



**CNCCCITC**

中化建国际招标有限责任公司

CNCCC INTERNATIONAL TENDERING CO, LTD.

亚洲开发银行贷款湖南低碳城市试点建设项目  
为 200 个公共建筑提供和安装建筑能源管理系统和传感器（合同  
号：G203-ICT）

招标文件的补遗和澄清 No.11

**Xiangtan Low-Carbon Transformation Sector Development Program**

**Development, Provision and Installation of BEMS for 200 Public**

**Buildings and Sensors (Contract No.: G203-ICT)**

**Addendum and Clarification No.11**

The Addendum are prepared in English and the Chinese serves as a reference ONLY. The English shall prevail if there is any discrepancy between English and Chinese.

Bidders,

**Part A. The Addendum of the BD are as follows:**

**1. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for hardware products - B1001 Building energy consumption data acquisition and transmission - Energy consumption data acquisition unit, Overview of requirements:**

channel 232 communication interface and 1-channel LONWORKS communication interface, LONWORKS communication protocol, the data can be transferred through standard OPC server software with third-party software.

**Revised as:**

Delete the requirement.

**2. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for hardware products - B1001 Building energy consumption data acquisition and**

## **transmission - Energy consumption data acquisition unit, Minimum requirements**

- (1) Telecontrol Equipment and System Part 5: Transmission Protocols (DL/T634-1997)
- (2) Interface software: The energy consumption data acquisition unit can interface with the third-party software to upload data through the standard OPC server software;
- (3) The energy consumption data acquisition unit shall support data acquisition of metering devices of different energy consumption types at the same time, including energy meter (including three-phase energy meter, multi-functional energy meter), water meter, gas meter, heat and cold meter, etc.;

### **Revised as:**

- (1) Delete the requirement
- (2) Delete the requirement
- (3) The energy consumption data acquisition unit shall support data acquisition of metering devices of different energy consumption types at the same time, including energy meter (including three-phase energy meter, multi-functional energy meter), water meter, heat and cold meter, etc.;

### **3. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for hardware products - B1002 Energy consumption monitoring of building electricity consumption by items-Multi-function meter (master meter), Overview of requirements:**

DL/T 645-2007 Multi-function Watt-hour Meter Communication Protocol and Modbus RTU communication protocol (GB/T19582-2008) available. The accuracy level shall not be lower than 0.5S.

### **Revised as:**

DL/T 645-2007 Multi-function Watt-hour Meter Communication Protocol or Modbus RTU communication protocol (GB/T19582-2008) available. The grade shall not be lower than Class 0.5S.

### **4. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for**

**hardware products - B1002 Energy consumption monitoring of building electricity consumption by items-Three-phase four-wire energy meter (by items), Overview of requirements:**

with RS485 and far infrared communication. DL/T 645-2007 Multi-function Watt-hour Meter Communication Protocol and Modbus RTU communication protocol (GB/T19582-2008) available. The accuracy level shall not be lower than 1.0.

**Revised as:**

Remove the spec requirement for far infrared communication and Modbus RTU communication protocol (GB/T19582-2008) and changed from “The accuracy level shall not be lower than 1.0” to “The grade shall not be lower than Class B (1.0)”

**5. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for hardware products - B1002 Energy consumption monitoring of building electricity consumption by items-Three-phase four-wire energy meter (by items), Minimum requirements**

In accordance with GB/T17215.321-2008 and other energy meter related standards, it can measure the total active power and phase-by-phase power in forward and reverse directions, and realize monthly settlement and freezing functions, with RS485 and far infrared communication.

**Revised as:**

In accordance with GB/T17215.321-2008 and other energy meter related standards, it can measure the total active power and phase-by-phase power in forward and reverse directions, and realize monthly settlement and freezing functions, with RS485 communication.

