

## Pakistan National Statement

### **NUCLEAR POWER DEVELOPMENT IN PAKISTAN**

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H.E. Mr Hamad Alkaabi, President of the Conference, Mr Yukiya Amano, Director General, International Atomic Energy Agency (IAEA), Dignitaries, distinguished guests, ladies and gentlemen

As-Salam-0-Alakum and good morning.

Electricity is the very fiber that spins the socio-economic development fabric of any community. Every aspect of development, from reducing poverty and raising living standards to improving health care, and industrial and agriculture productivity requires reliable and affordable supply of electricity.

Growing population mostly in developing countries and expanding world economy will continue to drive the demand for electricity. Rising public awareness of the deteriorating environment coupled with energy security will affect the energy choices of countries. Nuclear energy, as one of these choices, has a vital role to support sustainable growth while addressing the concerns of climate change, enhancement of energy security and diversification of power system.

The electricity demand in Pakistan is expected to increase substantially in the coming decades because of growth of population and socio-economic development. All economically feasible and environment friendly options have to be used for a sustainable power sector development in the country.

The Government of Pakistan policy document 'Pakistan Vision 2025' emphasizes energy security for sustained economic growth for the country focuses on utilization of indigenous energy resources. Now, I will say few words on major energy resources in Pakistan and their potential in the future.

- Oil production from a meager oil resource base fails to meet the demand of the country. Imported crude oil and oil products make

up for more than 80% of total oil demand of Pakistan. The country spent around US 10 billion on oil import during previous financial year that was almost half of its total export earnings.

- Indigenous natural gas reserves of the country are quickly regressing to very high demand in; residential sector, industry, electricity generation and manufacturing of fertilizer and chemicals. Owing to low production of indigenous gas, the country has to import Liquefied Natural Gas (LNG) to meet its gas demand.
- Major coal resource of Pakistan belongs to Thar coal field that is of lignite quality with very high moisture content.
- Hydro power potential is concentrated in the mountainous region that is in tough terrain and far away from load centers. A likely impact of climate change on hydro power is risk on reliability of electricity supply due to increasing seasonal variation in water flows.

Mr. President

Nuclear power is a competitive electricity generation option in the country. This would not only consolidate energy security but also provide highly skilled manpower and industrial infrastructure with no damage to the environment.

The first nuclear power plant of Pakistan, 137 MW KANUPP, has a very special place in the history of country's nuclear power programme. International sanctions on KANUPP helped Pakistan to develop its own design, manufacturing capabilities and indigenous fuel that went a long way to extend the nuclear power programme of the country. KANUPP had a design life of 30 years but with in-house modifications and up-gradations it has lasted 44 years of safe and successful operation. This success story of KANUPP gave Pakistan the confidence to expand its nuclear power programme.

At present, there are five operating nuclear power plants contributing to 5-6% shares in the electricity mix of the country. Two nuclear power plants, 1100 MW each, are under construction near KANUPP scheduled to be completed by 2021.

We are convinced that nuclear power is the key to meet our energy needs for sustainable development. Our nuclear plants at Chashma have shown exceptional capacity factors and outperformed all their domestic counterparts in consistency. Pakistan now has more than 44-year experience of operating nuclear power plants and has developed a front end of nuclear fuel cycle.

With this background in nuclear power technology, and successful experience in dealing with safe operation and maintenance of nuclear power plants, Pakistan is now poised to make a larger contribution towards meeting the energy requirements of the country that call for the establishment of 8,800 MW of nuclear capacity by 2030 as envisaged in its Energy Security Plan 2005.

Ladies and gentlemen,

Nuclear power is a base-load electricity generation option that helps enhance security of supply for a country like Pakistan, having limited energy resources. It provides sustainability of electricity price because of low share of fuel cost and does not emit greenhouse gas emissions considered responsible for Climate Change.

Achieving this target of 8,800 MW nuclear capacity by 2030 is a major challenge for us that requires expansion of our design and engineering capability, strengthening of industrial infrastructure and human resources. International cooperation in expansion of nuclear power development in Pakistan is highly desired and mutually beneficial. An expanded nuclear power programme of Pakistan will help in reducing the burden on environment and stress on global conventional fossil fuel resources.

In the end I would like to thank the Government of United Arab Emirates and IAEA in organizing this Ministerial Conference on Nuclear Power in the 21st Century. The exchange of views at the Conference would help to develop shared perspective in this important sector.