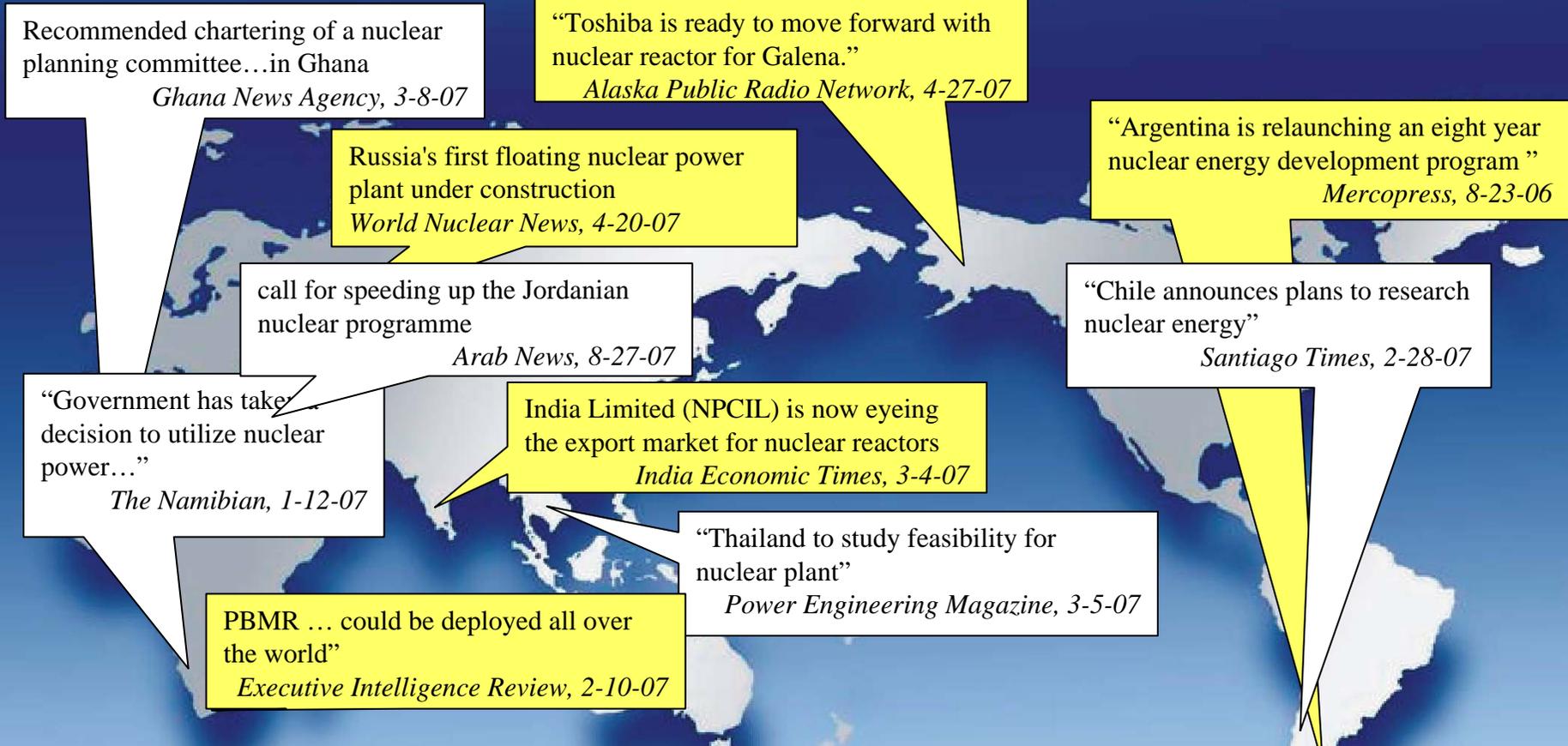


Milestones or Millstones

Alex R. Burkart, Deputy Director
Office of Nuclear Energy, Safety and Security
United States Department of State

Global Expansion of Nuclear Power Is Underway



Currently there are more than 440 reactors operating in 32 States

20 additional countries have taken action to implement nuclear power between 2015 and 2030

