



## REQUEST FOR PROPOSAL (RFP) (For Low-Valued Services)

|                        |                             |
|------------------------|-----------------------------|
| NAME & ADDRESS OF FIRM | DATE: 8 November, 2022      |
|                        | REFERENCE: RFP-CHN-2022-027 |

Dear Sir / Madam:

We kindly request you to submit your Proposal for the Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational College for the "UNDP and 'Guangdong-Hongkong-Macao' Greater Bay Area Hydrogen Economy Vocational College Demonstration Project".

Please be guided by the form attached hereto as Annex 2, in preparing your Proposal.

Proposals may be submitted on or before **9 am, 22 November 2022, Beijing time** and via email to [bids.china@undp.org](mailto:bids.china@undp.org)

Your Proposal must be expressed in **English**, and valid for a minimum period of **120 days**.

In the course of preparing your Proposal, it shall remain your responsibility to ensure that it reaches the address above on or before the deadline. Proposals that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation. If you are submitting your Proposal by email, kindly ensure that they are signed and in the .pdf format, and free from any virus or corrupted files.

Services proposed shall be reviewed and evaluated based on completeness and compliance of the Proposal and responsiveness with the requirements of the RFP and all other annexes providing details of UNDP requirements.

The Proposal that complies with all the requirements, meets all the evaluation criteria and offers the best value for money shall be selected and awarded the contract. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price shall be re-computed by UNDP, and the unit price shall prevail, and the total price shall be corrected. If the Service Provider does not accept the final price based on UNDP's re-computation and correction of errors, its Proposal will be rejected.

No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the Proposal. At the time of Award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Contract or Purchase Order that will be issued as a result of this RFP shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a Proposal implies that the Service Provider accepts without question the General Terms and Conditions of UNDP, herein attached as Annex 3.

Please be advised that UNDP is not bound to accept any Proposal, nor award a contract or Purchase Order, nor be responsible for any costs associated with a Service Providers preparation and submission of a Proposal, regardless of the outcome or the manner of conducting the selection process.

UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a Purchase Order or Contract in a competitive procurement process. In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link:

<http://www.undp.org/content/undp/en/home/operations/procurement/business/protest-and-sanctions.html>

UNDP encourages every prospective Service Provider to prevent and avoid conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, cost estimates, and other information used in this RFP.

UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to preventing, identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its Service Providers to adhere to the UN Supplier Code of Conduct found in this link :

[https://www.un.org/Depts/ptd/sites/www.un.org.Depts.ptd/files/files/attachment/page/pdf/unsc/conduct\\_english.pdf](https://www.un.org/Depts/ptd/sites/www.un.org.Depts.ptd/files/files/attachment/page/pdf/unsc/conduct_english.pdf)

Thank you and we look forward to receiving your Proposal.

Sincerely yours,



*Ge Yunyan*  
*Operations Manager*  
11/8/2022

## Description of Requirements

| Context of the Requirement                               | Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational College for the "UNDP and 'Guangdong-Hongkong-Macao' Greater Bay Area Hydrogen Economy Vocational College Demonstration Project".  |                                     |   |
|--|---|-------------------------------------|---|
| Brief Description of the Required Services <sup>1</sup>  | <ol style="list-style-type: none"> <li>1. Carry out research on <b>commonly used equipment and facilities</b> of hydrogen related enterprises and scenarios.</li> <li>2. <b>Identify the needs and requirements for teaching aids</b>, based on the teaching and experiment needs of vocational colleges for the hydrogen industry.</li> <li>3. Design and map out the <b>needs, requirements, and specifics of laboratories for manufacturing, testing, safety</b>, etc., based on the teaching and experiment needs of hydrogen industry vocational colleges.</li> <li>4. <b>Independently design the core experiment teaching equipment</b> that meets the positioning of hydrogen industry vocational colleagues, based on the on-site conditions and the teaching needs of such colleges in Foshan.</li> </ol> |                                     |   |
| List and Description of Expected Outputs to be Delivered | Deliverables  | Target Due Dates                    | Review and Approvals  |
|  | 1. Submission of an inception report in Chinese, in which the research team clarifies the research objectives, methodologies/outline, and the work plan for carrying out the research.  | Within 1 week of contract issuance  | Review and confirm of acceptance by the Implementation Partner staff and Hydrogen Economy Portfolio of UNDP China |
|  | 2.Submission of the first draft of the main chapters of the research report in Chinese, including the chapters or sections on equipment & facilities, teaching aids, and customised laboratory equipment.   | Within 4 weeks of contract issuance | Review and confirm of acceptance by the Implementation Partner staff and Hydrogen Economy Portfolio of UNDP China |

