



**The International Framework for Nuclear Energy
Cooperation (IFNEC)**

**Infrastructure Development Working Group
Update**

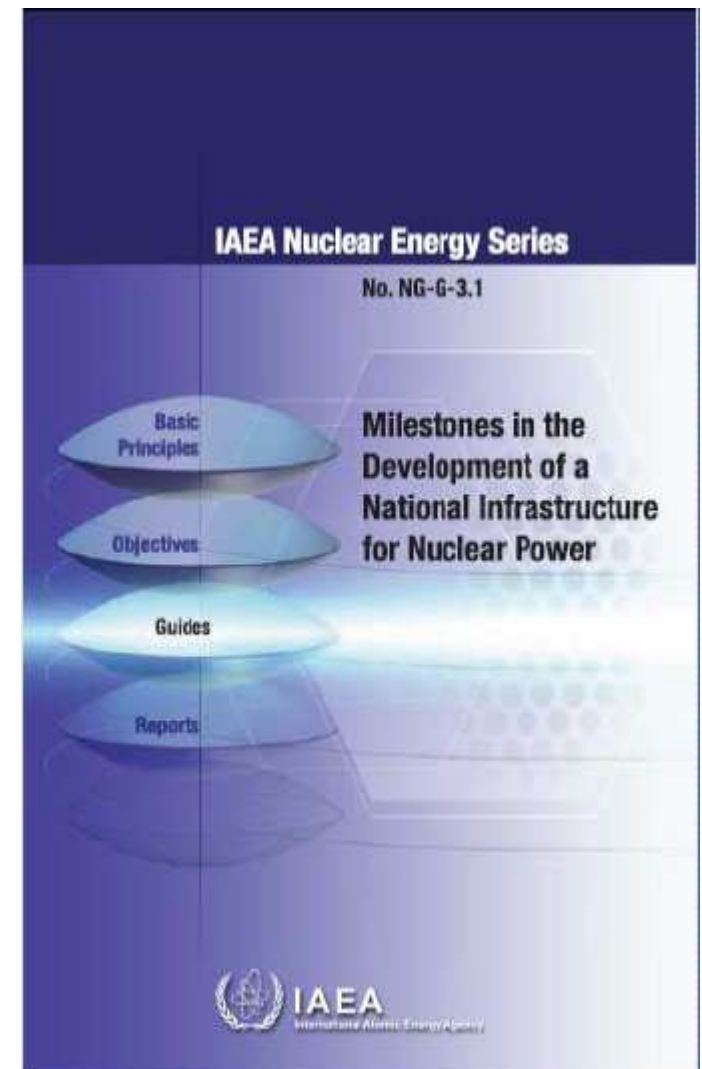
John Mathieson and Al Burkart, co-chairs

Phoenix, February 26th, 2013



Key Considerations for IDWG Activities

- Established to facilitate the development of the infrastructure needed for worldwide nuclear energy expansion in a safe, secure and peaceful manner.
- The IAEA “Milestones” document - established 19 infrastructure elements which we use as a basis for looking at the Group's activities.
- **Consensus messages**
 - All members are experiencing infrastructure development challenges.
 - Human Resource development is a central issue.
 - Providing a forum for exchange of experience, lessons learned, and resource information is beneficial to members.





Infrastructure Development Working Group – 7 key areas

- Human Resource Development
 - Including exchanges under IFNEC
- Radioactive Waste Management sub-group
- Small Modular Reactors
 - Economics and radwaste management
- Support for Participant Countries: Assessments & *Financing Approaches*
- Interaction with Specialist Organizations
- Online Resource Library
- *Infrastructure Needs for an Comprehensive Fuel Services (CFS) Framework*
 - *Interest in international repositories*
- *(Safeguards and security)*



IDWG Meetings and Workshops: Defining Activities, Summarizing Results, Sharing Information

- **IDWG meetings:**
 - 2008, 2009, 2010, 2011 (2x/year)
 - July 2012 in College Station, Texas
 - Included joint meeting with RNFS
 - Texas A&M strong support for IFNEC
 - Many exchanges under IFNEC
 - November 2012 in Ljubljana, Slovenia
 - Slovenia good “role model” for newcomer countries
 - Financing schemes and radwaste management in particular





Radioactive Waste Management

- **Radioactive Waste Management Subgroup (chaired by the UK) reinforces the importance of radioactive waste management**
- **Working from a consolidated topic list**
 - Research and Development
 - Funding and institutional arrangements
 - Interactions with stakeholders
 - Safe and secure storage and transport of used fuel and radioactive waste prior to disposition
 - Opportunities and constraints for regional and/or shared disposal facilities
 - Opportunities for changing how human resources are developed
 - Will be addressing waste issues for Small Modular Reactors



Joint Workshop: Backend Management Recommendations Going Forward

- **Continue discussion on Regional Co-operation (recognising sensitivities) within the IFNEC context**
 - In line with Joint Convention / IAEA Principles etc.
 - Recognising positive and negative impacts on infrastructure (including financing rwm, regulatory and legal frameworks)
 - Recognising countries could consider dual track approach – national / international
 - but not one at the expense of the other, i.e. “wait and see” not acceptable
 - Could/ should/ would a country or a group of countries “volunteer”?
 - Recognise “issues” such as liabilities, economics, financing etc
 - IDWG to draft papers
 - Recognise aspirations of new countries and manage expectations in policy / strategy development for either single/ dual-track approach
 - Assistance in establishing infrastructures, especially legal and regulatory framework
 - Partnership building between regulators, and also partnerships between site operators or organizations
- **Continue engaging with industry (i.e. the implementers/ service providers)**
 - Role of Industry in a public/private partnership needs further exploration
 - RNFSWG to redesign and re-circulate industry survey



Comprehensive Fuel Services (CFS)

➤ **IFNEC Explores**

- Resource requirements and fuel supply
- Approaches for selecting back end fuel cycle options; and
- Opportunities and challenges associated with CFS including engagement with industry.

➤ **CFS and the Joint Convention**

- CFS concept discussed at the May 2012 Meeting of the Contracting Parties to the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management.
- Topic to be discussed further at the next Topical Meeting



CFS

IFNEC report on issues and benefits of comprehensive fuel services in preparation

- Tasked by the September 2012 Executive Committee Meeting
- Report under review: covers concepts, opportunities, implementation challenges and conclusions and recommendations.
- Focuses on the backend
- Draws on work by the IAEA, NEA, Governments and Industry,
- Plan to submit it to the October 2012 Executive Committee Meeting