|  |  |
| --- | --- |
| **ICS 27. 180****P 61** | **NB** |
|  |

**ENERGY SECTOR STANDARD**

**OF THE PEOPLE’S REPUBLIC OF CHINA**

**NB/T 10206-2019**

**Guide for Preparation of Wind Turbine Bidding Documents**

**风电机组招标文件编制导则**

**（征求意见稿）**

**Issued on June 4, 2019 Implemented on October 1, 2019**

**Issued by National Energy Administration of the People’s Republic of China**

**Introduction**

This English version is one of China’s energy sector standard series in English. Its translation was organized by China Renewable Energy Engineering Institute authorized by National Energy Administration of the People’s Republic of China in compliance with relevant procedures and stipulations. This English version was issued by National Energy Administration of the People’s Republic of China in Announcement [20xx] No.xx dated xxxx, 20xx.

This version was translated from the Chinese Standard NB/T 10206-2019, *Guide for Preparation of Wind Turbine Bidding Documents*, published by China Water & Power Press. The copyright is reserved by National Energy Administration of the People’s Republic of China. In the event of any discrepancy in the implementation, the Chinese version shall prevail.

Many thanks go to the staff from relevant standard development organizations and those who have provided generous assistance in the translation and review process.

For further improvement of the English version, all comments and suggestions are welcome and should be addressed to:

China Renewable Energy Engineering Institute

No.2 Beixiaojie, Liupukang, Xicheng District, Beijing 100120, China

Website: www.creei.cn

Translating organization:

POWERCHINA Jilin Electric Power Engineering Co., Ltd.

Translating staff:

SHAN Liang XI Xiao SHAN Liang GAO Yang

Review panel members:

**翻译出版说明**

本译本为国家能源局委托水电水利规划设计总院按照有关程序和规定，统一组织翻译的能源行业标准英文版系列译本之一。20XX年XX月XX日，国家能源局以20XX年第X号公告予以公布。

本译本是根据中国水利水电出版社出版的《风电机组招标文件编制导则》NB/T 10206-2019翻译的，著作权归国家能源局所有。在使用过程中，如出现异议，以中文版为准。

本译本在翻译和审核过程中，本标准编制单位及编制组有关成员给予了积极协助。

为不断提高本译本的质量，欢迎使用者提出意见和建议，并反馈给水电水利规划设计总院。

地址：北京市西城区六铺炕北小街2号

邮编：100120

网址：www.creei.cn

本译本翻译单位：中国电建集团吉林省电力勘测设计院有限公司

本译本翻译人员：单 良 席 皛 单 良 高 阳

本译本审核组成员：

**Content**

[**1 Scope** 1](#_Toc61264810)

[**2 Normative references** 1](#_Toc61264811)

[**3 General provisions** 1](#_Toc61264812)

[**4 Business section** 2](#_Toc61264813)

[4.1 Tender notices or invitations to tender 2](#_Toc61264814)

[4.2 Qualification requirements for bidders 2](#_Toc61264815)

[4.3 Information for Bidders 2](#_Toc61264816)

[4.4 Contract terms and contract forms 4](#_Toc61264817)

[4.5 Formats and schedules 4](#_Toc61264818)

[**5 Technical section** 5](#_Toc61264819)

[5.1 General requirements 5](#_Toc61264820)

[5.2 General description 5](#_Toc61264821)

[5.3 Project overview 5](#_Toc61264822)

[5.4 Scope of supply and delivery schedule 6](#_Toc61264823)

[5.5 Technical standards 7](#_Toc61264824)

[5.6 Technical performance requirements 7](#_Toc61264825)

[5.7 Technical data 9](#_Toc61264826)

[5.8 Quality control, performance assessment and acceptance 9](#_Toc61264827)

[5.9 Technical services 9](#_Toc61264828)

[5.10 Packaging, transport, installation of wind turbines 10](#_Toc61264829)

[5.11 Requirements for relevant appendices 10](#_Toc61264830)

[**Appendix A (Normative Appendix) Catalogue for the preparation of tender documents for wind turbines** 11](#_Toc61264831)

**Foreword**

This standard has been drafted in accordance with the rules given in GB/T 1.1-2009 “Directives for standardization Part 1: Structure and drafting of standards”.