|  |   |                                      |   |
|--|---|--------------------------------------|---|
|  | 3. Submission of the final draft of the report in Chinese and English "Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational Colleges".                                  | Within 9 months of contract issuance | Review and confirm of acceptance by the Implementation Partner staff and Hydrogen Economy Portfolio of UNDP China |
|  | Please find the detailed in Annex 4, the TOR.   |                                      |   |
| Person to Supervise the Work/Performance of the Service Provider | Programme Manager of UNDP Hydrogen Economy Portfolio  |                                      |   |
| Frequency of Reporting   | Bi-weekly report during the contract period   |                                      |   |
| Progress Reporting Requirements                                  | Tele-conference or by phone   |                                      |   |
| Location of work   | <input checked="" type="checkbox"/> remote  |                                      |   |
| Expected duration of work  | 9 months  |                                      |   |
| Target start date  | 15 December 2022  |                                      |   |
| Latest completion date   | 14 September 2023   |                                      |   |
| Travels Expected   | Note: No specific travel is needed or will be arranged by UNDP. If the bidder decides to arrange their field trips or travels to any specific places in China, the related cost and responsibilities will be fully managed by the bidder. |                                      |   |
| Implementation Schedule indicating breakdown and timing of       | <input checked="" type="checkbox"/> Required  |                                      |   |

|  |  |
|--|--|
| Implementati<br>on Schedule<br>indicating<br>breakdown<br>and timing of<br>activities/sub-<br>activities | <input checked="" type="checkbox"/> Required   |
| Names and<br>curriculum vitae of<br>individuals who<br>will be involved in<br>completing the<br>services | <input checked="" type="checkbox"/> Required   |
| Currency of<br>Proposal  | <input checked="" type="checkbox"/> Local Currency, Chinese Yuan   |
| Value Added Tax<br>on Price Proposal <sup>2</sup>  | <input checked="" type="checkbox"/> must be inclusive of VAT and other applicable indirect taxes   |
| Validity Period of<br>Proposals<br>(Counting for the<br>last day of<br>submission of<br>quotes)          | <input checked="" type="checkbox"/> 120 days<br><br>In exceptional circumstances, UNDP may request the Proposer to extend the validity of the Proposal beyond what has been initially indicated in this RFP. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Proposal.  |
| Partial Quotes   | <input checked="" type="checkbox"/> Not permitted  |
| Payment Terms <sup>3</sup>   | <p><b>First installment:</b> 20% upon submission of an inception report in Chinese, in which the research team clarifies the research objectives, methodologies/outline, and the work plan for carrying out the research.</p> <p><b>Second installment:</b> 40% upon the satisfactory completion of the first draft of the main chapters of the research report in Chinese, including the chapters or sections on equipment &amp; facilities, teaching aids, and customised laboratory equipment.</p> <p><b>Third installment:</b> 40% upon the satisfactory completion of the final draft of the report in Chinese and English "Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational Colleges".</p> |

<sup>2</sup> VAT exemption status varies from one country to another. Pls. check whatever is applicable to the UNDP CO/BU requiring the service.

<sup>3</sup> UNDP preference is not to pay any amount in advance upon signing of contract. If the Service Provider strictly requires payment in advance, it will be limited only up to 20% of the total price quoted. For any higher percentage, or any amount advanced exceeding \$30,000, UNDP shall require the Service Provider to submit a bank guarantee or bank cheque payable to UNDP, in the same amount as the payment advanced by UNDP to the Service Provider.

