

Global Status and Outlook for Nuclear Power

CSD-14, New York • 5 May 2006

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Agenda

Introduction

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Nuclear Power: Status and Outlook

Alan McDonald, Programme Liaison Officer, Department of Nuclear Energy, IAEA

Nuclear Energy and Sustainable Development

Thierry Dujardin, Deputy Director, Science and Development, OECD/NEA

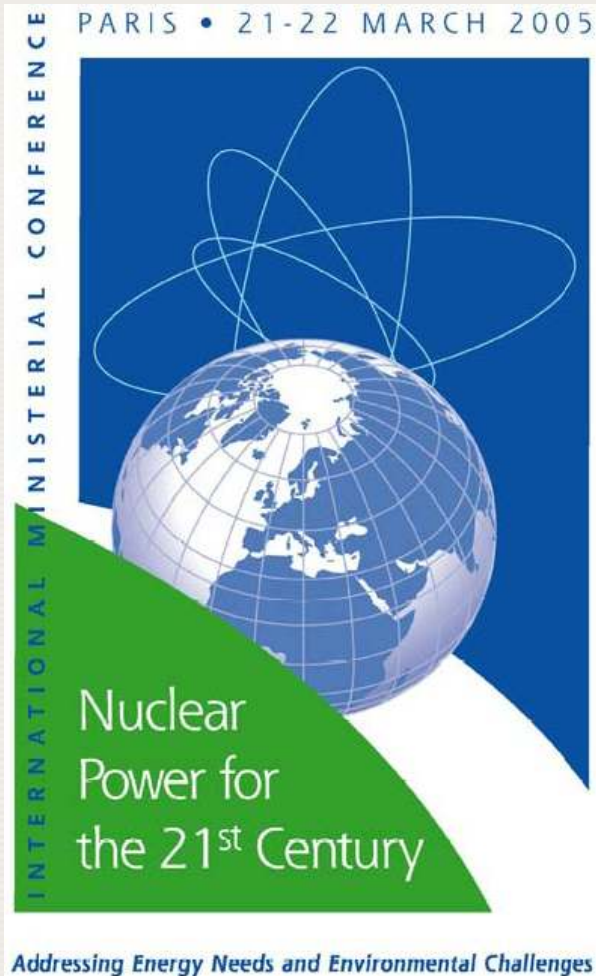
U.S. Status and Outlook for Nuclear Power

K.P. Lau, Office of International Nuclear Cooperation, Office of Nuclear Energy, U.S. Department of Energy

Nuclear renaissance?

- **Starting 2-3 years ago many countries with currently flat nuclear power programmes have begun to reconsider the future of the technology.**
 - **Expansion**
 - **Contraction**
- **Countries currently without nuclear power wish to find out more about the technology**

Rising expectations



- Concluding statement
“.. a vast majority of participants affirmed that nuclear power can make a major contribution to meeting energy needs and sustaining the world’s development in the 21st century, for a large number of both developed and developing countries”.

A history of mistaken forecasts

“The energy produced by breaking down the atom is a very poor kind of thing. Anyone who expects a source of power from the transformations of these atoms is talking moonshine.”

Lord Ernest Rutherford
1933

A history of mistaken forecasts

“It is not too much to expect that our children will enjoy in their homes [nuclear generated] electrical energy ***too cheap to meter.***”

Lewis Strauss
Chairman
US Atomic Energy Commission
1954

Nuclear Power & Sustainable Development

At CSD-9 in 2001 nuclear power was particularly controversial.

It reached two conclusions articulated in the final decision on energy.

- First, countries agreed to disagree.**

Con: Nuclear & Sustainability

- No long-term solution to waste
- Nuclear weapons proliferation & security
- Safety: countries that consider current nuclear risks excessive do not want more
- Transboundary consequences, decommissioning & transport
- Too expensive



WIPP



Pro: Nuclear & Sustainability

- **Brundtland about keeping options open**
- **Expands electricity supplies (“connecting the unconnected”)**
- **Reduces harmful emissions**
- **Puts uranium to productive use**
- **Increases human & technological capital**
- **Ahead in internalising externalities**



Nuclear Power & Sustainable Development

At CSD-9 in 2001 nuclear power was particularly controversial.

It reached two conclusions articulated in the final decision on energy.

- First, countries agreed to disagree.**
- Second, countries agreed that “The choice of nuclear energy rests with countries.”**

Nuclear Power & Sustainable Development

- **The WSSD did not repeat the CSD-9 nuclear debate.**
- **On energy, the JPOI begins with a call to implement all the CSD-9 energy decisions.**
- **WSSD adds a positive technology list with “advanced energy technologies”, which includes nuclear power as reported now in Paragraph 60 of the SG’s report.**

There is no silver bullet.....

- **There is no technology without risks, wastes or interaction with the environment**
- **Therefore, it does not make sense to discuss a particular technology in isolation**
- **Rather, one has to compare the performance of a particular technology with its alternatives on a life cycle analysis (LCA) basis under different national or local conditions**

Objective of this side-event

- **Current status**
- **Future prospects and latest projections**
- **Nuclear power and sustainable development**
- **RD&D and innovation**
- **.....**