

Note: The main purpose of the consultant work is to: a model concession contract for a windfarm, prepare bidding documents and prepare a model PPA. National consultants will collect technical and other characteristics of potential sites needed as input to the bidding documents. The level of effort is for 5 sites.

Terms of Reference Windfarm Concessions Design

Background

<Brief description of objectives and scope of Bank project; potential beneficiaries of wind technology in the country; implementation arrangements for the windfarm component; status>

Objective of this Assignment

The objective of the technical assistance activities covered by this TOR is to support the preparation of a pilot wind farm concession in the country .

Approach

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Bidding documents for a wind farm concession will be prepared. To attract serious bidders, these documents will need to be of international standard. A team of international and national experts will prepare the bidding documents. A clear approach to wind farm concessions will need to be implicitly proposed. The preparation of the bidding documents will thus contain indirectly a policy proposal. Approval of the bidding documents by the Government will have implications for an eventual wind farm concession policy. Initial data collection will need to be conducted, to identify of potential wind farm concession sites.

To ensure that internationally well known wind farm developers will participate in the bidding, it is important to asses at an early stage their requirements and quality standards. Internationally experienced wind farm developers will need to be consulted, prior to and during preparation of the bidding documents.

Deliverables

1. A report on the feasibility of the proposed approach on wind farm concession bidding
2. Wind farm concession bidding documents for at least one concession in a specific site.
3. Report describing the process for preparing the bidding document for a wind farm concession in China. This report should include a description of the approach taken and the arguments for making this choice.

All deliverables should be acceptable to the Project Management Office (PMO) in quality and detail. Before accepting these reports, the PMO will need to obtain a no objection letter from the World Bank.

Scope of Work

Below, the elements considered relevant in a bidding document for a wind farm concession in the country are given. Further, activities are outlined which are considered necessary to flesh out these elements in sufficient detail.

As a first step, the contractor is required to review these elements and outline of activities and assess whether the suggested approach could work. If the suggested approach is considered feasible, the contractor will, if required, modify the elements and outline of activities and prepare a detailed plan of approach. This plan needs to be submitted to the Government for approval. If the suggested approach is not considered feasible, the contractor is required to suggest an alternative approach.

With the improved or new plan of approach, the contractor will need to consult with international well known wind farm developers to get their opinion on what should be included in the bidding documents for a wind farm concession in China. Based on this consultation, the contractor may need to modify the proposed approach. This modified approach will need to go through the same approval process.

When the approach is sufficient clear, the contractor will formulate detailed TORs for national experts to obtain the required information. In order to obtain the inputs and support needed from the side of the Government , the contractor will need to work closely with staff of relevant agencies. By approving the concept of a wind farm concession pilot in China, the Government will commit itself to full political support.

After collecting the required information, commitment and approvals, the contractor will prepare the bidding document of at least one concession area. The contractor will also provide clear instructions for conducting the bidding process.

After conducting the tender and determining the response wind farm developers, the contractor will prepare a report to document the process and lessons learned.

Bidding Document Contents

The document is expected to include , but not necessarily be limited, to the following elements:

1. Opening and closing dates, and address of the authority to which bids should be directed.
2. Availability of survey and other relevant data. List of data available, location and the price.
 - a. Wind data
 - b. Measurement method and equipment of wind data measurement
 - c. Shape of concession area.
3. Map showing the concession area
4. Grid connection Information
 - a. Distance
 - b. Grid capacity
 - c. Grid stability
 - d. Electricity supply standards
 - e. Market demand projections
 - f. Technical and commercial readiness to accept wind electricity
5. Wind energy development regulation
 - a. Use of land
 - b. Environment protection

- c. Laws at central, provincial and municipal levels
- 6. Regulation covering Independent Power Producers
- 7. Model Wind Development Concession
 - a. Cost
 - b. Rights
 - c. Obligations
 - d. Royalties to be paid which will be used to develop communities in the project area.
 - e. Duration (initial period and total period)
 - f. State participation right (with percentage specified)
- 8. Draft Power Purchase Agreement with those items open for negotiation clearly indicated.
- 9. Off take commitment
- 10. Requirement for minimum work commitment.
 - a. Time frame for work commitment
 - b. Size and scope of work commitment (qualitative and financial)
 - c. Penalty for failing to complete agreed work commitment in initial period.
- 11. Guidelines on floor and ceiling.
- 12. Quality criteria for qualifying companies in terms of technical competence and financial strength.
- 13. Settlement of disputes.
- 14. Specification of information to be provided.
- 15. Criteria for evaluating bids.