|   |   |
|---|---|
| Person(s) to review/inspect/ approve outputs/completed services and authorize the disbursement of payment | Programme Manager of UNDP China/ Hydrogen Economy Portfolio   |
| Type of Contract to be Signed   | <input checked="" type="checkbox"/> Purchase Order<br><input checked="" type="checkbox"/> Contract for Goods and/or Services  |
| Criteria for Contract Award   | <input checked="" type="checkbox"/> <b>Highest Combined Score</b> (based on the <b>70% technical offer</b> and <b>30% price weight distribution; the minimum technical score required to pass is 70%.</b> )<br><input checked="" type="checkbox"/> Full acceptance of the UNDP Contract General Terms and Conditions (GTC). This is a mandatory criterion and cannot be deleted regardless of the nature of services required. Non-acceptance of the GTC may be grounds for the rejection of the Proposal.  |
| Criteria for the Assessment of Proposal   | <p><b><u>Technical Proposal (70%)</u></b></p> <input checked="" type="checkbox"/> Expertise of the Firm 20%<br><input checked="" type="checkbox"/> Approach, Methodology, Its Appropriateness to the Condition and Timeliness of the Implementation Plan 25%<br><input checked="" type="checkbox"/> Qualification of Key Personnel 25%<br><b>(The minimum technical score required to pass is 49 points, please find the technical proposal in Annex 2)</b> <p><b><u>Financial Proposal (30%)</u></b></p> To be computed as a ratio of the Proposal's offer to the lowest price among the proposals received by UNDP. |
| UNDP will award the contract to:  | <input checked="" type="checkbox"/> One and only one Service Provider   |
| Contract General Terms and Conditions <sup>4</sup>  | <input checked="" type="checkbox"/> General Terms and Conditions for contracts (goods and/or services)<br>Applicable Terms and Conditions are available at:<br><a href="http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html">http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html</a>  |
| Annexes to this RFP   | <input checked="" type="checkbox"/> Form for Submission of Technical Proposal (Annex 2)<br><input checked="" type="checkbox"/> Form for Submission of Financial Proposal (Annex 3)  |

<sup>4</sup> Service Providers are alerted that non-acceptance of the terms of the General Terms and Conditions (GTC) may be grounds for disqualification from this procurement process.

|   |   |
|---|---|
|   | <input checked="" type="checkbox"/> CVs of the proposed personnel (Annex 4)<br><input checked="" type="checkbox"/> Written Self-Declaration (Annex 5)<br><input checked="" type="checkbox"/> Detailed TOR (Annex 6)   |
| Contact Person for<br>Inquiries<br>(Written inquiries<br>only) <sup>5</sup> | <p><b>UNDP China Office Procurement Unit</b><br/> <b>bids.china@undp.org</b></p> <p><b>Attention: Quotations shall be submitted to this address: bids.china@undp.org. Otherwise, offer shall be disqualified.</b></p> <p>Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.</p> |
| Proposal<br>requirements<br>and Submission<br>Address                       | <input checked="" type="checkbox"/> Format: <b>One PDF</b> file only. Please merge your proposals into one PDF for submission.<br><br><input checked="" type="checkbox"/> All files must free of viruses and not corrupted.<br><br><input checked="" type="checkbox"/> Quotation shall be submitted on or before <b>9 am, 22 November 2022, Beijing time</b> via email to <a href="mailto:bids.china@undp.org">bids.china@undp.org</a>          |

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<sup>5</sup> This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was received.

## FORM FOR SUBMITTING SERVICE PROVIDER'S TECHNICAL PROPOSAL<sup>6</sup>

*(This Form must be submitted only using the Service Provider's Official Letterhead/Stationery<sup>7</sup>)*

[insert: Location].

[insert: Date]

To: [insert: Name and Address of UNDP focal point]

Dear Sir/Madam:

We, the undersigned, hereby offer to render the following services to UNDP in conformity with the requirements defined in the RFP dated [specify date] , and all of its attachments, as well as the provisions of the UNDP General Contract Terms and Conditions:

### A. Qualifications of the Service Provider (maximum obtainable points: 20 points)

**The Service Provider must describe and explain how and why they are the best entity that can deliver the requirements of UNDP by indicating the following:**

a) **Profile** – describing the nature of business, field of expertise, licenses, certifications, accreditations; (3 points)

