Speech of Saeed Alam Siddiqi, Member (Power),
Pakistan Atomic Energy Commission,
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Mr. Chairman,
Distinguished Delegates,
Ladies and Gentlemen,

Let me start by offering my gratitude to the IAEA and the Government of the Russian Federation for organizing this event. It has provided the nuclear energy planners, decision makers, and operators an opportunity to share thoughts about the imperatives of nuclear power in the 21st century. Although each country has its own peculiar set of circumstances that shape its decisions and course of action, two things are common about nuclear power everywhere: a lot of promise and potential, and a host of apprehensions.

Mr. Chairman,

Sustainable development for a growing population in the scenario of shrinking resources is probably the biggest challenge that we face today. We keep coming back to this cross-road of nuclear power because provision of secure, socially acceptable, economically viable, and environmentally benign energy supply mechanisms is a pre-requisite for sustainable development.

Nuclear energy has all these characteristics and has therefore been a significant player in global electrical power production over the past several decades. It also has the potential to become a much more

important contributor as we move forward into the 21st century. However, to be able to play its rightful role in meeting the energy demands, it has to successfully meet a number of challenges, and I may mention a few here just to remind ourselves.

First and foremost is the public perception of nuclear power. Much more proactive efforts have to be made to get the real facts about radiation effects understood by the general public in order to eliminate the unnecessary costs imposed by the widely prevalent irrational fear of radiation. It is this "fear factor" which has also negatively impacted governmental decision making processes in some countries. Simultaneously, the positive message about the environment friendliness of nuclear power must also be conveyed much more vigorously. This includes its minimal carbon footprint as well as its role in keeping air clean and free of noxious pollutants.

Second, there is the challenge of keeping construction costs of nuclear power plants under control while meeting the demands of increasingly stringent safety standards. The rapidly escalating capital costs of new projects threaten to make nuclear power uncompetitive in the market place. The high costs are also driven by another fear factor: the fear of uncertain regulatory requirements, organized anti-nuke groups, lack of standardization in nuclear power plants where the vendors try to cover themselves against uncertainties, and the apprehensions about commodity price fluctuations over the extended period of time required to build a nuclear power plant. Designers, manufacturers, and architect-engineers have to come up with innovative ideas to reverse this trend, or nuclear power which was once boasted to be too cheap to meter would just be out-priced.

And third, which is more specific to my own country, is the burden of barriers to commerce in peaceful applications of nuclear technology. These must be lifted and it should be recognized that nuclear weapons proliferation does not stem from nuclear power related projects under IAEA safeguards. At present, the system of international trade restrictions in this field is full of contradictions, inconsistencies, and inequitable practices. Nuclear power must be freed of these restraints and allowed to attain its full potential for providing clean and reliable energy, particularly to energy starved countries like mine.

And this brings me to the situation in my own country, Pakistan. Our per capita use of modern energy services is much lower than the world average and we need to double our power generation capacity every 10 years even in the low economic growth scenario. The indigenous energy resources of Pakistan will not be sufficient to meet energy demands of the future, and there is a dire need of technologies that are commercially established and can add capacity in bulk.

Pakistan currently relies heavily on imported oil for electricity generation, and consequently, rising international oil prices have been creating serious problems for our society and economy. The Energy Security Plan of the Government of Pakistan envisages a shift from imported fuels to indigenous energy resources of hydro and coal, as well as an accelerated program of nuclear power development—not as a matter of choice, but as a matter of dire necessity.

Mr. Chairman,

Pakistan had recognized the potential of nuclear power quite early and our first nuclear power plant was made operational in 1972. We have

safely operated this plant for more than 40 years without any vendor support and have also refurbished and upgraded it to extend its operating life by 15 years. Our nuclear power program could not sustain its initial momentum due to the environment of barriers and restrictions that it faced. However, we were able to revive it in the early 1990s. Since then, two new nuclear power plants, of 325 MWe each, have been made operational while two others, of 340 MWe each, are under construction and are expected to be completed by the end of 2016. But much more needs to be done if nuclear energy is to make any significant impact in relieving the country of its perpetual load shedding regime.

Since the foundation of its nuclear energy development program, Pakistan has always recognized that nuclear safety and security in the national and international context are vital objectives. We have an independent nuclear regulator. As a Party to the Conventions on Nuclear Safety and Early Notification of a Nuclear Accident, Pakistan has put in place measures for compliance with its obligations. After the Fukushima event, safety of the existing plants was thoroughly reviewed. A comprehensive program of safety upgrades has been formulated and is implemented. The enhanced safety requirements are also reflected in the design safety of new plants.

All of Pakistan's civilian nuclear power plants are under the IAEA safeguards and it has been our declared policy that all new civilian nuclear facilities which may be established in cooperation with other countries will also be placed under these safeguards. We are also willing to discuss alternative mechanisms for funding nuclear power plants, including joint ownership and joint management of these plants.

Mr. Chairman,

Pakistan believes that nuclear power, as a reliable, relatively benign energy source, has the potential to greatly ease the problems of global development. It is the responsibility of the international community to lift artificial barriers and allay the unreasonable concerns that have impeded its growth

Thank you.