

T/CAPID

Association Standards of CAPID

T/CAPID 006—2023

Voluntary certification scheme for
zero carbon energy certificates —
General rules

零碳能源证书自愿核证体系 通则

(English Translation)

Issue date: 2023 – 11 – 01

Implementation date: 2023 – 11 – 10

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Foreword

CAPID is in charge of this English translation. In case of any doubt about the contents of English translation, the Chinese original shall be considered authoritative.

This standard is drafted in accordance with the rules given in the GB/T 1.1-2020 *Directives for standardization-Part 1: Rules for the structure and drafting of standardizing Documents*.

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. The issuing body of this document shall not be held responsible for identifying any or all such patent rights.

This document is proposed by the China Association for the Promotion of Industrial Development (CAPID).

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This document is the first edition.

Introduction

The *"14th Five-Year Plan" for Renewable Energy Development* explicitly proposes the establishment of a sound mechanism for green energy consumption and the establishment of a system for the evaluation, certification, and labelling of green energy consumption. At present, China's verification and issuance of green power certificates and voluntary subscription system is basically established, but a proper mechanism for the non-electric use of renewable energy is not available, and the way of realizing environmental rights and interests is still absent. For example, a corresponding verification and certificate trading system has not yet been formed for green thermal energy, green gas and green liquid fuels, making it difficult to manifest the environmental rights and interests of the energy.

In order to implement the national carbon peaking and carbon neutrality strategy, promote the high-quality development of China's renewable energy, and create a diversified mechanism for realizing the environmental rights and interests of renewable energy, the Biomass Energy Industry Promotion Association, CAPID organized enterprises and experts to formulate the standards for the "Voluntary Certification Scheme for Zero Carbon Energy Certificates" which is aimed at establishing a mechanism for the certification and consumption of renewable energy in the non-electricity field, and further reflecting the environmental rights and interests of renewable energy.

As the guiding document, the Voluntary Certification Scheme for Zero Carbon Energy Certificates – General Rules establishes the structure of the certification system, clarifies the responsibilities of all relevant parties, and standardizes the whole life cycle from certification to cancellation of the certificates, so as to guarantee the environmental rights and interests of the Zero Carbon Energy Certificates.

A series of standards of Voluntary Certification Scheme for Zero Carbon Energy Certificates – Certification Code are formulated for specific renewable energy use, covering all areas of non-electricity use of renewable energy, providing normative guidance for the certification of different types of renewable energy projects, aiming to ensure compliance, voluntariness, uniqueness, transparency, accuracy, conservatism, etc.

Voluntary certification scheme for zero carbon energy certificates — General Rules

1 Scope

This document specifies the terms and definitions, certification principles, manage requirement, tracking scheme, and the certification, use, voluntary subscription, use and cancellation of zero carbon energy certificates of the Voluntary Certification Scheme for Zero Carbon Energy Certificates.

This document is applicable to guiding the activities related to the Voluntary Certification Scheme for Zero Carbon Energy Certificates, including the certification, the voluntary subscription, use and cancellation of the Zero Carbon Energy Certificates.

2 Normative references

The contents of the following documents constitute indispensable provisions of this document by means of normative references in the text. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB 17167 *General principle for equipping and managing of the measuring instrument of energy in organization of energy using*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in GB/T 29870-2013 and the following apply.

3.1

renewable energy source

An inexhaustible source of energy that can be naturally replenished in human's time scales

NOTE: Rewrite GB/T 29870-2013, Definition 3.2.

3.2

zero carbon energy certificate

The electronic certificate with unique identifiers issued to eligible certification subjects through the certification platform based on the amount of energy produced or supplied externally in renewable energy projects monitored by the certification platform, with the deducted fossil energy within the accounting boundary

NOTE: The energy measurement unit is gigajoules (GJ), and 10 GJ of zero-carbon energy corresponds to 1 (one) zero carbon energy certificate

3.3

certification platform

A network system that monitors and statistically analyzes energy-related activities in renewable energy projects, provides services such as certification, transfer, and use of zero-carbon energy certificate as well as recording of relevant information

NOTE: The information recorded in the certification platform is the final basis for determining the ownership of zero-carbon energy certificates.

