

# **“Energy Futures and Energy Cooperation in the Northeast Asia Region”**

A presentation by the DPRK delegation  
to the Nautilus Institute’s 2006 Asian  
Energy Security Workshop, November  
6<sup>th</sup> and 7<sup>th</sup>, 2006 in Beijing China.

**2006 Asian Energy Security Workshop**  
**“Energy Futures and Energy Cooperation in the Northeast Asia Region”**  
**November 6 – November 7, 2006 Beijing, China**  
(Dr. Yong Ho, member of Energy Center, PIINTEC)

I would like to express deep appreciation for hosting this workshop so that we can share good opinions concerning energy prospect and cooperation in the energy sector in northeast Asia.

I think this debate will be of greater importance in exchanging opinions about energy prospect in northeast Asia including our country and promoting cooperation in the energy sector.

In the past, the DPRK has made every possible effort to create and develop the independent energy industry with coal and hydraulic resources as its core.

Until the end of last century, coal, one of the main energy resources in our country, accounted for about 80% of the first energy consumption, out of which 50 or 60% for generation of electricity and the rest for the use in other industrial sectors and as fuel for population.

The DPRK has created the nuclear power industry of our own in order to meet the ever-increasing energy demand in a diversified and secure way, while reconstructing and modernizing thermal power stations built in 1960s and 1970s.

The United States pledged to provide the DPRK with a Light water reactor with the capacity of 2,000MW until 2003 to compensate the freeze of our nuclear power industry. After taking office, the new US administration unilaterally repealed the DPRK-US Agreed Framework adopted by the DPRK and the former US administration and suspended the Light water reactor construction, thus producing a vacuum in our power industry and increasing the electricity shortage.

To cope with this situation, the DPRK began to increase the governmental investment in the construction of hydraulic power stations which are free from the ecological environment pollution, while pushing ahead with the technological upgrading of the existing thermal power stations. As a result of putting emphasis on building large-sized hydraulic power stations, the ratio of hydraulic power in electricity production has further increased at present.

Our Future direction for securing energy is the technological upgrading of the existing thermal power plants to increase the energy conversion efficiency, further construction of hydraulic power stations to raise its proportion, and taking positive measures to develop and utilize the renewable energy including wind power. We are going to confine ourselves to the existing thermal power plants, no longer building new plants for the time being. As for hydraulic power plants, we plan to raise the turbine efficiency of the existing plants, implement several technological reconstruction works, and continue with the construction of new power plants, thereby constantly improving their generating capacity.

What we give precedence to is the increased production of wind power energy. We have already completed the field survey for windmill operation.

Small-sized windmill generators with the capacity of less than 5KW are being produced and supplying to rural areas and remote places amid the attention of the government and great

efforts are made to complete the technology of manufacturing 100KW-capacity windmill generators and to produce generators with more than 500KW-capacity through Joint ventures with other advanced countries so as to actively develop wind power resources. In connection with it, the government proposes Joint development of heavy and rare metal mines together with foreign investors.

We are also making efforts to actively develop and utilize not only wind power but also renewable energy such as organic matter energy.

Typical method of using organic matter energy is to use methane gas. We endeavor to supply energy necessary for livestock farms and dwelling houses by turning organic matters like grain straw into methane gas, which is good for environmental protection. For this purpose, professional research institutions for producing methane gas are organized and set to work for continuously renewing and developing the technology of gasification and introducing it to productive sites.

A simple and small-scale method for using methane gas in dwelling houses and other comprehensive method of producing methane gas with excrements in large livestock farms and supplying electricity and heat energy to those farms are being widely introduced.

We are deeply interested in international cooperation in this work through CDM.

In our country, there are large number of duck, pig and other farms, and we are making efforts to use energy effectively while preserving environment by introducing modern technology of using methane gas. This work requires international technological exchange and cooperation, and we are making all efforts for this.

We are also consistently pushing ahead with the work of introducing energy saving technologies in time in economic, social and all other fields.

Last and this year we have replaced incandescent lamps with compact lamps as one of energy saving measures, which has enabled us to save large quantity of electricity.

It is very important in the development of national and local energy systems to increase the efficiency in energy transmission as well as energy production, saving and transformation efficiency. In order to ensure balanced development of the area and increase energy supply efficiency, we are making no small investment in the work of rationalizing electricity transmission system, raising transmission voltage and unify distribution voltage.

The tense situation in coal production and demand urgently requires us to introduce urban heating in a modern and efficient way. Given the tense electricity situation and lack of natural gas in our country, we are going to improve the heat insulation of buildings so as to reduce the heat loss coefficient. This will ensure sufficient urban heating without increasing carbon dioxide emission. At the same time, while raising the effectiveness of central urban heating system, we are also paying attention to the construction of modern sample buildings supplying energy for house use through the comprehensive use of solar energy, and its introduction throughout the country.

We are making efforts for all-round technological rehabilitation of energy sector in order to realize the great goal of building a powerful nation and to ensure clean living environment for the future.

Thank you for your attention.