

# Clean Energy for Developing Innovatively Technological Entity Applying to Practical Utilization I

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**Received date:** 4 May 2024; **Accepted date:** 5 May 2024; **Published date:** 7 May 2024

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## Abstract

The clean energy of wind generator, photovoltaic and nuclear one would become new prevalent name in recent years, therefore the research and development for applying to practice utilization is about to become dominantly important. The detail wind one would be used for having much strong wind territories such as north America where the sufficient wind force is going to happen. Moreover, the photovoltaic generator can be used in big western regions then transforming into electric capacity for utilizing to general family. At the same time, the nuclear one can transform to stable electric voltage and transfer. The combined the electrical capacity can be transferred into customers from big western region to eastern one. We should optimize those combinations with controlling monitor and using with artificial intelligence state grid. UHV technological application results With using DC 7 hundred thousand voltages can be transferring into eastern territory. Hydraulic power as a traditional one could be applying to many regionally electric supplement with ensuring the stable resource.

**Keywords:** Clean energy; Development; Application; wind; Photovoltaic; Nuclear; practice; Utilization

## Introduction

In recent years the clean non contamination energy will be proceeding dominantly in every place of world, so the corresponding work needs to be done by us critically. In the view of different departments the plan that may be made and proceeded and monitored should be proposed to the determining agenda severely and promptly for building a series of regularly operative ones on agenda. For enhancing efficiency and quality and reducing damage and cost the detail plans and activities should be exhibiting in front of our mostly many citizen continuously and constantly. On the long view, we must make the step towards clean energy fast and entirely for making sure through expressed the innovation results. UHV technology would be applying to the remote distance from western region to eastern one with 8 hundred thousand voltages. So that the transferring technology should be developed and applied to remote distance. On the other side, the overlapping transferring should be searched and innovative through two and

three energy synchronously doing where the low cost and high efficient paths would be explored. Those clean low contamination generator would be invented and optimized for enhancing the efficiency and reducing assembly control cost. Hydraulic power as a old one can be advocated for managing stability and security whose device maintenance and regulation is going to be proceeded easily. As an important factor those clean energy will be utilized further in near future so the relatively knowledge and experience should be explicit and discussed frequently in manufacturer in order to enhance relational innovations [1-14].

## Discussions

Wind power and photovoltaic play an important role in the future energy system, but also cannot be separated from the supplement of nuclear power. The following is a comprehensive introduction and development prospect analysis of these four. They are including in developing wind power, photovoltaic, nuclear power, hydraulic one whose evident roles are clean low contamination energy. In this paper the detail narration is about to be discussed

and researched as future utilizing cleansed ones in below. As for developing innovatively new energy we firstly need to know how they have characteristics at all, then consider throughout their principles for utilizing to practical application.

### Photovoltaic power generation

Photovoltaic power generation refers to the use of solar energy, wind energy and other natural energy, through solar panels, controllers, inverters and other equipment to convert light energy into electricity process. [1] It is a renewable energy utilization technology, with environmental protection, clean, efficient and other advantages, has become an important part of the current and future new energy field. Photovoltaic power generation typically uses solar panels to convert sunlight into direct current, which is then converted into alternating current by an inverter for domestic or industrial use. These panels are made of semiconductor materials, such as silicon, selenium, etc., which absorb and convert sunlight more efficiently, so they can generate a lot of electricity in a well-lit environment. Photovoltaic power generation technology has been widely used in various fields, such as household rooftop power generation, large power stations, power supply in remote areas, etc. With the continuous progress of technology and the continuous reduction of cost, the application prospect of photovoltaic power generation is more and more broad. In addition, photovoltaic power generation also has many advantages, such as no noise, no pollution, long life, low maintenance costs. It can not only reduce the consumption and emissions of fossil energy, reduce environmental pollution, but also provide reliable power supply for remote areas and improve people's quality of life. In general, photovoltaic power generation is a green energy technology with a wide range of application prospects, and it will play an increasingly important role in the future energy field. As shown in Figure 1 the clean energy generation will be classified into four parts which includes in wind power, photovoltaic one, hydraulic, nuclear plant. The blow two have been newly developed ones while the side tow have been experiencing several decades. The former has potential for continuously innovative research and the latter has a certain space for continuing one. The photovoltaic power and wind power generator etc. will be about to commonly use with utilizing intelligently electric grid could enhance their efficient utilization and lower manufacture and maintenance cost, which is a best conclusion in this paper.

