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Position Paper on
Nuclear Power and Security of Energy Supply

Efficient demand side management and even wider promotion of renewable energies alone cannot meet the EU's ever-growing need for electricity. World electricity consumption is forecast to more than double by the year 2050. For Europe alone, the OECD-IEA predicts a 40% increase in energy demand between 2000 and 2030. Moreover, many old power plants will be retired by 2030. An estimated 750 GW of new capacity needs to be built in the EU by 2030 in order to meet the increasing demand and replace existing plants.

The contribution that all energy sources can make to guaranteeing sufficient generation capacity should be acknowledged. Removing any one option from the energy mix would diminish diversity and, as a result, hinder security of supply.

As a proven and safe technology, nuclear power has an important role to play in terms of ensuring secure electricity generation without any CO_2 emissions.

Nuclear power is an excellent source of base-load power. Most power plants operate continuously with very high capacity factors, as they are normally stopped only for refuelling and routine maintenance. The capacity factors in the EU are around 90 %, contributing significantly to the competitiveness of nuclear power plants.

Prices for nuclear generated electricity are stable and predictable as changes in fuel costs and operating costs have practically little impact on the final electricity price.

The fuel requirements of nuclear power plants are small. Fuel elements are easy to stockpile and operators in the EU typically carry several years supply, thereby contributing to the security of supply.

With nuclear electricity, the EU can secure its energy supply as fuel supplies come from stable countries, e.g. Canada, Australia, which guarantees a greater degree of independence.