*Requirement: The company should have at least 2 years of experience in the field of new energy development, the automotive industry, or other relevant field; preferably related to the hydrogen, fuel cells, education and training, or related human resources and social security topics.*

b) **Business Licenses** technical services, technical consultancy services, technical training, conference service, or a related field. (3 points)

c) **Latest Audited Financial Statement** – income statement and balance sheet to indicate its financial stability, liquidity, credit standing, and market reputation, etc. financial quick ratio should be equal or higher than 1. (3 points)

d) **Track Record** – Please fill the below forms and provide at least two clients for similar services as those required by UNDP, indicating description of contract scope, contract duration, contract value, contact references; (4 points);

| Project name & Country of Assignment | Client & Reference Contact Details | Contract Value | Period of activity and status | Types of activities undertaken |
|--------------------------------------|------------------------------------|----------------|-------------------------------|--------------------------------|
|                                      |                                    |                |                               |                                |
|                                      |                                    |                |                               |                                |

e) **Certificates and Accreditation** – including Quality Certificates, Patent Registrations, Environmental Sustainability Certificates, etc. (4 points)

f) **Written Self-Declaration** (Please find the details in Annex 6) that the company is not in the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List (3 points)



**B. Proposed Methodology for the Completion of Services (maximum obtainable points: 25 points)**

*The Service Provider must describe how it will address/deliver the demands of the RFP; providing a detailed description of the essential performance characteristics, reporting conditions and quality assurance mechanisms that will be put in place, while demonstrating that the proposed methodology will be appropriate to the local conditions and context of the work.*

*a) The Service Provider must describe how it will address/deliver **the demands of the RFP**. (10 points).*

*b) The Service Provider must provide reasonable **implementation plan** indicating the detailed sequence of activities that will be undertaken and their corresponding timing and reporting time. (10 points)*

*c) The Service Provider must provide **quality assurance mechanisms**. (5 points)*

<sup>6</sup> This serves as a guide to the Service Provider in preparing the Proposal.

<sup>7</sup> Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes

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**C. Qualifications of Key Personnel (maximum obtainable points: 25 points)**

*The Service Provider must provide:*

- a) **At least four CVs (one project manager and three senior researchers are required)** demonstrating qualifications must be submitted (please use the useful template in Annex 5, detailed requirements of each key personnel are elaborated in Annex 5); The project team should also include 4 junior researchers or supporting officers.
- b) **Maximum of 7 points for one Project Manager; maximum of 6 points for each senior researcher, total three senior researchers are required;**
- c) *Please elaborate the details if additional research support will be proposed. If additional research support is proposed by the bidder, please submit the CVs of the additional research support team for reference only. No points for technical evaluation will be given to the additional research support team.*

*[Name and Signature of the Service Provider's  
Authorized Person]*

*[Designation]*

*[Date]*

## FORM FOR SUBMITTING SERVICE PROVIDER'S FINANCIAL PROPOSAL

Bidders are required to provide cost breakdown in Chinese Yuan, CNY in the following table D with authorized signature and official stamp.

### D. Cost Breakdown by Cost Component

| I. Deliverable 1: Submission of an inception report in Chinese, in which the research team clarifies the research objectives, methodologies/outline, and the work plan for carrying out the research.   |                                |  |                      |                                 |
|---|--------------------------------|--|----------------------|---------------------------------|
| Description of Activity   | Remuneration per days: CNY (a) | Total Period of Engagement in days (b) | No. of Personnel (c) | Subtotal : CNY (d)<br>$d=a*b*c$ |
| <b>I. Personnel Services for overall project management</b>   |                                |  |                      |                                 |
| 1.1 Project Manager   |                                |  |                      |                                 |
| <b>II. Personnel Services for research services</b>   |                                |  |                      |                                 |
| 2.1 Senior Researcher   |                                |  |                      |                                 |
| 2.2 Junior Researcher   |                                |  |                      |                                 |
| 2.3 Other, if any   |                                |  |                      |                                 |
| <p><b>*Note for 2.3:</b><br/>Please elaborate the details if additional research study support will be proposed and quoted. If additional research support is proposed by the bidder, please submit the CVs of the additional research support team for reference only. No points for technical evaluation will be given to the additional research support team.<br/>Yet, the related additional cost for the proposed additional research support will be evaluated and included in the total bid</p> |                                |  |                      |                                 |
| <b>III. Other Related Costs (it will be included in the overall financial evaluation)</b>   |                                |  |                      |                                 |
| 3.1 Other, if any (please elaborate details, description of activity, unit price, quantity, unit of the quantity). UNDP will reserve the right to evaluate the necessity and reasonableness and then decide if the addition cost in "Other" will be included for financial evaluation.  |                                |  |                      |                                 |
| <b>Sub Total: CNY</b>   |                                |  |                      |                                 |

