

**Bidding for Research on Key Technologies for Coordinated Operation and Intelligent Regulation of
Sources, Storage, and Loads at the Zero-carbon Airport under Taiyuan Wusu Zero-carbon Airport
Project financed by NDB Loan**

(Bid No.: 0773-2540GNOEFWKG1052)

Project Location: Taiyuan, Shanxi Province

I. Conditions for Bidding

This project is the Research on Key Technologies for Coordinated Operation and Intelligent Regulation of Sources, Storage, and Loads at the Zero-carbon Airport under Taiyuan Wusu Zero-carbon Airport Project financed by NDB Loan (Project No.: M1401000155900185010, NDB Contract No.: TY-S-017). The project funding comprises New Development Bank loan and self-raised funds from the enterprise, and the Client is Shanxi Aviation Industry New Energy Co., Ltd. The Project is now ready for bidding and is hereby open for public bidding.

II. Project Overview and Scope of Bidding

Project overview: Located within the Taiyuan Wusu International Airport, the Project is aimed and tasked to achieve zero-carbon operation for building structures, equipment and facilities owned by Shanxi Aviation Industry Group Co., Ltd. within the territory of Taiyuan Wusu Airport. Construction Content: The Taiyuan Wusu Zero-carbon Airport Project consists of 6 subprojects, namely: ① Zero-carbon cooling and heating engineering; ② Zero-carbon power engineering; ③ PSDF (charging) building demonstration and upgrade engineering in the terminal area; ④ Near-zero carbon building pilot engineering; ⑤ Solar-powered low-carbon street lamp; ⑥ Flexible resource data management platform for virtual power plant and photovoltaic-storage applications.

Content of bidding: This bidding is the Research on Key Technologies for Coordinated Operation and Intelligent Regulation of Sources, Storage, and Loads at the Zero-carbon Airport under Taiyuan Wusu Zero-carbon Airport Project financed by NDB Loan

Scope of bidding: With the continuous advancement of the "dual carbon" construction, creating a "dual carbon airport" has become the main trend in the construction of domestic civil airports. Shanxi Province is a pilot region for the national energy revolution and reform. Leveraging the Taiyuan Wusu International Airport Phase III Reconstruction and Expansion Project, Shanxi Aviation Industry Group Co., Ltd. is simultaneously building a "Zero-carbon Airport" to promote a comprehensive green and low-carbon transformation of the energy consumption mode of the airport. To establish a zero-carbon airport demonstration project, Taiyuan Wusu International Airport plans to install a 100 MW-level distributed photovoltaic (PV) system and rely on the regulation of multiple types of flexible resources to promote the consumption and absorption of photovoltaic power. However, due to geographical and construction constraints, the numerous and dispersed PV access points and a high probability of issues such as local

power imbalances and voltage violation, there is an obvious spatial and temporal mismatch between the PV output and the airport load, which poses significant challenges for the high proportion of photovoltaic power absorption. Therefore, urgent research is needed on source-load-storage coordinated operation to establish a regulation system architecture suited for the multi-regional and multi-access point distributed power structure at the airport. An optimal energy storage configuration plan should be formulated to promote high-proportion photovoltaic power absorption. In addition, we should fully utilize airport-specific flexibility regulation resources and establish source-load-storage coordinated control methodologies, with the objective of maximizing photovoltaic power absorption and ensuring friendly interaction with the superior power grid. For detailed information, please refer to Section 5: "Requirements for Work Content."

III. Bidders' Eligibilities

The following eligibility requirements of bidding apply to bidders from all member countries of the NDB. For China specific eligibilities, the bidders from NDB other member countries shall be equipped with equivalent ones.

1. Qualification requirements: The registration place of the bidder shall be from the member countries of NDB, and the bidder shall have a valid business license or provide relevant certificates and qualifications equivalent to the business license;
2. Credit requirements: The bidder shall not be included in the list of untrustworthy enterprises with serious violations or abnormal business operations of the "National Enterprise Credit Information Publicity System", nor be included in the list of judgment defaulters on the "Credit China" website;
3. Qualifications requirements for the project leader: The project leader shall hold a master's degree or higher, with a senior engineer title or associate professor or associate researcher title or above in the fields of Power Engineering Technology, Power Engineering, Electrical Specialty, Energy and Power, Energy Systems and Power Grids;
4. Performance requirements: In the past eight years (from January 1, 2017 to bid submission deadline), the bidder shall have at least one research project related to improving the stability and flexibility of smart grids, source-grid-load-storage systems, or power systems;
5. Other requirements:
 - (1) Different units with the same person in charge or different units with controlling or management relationship shall not bid for this project at the same time, otherwise the relevant bids are invalid;
 - (2) The bidder shall have not been restricted from bidding by the governments of the member countries of NDB. (The bidder shall provide a letter of commitment that has not been restricted from bidding by the governments of the member countries of NDB in the format required by the bidding documents.)

