

Pakistan National Statement

NUCLEAR POWER DEVELOPMENT IN PAKISTAN

Chairman,
Pakistan Atomic Energy Commission

Mr. Chairman, Excellencies, Director General IAEA, --- International Energy Agency, ---- Nuclear Energy Agency, ---- US Department of Energy, distinguished guests, ladies and gentlemen.

Energy plays a pivotal role in the socio-economic development. Electricity requirement continues to grow mainly driven by energy deficient and is densely populated countries. Indiscriminate burning of fossil fuels in the last century has resulted in large man-made GHG emissions, causing global warming and climate change.

Production of energy based on technologies that are less damaging to the environment will have to play a greater role to support sustainable socio-economic development. Nuclear is one of the viable option that can supply sizeable electricity with no GHG emission.

Pakistan is world's fifth most populous country but contributes very little to global GHG emissions. It still faces extreme effects of climate change. However, we are committed to achieving the targets set by the Paris Agreement. To address the climate change impacts, a National Climate Change Policy is in place since 2012. Climate change is an existential threat to us. We have experienced many weather related calamities during the last two decades that can only be attributed to climate change and these events are becoming more severe and more frequent every subsequent year.

Heat wave in the start of this year coupled with rising global temperature adversely affected crop production, river flows and electricity production. The unprecedented rainfall this monsoon season caused heavy flooding, submerging one third of the country, killing thousands of people, sweeping off hundreds of villages, completely destroying crops, livestock, rail & road infrastructure and causing damages of over 40 billion dollars.

A relatively small share of nuclear capacity played a big role in rescuing the country's economy from this crisis and seamlessly supplied base-load electricity to the national grid. Nuclear electricity not only maintained the supply of electricity but also maintained price of the grid electricity within a reasonable range. These chain of turbulent events, in the past 2-3 years, highlighted the pivotal role of nuclear power in energy security and stability of electricity prices.

Today, Pakistan has six operating nuclear power plants with 3,620 MW capacity. Another 1,200 MW nuclear power plant is being planned. Nuclear constitute around 8% of national electricity installed capacity. Last year this small percentage of capacity generated over 13% of the country's electricity needs. Pakistan consider nuclear power as an essential part of the future electricity mix. The Electricity Policy 2021, aims to gradually reduce reliance on fossil fuel.

Pakistan has more than 96-reactor year experience of safe operation of nuclear power plants. It is the member of WANO and COG. Membership of these organizations contributes to safe and economic operation of nuclear power plants. However, even after decades of safe operation and good public acceptance, nuclear power could not carve significant share in the energy mix mainly due to international embargoes and restriction and heavy upfront

investments. Pakistan has trained human resource to support nuclear power plants infrastructure within the country. Nuclear waste is being managed according to international best practices; two sites are under development for near surface interim storage of waste.

Pakistan's regulatory infrastructure is well evolved and works by adopting good practices, and international safety standards. Small Modular Reactors (SMR) technologies have great promise to addresses almost all technological, economic, environmental and proliferation concerns. They will be flexible enough to be easily integrated with the modern electric grid. Pakistan is eagerly seeking international cooperation in technology, infrastructure and human resource development along with investment in this area.

The Intergovernmental Panel on Climate Change (IPCC) and many other international studies have underscored the essential role that nuclear power can play in achieving a reliable, affordable and low carbon energy system.

The world must pay close attention to the climate change research and embrace changes in their lifestyle to avert global warming. World must foster rapid deployment of nuclear power in communities where it enjoys public support and a clear message should be sent across "***no future with sustainable growth is imaginable without nuclear power***".

In the end, I would like to thank the Government of United States of America 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 on this important sector.