**Keynote speech1**

Thank you, Mr Huang! Thank you for your wonderful speech. It’s my great honor to be here to share some of my thoughts in this conference. And today I will talk about new energy. It refers to various forms of energy other than traditional energy sources. These kinds of energy have just begun to be exploited and utilized, such as solar energy, wind energy, biomass energy, tidal energy, geothermal energy, hydrogen energy and nuclear energy, etc.

It is known to all that a number of major energy-related challenges face the world as it moves into the 21st century. The prosperity and well-being of future generations will be strongly affected by the manner in which the nations responds to these challenges. Under this circumstance, our team has assessed how new energy technologies can address key energy and environmental challenges facing the world. And we will discuss new energy from three aspects: how do we collect and use new energy sources, what is the significance of new energy sources for energy conservation and emission reduction, and where is the future of new energy.

First of all, I will introduce the most popular new energy source, solar energy. Other forms of new energy will be introduced by my partners——Professor Tu and Professor Yang.

Let us go directly to the theme, the sun emits a large amount of energy every day, we have only effectively used one in ten thousand of them. Solar energy is inexhaustible, and there is no pollution in the energy conversion process. Scientists realize that drying fish is not the only use of the sun, using solar energy for power generation is a very effective way to solve problems like energy shortages and environmental pollution.

Although the total amount of solar energy is equivalent to more than 10,000 times that of energy which human used, the energy density of solar energy is low, and it varies from place to place, and it changes with time. So we figure out two methods to use solar energy: solar photovoltaic and solar thermal. If you are good at observing, you will find many modern buildings and the top of the bungalows which are equipped with solar panels to collect solar energy into electricity for daily use. Solar thermal is using solar energy to produce hot water, steam and electricity. Some buildings are designed with appropriate equipment such as installing giant south facing windows or using building materials that absorb and slowly release the sun's heat.

In the field of solar power generation, the United States, India, Japan and Australia are at the forefront of the world. China caught up later and became a big solar power producer. From 2010 to 2018, the cumulative global installed capacity of photovoltaics has increased more than ten times. As of the end of 2018, China's photovoltaic power generation capacity is about 1.3×108 kW, and the cumulative installed capacity is 130.25 GW.

In a nutshell , using solar energy generation still have a long way to go, and it will enjoy a bright future.

That’s my part and thank you for listening, if you have any question don’t hesitate to ask.