3.4

certify

A process of issuing zero-carbon energy certificates based on determined amount of zero-carbon energy produced or supplied by the subject applying for certification indicated by evaluation conclusions, and other materials formed by the expert group, which is commissioned by the verification organization to evaluate the verification after assessing the report and other relevant materials offered by the qualified verification organization, who is entrusted by the verification platform upon its receipt of the application of the subject applying for the certificate

NOTE: When the certified energy is less than 10 GJ, the certification will not be issued and will be accumulated in the next certification.

3.5

subject of application for certification

The subject who voluntarily registers an account and applies for certification on the certification platform

3.6

verification organization

The organization that selects the appropriate standards or suitable methodologies in accordance with the characteristics of the project, carries out independent assessment and verification of the project for which the subject of the application for certification is applying for certification, and forms a verification report and other relevant materials to submit to the issuing organization, while guaranteeing the accuracy and authenticity of the adopted data, information and results

3.7

issuing organization

The organization that certifies and issue zero-carbon energy certificates to subjects applying for certification by organizing expert groups based on the assessment conclusions produced through the assessment of the verification report and other materials by the expert group organized by the certification platform

3.8

verification

A process in which the verification organization conducts comprehensive verification and checking of the relevant information used by the subject applying for certification for the certification of zero-carbon energy certificates in accordance with relevant national laws, regulations and relevant standards, and forms a document

3.9

accounting boundary

The scope directly related to the energy supply or energy production activities of the subject applying for certification

3.10

subject of voluntary subscription

The subject who voluntarily registers for an account, and subscribes, etc. on the certification platform, which is divided into the transferor and the transferee

3.11

voluntary subscription

The process in which a subject of voluntary subscription voluntarily subscribes for zero-carbon energy certificates through the certification platform

3.12

transfer

The process of transferring the valid Zero Carbon Energy Certificates from the transferor to the transferee upon the confirmation by the certification platform after the voluntary subscription of Zero Carbon Energy Certificates has been reached between the transferee and the transferor

3.13

subject of use

A subject who performs behaviors such as voluntarily registering an account as well as holding and using zero-carbon energy certificates on the certification platform

3.14

use of certificate

The process in which the zero-carbon energy certificates held by the subject of use on the certification platform are used in activities such as carbon neutral activities, fossil energy offsets, green finance, etc. and canceled by the certification platform

NOTE: Zero carbon energy certificates can only be used after the subject of use applies for a zero carbon energy consumption voucher from the certification platform.

3.15

proof of consumption for zero carbon energy

An electronic certificate with a tamper-proof marking issued by the certification platform when a zero carbon energy certificate is canceled

4 Certification principles

4.1 Compliance

The project that applies for certification shall conform to the national and local laws as well as regulations, policies and standards.

4.2 Voluntariness

In accordance with the principle of voluntariness, the subject of application for certification authorizes the certification platform to monitor and obtain relevant data on its project for the purpose of accounting for zero-carbon energy certificates.

4.3 Uniqueness

The energy that has achieved environmental benefits shall not apply for the certification of zero carbon energy certificates and the zero carbon energy certificates that have been issued shall not be reused.

4.4 Transparency

The certification platform is required to maintain objectivity, independence, fairness and impartiality, and to ensure the authenticity of the whole process of zero-carbon energy certificates from certification to cancellation, as well as the public accessibility of the information. Certificate information between different platforms shall be open and transparent to avoid duplication of calculation or certification.

4.5 Accuracy

The certification platform shall ensure that the entire process of zero carbon energy certificates from certification to cancellation has actually occurred and that the data are true, reliable and accurate.

4.6 Conservativeness

During the certification, the assumed or estimated values as well as the assessment methodology adopted are ensured not to overestimate the amount of zero-carbon energy.