National Energy Administration of the People’s Republic of China is in charge of the administration of this standard. China Renewable Energy Engineering Institute has proposed this standard and is responsible for its routine management. Sub-committee on Planning and Design of Wind Power Project of Energy Sector Standardization Technical Committee on Wind Power is responsible for the explanation of specific technical contents. Comments or suggestions in the implementation of this specification should be addressed to:

China Renewable Energy Engineering Institute

No.2, Beixiaojie, Liupukang, Xicheng District, Beijing, 100120, China

Development organization:

POWERCHINA Jilin Electric Power Engineering Co., Ltd

CGN New Energy Holdings Co., Ltd

CSSC Haizhuang Windpower Co., Ltd

Chief drafting staff: LI Qinwei WANG Bo LIU Xiao GAO Yang

ZHANG Li CHAI Yang LI Ye CHEN Kangdong

QUAN Yingquan REN Fanghui PENG Yanjia WANG Zhaohui

LI Xianghui LI Jianke SONG Xuewu ZHANG Fan

LAN Yongsen CAO Peng TANG Shigui SHAN Liang

LI Zhi

**Guide for Preparation of Wind Turbine Bidding Documents**

**1 Scope**

This standard specifies the basic content and depth of the tender documents for wind turbines.

This standard applies to the preparation of tender documents for wind turbines for onshore and offshore wind farm projects.

**2 Normative references**

The following documents are essential for the application of this document. Where a reference is dated, the dated version only applies to this document. Where a reference is undated, the latest version (including all change orders) applies to this document.

GB/T 18451.1 Wind turbine generator systems—Design requirements

GB/T 20319 Code for acceptance of wind turbines generator system

GB/T 31517 Design requirements for offshore wind turbines

**3 General provisions**

**3****.0.1** The scope of the tender for wind turbines shall include wind turbines, ancillary equipment and related services.

**3.0.2** The tender documents shall implement the principles of fairness, reasonableness and competition, and the requirements shall be clear and precise, and shall not contain any content that is biased towards or excludes potential bidders.

**3.0.3**  The tender documents shall reflect the characteristics and needs of the project being tendered.

**3.0.4** The tender documents consist of a commercial section and a technical section. The catalogue for the preparation of the tender documents is shown in Appendix A.

**4 Business section**

## 4.1 Tender notices or invitations to tender

**4.1.1** When open tendering is used, a tender notice for the purchase of WTGs shall be prepared; when inviting tenders, an invitation to tender for the purchase of WTGs shall be prepared.

**4.1.2** A tender notice or invitation to tender for the procurement of wind turbines shall contain the following:

a) Basic information such as the name, address, contact person and contact details of the tender agent or tenderer.

b) Project name, construction location, project overview, etc.

c) Requirements for the capacity, main technical parameters, scope of supply and delivery time of the tender project.

d) Bidder qualification requirements.

e) The time, place and cost of the sale of the tender documents and the relevant supporting documents required for the purchase of the tender documents.

f) The deadline for the submission of tender documents, the place where tender documents are to be received, the manner of tender and the time and place for the opening of tenders.

## 4.2 Qualification requirements for bidders

The qualification requirements for bidders shall include the following:

a) Qualification conditions, which shall include legal personality, production (use) license, product certification, quality, environment, occupational health and safety management system certification, production and supply capacity, etc.

b) Financial status, which shall include the bank creditworthiness, credit rating, status of assets, etc.

c) Performance requirements, which shall include performance in the production, supply and operation of wind turbines, etc.

d) Other qualification materials required by the tenderer.

## 4.3 Information for Bidders

**4.3.1** The Instructions to Bidders shall contain a general description, the composition of the tender documents, the requirements for the preparation of tender documents, the requirements for the presentation of tender documents, instructions for the opening and evaluation of tenders, the award and signing of contracts and a schedule preceding the Instructions to Bidders.

**4.3.2** A general description should contain the following:

a) Project name, geographical location, installed capacity, investor, bidder, bidding agent, etc.

b) Sources of funding.

c) Scope of the tender, delivery date, mode of delivery, quality assurance period, etc.

d) Requirements for wind turbines, ancillary equipment and related services.

e) Technical solution requirements.

f) Site survey requirements.

g) Tender costs.

