DAILY NEWS to Members: 20/02/2008 by Tóth Gábor

NUCLEAR POWER: IAEA REPORT LOOKS AT A QUARTER-CENTURY OF HISTORY PLUS PROSPECTS FOR THE NEXT TWENTY-FIVE YEARS

The International Atomic Energy Agency (IAEA)* is projecting a worldwide expansion of nuclear power capacity by 2030, with estimates ranging from an additional 13% to 85% depending on the scenario. A recent report, *Energy, Electricity and Nuclear Power: Developments and Projections – 25 Years Past & Future*, quantifies the global and regional development of nuclear power from 1980 to 2005 and offers projections up to 2030. The report also points out that improving performance in existing power plants has added 74 'virtual' nuclear units of 1GW each in the last 15 years.

The IAEA is a United Nations Agency currently boasting 144 member states from around the globe. Its statutes, approved on 23 October 1956, set out the principal objective "*to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world*". Based in Vienna, the Agency is currently led by Director-General Dr. Mohamed El Baradei, under whose aegis the organisation was honoured with the Nobel Peace Prize in 2005 as being "*a fearless advocate of atoms for peace, not warheads*".

A number of recent global or regional energy studies have projected a range of possible futures for nuclear power. Many of these studies point to the need for substantial expansion of nuclear capacity by 2030 in order to meet world energy demand and help to mitigate climate change. The IAEA report offers national authorities, energy experts, the media and the general public a picture of worldwide and regional trends in energy use, electricity generation and nuclear power development during the past 25 years plus latest projections of nuclear power development for the next 25 years to 2030, compared with the IAEA's previous projections and placed in the context of projected trends in energy use and electricity generation until 2030 by world regions.

The report points out that although only thirty countries currently operate nuclear power plants, the electricity they generate accounts for some 15% of the world's total power generation. Most of the world's nuclear power development took place in the 1970s and 1980s, when the number of nuclear units in operation increased by 332. Between 1990 and 2005 however only 25 new units came on stream. Notwithstanding this slowdown, nuclear power generation has been continually increasing due to improving performance.

A review of the IAEA's own projections made every five years since 1985 shows a pattern of gradually but consistently declining projections to 2000. The 2005 projections then once again showed rising expectations for worldwide nuclear power development. However, all scenarios still foresee a "*continuous and significant*" decline in Western Europe until 2030, while Eastern Europe shows a decline until 2010 followed by a rising trend up to 2030, the IAEA report reveals.

*For more on the IAEA, see DN 04/04/2006; for more on nuclear see DNs 29/11, 31&22/10/2007.