5 Certification

5.1 Certification process

The certification process of zero-carbon energy certificate includes four phases, as shown in figure 1.

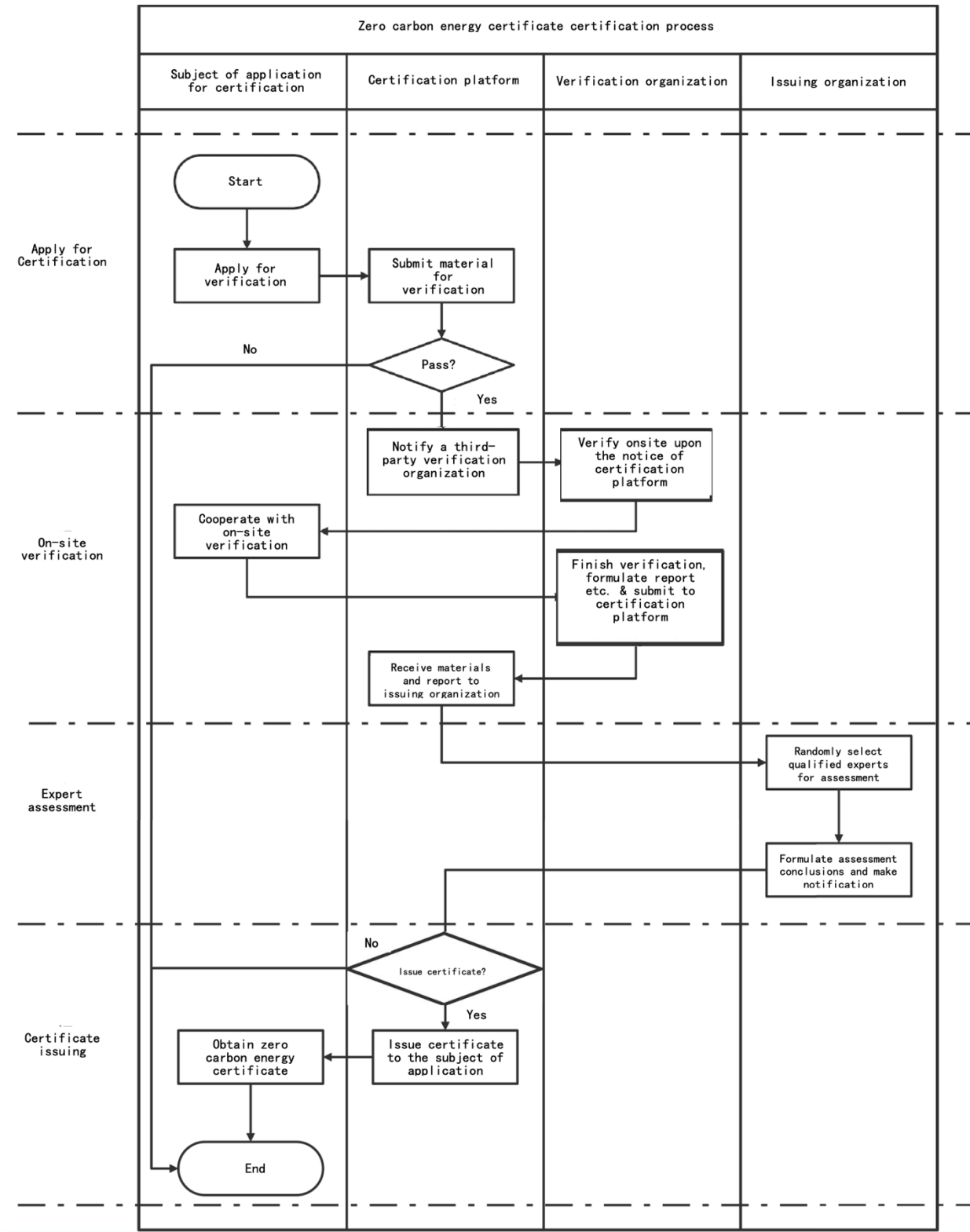


Figure 1 Certification Process for Zero Carbon Energy Certificates

5.2 Application for accreditation

5.2.1 Account Application

Before the application, the subject of application for certification shall apply for an account in the certification platform and provide basic assessment materials, and the data can be accessed after the certification platform has passed the assessment.