**4.3.3** The composition of the tender documents shall describe the general structure of the tender documents, clarifications, supplements and modifications to the documents.

**4.3.4** The requirements for the preparation of tender documents shall include the following:

a) Language requirements for the preparation of tender documents.

b) Composition of the tender documents.

c) Tender offer and format requirements.

d) Tender currency.

e) Duration of the tender.

f) Bid bond.

g) The format and signature of tender documents.

h) Appendix.

**4.3.5** The Instructions to Bidders shall describe the requirements for the submission of tender documents, including the manner of marking and sealing, the number of copies to be submitted, the deadline for submission, modification and withdrawal of tender documents.

**4.3.6** The Instructions to Bidders shall describe the specific manner and content of bid opening and bid evaluation, including the time of bid opening, bid opening procedures, bid evaluation procedures and bid evaluation rules, as well as the requirements of integrity and confidentiality.

**4.3.7** Tender evaluation rules shall include the following:

a) The basis, principles and manner of evaluation of the tenders.

b) Supervisory authority.

c) The formation of the tender evaluation committee.

d) Tender evaluation specifications.

## 4.4 Contract terms and contract forms

The contract documents for the procurement of wind turbines shall consist of a contract book, contract terms and contract annexes, and shall be prepared in accordance with the Contract Law of the People’s Republic of China and other relevant laws and regulations, following the principles of fairness and impartiality and clarifying the rights and obligations of both parties to the contract.

## 4.5 Formats and schedules

The tender documents shall set out the format and requirements for the tender letter, proof of identity of the legal representative or authorization letter of the legal representative, tender offer, qualification documents of the tenderer, business deviation form, bid bond, integrity undertaking, performance table, delivery schedule and other documents.

**5 Technical section**

## 5.1 General requirements

**5.1.1** The technical section shall mainly consist of the following:

a) General description.

b) Project overview.

c) Scope of supply and delivery schedule.

d) Technical standards.

e) Technical performance requirements.

f) Technical data.

g) Quality control, performance assessment and acceptance.

h) Technical services.

i) Packaging, transport, installation of wind turbines.

j) The requirements of the relevant appendices.

**5.1.2** Requirements for technical responses to tender documents shall be proposed.

**5.1.3** Explanations shall be given to what requires a special response in the tender documents.

**5.1.4** Requirements shall be made for technical solutions to tender documents.

## 5.2 General description

The purpose of the preparation, the scope of application, the principles of preparation, the basis of preparation and other things shall be stated.

## 5.3 Project overview

**5.3.1** The installed capacity, geographic location, topography, traffic conditions, geological conditions, grid access conditions, etc. of the wind farm shall be described, for offshore wind farms, marine environmental conditions such as ocean hydrology, marine engineering geology, submarine topography and salt spray shall also be included.

**5.3.2** Data on weather stations, wind energy resources in the wind farm area shall be described.

**5.3.3** Wind farm wind measurement data, topographic maps, site boundaries and development restrictions shall be described or provided, and offshore wind farms shall also be described or provided with information on water depth, offshore distances, construction requirements for ports or wharves, booster stations, waterway conditions, site areas and surrounding nautical charts.

**5.3.4** Extreme natural conditions of the wind farm shall be described, including corrosion, low temperatures, thunderstorms, dust, ice, high altitude, typhoons, etc.

**5.3.5** The presence of sensitive factors in the wind farm shall be described, including nature reserves, heritage facilities, military sensitive areas, air control areas, water conservation areas, bird migration routes, etc.

## 5.4 Scope of supply and delivery schedule

**5.4.1** The scope of supply should include WTG equipment, special tools, spare parts and consumables under warranty, technical data, related services, etc.