6. Bids from joint venture will be accepted; If the bidding is in the form of a joint venture, the following requirements shall be met:

- (1) The bids submitted by a bidder and the contract agreement signed after being awarded the contract shall be legally binding on all members of the Joint Venture;
- (2) The members of the Joint Venture shall sign a Joint Venture Agreement to stipulate their respective work and responsibilities and submit this Joint Venture Agreement along with the bids to the Client;
- (3) Each member of the Joint Venture shall not submit a separate bid in its own name, nor participate in two or more Joint Venture bids simultaneously. In either case, the bids submitted in its own name and the bids of the Joint Venture to which it belongs will both be rejected;
- (4) If the Joint Venture wins the bid, the members of the Joint Venture shall jointly sign the contract with the Client and bear joint and several liabilities to the Client for contract performance;
- (5) The members of the Joint Venture shall jointly nominate a Joint Venture leader and submit a power of attorney to prove such Joint Venture leader's authority. This power of attorney shall be submitted to the Client as part of the bids.

IV. Acquisition of Bidding Documents

Acquisition Time: From 14:00 on August 8, 2025 to 17:00 on August 15, 2025

Acquisition Method: Online through the Yangguang Procurement Platform of Shanxi Aviation Industry Group (<http://aviagroup.jcebid.com>). Bidding documents are priced at CNY 500, non-refundable after sale.

Bank Account Information:

Name: China Capital Tendering Co., Ltd.

Deposit bank: China Merchants Bank, Beijing Haidian Science and Technology Finance Sub-branch

Account: 8670 8011 2810 001

V. Submission of bids

Deadline for Submission: 14:00 on September 3, 2025

Submission Method: Online Submission

Place for Submission: Yangguang Procurement Platform of Shanxi Aviation Industry Group (<http://aviagroup.jcebid.com>)

VI. Time and Venue for Bid Opening

Bid Opening Time: 14:00 on September 3, 2025

Bid Opening Method: Online bid opening through the Yangguang Procurement Platform of Shanxi Aviation Industry Group (<http://aviagroup.jcebid.com>)

VII. Other Public Announcements

The Notice will be released simultaneously on NDB website (<https://www.ndb.int>), China Tendering And Bidding Public Service Platform (<http://cebpubservice.cn>), Shanxi Provincial Tendering and Bidding Association/Shanxi Tendering and Procurement Service Platform (<https://sxtba.com>), Yangguang Procurement Platform of Shanxi Aviation Industry Group (<http://aviagroup.jcebid.com>) and website of Shanxi Aviation Industry Group Co., Ltd. (<http://www.sxairport.org.cn/>)

Note: 1. All interested bidders shall register at the column of “Trading Market Entity Database” of <http://prec.sxzwfw.gov.cn> (National Public Resource Trading Platform (Shanxi)), and the registration guide is available at: <http://jyzt.sxzwfw.gov.cn/ztxxzc/index.jhtml>.

2. If you need to apply for a CA digital certificate, please check the column of “digital certificate cross mutual recognition” (<http://prec.sxzwfw.gov.cn/cajchrpt/>) of National Public Resource Trading Platform (Shanxi) (<http://prec.sxzwfw.gov.cn/>). Customer service hotline for Yangguang Procurement Platform of Shanxi Aviation Industry Group: 400-0351-097 (working hours: 9:00-12:00, 13:30-17:30).

VIII. Supervision Department

The supervisory department of this bidding project is: Shanxi Aviation Industry New Energy Co., Ltd. Comprehensive Office

IX. Contact Information

Client: Shanxi Aviation Industry New Energy Co., Ltd.

Address: No. 199, Taiyu Road, Xiaodian Street, Xiaodian District, Taiyuan City, Shanxi Province, China

Persons of Contact: Jianping Liu

Tel No.: 0351-7286345

Procurement Agency: China Capital Tendering Co., Ltd.

Address: Floor 15, Jiuling Plaza, No.21 Xisanhuan Bei Road, Haidian District, Beijing City, China

Persons of Contact: Ping He

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