5.2.2 Data accessing

Before the application, the subject of application for certification shall, in accordance with the relevant requirements of the certification platform, provide data access, and after confirmation of the accounting boundary, select and install equipment with real-time monitoring and data transmission features to connect with the certification platform, so as to upload the relevant data of the project activity to the certification platform. The devices shall conform to the requirements of GB 17167 and other relevant standards.

5.2.3 Application for certification

Before the application, the subject of application for certification shall provide relevant verification materials for the certification platform in accordance with the relevant certification standards and requirements, and certification can be performed when the certification platform passes the verification.

5.3 On-site verification

5.3.1 Preparation

Upon receipt of the notification from the certification platform, the verification organization shall establish a verification team with professional skills in accordance with the project status, as well as the field of expertise and technical competence of the verifier, to prepare for the verification in advance.

5.3.2 Implementation of the verification

The verification organization shall act in accordance with the corresponding certification standards and requirements and perform effective on-site visits after determination of the rationality of the materials to be verified, confirmation of the focus of the on-site visit and formulation of the on-site visit plan. The verification organization shall prepare a verification report based on the on-site findings and conduct a technical review to ensure that the verification report is truthful, objective and logically clear.

5.3.3 Reporting

After the technical review, the verification organization shall submit the verification report and other relevant materials to the certification platform. The verification body shall keep all written and electronic documents in the verification process in a secure and confidential manner.

5.4 Expert assessment

5.4.1 Reporting to issuing organization

Upon receipt of the verification report from the verification organization, the certification platform shall report it to the issuing organization.

5.4.2 Expert assessment

The issuing organization organizes experts with qualifications to verify, confirm and validate the verification report in accordance with relevant national laws, regulations and standards, to assess the authenticity and compliance of the verification report before formulating an assessment conclusion.

5.4.3 Upload assessment conclusions

The issuing organization uploads the assessment conclusion to the certification platform with the indication of whether to issue the certificate.

5.5 Certificate issuing

The Certification Platform confirms the number of Zero Carbon Energy Certificates to be issued based on the assessment conclusions of the issuing organization and issues the certificates to the subjects of application for certification.

6 Usage of Zero Carbon Energy Certificates

The Zero Carbon Energy Certificate serves the following purposes:

- a) Used as valid proof for zero-carbon energy production by businesses or individuals;
- b) Used as valid proof of consumption of zero-carbon energy by businesses or individuals;
- c) To offset the fossil energy consumption of social entities, such as enterprises and public institutions, social organizations, industrial parks and individuals;
- d) To offset direct and indirect consumption of fossil energy (including fossil fuel combustion, heating, etc.) for large-scale events;
- e) Used as a green credit asset for green financial activities;
- f) Used as a supporting tool for Chinese Certified Emission Reduction (CCER) systems;
- g) Used as a basic proof for various certification systems or emission reduction systems;
- h) Used for carbon tariff offsets between countries or regions;
- i) and other purposes.

7 Voluntary subscription, use and cancellation

7.1 Voluntary subscription

7.1.1 Voluntary subscription process

Zero-carbon energy certificates can be freely circulated on the platform and voluntarily subscribed depending on the needs of the subjects of the voluntary subscription. The voluntary subscription for zero carbon energy certificates involves two phases, as shown in Figure 2.

