



Breakout Discussion Agenda

Role of Government Funding for Infrastructure versus Financing of Nuclear Project

Goal:

The goal of this breakout group is to identify and address the characteristics and level of government involvement and/or support necessary to enable financing.

Breakout Leaders:

Nadira Barkatullah, International Atomic Energy Agency (IAEA)

Al Burkart, U.S. Department of State and IFNEC Infrastructure Development WG Co-CHAIR

Agenda:

1. Discussion of lessons learned from scenarios -- What are the challenges that were identified and any solutions identified to mitigate those challenges?
2. Topic: Role of Government Funding for Infrastructure versus Financing of Nuclear Project

For consideration in the discussion:

- a. On the government funding side, could include: infrastructure development, including human resource development and education, adequate funding for a regulator, including safety and nonproliferation functions; training, electric grid capability, emergency response, housing, schools, etc.
 - b. What is the relevance of existing public/private cooperation for infrastructure projects, such as Public Private Partnerships (PPPs), joint ventures, or independent power projects?
 - c. On the financing side, could include: sovereign guarantee, Power Purchase Agreement (PPA), tax measures (carbon tax), export credit agency, direct financial support through equity or loan (pledge on receivables of major electricity consumers, pledge on uranium reserves, asset pooling and phased financing mechanisms, public bank to finance infrastructure, etc).
 - d. What is the relative importance of each? Are these concerns project dependent? What are deal-breaking issues/concerns?
 - e. Does the relative importance of each change in existing/expanding versus emerging markets?
3. Identification of recommendations for consideration by IFNEC countries, individually or collectively.



Breakout Discussion Agenda Technology Choices and Risk

Goal:

The goal of this breakout group is to understand how technology choices affect the risk profile and identify options for managing technology risk.

Breakout Leaders:

Adrian Collings, World Nuclear Association (WNA)

Alain-Pierre Raynaud, AREVA UK

Agenda:

1. Discussion of lessons learned from scenarios -- What are the challenges that were identified and any solutions identified to mitigate those challenges?
2. Topic: Technology Choices and Risk

For consideration in the discussion:

- a. What are the most important technology risk issues for the financing community?
 - b. Before and during a project, how can technology risk be mitigated? Suggestions may include: contract organization, allocation of responsibilities, etc. What can be learned from nuclear technology deployment experience?
 - c. Where along the “learning curve” can we begin to incorporate “lessons learned” into a project business plan?
 - d. What are the conditions needed for first-of-a-kind technology to succeed?
 - e. To what extent does design standardization and regulatory certification of designs affect risk profile?
 - f. To what extent can regulators in emerging nuclear countries seek assistance from experienced nuclear regulators and why is this important for technology risk?
3. Identification of recommendations for consideration by IFNEC countries, individually or collectively.



Breakout Discussion Agenda

Role of Regulation in Supporting the Civil Nuclear Industry (nuclear liability, safety, market, environmental, non-proliferation)

Goal:

The goal of this breakout group is to explore the importance of a wide range of regulation and the role that regulatory regimes play in supporting the civil nuclear industry and the importance of these regulatory regimes in financial markets. It will include discussion about regulations that are focused domestically, as well as those that support the export markets.

Breakout Leaders:

Anita Capoferri, U.S. Department of Energy
Claire Harvey, Prospect Law

Agenda:

1. Discussion of lessons learned from scenarios -- What are the challenges that were identified and any solutions identified to mitigate those challenges?
2. Topic: Role of Regulation in Supporting the Civil Nuclear Industry (nuclear liability, safety, market, environmental, non-proliferation)

For consideration in the discussion:

- a. What are the necessary safety, environmental and non-proliferation regimes and relevant international standards? What is needed for a domestic market? What is needed for an export/import market?
 - b. What impact does the licensing process and regulations for both construction and operation in a country, as well as the stability and the independence of the safety regulator, have on the risk profile?
 - c. What is needed for a successful nuclear liability framework (e.g. channeling of liability to operators, limited/unlimited liability, liability amount, financial security, governmental support, channeling of jurisdiction and applicable law and availability of insurance)?
 - d. How does the nuclear liability regime of neighboring countries affect the risk profile?
 - e. How is it possible to undertake procurement, contracting and financing in a country where the regulatory regime is under development (in an emerging country) or being revised (in an established civil nuclear country)?
 - f. What role does public participation and public risk perception play in the financial risk profile?
3. Identification of recommendations for consideration by IFNEC countries, individually or collectively.