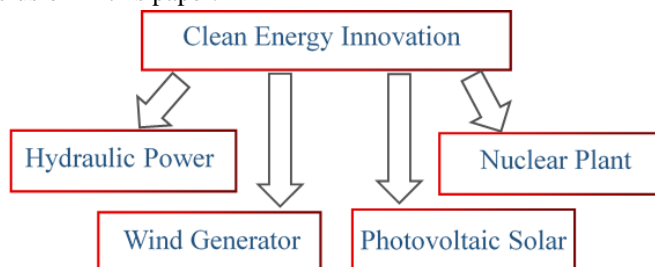


Figure 1 The clean energy generators classification as a sustainability development in recent years.

### Nuclear power

Nuclear power generation is a way of using nuclear energy to generate electricity, which has the advantages of high efficiency, clean and safe. Nuclear power generation usually requires the use of nuclear reactors to generate heat and convert water into steam, which in turn drives a turbogenerator to generate electricity [1]. Here are some details about nuclear power generation:

**Principle of nuclear power generation:** The principle of nuclear power generation is to use a nuclear reactor to generate heat, convert water into steam, and then drive a turbogenerator to generate electricity. In a nuclear reactor, nuclear fuel is released through a fission process, which produces a large amount of heat that turns water into steam, drives a turbine, and is converted into electricity by a generator.

### Advantages of nuclear power generation:

- High efficiency: Nuclear energy conversion efficiency is high, can convert almost all the energy in nuclear fuel into electricity, compared with traditional fossil energy generation more efficient.
- Clean: Nuclear power generation process will not produce harmful gases and particles, will not cause pollution to the environment.
- Safety: Nuclear power plants usually have strict safety measures and emergency plans to ensure the safe operation of nuclear power plants.

**Development of nuclear power generation:** Nuclear power generation technology has been rapidly developed and applied in recent years. Many countries in the world are actively promoting the construction and development of nuclear power projects and have achieved certain results. At the same time, China is also actively developing the nuclear power industry, in Fujian, Zhejiang, Guangdong and other places have built a number of nuclear power plants.

### The impact of nuclear power generation on the environment:

Although nuclear power generation has many advantages, it also has certain risks and challenges. For example, the construction and operation of nuclear power plants need to take into account environmental factors and safety concerns. In addition, the disposal and storage of nuclear waste is an important challenge. Therefore, while developing nuclear power generation, it is necessary to strengthen supervision and management to ensure its safety and environmental protection. In short, nuclear power generation is a kind of power generation with the advantages of high efficiency, clean and safe. In the future development, we need to strengthen supervision and management to ensure its safety and environmental protection, while actively exploring more advanced nuclear power technology to promote the sustainable development of the nuclear power industry.

## Conclusions

The high technique quantum computer would develop the sustainability cut edge scientific project recently, therein searching for it could provide higher computation capability applied to 5G information and big scale logistics management etc. now. On the other hand, the ChangE series lunar explorer has been launched on May 3rd, 2024 whose task is going to carry back moon back territory soil sample to earth of China. Above two projects are able to ensure Chinese high end technological level to go upside existing former line of world altitude in near future. As known Chinese high technology has been becoming gradually dominant in world, so the cut edge projects will contribute to world human beings innovation and science progression, which is concluded here. So we need to continuously search them for utilized to current equipment in order to improve their property with certain innovativeness who's developing level wants many talents participated in near future. Many reformative ideas is about to be utilizing on those product and equipment so as to improve our innovativeness achievement. The future must become a fully new innovation product for us to manufacture and continuously develop.

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