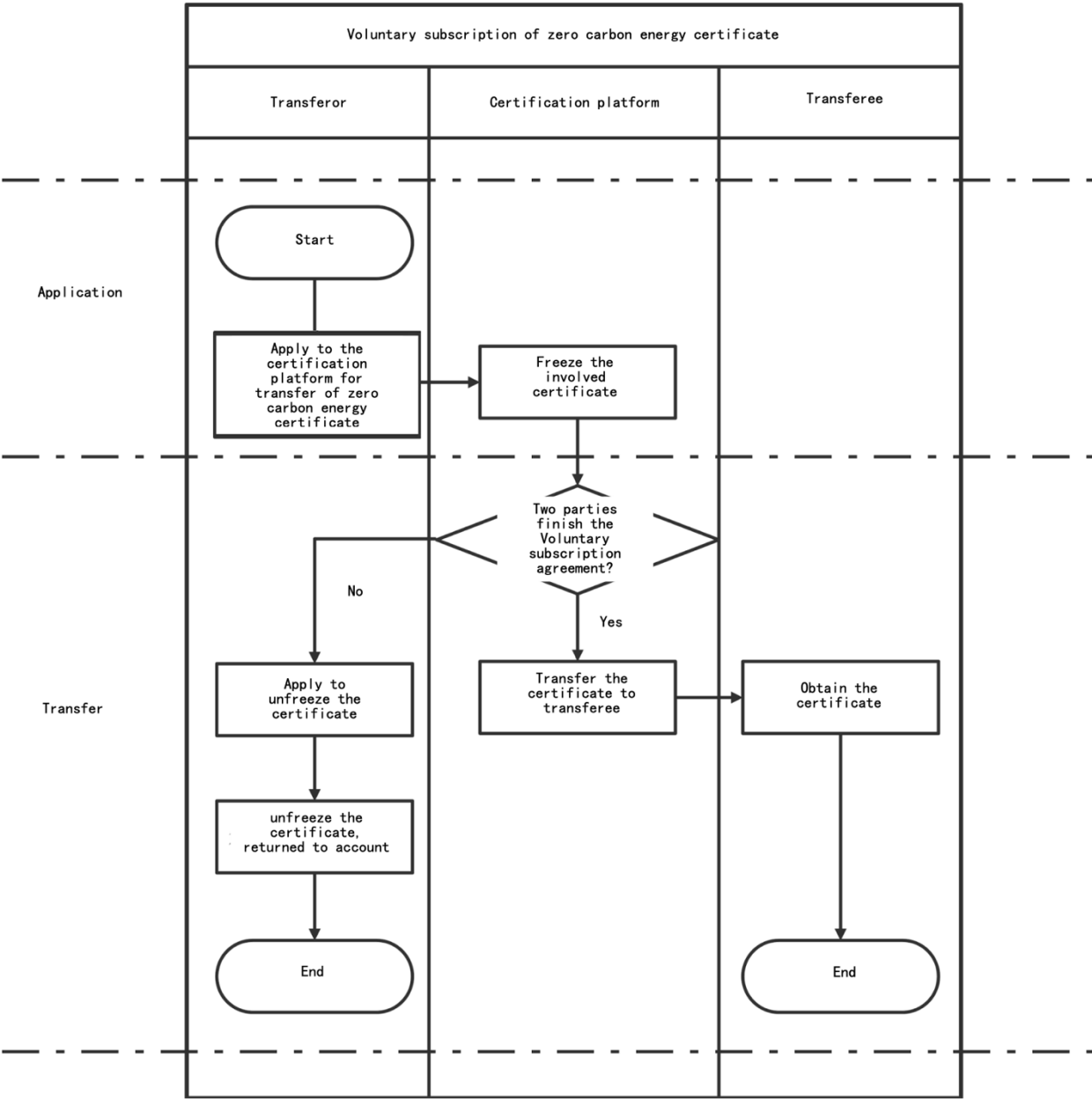


Figure 2 Voluntary Subscription Process for Zero Carbon Energy Certificates

7.1.2 Application

7.1.2.1 The subject of the voluntary subscription shall register and apply for an account on the certification platform prior to the voluntary subscription.

7.1.2.2 Upon reaching a voluntary subscription intention between the transferor and the transferee, the transferor is required to submit a transfer application to the certification platform and file the relevant information, while the certification platform freezes the Zero Carbon Energy Certificates to be transferred.