**II. Deliverable 2: Satisfactory completion of the first draft of the main chapters of the research report in Chinese, including the chapters or sections on equipment & facilities, teaching aids, and customised laboratory equipment.**

| Description of Activity | Remuneration per days: CNY (a) | Total Period of Engagement in days (b) | No. of Personnel (c) | Subtotal : CNY (d)<br>$d=a*b*c$ |
|-------------------------|--------------------------------|--|----------------------|---------------------------------|
|-------------------------|--------------------------------|--|----------------------|---------------------------------|

**I. Personnel Services for overall project management**

|                     |  |  |  |  |
|---------------------|--|--|--|--|
| 1.1 Project Manager |  |  |  |  |
|---------------------|--|--|--|--|

**II. Personnel Services for research services**

|                       |  |  |  |  |
|-----------------------|--|--|--|--|
| 2.1 Senior Researcher |  |  |  |  |
| 2.2 Junior Researcher |  |  |  |  |
| 2.3 Other, if any     |  |  |  |  |

\*Note for 2.3:

Please elaborate the details if additional research study support will be proposed and quoted. If additional research support is proposed by the bidder, please submit the CVs of the additional research support team for reference only. No points for technical evaluation will be given to the additional research support team.

Yet, the related additional cost for the proposed additional research support will be evaluated and included in the total bid

**III. Other Related Costs (it will be included in the overall financial evaluation)**

|  |  |
|--|--|
| 3.1 Other, if any (please elaborate details, description of activity, unit price, quantity, unit of the quantity). UNDP will reserve the right to evaluate the necessity and reasonableness and then decide if the addition cost in "Other" will be included for financial evaluation. |  |
|--|--|

**Sub Total: CNY**

**III. Deliverable 3: Satisfactory completion of the final draft of the report in Chinese and English "Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational Colleges".**

| Description of Activity | Remuneration per days: CNY (a) | Total Period of Engagement in days (b) | No. of Personnel (c) | Subtotal : CNY (d)<br>$d=a*b*c$ |
|-------------------------|--------------------------------|--|----------------------|---------------------------------|
|-------------------------|--------------------------------|--|----------------------|---------------------------------|

**I. Personnel Services for overall project management**

|                     |  |  |  |  |
|---------------------|--|--|--|--|
| 1.1 Project Manager |  |  |  |  |
|---------------------|--|--|--|--|

**II. Personnel Services for research services**

|   |  |  |  |  |
|---|--|--|--|--|
| 2.1 Senior Researcher   |  |  |  |  |
| 2.2 Junior Researcher   |  |  |  |  |
| 2.3 Other, if any   |  |  |  |  |
| <p><b>*Note for 2.3:</b><br/> Please elaborate the details if additional research study support will be proposed and quoted. If additional research support is proposed by the bidder, please submit the CVs of the additional research support team for reference only. No points for technical evaluation will be given to the additional research support team.<br/> Yet, the related additional cost for the proposed additional research support will be evaluated and included in the total bid</p> |  |  |  |  |
| <b>III. Other Related Costs (it will be included in the overall financial evaluation)</b>   |  |  |  |  |
| 3.1 Other, if any (please elaborate details, description of activity, unit price, quantity, unit of the quantity). UNDP will reserve the right to evaluate the necessity and reasonableness and then decide if the addition cost in "Other" will be included for financial evaluation.  |  |  |  |  |
| <b>Sub Total: CNY</b>   |  |  |  |  |
| <b>Total (CNY)</b>  |  |  |  |  |

*[Name and Signature of the Service Provider's  
Authorized Person]*  
*[Designation]*  
*[Date]*