By 2100 it is anticipated that 60 states will utilize nuclear power

Milestones for Nuclear Power Infrastructure Development

- National Position
- Nuclear Safety
- Management
- Funding and Financing
- Legislative Framework
- Safeguards
- Regulatory Framework
- Radiation Protection
- Electrical Grid
- Human Resource Development
- Stakeholder Involvement
- Site & Supporting Facilities
- Environmental Protection
- Emergency Planning
- Security & Physical Protection
- Nuclear Fuel Cycle
- Radioactive Waste
- Industrial Involvement
- Procurement

What's Next

- Develop Assessment Tool
- IAEA Assessments and Self-Assessments
- Identification of Areas Needing Further Development
- Identification of Projects to Meet Needs
- Conducting Projects Through the TC Program or Bilateral/Multilateral Cooperation

Identified Concerns

- Need Knowledgeable People to Develop Knowledgeable People – Chicken or Egg Dilemma
- Balance Objectives of “National Development” and “Just Generate Electricity”
- How do I get from “What do I do?” to “How do I do it?”
- How to Integrate IAEA Resources with Other Sources of Assistance

How the United States Could Help:

The Department of State

- Largest Contributor to IAEA TCF
- Footnote A projects
- Fellowships and Traineeships
- Funds Courses
- Contributions to IAEA Infrastructure Development Project
- AID
- Coordination of Nuclear Cooperation Policies

How the United States Could Help:

The Department of Energy

- Expertise in Radioactive Waste/Spent Fuel Management
- Expertise in Decontamination/
Decommissioning
- Site Characterization
- R&D on Grid-Appropriate Reactors
- Safety Evaluations and Assistance
- Energy Planning

How the United States Could Help: National Nuclear Security Administration

- Safeguards Training and Equipment
- Physical Protection Training and Equipment
- Intermediate and Low Level Waste Management
- Emergency Management
- Radiation protection
- Training Interface With Many DOE/USG Capabilities (one-stop shopping)

How the United States Could Help: Nuclear Regulatory Commission

- Inspector/Regulator Training and Experience
- Legislation and Regulations
- Technical Advice on Safety Issues
- Design Certification of U.S. Reactors
- Safety/Regulatory Research
- Multinational Design Evaluation Program

The Joint Declaration

- Issued July 3, 2007 by Presidents Bush and Putin
- Proposed a range of cooperative activities
 - Facilitating supply of modern, safe and more proliferation resistant reactors
 - Reliable access to nuclear fuel
 - Solutions to spent fuel management
 - Assistance in developing infrastructure
 - Facilitating financing
- To create a viable alternative to further development and deployment of sensitive technology

The Global Nuclear Energy Partnership

- GNEP Statement of Principles
 - GNEP Partner states share the common vision of the necessity of global nuclear energy expansion for peaceful purposes in a safe and secure manner
- Goals
 - Facilitate this ***large-scale expansion*** to encourage clean development and prosperity world-wide, improve the environment, and reduce the risk of nuclear proliferation
- Objectives
 - Expand nuclear power in a sustainable manner
 - Develop enhanced safeguards
 - Promote the development of power reactors appropriate for developing countries
 - Establish international fuel service frameworks
 - Reduce nuclear waste and simplify its disposition

Global Nuclear Energy Partnership

September 16, 2007 Ministerial

- 16 Partners – Developed and Developing Countries
- 19 Observer States
- 3 Observer International Organizations
- 2 Working Groups
 - Reliable Fuel Services
 - Infrastructure Development

GNEP Infrastructure Concept

Growth and invigoration of infrastructure needed for nuclear energy



Viable nuclear power program

Existing resources (IAEA and others)

Implementation

Review of draft proposal

Integrated resource package

Individualized Infrastructure Action Plan

Assessments to identify requirements, needs

“Dedicated expert” and expert teams assigned from GNEP experts pool

GNEP Partner resources

GNEP Partner State interested in nuclear energy

Millstones or Feathers

Lighten the Load with
International Cooperation