7.1.3 Transfer

7.1.3.1 The certification platform reviews the relevant materials of the voluntary subscription and, upon the approval of the review, transfers the involved Zero Carbon Energy Certificates to the transferee to complete the voluntary subscription.

7.1.3.2 In the event of failure of the Platform's review, the transferor can apply to unfreeze the involved Zero Carbon Energy Certificates and return it to its own account.

7.2 Use and cancellation

7.2.1 Use and Cancellation Process

The use and cancellation of Zero Carbon Energy Certificates include two phases, as shown in Figure 3.

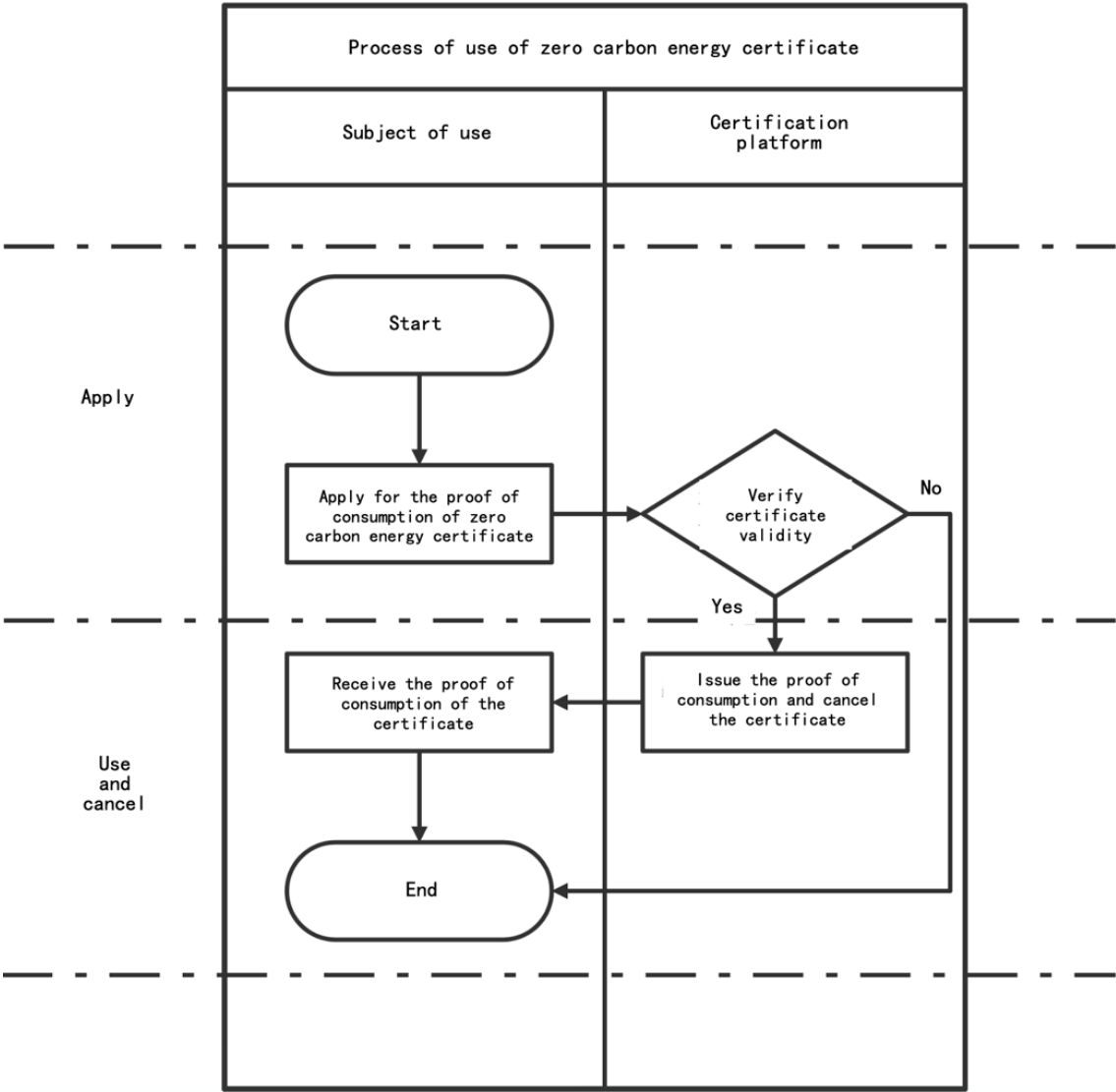


Figure 3. Process of using and canceling Zero Carbon Energy Certificates

7.2.2 Application

The subject of use submits an application for the use of zero-carbon energy certificates to the certification platform based on its purpose, and the certification platform reviews and verifies the validity of the zero-carbon energy certificates.

7.2.3 Use and cancellation

7.2.3.1 When the subject of use applies for the use of the Zero Carbon Energy Certificates it holds, the validity of the involved Certificates shall be reviewed by the Certification Platform.

7.2.3.2 Once the review is approved, the certification platform will issue a proof of consumption for zero-carbon energy for the using subject, while canceling the zero-carbon energy certificates that have been used.

7.2.3.3 By obtaining a proof of consumption for zero carbon energy, the subject of use is considered to have used the corresponding Zero Carbon Energy Certificate.

NOTE: The proof of consumption for zero carbon energy is the only proof of the use of Zero Carbon Energy Certificates.

7.2.3.4 Zero Carbon Energy Certificates that have been canceled cannot be transferred again.

8 Management requirements

8.1 Each involved party shall comply with national and local laws, regulations and relevant management requirements.

8.2 Within the certification system, verification organizations, issuing organizations and other bodies shall build a sound self-management mechanism to ensure compliance with the issuance and use of zero-carbon energy certificates.

8.3 The certification platform could develop corresponding platform management rules in accordance with the present document.

9 Tracking mechanism