**5.4.2** The scope of supply for wind turbine equipment should include the following:

a) Leaf blades.

b) Pitching systems.

c) Nacelles, including canopies, undercarriages, deflectors, etc.

d) Transmission sections, including hubs, spindles, main bearings, gearboxes, etc.

e) Yaw system.

f) Braking systems.

g) Hydraulic systems.

h) Generators.

i) Converters.

j) Central and in situ control and monitoring systems.

k) Lubrication systems.

l) Wind speed and direction acquisition systems.

m) Auxiliary power supply systems for wind turbines.

n) Lightning protection devices.

o) Fasteners such as coupling bolts.

p) Special equipment for offshore wind turbines such as step-up transformers, emergency power supplies, etc.

q) Other requirements of the tenderer.

**5.4.3** Requirements for the supply of wind turbine monitoring systems and power control systems shall be proposed.

**5.4.4** Requirements for the supply of special tools for installation, operation and maintenance shall be proposed.

**5.4.5** Requirements for spare parts and consumables shall be proposed.

**5.4.6** The content of technical services and technical data shall be described.

**5.4.7** The boundaries of the scope of supply and service shall be defined and shall include the following:

 a) Electrical primary.

 b) Electrical secondary.

 c) Lightning protection and grounding.

 d) Roads.

**5.4.8** Requirements for delivery of batches, time, place, manner, etc. shall be proposed.

## 5.5 Technical standards

**5.5.1** The requirements of the relevant technical standards to be followed for the design, manufacture, grid connection and acceptance of wind turbines shall be proposed.

**5.5.2** The requirements applicable to the updates of technical standards versions shall be stated.

## 5.6 Technical performance requirements

**5.6.1** Technical performance shall comply with the requirements of GB/T 18451.1 and GB/T 31517 for the design of the unit, and the technical performance requirements shall include the following:

a) Unit capacity, hub height, wind turbine diameter, design life, etc.

b) Environmental adaptability.

c) Certification and test reports.

d) Grid connection performance requirements.

e) Requirements for availability, power curve guarantees, etc.

f) Pylon and foundation requirements.

g) Operation and maintenance requirements.

h) Material requirements.

i) Signs, markings, colours and nameplates of wind turbines and ancillary equipment.

**5.6.2** The performance and technical requirements of the wind turbine blades shall be described.

**5.6.3** The performance and technical requirements of the wind turbine's pitch system shall be described, including pitch control, pitch bearings, pitch drive, etc.

**5.6.4** The performance and technical requirements of the wind turbine nacelle shall be described, including the nacelle cover, undercarriage, deflector, etc.

**5.6.5** The performance and technical requirements of the wind turbine drive section shall be described, including hubs, main shafts, main bearings, gearboxes, etc.

**5.6.6** The performance and technical requirements of the wind turbine yaw system shall be described, including yaw control, yaw bearing, yaw drive, etc.

**5.6.7** The performance and technical requirements of the wind turbine braking system shall be described, including the type, quantity and performance of the braking system.

**5.6.8** The performance and technical requirements of the wind turbine hydraulic system shall be described.

**5.6.9** The performance and technical requirements of the wind turbine generators shall be described.

**5.6.10** The performance and technical requirements of the wind turbine generator converter shall be described.

**5.6.11** The performance and technical requirements of the central and local control and monitoring systems for wind turbines shall be explained, including the composition, implementation forms, function modules and output requirements of the central and remote monitoring system, and the composition, implementation forms, function modules and output requirements of the local control system.

**5.6.12** The performance and technical requirements of the wind turbine lubrication system shall be described.

**5.6.13** The performance and technical requirements of the wind speed and direction acquisition system for wind turbines shall be described.

**5.6.14** The performance and technical requirements of the auxiliary power system for wind turbines shall be described.

**5.6.15** The performance and technical requirements of lightning protection devices for wind turbines shall be described.

**5.6.16** The performance and technical requirements for fasteners such as wind turbine coupling bolts shall be explained.

**5.6.17** The performance and technical requirements of special equipment such as offshore wind turbine booster transformers and emergency power supplies shall be explained.

**5.6.18** The performance and technical requirements of the wind turbine power transmission system shall be described, including the form of transmission (cables, busbars, etc.), protection performance, layout regulations, performance and technical requirements.

**5.6.19** The performance and technical requirements of the wind turbine tower shall be described, including the tower form and the composition of accessories.

