

Nuclear energy: strengthening its position



Today's, and tomorrow's, energy sources need to be safe, clean and affordable. Nuclear energy continues to strengthen its position in this regard and is increasingly being seen and accepted as forming a part of the energy mix. This was reflected in the widespread, high-level participation in the international conference on Access to Civil Nuclear Energy held at the OECD Conference Centre in March. More recently, nuclear energy was recognised as a low-carbon technology aimed at controlling greenhouse gas emissions, and at the same time ensuring secure energy supply at reasonable costs, when I was honoured with the 2010 EURELECTRIC award. The *Nuclear Energy Technology Roadmap*, a joint publication just released by the International Energy Agency (IEA) and the OECD Nuclear Energy Agency (NEA), estimates that almost one quarter of global electricity could be generated from nuclear power by 2050, making a major contribution to cutting greenhouse gas emissions.

Another recent, joint IEA/NEA publication presents the latest cost data available for a wide variety of fuels and technologies, including coal and gas (with and without carbon capture), nuclear, hydro, onshore and offshore wind, biomass, solar, wave and tidal as well as combined heat and power. It provides levelised costs of electricity for almost 200 plants in 21 countries and contains an extensive sensitivity analysis of the impact of variations in key parameters such as discount rates, fuel prices and carbon costs. The article on page 4 discusses the report's main findings as well as other issues surrounding the economic competitiveness of nuclear power.

Nuclear energy is also particularly well-placed for ensuring security of energy supply. Currently identified uranium resources are already sufficient for over 100 years of supply (at 2008 levels of consumption) and are available in geographically diversified, politically stable regions. Some of the latest figures on uranium resources, production and demand are provided in the article on page 9. It should also be noted that thanks to one of the most strictly regulated and closely monitored sets of safety standards, the nuclear energy safety record continues to be strengthened, currently benefiting from about 13 000 reactor-years of experience worldwide. As the article on page 18 shows, safety remains a priority for the nuclear sector and further research efforts are being pursued. Readers will also discover in the pages that follow a number of other articles on issues of interest being addressed by the Agency.

In closing, I would like to take this opportunity to congratulate those who have contributed towards the establishment and development of the International School of Nuclear Law, a joint endeavour between the NEA and the University of Montpellier 1 in France, which is celebrating its 10th anniversary this year. A short description of the programme is provided on page 22. These and other efforts are each playing a part in helping to make nuclear energy safe, economic and environmentally acceptable.

A handwritten signature in dark ink, which appears to read 'Luis E. Echávarri'. The signature is fluid and stylized, with the first name 'Luis' being particularly prominent.

Luis E. Echávarri
NEA Director-General