The certification platform shall possess a tracking feature to record the information of each step in the whole life cycle of the zero-carbon energy certificate into the certificate to ensure the transparency of information in each step.

If other environmental rights management platforms exist, it is advisable to share information between platforms to avoid repeated calculations or certifications.

Annex A (Normative)

Certificate Format and Content

A.1 The Zero Carbon Energy Certificate shall contain information on the following information:

- 1) Certificate No.*
- 2) Project type*
- 3) Company name*
- 4) Project*
- 5) Monitoring period*
- 6) Issuing date*
- 7) Data collection and monitoring platform
- 8) Amount of energy monitored by the Platform:*
- 9) Amount of certified zero-carbon energy:*
- 10) Certificate status: valid; frozen; canceled;*
- 11) Certificate holders*
- 12) Verification organization
- 13) Issuing organization*
- 14) "Zero Carbon Energy Certificates footprint: (information on certifications, transfers, freezes, uses and cancellations)
- 15) Certification Inquiry Time

NOTE: * marks the information that must be reflected in the certificate issued.

A.2 The details of the Zero Carbon Energy Certificates shall follow a uniform style.

sample: Zero Carbon Energy Certificate No. ZC0000001~ ZC000100, project: Zero Carbon Energy Project; enterprise name: the name of the enterprise; project: the Zero Carbon Energy Project in a certain city in a certain province; the monitoring period is from January 1, 2023 to October 31, 2023; the date of issuance is November 15, 2023; the monitoring energy amount is 2000GJ; the certified energy amount is 1000GJ, and the certificate status is valid.

Zero Carbon Energy Certificate No. ZC0000001~ ZC000100; certificate holder: a certain enterprise; monitoring platform: a certain platform; verification organization: a certain organization; and the issuing organization: a certain organization.

A.3 The content of the proof of consumption for zero carbon energy shall include the serial number of the Zero Carbon Energy Certificate, the name of the certificate holder, the source of the Certificate, the quantity of Zero Carbon Energy Certificates to be used and the purpose of use.

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