol IEC 62056-21</li> </ul>   |  |  |
| <b>Environmental</b>               | <ul style="list-style-type: none"> <li>• Temperature test IEC62053-21, IEC62052-11</li> <li>• Temperature range to IEC62052-11</li> <li>• Limit Operating Range of -40°C to +75°C</li> <li>• Limit Storage Range of -40°C to +80°C</li> <li>• Limit -45°C to +80°C</li> <li>• Design to fit for Tropical Countries</li> </ul> |  |  |
| <b>Terminal Cover</b>              | <ul style="list-style-type: none"> <li>• Transparent, Extended (Long terminal cover with aperture for cables)</li> </ul>  |  |  |
| <b>Terminal Block</b>              | <ul style="list-style-type: none"> <li>• With Brass terminals and screws suitable for #10-#2AWG wire; Block material must be specified</li> </ul>   |  |  |
| <b>Weight &amp; Dimensions</b>     | <p><b>Note:</b> Please indicate the following Weight &amp; Dimension specifications in the third column:</p> <ul style="list-style-type: none"> <li>• Weight</li> <li>• External dimensions Width</li> <li>• External dimensions Height</li> <li>• External dimensions Depth</li> </ul>                                       |  |  |
| <b>Compliance</b>                  | <ul style="list-style-type: none"> <li>• Energy Regulatory Commission Type Approved Certified (ERC Resolution No. 22 Serie of 2010)</li> </ul>  |  |  |
| <b>Applicable Test and Sealing</b> | <ul style="list-style-type: none"> <li>• To be delivered to RPH and Member ECs as inspected and sealed by the ERC or ERC</li> </ul>   |  |  |

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|  | Accredited Third Party Metering Shop in accordance with (ERC Resolution No. 4, Series of 2021) |  |  |
|--|--|--|--|

| <i>Detailed Technical Specifications for:<br/>Item C (Meter, kWh, 1 Phase, Class 100, 240V, Form 1S, Socket Type, Electronic)</i> |  |                                |   |
|---|--|--------------------------------|---|
| <b>Particulars</b>  | <b>Specifications Prescribed in Bidding Documents</b>  | <b>Statement of Compliance</b> | <b>Details of Added Technical Specifications (if any)</b> |
| <b>Accuracy</b>   | <ul style="list-style-type: none"> <li>• ±.5%</li> <li>• Compliance to ANSI C 12.1, ANSI C 12.10, ANSI C 12.20</li> </ul>  |                                |   |
| <b>Voltage</b>  | <ul style="list-style-type: none"> <li>• Nominal: 220V - 240V</li> <li>• Operating Range: +10%/ -20% of rated voltage</li> <li>• Starting Watts: ≤ 5 W</li> <li>• Watt Loss: 0.5W</li> </ul>   |                                |   |
| <b>Current</b>  | <ul style="list-style-type: none"> <li>• Test Amperes (TA): 15A</li> <li>• The maximum current of 100A</li> </ul>  |                                |   |
| <b>Frequency</b>  | <ul style="list-style-type: none"> <li>• 60Hz, ±2%</li> </ul>  |                                |   |
| <b>Meter Constant</b>   | <ul style="list-style-type: none"> <li>• 1600imp/kWh or 3200imp/kWh</li> </ul>   |                                |   |
| <b>Measurement Modes</b>  | <ul style="list-style-type: none"> <li>• Single Phase 2 wire with optional neutral current measurement</li> <li>• Measurement Sensor: CT/CT or CT/Shunt</li> </ul>   |                                |   |
| <b>Measured Values</b>  | <ul style="list-style-type: none"> <li>• Energy: W-h</li> <li>• Others: Voltage, Current, Line Frequency, PF</li> <li>• Storage of last 3-6 monthly billing data (energy)</li> </ul>   |                                |   |
| <b>Auxiliary Energy Pulse Terminal</b>  | <ul style="list-style-type: none"> <li>• Available</li> </ul>  |                                |   |
| <b>Pulsing Output</b>   | <ul style="list-style-type: none"> <li>• Pulsing LED for energy indication, LED for communication indication</li> <li>• Visible IR LED test-pulse for energy</li> <li>• Red LED for alarm indication</li> <li>• The meter display should have at least two LED indicators, Pulse Energy and Reverse</li> </ul> |                                |   |
| <b>Display and LEDs</b>   | <ul style="list-style-type: none"> <li>• Large digit LCD (at least 17 x 8 mm) with optional backlight</li> </ul>   |                                |   |



|                                    |   |  |  |
|------------------------------------|---|--|--|
|                                    | <ul style="list-style-type: none"> <li>• Number of digits in value field 5+1,5+2,6+1 or 7+0</li> <li>• Display shall be fixed at kWh</li> </ul>   |  |  |
| <b>Tamper Evident Features</b>     | <ul style="list-style-type: none"> <li>• Present</li> </ul>   |  |  |
| <b>Communications</b>              | <ul style="list-style-type: none"> <li>• Optical interface to IEC 62056-21</li> <li>• Type serial, asynchronous, half-duplex</li> <li>• Max. transmission rate 9600</li> <li>• Protocol IEC 62056-21</li> </ul>   |  |  |
| <b>Environmental</b>               | <ul style="list-style-type: none"> <li>• Temperature test IEC62053-21, IEC62052-11</li> <li>• Temperature range to IEC62052-11</li> <li>• Limit Operating Range of -40°C to +75°C</li> <li>• Limit Storage Range of -40°C to +80°C</li> <li>• Limit -45°C to +80°C</li> <li>• Design to fit for Tropical Countries</li> </ul> |  |  |
| <b>Weight &amp; Dimensions</b>     | <p><b>Note:</b> Please indicate the following Weight &amp; Dimension specifications in the third column:</p> <ul style="list-style-type: none"> <li>• Weight</li> <li>• External dimensions Width</li> <li>• External dimensions Height</li> <li>• External dimensions Depth</li> </ul>                                       |  |  |
| <b>Compliance</b>                  | <ul style="list-style-type: none"> <li>• Energy Regulatory Commission Type Approved Certified (ERC Resolution No. 22 Series of 2010)</li> </ul>   |  |  |
| <b>Applicable Test and Sealing</b> | <ul style="list-style-type: none"> <li>• To be delivered to RPH and Member ECs as inspected and sealed by the ERC or ERC Accredited Third Party Metering Shop in accordance with (ERC Resolution No. 4, Series of 2021)</li> </ul>  |  |  |