**6. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for hardware products - B1003 Total water consumption monitoring of buildings-Intelligent remote water meter (flow meter), Overview of requirements**

The accuracy level shall not be lower than 2.0

**Revised as:**

The grade shall not be lower than Class 2.0

**7. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for hardware products - B1003 Total water consumption monitoring of buildings-Intelligent remote water meter (flow meter), Minimum requirements**

The accuracy level shall not be lower than 2.0

**Revised as:**

The grade shall not be lower than Class 2.0

**8. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for hardware products - B1004 Heat and cold monitoring of building air conditioner- Heat and cold meter (energy meter), Overview of requirements**

The accuracy level shall not be lower than 2.0

**Revised as:**

The grade shall not be lower than Class 2.0

**9. Section 6 of the BD - 6.2.2.2 Summary of technical specifications for hardware products - B1004 Heat and cold monitoring of building air conditioner- Heat and cold meter (energy meter), Minimum requirements**

The accuracy level shall not be lower than 2.0

**Revised as:**

The grade shall not be lower than Class 2.0

**10. Section 2 Bid Data Sheet ITB 24.1 Bid opening**

The original is:

“.....

The deadline for bid submission is:

Date: January 6, 2025.

Time: 10:00 a.m. (Beijing time)”

**Revised as:**

“.....

The deadline for bid submission is:

Date: January 17, 2025.

Time: 10:00 a.m. (Beijing time)”

**11. Section 2 Bid Data Sheet ITB 27.1 Bid opening**

The original is:

“The bid opening procedure shall take place at:

Date and time: 10:00 a.m. on January 6, 2025.....”

**Revised as:**

“The bid opening shall take place at:

Date and time: 10:00 a.m. on January 17, 2025.....”

**Part B. The Clarification of the BD are as follows:**

**Question 1:** Section 6.2.2.2 of the Tender Document - Summary Table of Technical Specifications for Hardware Products:

B1001 Building energy consumption data acquisition and transmission - Energy consumption data acquisition unit, the spec requirements cannot be fully met by any manufacturer. The reason are as follows:

1. LONWORKS is a distributed control network technology mainly used in building automation and industrial control fields. This project does not involve building automation control integration.

2. OPC is an industrial communication standard designed to address interoperability issues between different devices and software in automation systems. It is primarily used for industrial automation data collection (e.g., PLC, DCS, SCADA systems). This project does not involve building automation control integration. Furthermore, the scope of Xiangtan Public Building Energy Efficiency Management Platform focuses on energy metering for electricity, water, and flowmeters which does not involve industrial control automation. Conventional specialized remote transmission methods are sufficient for implementation purpose.

3. RS232 Serial Data Communication only supports direct communication between two devices (e.g., a collector connected to a single water/electric meter) and is not suitable for the project implementation requirement a single collector connecting to 32 devices. Additionally, the technical specifications in the tender document for electricity meters, water meters, and flowmeters do not specify RS232 serial data communication either. Hence, RS232 serial communication is not applicable to this project.

4. The data entry of gas meter in this project is done manually and gas meter should not be a mandatory evaluation item. If gas meters need to be integrated into the platform in the future, to reduce rewiring effort and ensure existing devices data quality as well as safety consideration, an additional data collector should be separately procured for adaptation. Since gas meter is irrelevant to the actual implementation, it should not be spec in.

**Reply:** The requirements have been revised, details as per the 1st and 2nd pieces of the Addendum.

**Question2:** Section 6.2.2.2 of the Tender Document - Summary Table of Technical Specifications for Hardware Products: B1002 Energy consumption monitoring of building electricity consumption by items-Multi-function meter (master meter)

1. Measurement Accuracy vs. Precision

According to GB/T 17215.321-2008, GB/T 17215.322-2008, GB/T 17215.323-2008, and JJF 1235-2019 Installation-type AC Energy Meters Type Evaluation Outline, the definition of the metering class for electric meters is based on "accuracy" rather than "precision." The current spec description does not align with the aforementioned standards.

