

IAEA Press Releases

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Nuclear Power Worldwide: Status and Outlook

11 September 2008 | Nuclear power, in step with growing global demand for energy, will continue expanding into the next two decades, says the 2008 edition of *Energy, Electricity and Nuclear Power Estimates for the Period to 2030*, just published by the International Atomic Energy Agency (IAEA).

The IAEA [report](#) about the prospects for nuclear power, produced every year since 1981, provides high and low projections – very general growth trends whose validity must constantly be subjected to critical review, the report states.

The low projection assumes that all nuclear capacity currently under construction or in the development pipeline gets constructed and current policies, such as phaseouts, remain unchanged. In such a scenario there would be growth in nuclear electricity production capacity to 473 gigawatt electrical (GW[e]) from the current 372 GW[e]. (A gigawatt is one billion watts).

The IAEA's high projection, based on government and corporate announcements about longer-term plans for nuclear investments, as well as potential new national policies, such as responses to new international environmental agreements to combat climate change, estimates nuclear power electricity capacity would grow to 748 GW[e] by 2030.

Rising costs of natural gas and coal, coupled with energy supply security and environmental constraints are among factors contributing to nuclear's growth, said Hans-Holger Rogner, Head of the IAEA's Nuclear Energy Planning and Economic Studies Section.

"The IAEA's higher projection is in step with an anticipated level of 3.2 per cent annual growth in global power generation," he said. "In the low projection, overall global electricity annual growth is 1.9 per cent and nuclear power's share is projected to drop to about 12.5 per cent by 2030."

From 2007 to 2008 the report says, total global electricity generation rose 4.8% while nuclear power's share dropped to 14% from a nearly steady rate of 16 – 17 per cent between 1986 and 2005.

Mr. Rogner said that new environmental constraints such as entry-into-force of the Kyoto Protocol and the European carbon trading scheme mean there is now a real financial benefit to avoiding greenhouse gas emissions, adding to the appeal of low-carbon electricity generation, including nuclear power and renewables.

The complete nuclear power chain – including uranium mining, reactor construction and waste disposal – emits only 3 – 24 grams of carbon dioxide per kilowatt-hour, about the same as wind and hydro power, and well below coal, oil and natural gas, Mr. Rogner added.

The IAEA provides energy planning assistance to its 145 member states. When a state considers launching a nuclear energy programme for the first time, the IAEA has established a set of [milestones](#) for it to follow.

Audio Q & A with IAEA, is available [here](#).

For further information, please contact: IAEA Division of Public Information, Media & Outreach Section, tel. [43-1] 2600-21273. For further details on the current status of the nuclear industry, go to the IAEA's [Power Reactor Information System \(PRIS\)](#).

Related Resources:

- » [Nuclear's Great Expectations](#)
- » [Energy, Electricity and Nuclear Power Estimates for the Period up to 2030](#), Report
- » [Nuclear Power in Focus](#)

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About the IAEA

The International Atomic Energy Agency (IAEA) serves as the world's foremost intergovernmental forum for scientific and technical co-operation in the peaceful use of nuclear technology. Established as an autonomous organization under the United Nations (UN) in 1957, the IAEA carries out programmes to maximize the useful contribution of nuclear technology to society while verifying its peaceful use.

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