| <i>Detailed Technical Specifications for:<br/>Item D (Meter, kWh, 1 Phase, Class 200, 240V, Form 1S, Socket Type, Electronic)</i> |   |                                |   |
|---|---|--------------------------------|---|
| <b>Particulars</b>  | <b>Specifications Prescribed in Bidding Documents</b>   | <b>Statement of Compliance</b> | <b>Details of Added Technical Specifications (if any)</b> |
| <b>Accuracy</b>   | <ul style="list-style-type: none"> <li>• ±.5%</li> <li>• Compliance to ANSI C 12.1, ANSI C 12.10, ANSI C 12.20</li> </ul> |                                |   |

|  |  |  |  |
|--|--|--|--|
| <b>Voltage</b>                         | <ul style="list-style-type: none"> <li>Nominal: 220V - 240V</li> <li>Operating Range: +10%/ -20% of rated voltage</li> <li>Starting Watts: <math>\leq 5</math> W</li> <li>Watt Loss: 0.5W</li> </ul>   |  |  |
| <b>Current</b>                         | <ul style="list-style-type: none"> <li>Test Amperes (TA): 30A</li> <li>The maximum current of 200A</li> </ul>  |  |  |
| <b>Frequency</b>                       | <ul style="list-style-type: none"> <li>60Hz, <math>\pm 2\%</math></li> </ul>   |  |  |
| <b>Meter Constant</b>                  | <ul style="list-style-type: none"> <li>1000imp/kWh or 1600imp/kWh or 3200imp/kWh</li> </ul>  |  |  |
| <b>Measurement Modes</b>               | <ul style="list-style-type: none"> <li>Single Phase 2 wire with optional neutral current measurement</li> <li>Measurement Sensor: CT/CT or CT/Shunt</li> </ul>   |  |  |
| <b>Measured Values</b>                 | <ul style="list-style-type: none"> <li>Energy: W-h</li> <li>Others: Voltage, Current, Line Frequency, PF</li> <li>Storage of last 3-6 monthly billing data (energy)</li> </ul>   |  |  |
| <b>Auxiliary Energy Pulse Terminal</b> | <ul style="list-style-type: none"> <li>Available</li> </ul>  |  |  |
| <b>Pulsing Output</b>                  | <ul style="list-style-type: none"> <li>Pulsing LED for energy indication, LED for communication indication</li> <li>Visible IR LED test pulse for energy</li> <li>Red LED for alarm indication</li> <li>The meter display should have at least two LED indicators, Pulse Energy and Reverse</li> </ul> |  |  |
| <b>Display and LEDs</b>                | <ul style="list-style-type: none"> <li>Large digit LCD (at least 17 x 8 mm) with optional backlight</li> <li>Number of digits in value field 5+1,5+2,6+1 or 7+0</li> <li>Display shall be fixed at kWh</li> </ul>  |  |  |
| <b>Tamper Evident Features</b>         | <ul style="list-style-type: none"> <li>Present</li> </ul>  |  |  |
| <b>Communications</b>                  | <ul style="list-style-type: none"> <li>Optical interface to IEC 62056-21</li> <li>Type serial, asynchronous, half-duplex</li> <li>Max. transmission rate 9600</li> <li>Protocol IEC 62056-21</li> </ul>  |  |  |

|                                    |   |  |  |
|------------------------------------|---|--|--|
| <b>Environmental</b>               | <ul style="list-style-type: none"> <li>• Temperature test IEC62053-21, IEC62052-11</li> <li>• Temperature range to IEC62052-11</li> <li>• Limit Operating Range of -40°C to +75°C</li> <li>• Limit Storage Range of -40°C to +80°C</li> <li>• Limit -45°C to +80°C</li> <li>• Design to fit for Tropical Countries</li> </ul> |  |  |
| <b>Weight &amp; Dimensions</b>     | <p><b>Note:</b> Please indicate the following Weight &amp; Dimension specifications in the third column:</p> <ul style="list-style-type: none"> <li>• Weight</li> <li>• External dimensions Width</li> <li>• External dimensions Height</li> <li>• External dimensions Depth</li> </ul>                                       |  |  |
| <b>Compliance</b>                  | <ul style="list-style-type: none"> <li>• Energy Regulatory Commission Type Approved Certified (ERC Resolution No. 22 Series of 2010)</li> </ul>   |  |  |
| <b>Applicable Test and Sealing</b> | <ul style="list-style-type: none"> <li>• To be delivered to RPH and Member ECs as inspected and sealed by the ERC or ERC Accredited Third Party Metering Shop in accordance with (ERC Resolution No. 4, Series of 2021)</li> </ul>  |  |  |

**Company Name:**

\_\_\_\_\_ [Name of Bidder] \_\_\_\_\_

**Authorized Representative:**

\_\_\_\_\_ [Name and Signature of Authorized Representative] \_\_\_\_\_

**Contact Details:**

\_\_\_\_\_