## CVs of the proposed personnel

## 1. CV of one Project Manager (total one project manager is required, maximum 7 points)

|                                     |  |
|-------------------------------------|--|
| <b>Name of Personnel</b>            | [Insert]   |
| <b>Position for this assignment</b> | <i>[Requirement: project manager: including but not limited to the following responsibilities: In charge of action plan submission and overall coordination and communication with UNDP and contract management.]</i>                                  |
| <b>Nationality</b>                  | [Insert]   |
| <b>Language proficiency</b>         | <i>[Requirement: English and Chinese language skills for communication and materials compilation.]</i>   |
| <b>Education/Qualifications</b>     | <i>[Requirement: Master's degree or above.]</i><br>[Insert]  |
| <b>Professional certifications</b>  | <i>[Provide details of professional certifications relevant to the scope of goods and/or services, if there is any]</i><br><ul style="list-style-type: none"> <li>▪ Name of institution:[Insert]</li> <li>▪ Date of certification: [Insert]</li> </ul> |
| <b>Employment Record/Experience</b> | <i>[Requirement: Minimum 5 years of working or training experience in hydrogen, fuel cells, automotive, education, human resources and social security or related field Please provide details in the box below: ]</i><br>[Insert]                     |

**2.CVs for three senior researchers (total three senior researchers are required, 6 points per person)**

|  |  |
|--|--|
| <b>Name of Personnel</b>                 | [Insert]   |
| <b>Position for this assignment</b>      | <i>[Requirement: complete deliverable 1,2 and 3 in compliance with the RFP. See detailed in the TOR]</i>   |
| <b>Nationality</b>                       | [Insert]   |
| <b>Language proficiency</b>              | <i>[Requirement: Chinese language skills for communication and materials compilation.]</i>   |
| <b>Education/<br/>Qualifications</b>     | <i>[Requirement:<br/>Master's degree in science, engineering, economics, or a relevant field.]</i>   |
|  | [Insert]   |
|  |  |
| <b>Professional certifications</b>       | <i>[Provide details of professional certifications relevant to the scope of goods and/or services, if there is any]</i>  |
|  | <ul style="list-style-type: none"> <li>▪ Name of institution:[Insert]</li> <li>▪ Date of certification: [Insert]</li> </ul>  |
| <b>Employment Record/<br/>Experience</b> | <p><i>Requirement:</i></p> <p><i>1) Conducted research or advisory projects in the field of new energy development, the automotive industry, or other relevant field; preferably related to the hydrogen, fuel cells, education, and training, related human resources and social security topics. Please provide link or details.</i></p> <p><i>2) Minimum five years of experience relevant to the above mentioned fields.</i></p> |

**Written Self-Declaration**

*This is to declare that \_\_\_\_\_ (Company name) is not listed in*

*the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List.*

*[Name and Signature of the Service Provider's  
Authorized Person]*

*[Designation]*

*[Date]*



## Terms of Reference

### **Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational College 中国氢能产业职业学院教学实验设备需求及设计研究 for the "UNDP and 'Guangdong-Hongkong-Macao' Greater Bay Area Hydrogen Economy Vocational College Demonstration Project"**

#### **Background**

As one of the 11 cities in the Guangdong-Hongkong-Macao Greater Bay Area of China, Foshan is not only the forerunner in promoting the demonstration of hydrogen industries, but also the pioneer in the technology development and standard innovation. Foshan city is one of the earliest five demonstration cities under the 'Accelerating the Development and Commercialization of Fuel Cell Vehicles in China' project (GEF FCV Project), which was being implemented by UNDP in close collaboration with the Ministry of Science and Technology with funding from the Global Environment Facility (GEF), and supported by the China Automotive Technology and Research Center Co., Ltd (CATARC).

However, with the rapid development of technology-intensive hydrogen industries with high safety level requirements and the gradual improvement of relevant industrial planning, which requires highly skilled workers in research, industrialization, safety, testing and other aspects of hydrogen industrial value chain. The shortage of technical talents in the hydrogen energy industries has become increasingly obvious across China.

To this end, within the framework of 'GEF/UNDP/MOST Accelerating the Development and Commercialization of Fuel Cell Vehicles in China' project, the United Nations Development Programme (UNDP) cooperates with the People's Government of Nanhai, Foshan, to set up the Hydrogen Economy Institute (Hydrogen Economy Vocational College) in Guangdong-Hongkong-Macao Greater Bay Area for further solving the shortage of technical talents in the hydrogen industries.

