

# Letter of Invitation

**Name of Assignment:** Project Management Consulting Services

**RFP Reference No.:** 0773-2460OEFW2023

**Country:** The People's Republic of China

**Date:** August 27, 2024

1. The People's Republic of China (hereinafter called "Borrower") has received financing from the New Development Bank (the "Bank") in the form of a "loan" (hereinafter called "Loan") toward the cost of Taiyuan Wusu Zero-carbon Airport Project. Project Implementing Unit Shanxi Aviation Industry New Energy Co., Ltd. (hereinafter called "Client"), intends to apply a portion of the proceeds of this loan to eligible payments under the contract for which this Request for Proposals is issued. Payments by the Bank will be made only at the request of the Shanxi Aviation Industry New Energy Co., Ltd. and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the loan agreement. No party other than the Borrower shall derive any rights from the loan agreement or have any claims to the proceeds of the loan.
2. The Client now invites proposals to provide the following consulting services (hereinafter called "Services"): **Project Management Consulting Services.**

## 2.1 Project overview:

Project name: Taiyuan Wusu Zero-carbon Airport Project Utilizing NDB Loan.

The project objective and task: The Project aims to achieve zero-carbon in the operation of buildings and equipment facilities under the ownership of Shanxi Aviation Industry Group Co., Ltd. within the scope of Taiyuan Wusu Airport.

The project site: Taiyuan Wusu International Airport

The project content and scale: It includes (i) creating green energy infrastructure to significantly mitigate the reliance on fossil fuels to power the Taiyuan Wusu International Airport (TWIA), (ii) developing an intelligent energy management system to enable comprehensive data collection and effective energy management, and (iii) building capacity of carbon mitigation initiatives which will serve as demonstrative models across the aviation industry.

**Component 1:** Integrated "Zero-carbon" Energy Supply Systems - This component encompasses three sub-components:

- a) ***Solar photovoltaic power generation:*** This sub-component entails the development of a cumulative of 103 megawatts (“MW”) grid-connected distributed solar photovoltaic (“PV”) power generation system[ PV system is composed of photovoltaic array, string inverter, 10kV step-up substation, photovoltaic bracket and AC and DC cables, and others.] and associated transmission lines within TWIA to meet the electricity demand for operating TWIA, including the new Terminal 3 complex, the ground transportation center (“GTC”), service buildings, as well as airside electric vehicles (“EVs”). Suitable sites identified include (i) terminal roofs and service building surfaces (40.9 MW); (ii) selected sections of runway vicinities and airfield spaces (53.1 MW); and (iii) public parking lots and other landside areas (9.0 MW).
- b) ***Heating and cooling supply:*** This sub-component will provide cooling and heating sources for buildings within the scope of the Phase III Reconstruction and Expansion of TWIA with a total heating capacity of 84.8 MW and a total cooling capacity of 67.3 MW, serving a total floor area of 989,000 m<sup>2</sup> and 694,000 m<sup>2</sup> respectively in TWIA Terminal 3[ Main activities of this sub-component include, but is not limited to, (1) drilling of a total of 18 geothermal wells and boreholes; (2) procurement and installation of necessary equipment such as ground-source heat pumps, air-source heat pumps, electric chillers, heat exchangers, thermal energy storage tanks, etc.; (3) civil works for energy station buildings and surrounding landscape; and (4) laying of outdoor heat lines to connect the energy stations with geothermal wells and airport buildings.]. The energy stations will fully leverage TWIA’s underground geothermal resources, thus to substantially reduce the carbon emissions of TWIA.
- c) ***Leading-edge energy storage pilots:*** This sub-component will pilot “solar plus storage” systems combined with vehicle-to-grid (“V2G”) bidirectional charging technology[ Vehicle-to-grid is a technology that empowers bi-directional charging. It not only enables EVs to charge the battery from the power grid but also make it possible to take the energy stored in the EV battery and feed it back to the power grid.] at selected areas of the airport. Specifically, this component will encompass (i) piloting three units of PEDF systems with a combined power generation capacity of 4.1 MW and the capacity of the energy storage equipment is 17.5 MWh; (ii) transforming a landside international postal service plaza into a nearly zero-carbon building by installing 1.4 MW solar PV and V2G charging piles, using air-source heat pumps for central heating and cooling; and (iii) installation of 48 sets of low-carbon multi-faceted streetlamps[ The streetlamps integrate solar-powered light poles with CCTV cameras, Wi-Fi hotspots, and broadcasting equipment to provide outdoor lighting and security surveillance for the three energy stations.], among others.

**Component 2:** Intelligent Energy Management Platform - This component envisions applying information and communication technologies (“ICT”) for dynamic load management and peak shaving to enhance the operational efficiency and reliability of TWIA’s energy system. It will propose a five-stage construction path to ensure the professionalism and efficiency of the system and help airports achieve the strategic goal of zero-carbon transition: (1) refined energy monitoring and management; (2) in-depth energy aggregation and diagnostics; (3) intelligent carbon accounting, analysis, and performance trading management; (4) innovative energy saving, carbon reduction and low-carbon construction; and (5) strategic low-carbon green development and zero-carbon services.

**Component 3:** Capacity Building and Project Management - This component focuses on strengthening the knowledge and project management capacity of key stakeholders in Shanxi to develop and operate the energy assets built under the Project. Specifically, this component will finance (i) knowledge products which include research, empirical studies, guidelines and handbooks with a focus on leading-edge technologies related to zero-carbon airfield PV system installation, medium-deep geothermal utilization and coupled utilization of multiple forms of energy to mitigate risks associated with technically complex early-movers, (ii) staff training programs on E&S, procurement, operation and maintenance (“O&M”), (iii) a carbon management plan, (iv) project management consultancy services; and (v) knowledge sharing sessions.