## 2. Communication Protocols: DL/T 645 and Modbus RTU

DL/T 645 is the "Communication Protocol for Multifunction Electric Meters," developed by the Chinese electric power industry, specifically for remote data collection and control of electric meters. Modbus RTU is an industrial communication protocol widely used for communication between industrial automation equipment and systems. Both DL/T 645 and Modbus RTU can utilize RS-485 communication links to transmit data, ensuring data collection stability, accuracy, and reliability, as required by the Xiangtan Public Building Energy Efficiency Management Platform. However, requiring support for both DL/T 645 and Modbus RTU does not account for the data collection practical implementation. Enforcing support for both protocols introduce exclusivity against other bidders.

**Reply:** The requirements have been revised, details as per the 3rd piece of the Addendum.

**Question 3:** Section 6.2.2.2 of the Tender Document - Summary Table of Technical Specifications for Hardware Products:

B1002 Energy consumption monitoring of building electricity consumption by items-Three-phase four-wire energy meter (by items)

1. Infrared communication is primarily used by electricity companies for on-site manual meter reading, device management, and debugging via handheld terminals. However, the goal of Xiangtan Public Building Energy Efficiency Management Platform is to accomplish centralized and unified data collection, device management, and configuration management at the platform level. Therefore, the "infrared communication" function of sub-meters is not required.

2. DL/T 645 is the "Communication Protocol for Multifunction Electric Meters," developed by the Chinese electric power industry for remote data collection and control of electric meters. Modbus RTU is an industrial communication protocol widely used in communication between industrial automation equipment and systems.

Both DL/T 645 and Modbus RTU can operate on RS-485 communication links to transmit data, ensuring the stability, accuracy, and reliability of data collection for Xiangtan Public Building Energy Efficiency Management Platform. Hence, requiring compliance with both DL/T 645 and Modbus RTU introduces exclusivity against other bidders.

**Reply:** The requirements have been revised, details as per the 4th & 5th pieces of the Addendum.

**Question 4:** Section 6 of the Bidding Documents - Supply Requirements - 6.2.2.2 Summary of technical specifications for hardware products

B1003-Total water consumption monitoring of buildings-Intelligent remote water meter (flow meter)

According to GBT 778-2018: Cold Potable Water Meters and Hot Water Meters, the metering class for water meters is defined in terms of "accuracy" rather than "precision." The accuracy class is typically indicated on the water meter's nameplate, such as Class 2 or Class 3. However, the current description specifies "precision" of no less than Class 2.0, which does not align with the standard definitions in GBT 778-2018: Cold Potable Water Meters and Hot Water Meters.

**Reply:** The requirements have been revised, details as per the 6th & 7th pieces of the Addendum.

特此补遗和澄清。

The Addendum and Clarification are as above.

投标人收到此函后在回执处签章，扫描回执到 [cnootj@qq.com](mailto:cnootj@qq.com)、[wuxiyu0722@163.com](mailto:wuxiyu0722@163.com)。

On receiving this Addendum and Clarification, please send the photocopy of the receipt with signature and official stamp to [cnootj@qq.com](mailto:cnootj@qq.com)、[wuxiyu0722@163.com](mailto:wuxiyu0722@163.com)

CNCCC International Tendering Co., Ltd.

December 31, 2024

中化建国际招标有限责任公司

2024年12月31日



# 回 执/Return Receipt

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本公司已于 2024 年 12 月 31 日收到邮件发来的《亚洲开发银行贷款湖南低碳城市试点建设项目为 200 个公共建筑提供和安装建筑能源管理系统和传感器（合同号：G203-ICT）招标文件的补遗和澄清 No.11》共 8 页。

This is to confirm that we have received the Addendum and Clarification No.11 dated December 31, 2024 for Xiangtan Low-Carbon Transformation Sector Development Program Provision and Installation of BEMS for 200 Public Buildings and Sensors (Contract No.: G203-ICT). 8 pages in total.

投标人名称：\_\_\_\_\_（公章）

Bidder name: \_\_\_\_\_（Official Stamp）

授权代表：\_\_\_\_\_（签字）

Authorized Representative: \_\_\_\_\_（Signature）

Date 日期：