**Appendix 2**

**Declaration of Advanced Technological Achievements in Global Low-carbon Innovation**

(Format and completion instructions)

Technology provider: (Full name of the unit with an official stamp)

ontact: Tel: E-mail:

echnology type:

A. Efficiency-enhancing technology

B. Waste and by-product recycling technology

C. Clean energy technology

D. GHG reduction and recycling technology

Please note that the declaration of technological achievements shall be grounded in the commercialization of scientific and technological achievements. First, the critical technological units, core equipment, materials and other specific achievements, instead of the general technological categories like complete sets of processes, shall be underlined. Second, the IPR concerning the technological achievements shall be clear, allowing direct commercialization and match-making, and suitable for industrial investment. Third, the technological achievements shall be nationally leading with mature technological routes. Fourth, the technological content and data shall be consistent to ensure verifiability.

**Commitment**

**We hereby solemnly promise that the information, data and supporting materials submitted for this declaration of the technological achievement(s) are true and accurate, and assume all responsibilities incurred by false information.**

**Declaring Unit (Stamp):**

**Signature of the legal representative:**

**Date Month Year**

I. Technology Name

Completion instructions:

1. The technology name shall not be too broad or contain too many nodes or process units, and highly-integrated processing technologies shall be recommended as appropriate for easy commercial investment; the technology name shall not be too narrow or confined, as this will lead to low commercial value and promotion potential.

2. The technology name shall be clear, specific, and targeted; it shall be able to fully describe the properties of the technological content, instead of being overly general.

3. No English abbreviations shall be contained.

II. Industry Scope

Completion instructions: Indicate the industry (industries) to which the technology is applicable. When there are multiple industries, they shall be separated by commas.

III. Technology Provider

Completion instructions: Provide the full name of the technology provider according to the ownership of IPR.

1. When multiple units are involved in the development, they shall all be indicated.

2. When a patent or other IPR is obtained, the patent number may be indicated.

3. When it is an achievement under a national science and technology planning project, the source of the subject may be indicated.

4. When multiple units are involved in the technology R&D, a representative unit shall be listed on the basis of judgment.

5. The focus shall be domestic intellectual property technologies, and the technologies introduced from abroad shall have been localized.

IV. Scope of Application

Completion instructions:

1. Introduce the application scope of the technology.

2. Introduce the specific application conditions and limitations of the technology, such as the operation scale, the requirements for material properties, the specific relations with upstream and downstream technologies, the operating environment required for the product or technology, the waste and by-products to which the technology is applicable, the specific geographical conditions, and the restrictions on the sources of raw materials.

V. Technological Content (within 200 words)

Completion instructions: Introduce the fundamental mechanism of the technology, focusing on the innovativeness of the technology, the key issues resolved, the means of realizing energy conservation and emission reduction, etc.

VI. Energy Conservation and GHG Reduction Effects (within 200 words)

Completion instructions:

1. Lay emphasis on the energy conservation and GHG reduction effects of the technology. The amount of energy saved or replaced, the amount of GHG emissions reduced, etc. shall be calculated.

2. When a relative value is provided, the baseline or benchmark technologies shall be indicated.

3. The final energy conservation effect shall be indicated with standard coal as the unit; the amount of GHG emissions reduced shall be converted to carbon dioxide equivalent.

4. The data range may be provided as appropriate, but shall be consistent with the data in the Declaration Form.

5. The results shall be rounded off to whole numbers. English words and abbreviations shall be provided with Chinese explanations and full names. Please note the rules of punctuations and symbols.

6. Focus for different technology types:

a. Efficiency-enhancing technology: It shall be compared with a generic technology in the industry in respect of the efficiency enhanced in percentage (%), or in respect of the amount of energy saved (kg standard coal/unit product or percentage [%]), or in respect of the amount of GHG emissions reduced (kg CO2/unit product or unit capacity, etc.). For a percentage, the baseline shall be provided.

b. Waste and by-product recycling technology: The amount of energy saved (kg standard coal/unit product or percentage [%]) or the amount of GHG emissions reduced (kg CO2) compared with that by standard processing methods.

c. Clean energy technology: Alternative of a certain technology (normally fossil energy). If it’s not a congeneric product, indicate how many tons/m3 of the original product can be replaced per unit product, etc.

d. GHG reduction and recycling technology: The amount of GHG emissions reduced or recycled (kg/unit product), etc.

VII. Technology Demonstration (within 250 words)

Completion instructions:

1. Introduce the current performance of the technology in pilot run, or the construction and operation of the demonstration project(s). For example, indicate the quantity, name, location, scale, operating time, operating effect, technical indicators, etc. of the demonstration projects.

2. Provide the address and contact information for the field research later.

VIII. Investment Estimation (within 200 words)

Completion instructions: Given that the investment may be significantly different under different scale of operation for some technologies, the unit investment (CNY 10,000/unit product) or the total investment (equipment investment and the corresponding scale), the operating and maintenance costs of the technology, the technical life, etc. shall be filled in based on the reality.

X. Payback Period

Completion instructions: This shall normally be the static payback period (years). Please provide the calculation basis and indicate the scale or the specific calculation conditions. The payback periods of typical cases may also be provided.

X. Commercialization and Promotion Prospects of the Achievements

Completion instructions: Introduce the current status of development of the technological achievement and their position in the market compared with congeneric technologies (technology penetration). Analyze the exploitable market potential for promotion in the industry or field of, or the scale that can be reached by the technology by 2022, the achievable energy savings, and the potential for carbon emission reduction, in combination with the technological maturity, market capacity, the economic viability of the technology, as well as resource and energy constraints.