Construction period: As per the Taiyuan Wusu International Airport Phase III Reconstruction and Expansion Project, the construction of the Project is divided into two stages: the first stage (2024-2026) and the second stage (2027-2028). During the first stage, the focus is on collaborating with the zero-carbon-related works for the Airport Phase III Reconstruction and Expansion Project, which will be put into operation in and before 2026, as well as the construction of certain pipeline network systems within the airport. The second stage involves completing the remaining zero-carbon-related works.

Investment scale: The total construction investment amounts to CNY 1.8601 billion, which includes both the construction investment and the interest during the construction period. The construction investment encompasses project costs, other construction expenses, and reserve funds.

The source of fund for the total investment on the Project consists of 2 portions: (1) NDB loan of USD 200 million (with exchange rate between USD and CNY of 1:7.24); (2) counterpart fund.

The project implementing agency, currently in the preparation phase, is Shanxi Aviation Industry New Energy Co., Ltd. This company is a joint venture, with Shanxi Aviation Industry Group Co., Ltd. contributing approximately CNY 237.3 million (accounting for 51% of the company's registered capital), Shanxi Geology Group Co., Ltd. contributing around CNY 158.2 million (accounting for 34% of the registered capital), and Shanxi Installation Group Co., Ltd. contributing approximately CNY 69.8 million (accounting for 15% of the company's registered capital).

Project output: By 2029, these outputs are expected to translate into the following outcomes: (i) increased annual supply of green electricity from solar PV under sub-component 1 to 130.4 million kWh; (ii) improved efficiency of heating and cooling under sub-component 1 to 55 kWh/m<sup>2</sup> per year; and (iii) annual net CO<sub>2</sub> emissions reduced to 0t CO<sub>2</sub>.

2.2 Service period: commence from the signing of the contract and end on December 31, 2030.

2.3 Scope of bidding: (i) Project progress management; (ii) Construction management; (iii) Procurement management& contract management; (iv) Financial management; (v) Performance monitoring, Reporting and communication; (vi) Internal monitoring of safeguards; (vii) Translation Services; (viii) Publicity and promotion ; and (ix) Capacity building design and implementation and (x) Environment and social.

More details on the Services are provided in the Terms of Reference (TOR Section 7).

### 3. Qualification Requirements for Consulting firms:

3.1 The Consultant shall be a company or entity who has the qualification to sign contracts independently, with good performance and credit standing;

3.2 The Consultant shall be from the member countries of NDB;

3.3 Consultant's net worth for each of the past 3 years (2021-2023) calculated as the difference between total assets and total liabilities should be positive;

3.4 The Consultant shall have no record of adverse economic disputes in the past 8 years (from January 2016 to the deadline for submission of bids), and shall not win the bid by any fraudulent means and shall not fail to perform the contract obligations after winning the bid;

3.5 The consultant shall have not been restricted from bidding by the governments of the member countries of NDB;

- 3.6 China domestic consultants must not be included in the list of untrustworthy executors published on [www.creditchina.gov.cn](http://www.creditchina.gov.cn);
- 3.7 The Consultant has completed or is implementing at least 3 PMC contracts for the projects financed by Multilateral Development Banks (MDBs) within the past 8 years (from January 2016 to the deadline for submission of bids);
- 3.8 Joint Venture is not accepted.
- 4 A Consulting firm will be selected under Quality and Cost-Based Selection (QCBS) procedures and in a Full Technical Proposal (FTP) format as described in this RFP.
- 5 Obtaining of RFP documents
- 5.1 Time to obtain : 17:00 on August 27 , 2024 to 17:00 on September 6, 2024 (Beijing time)
- 5.2 Obtaining method: online through the Yangguang Procurement Platform of Shanxi Aviation Industry Group (<http://aviagroup.jcebid.com>).
- 5.3 Pricing: 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

Note: 1. All interested consultants 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).

6 Submission of proposals

Submission deadline of proposals is 14:00 on September 26, 2024 (Beijing time).

Consultants shall submit electronic proposals through the Yangguang Procurement Platform of Shanxi Aviation Industry Group (<http://aviagroup.jcebid.com>) before the submission deadline. Proposals submitted late will be rejected.

7 Proposals opening time and place

7.1 Proposals opening time: 14:00 on September 26, 2024 (Beijing time)

7.2 Proposals opening place: Yangguang Procurement Platform of Shanxi Aviation Industry Group (<http://aviagroup.jcebid.com>)

## 8 Notice publication

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/>).

## 9 Supervision Department

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

## 10 Contact Information

10.1 The Client:	Shanxi Aviation Industry New Energy Co., Ltd.
Legal Address:	No. 199, Taiyu Road, Xiaodian Street, Xiaodian District, Taiyuan City, Shanxi Province, China
Persons of Contact:	Hongbin Zhao
Tel No.:	+86-351-7286345
Email:	SXHCXNY@163.com
10.2 The Procurement Agency	China Capital Tendering Co., Ltd.
Legal Address:	Floor 15, Jiuling Plaza, No.21 Xisanhuan Bei Road, Haidian District, Beijing City, China
Persons of Contact:	Hongyan Mao
Tel No.:	+86-10-68405052
Email:	maohongyan@chinatendering.com.cn