**5.6.20** The technical requirements of the wind turbine foundations shall be described.

**5.6.21** The technical requirements for other relevant components of the wind turbine shall be described.

**5.6.22** The requirements of special environmental conditions for wind farms such as corrosion, low temperatures, thunderstorms, sand and dust, freezing, high altitude, typhoons, etc. shall be proposed.

**5.6.23** The requirements for wind turbines noise should be proposed.

**5.6.24** Other special requirements for wind turbines shall be stated.

## 5.7 Technical data

**5.7.1** Requirements for technical data shall be made to the extent, at the time and in the manner in which it is provided.

**5.7.2** Specific requirements for the language, form, quantity, content, etc. of the information to be provided shall be specified.

**5.7.3** Binding conditions such as confidentiality, copyright, etc. shall be stipulated for the information provided.

## 5.8 Quality control, performance assessment and acceptance

**5.8.1** Requirements for quality control of equipment shall be proposed.

**5.8.2** The requirements for the supervision of the equipment shall be stated, including the form of supervision, the content of the supervision, etc.

**5.8.3** The requirements for the equipment during the production, delivery, installation and commissioning phases shall be proposed.

**5.8.4** The manner and requirements for assessing the availability of the equipment shall be proposed.

**5.8.5** The way in which the power curve is to be assessed and the requirements shall be proposed.

**5.8.6** The requirements for factory acceptance, acceptance on arrival, pre-acceptance and final acceptance of the equipment shall be proposed and shall be in accordance with the requirements for acceptance in accordance with GB/T 20319.

## 5.9 Technical services

**5.9.1** Requirements shall be made for technical services during the design, construction and operation phases of the tender.

**5.9.2** Requirements shall be made for the content of technical training to be provided by the tenderer, both in the factory and on site.

**5.9.3** Requirements shall be made for design liaison meeting topics, personnel, time, location, etc.

## 5.10 Packaging, transport, installation of wind turbines

**5.10.1** Requirements shall be made for the packaging of wind turbines.

**5.10.2** Requirements shall be made for the transport of wind turbines.

**5.10.3** Requirements shall be made for the installation of wind turbines.

**5.10.4** Issues of authority and responsibility such as safety during transport and installation, elimination of equipment defects shall be clarified.

**5.10.5** Special requirements for packaging, transport and installation shall be specified.

## 5.11 Requirements for relevant appendices

**5.11.1** The technical parameters of the equipment shall be described, indicating the required diagrams, and shall include the following:

a) Technical data sheets for the unit.

b) Table of vibration design criteria for units.

c) Table of unit power curves.

d) Standardized tower parameters tables and drawings for the unit.

e) Standardized base parameter tables and drawings for the unit.

f) Other content required by the tenderer.

**5.11.2** The requirements and forms to be provided by bidders in connection with the implementation of the project shall be specified and shall include the following:

a) Supply list.

b) Schedule of works.

c) Delivery schedules.

d) Table of transport parameters for large parts.

**5.11.3** Technical deviation table.

**Appendix A** **(Normative Appendix) Catalogue for the preparation of tender documents for wind turbines**

Volume Ⅰ Business section

Ⅰ Information for bidders

1 General description

2 Composition of tender documents

3 Preparation of tender documents

4 Presentation of Tender Documents

5 Tender opening and evaluation

6 Award and signing of contracts

Ⅱ Contract terms and contract forms

1 Contracts

2 Contract terms

3 Technical specifications and requirements

4 Contract annexes

Ⅲ Formats and schedules

1 Tender letter

2 Proof of identity of legal representative or authorization letter of legal representative

3 Tender offer

4 Bidders’ qualification documents

5 Business Deviation Table

6 Bid Bond

7 Integrity Commitment

8 Performance tables

9 Delivery schedule

10 Other requirements

Volume Ⅱ Technical section

Ⅰ General description

Ⅱ Project overview

Ⅲ Scope of supply and delivery schedule

Ⅳ Technical standards

Ⅴ Technical performance requirements

Ⅵ Technical data

Ⅶ Quality control, performance assessment and acceptance

Ⅷ Technical services

Ⅸ Wind turbine packaging, transport, installation

Ⅹ Requirements for relevant appendices