Breakout Discussion Agenda

Partnerships to Support Nuclear Development

Goal:

The goal of this breakout group is to explore the use of partnerships (formed for either risk-sharing or promotional reasons) to allocate and manage risks across a variety of interests.

Breakout Leaders:

Daniel Grosvenor, Deloitte

Fiona Reilly, Norton Rose

Agenda:

1. Discussion of lessons learned from scenarios -- What are the challenges that were identified and any solutions identified to mitigate those challenges?
2. Topic: Partnerships to Support Nuclear Development

For consideration in the discussion:

- a. What is the appropriate risk allocation between contractor/operator/state/utility/sponsors/lender/others?
 - b. How the risk is defined – what is the usefulness of the production of a risk sharing matrix?
 - c. How can partnerships be employed to manage risks in multi-party transactions/project? Are there “lessons learned” from prior experiences in risk-sharing using partnerships as a tool?
 - d. Is there a role for the involvement of local major electricity consumers in the project funding and risk sharing?
 - e. How do partnerships with the public through public consultation play into risk management?
 - f. What is the role of governments in nuclear partnerships?
3. Identification of recommendations for consideration by IFNEC countries, individually or collectively.



Breakout Discussion Agenda Energy Market Considerations

Goal:

The goal of this breakout group is to explore the role of energy market considerations in the financial risk profile for nuclear projects.

Breakout Leaders:

George Borovas, Pillsbury Law

Karen Dawson, Pricewaterhouse Coopers

Agenda:

1. Discussion of lessons learned from scenarios -- What are the challenges that were identified and any solutions identified to mitigate those challenges?
2. Topic: Energy Market Considerations

For consideration in the discussion:

- a. What are the characteristics of a regulated market (as in cost recovery) that support financing for a nuclear project?
 - b. What is the necessity/desirability of a Power Purchase Agreement (PPA) for supporting new build? What characteristics of a PPA are supportive? (level, duration)
 - c. Non-regulated market: what kind of market would support new build? How can market risk be mitigated in an unregulated (merchant) market?
 - d. What are the differences in the risk profile or challenges related to financing nuclear projects in a regulated or a non-regulated (merchant) market? What tools can be used to mitigate these risks?
3. Identification of recommendations for consideration by IFNEC countries, individually or collectively.



Breakout Discussion Agenda Importance of a Fuel Back-end Plan

Goal:

The goal of this breakout group is to address the interaction between industry and government/ national policy on the back-end plan and the impact on financial risk. It will also focus on the risks and risk mitigation for a project if there is not an agreed upon back-end plan.

Breakout Leaders:

Yves Kaluzny, Atomic Energy and Alternative Energies Commission (CEA) and IFNEC Reliable Nuclear Fuel Services WG Co-CHAIR

John Mathieson, UK Nuclear Decommissioning Authority (NDA) and IFNEC Infrastructure Development WG Co-CHAIR

Agenda:

1. Discussion of lessons learned from scenarios -- What are the challenges that were identified and any solutions identified to mitigate those challenges?
2. Topic: Importance of a Fuel Back-end Plan

For consideration in the discussion:

- a. In the expanding market situation, what are the challenges posed by the maturity/viability of radioactive waste management, decommissioning and spent fuel management strategies, including paying the costs associated with these activities?
 - b. What is the role of national policy concerning the back-end of the fuel cycle and how does it affect the financing of a new build project?
 - c. How is the risk viewed when a current strategy may not be working?
 - d. In the emerging market situation, what is the necessity of having radioactive waste management, decommissioning and spent fuel management strategies, including financial provisions in place?
 - e. When should implementation of the plan for emerging markets begin?
 - f. What risks are government risks and what risks fall to the project owner/developer regarding the back-end of the fuel cycle?
 - g. Repository cost uncertainties can be quite large; what assurances should the government give to new builders to give them certainty in making adequate provision? Who should take the risk if their costs escalate?
 - h. What role does public acceptance have with respect to risk?
 - i. Can/should “new builders” suggest or provide financing plans for waste management prior to seeking the go-ahead?
 - j. What is the potential role for regional repositories/waste management solutions? Should they be considered/encouraged?
 - k. What waste management provisioning or other advice could/should (non-domestic) vendors provide to new countries?
3. Identification of recommendations for consideration by IFNEC countries, individually or collectively.