Activities

In order to prepare this bidding document a number of activities need to be carried out. These include:

- 1. Obtain guidance from national and international experts on the activities proposed below and the content of the bidding documents. After agreement is reached on the content of the bidding document and the activities to obtain the required information or documentation, conduct these activities.
 - a. Obtain information on international experience using concessions in other fields (oil and gas, geothermal, etc.)
 - b. Obtain information on the use of concessions in the country.
- 2. Of at least 5 potential concession sites the following data needs to be collected (or available):
 - a. Wind data
 - b. Measurement method and equipment of wind data measurement
 - c. Detailed map
 - d. Shape of concession area.
- 3. Of these 5 potential sides, the following grid connection Information
 - a. Distance to grid connection point
 - b. Grid capacity
 - c. Grid stability
 - d. Electricity supply standards
 - e. Market demand projections
 - f. Technical and commercial readiness to accept wind electricity

4. Of these 5 potential sites, the right in principle of using the land for the duration of the proposed concession period should be obtained.
5. Of these 5 potential sites, the central, provincial, municipal or county laws and regulations should be obtained, including those covering environmental protection.
6. Of these 5 potential sites, agreement in principle should be obtained for the establishment of wind farm IPP's. Required regulation needs to be arranged.
7. A Model Wind Development Concession needs to be prepared and approved by the Government. This should include:
 - a. Cost of the concession
 - b. Rights of the concessionaire
 - c. Obligations of the concessionaire
 - d. Royalties to be paid which will be used to develop communities in the project area.
 - e. Duration (initial period and total period)
 - f. State participation right (with percentage specified)
8. The authority to issue the concession and to issue the invitation to bid should be identified and the required regulation/formal approval should be in place.
9. Draft Power Purchase Agreement needs to be prepared and approved in principle by all power companies in the proposed concession areas. A clear decision is also needed on which items are open for negotiation.
10. The power companies in the proposed concession areas need to agree in principle to take the produced wind energy even if the price will be higher as the conventional alternative.
11. The Government (state or provincial) needs to agree in principle that the power company which will take the wind electricity from the concession area will be allowed to recover the incremental cost by increasing the price of electricity of all consumers.
12. Requirement for minimum work commitment needs to be specified.
 - a. Time frame for work commitment
 - b. Size and scope of work commitment (qualitative and financial)
 - c. Penalty for failing to complete agreed work commitment in initial period.
13. Of each of the 5 proposed concession areas, a reasonable electricity price needs to be calculated, based on the available wind resource data, international best practices of establishing wind farms, and on international best practices of calculating the levelized electricity price from wind farms. This will provide a ceiling for the electricity price for wind farms.
14. For each of the 5 proposed concession areas, the current electricity price to the end users will need to be assessed. Where possible, the cost of producing electricity by the power companies needs to be assessed as well.
15. Establish quality criteria for qualifying companies in terms of technical competence and financial strength.
16. Conduct a survey on the requirements of international wind farm developers to participate in a bid for wind farm concessions.
17. Investigate legal issues of issuing the bids and establishing the wind farms, including settlement of disputes.
18. Specify the information that needs to be provided by the bidders.
19. Establish clear criteria for evaluating bids.
20. Establish criteria for selecting the best pilot windfarm concession.
21. Select the best wind farm concession and select number two which will be kept in reserve in case the first choice needs to be abolished.

Level of Effort

The budget is estimated as follows:

International Wind Expert (90 days)
International Concession Bidding Expert (30 days)
National Wind Experts (200 days)

Payment Schedule

15 % After signing of contract
20% After first mission to the country and delivering deliverable 1
40% After delivering deliverable 2
25% After delivering deliverable 3