In order to establish the Hydrogen Economy Institute (Hydrogen Economy Vocational College), Nanhai District is responsible for the implementation of the project and the identification of and coordination with the university that houses the project, and first set up 'UNDP China Guangdong-Hong Kong-Macao Greater Bay Area Hydrogen Economy Institute' (hereinafter referred to as Hydrogen Economy Vocational College) to carry out preparatory work. The Institute will draw from the experience of the German 'Berufsschule' (i.e., 'Vocational College') model and implement the pilot of 'dual system' training combining theoretical knowledge with hands-on practices in enterprises. The project will provide further support for upgrading of Hydrogen Economy Institute to Hydrogen Economy Vocational College when time is right. The college will take the lead in innovation of the dual accreditation of awarding academic degrees and professional qualifications certification to students after successful completion of vocational training to ensure the sustainable development of talents in the hydrogen and fuel cell industries.

The establishment of the Hydrogen Economy Institute will fill the vacancy of professional and skilled workers in China's hydrogen industry development. At the same time, by integrating the world's first-class teachers in the field of hydrogen energy in China and abroad, it will be established as one of the top vocational colleges for training professionals in hydrogen economy in Guangdong-Hong Kong-Macao Greater Bay Area, and even the whole world.

Apart from this perspective of sustainability, there is no doubt that hydrogen economy represents an

opportunity for the region. The district of Nanhai has traditionally been an important focus for automotive industry, electronics manufacturing and nonferrous metal processing in China. The rise of hydrogen industry in Nanhai District of Foshan will further take the lead in the hydrogen economy, and become the main cluster of technology R&D, key parts production and system integration in the field of hydrogen fuel cells in China, thus driving the rapid development of China's hydrogen energy and fuel cell industry.

This project aims to meet the needs of cultivating talents in hydrogen energy and fuel cell industry, strengthen the innovation system with deep integration of production, learning and research, and attach great importance to the introduction of high-level talents into the hydrogen industry.

The duration of the project is estimated for 3 years, in order to promote the further development of Hydrogen Economy Institute, improve the fuel cell industry talent educational system, and drive the China's hydrogen vocational training forward to scale-up, systematization and specialization.

#### **Description of Responsibilities**

The service provider will be responsible for providing services to the ***Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational College*** for the "UNDP and 'Guangdong-Hongkong-Macao' Greater Bay Area Hydrogen Economy Vocational College Demonstration Project".

The service provider shall provide thorough research, deep analysis, and leverage internal and external expertise and network, both technical and industrial, in carrying out international exchange activities and promote the hydrogen energy vocational college. The service provider's approach shall be consistent with policies, rules and procedures of both UNDP and Chinese government.

#### **Main Content:**

1. Carry out research on commonly used equipment and facilities of hydrogen related enterprises and scenarios.
2. Identify the needs and requirements for teaching aids, based on the teaching and experiment needs of vocational colleges for the hydrogen industry.
3. Design and map out the needs, requirements, and specifics of laboratories for manufacturing, testing, safety, etc., based on the teaching and experiment needs of hydrogen industry vocational colleges.
4. Independently design the core experiment teaching equipment that meets the positioning of hydrogen industry vocational colleagues, based on the on-site conditions and the teaching needs of such colleges in Foshan.

***The vendor should do its best to include all necessary teaching aids, equipment, laboratory facilities in its proposal and work that is suitable for college level TVET and training to technical workers.***

#### **Expected Outputs/Deliverables:**

1. An inception report in Chinese, in which the research team clarifies the research objectives, methodologies/outline, and the work plan for carrying out the research.
2. The first draft of the main chapters of the research report in Chinese, including the chapters or sections on equipment & facilities, teaching aids, and customised laboratory equipment.
3. The final draft of the report in Chinese and English "Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational Colleges".

***The technical parameters or design specifics should be annexed to the reports submitted to UNDP. All rights are reserved by UNDP unless specified and agreed by UNDP in written.***

**Timeline:**

- Within 1 week of contract issuance, submit an inception report in Chinese, in which the research team clarifies the research objectives, methodologies/outline, and the work plan for carrying out the research.
- Within 4 weeks of contract issuance, submit the first draft of the main chapters of the research report in Chinese, including the chapters/sections on equipment & facilities, teaching aids, and customised laboratory equipment.
- With 9 months of contract issuance, submit the final draft of the report in Chinese and English "Research Study on Requirements and Design of Teaching and Experiment Equipment in China's Hydrogen Industry Vocational Colleges".