

# Charter of the Generation IV International Forum

## Preamble

The undersigned governmental entities (collectively the “Members”) set forth the following Terms of Reference for the Generation IV International Forum (GIF), a framework for international cooperation in research and development for the next generation of nuclear energy systems, in recognition of the following considerations:

Taking into account the expected increase in energy demand worldwide and the growing awareness about global warming, climate change issues and sustainable development, nuclear energy will be needed to meet future global energy demand. However, opportunities for building new nuclear energy systems will depend on their attractiveness and suitability in different countries and situations. Ongoing research and development (R&D) in the areas of economics, safety, waste and proliferation resistance is necessary in order to achieve nuclear energy’s potential worldwide.

Nuclear power plant technology has evolved as three distinct design generations:

1. Prototypes,
2. Current operating plants, and
3. Advanced reactors.

The next generation of nuclear energy systems must be licensed, constructed, and operated in a manner that will provide a competitively priced supply of energy, keeping in consideration an optimum use of natural resources, while addressing nuclear safety, waste, and proliferation resistance, and the public perception concerns of the countries in which those systems are deployed.

Recognizing both the positive attributes and shortcomings of the prior generations of reactor designs, it is now time to lay the groundwork for a fourth generation to be called Generation IV. Because the next generation nuclear energy systems will address needed areas of improvement and offer great potential, many countries share a common interest in advanced R&D that will support their development. Such development will benefit from the identification of promising research areas and collaborative efforts that should be explored by the international research community.

The collaboration on R&D by many nations on the development of advanced next generation nuclear energy systems will aid the progress toward the realization of such systems.

## **1. *General Considerations Regarding the GIF***

### **1.1 Purpose of the GIF and Vision for Generation IV**

The development of concepts for one or more Generation IV nuclear energy systems that can be licensed, constructed, and operated in a manner that will provide a competitively priced and reliable supply of energy to the country where such systems are deployed, while satisfactorily addressing nuclear safety, waste, proliferation and public perception concerns.

### **1.2 Function of the GIF**

The GIF will seek to:

1.2.1 Identify potential areas of multilateral collaborations on Generation IV nuclear energy systems,

1.2.2 Foster collaborative R&D projects,

1.2.3 Establish guidelines for the collaborations and reporting of their results,

1.2.4 Regularly review the progress and make recommendations on the direction of collaborative R&D projects,

1.2.5 Establish and regularly review an inventory of the potential areas of needed research, and

1.2.6 Conduct such other activities to advance achievement of the GIF's objective as the Members may jointly determine.

The GIF will include interaction and collaboration with all sectors of the international research community, including industry, academia, government and non-government organizations.

### **1.3 Membership**

1.3.1 Subject to the unanimous consent of the Policy Group, membership in the GIF is open to other governmental entities which sign this Charter.

1.3.2 Members are expected to maintain an appropriate level of active participation in collaborative projects, such as the participation in at least one significant collaborative project.

1.3.3 Non-Members may participate in GIF activities only as noted in this Charter.

1.3.4 Technical and other experts from organizations other than those from countries represented by Members may participate in R&D projects conducted under the auspices of the GIF at the invitation of the Secretariat (see 1.6.6, below) with the approval of the Policy Group.

1.3.5 The Organization for Economic Cooperation and Development's Nuclear Energy Agency (OECD NEA) and the International Atomic Energy Agency (IAEA) are permanent observers. Representatives from other organizations as deemed necessary by the Policy Group may be invited to cooperate with the GIF.

#### 1.4 Research Coordination

The Secretariat will establish appropriate methods to facilitate collaborative research. These methods will include coordination through international organizations such as the OECD NEA.

#### 1.5 Organization

The GIF will be operated without independent physical offices, permanent staff or operations budget. Subject to the provisions of 1.3.2, each Member will individually determine the nature of its participation in GIF activities.

#### 1.6 Operation

1.6.1 The GIF will operate with the Policy and Experts Groups that have been formed to date. Each Member will make up to two appointments to the Policy Group and up to two appointments to the Experts Group. Other individuals may attend Experts Group meetings as deemed necessary by the appointed members.

1.6.2 This Policy Group will govern the overall framework and policies of the GIF. The Group should meet at least once a year, at times and places to be determined by Group members. Decisions of the Group will be taken by consensus.

1.6.3 The Experts Group will report to the Policy Group. The Experts Group should meet as often as necessary to review the progress of collaborative projects, identify promising directions for the research, and make recommendations to the Policy Group on needed actions.

1.6.4 The Policy and Experts Groups will seek to identify opportunities to work with the OECD NEA, IAEA and other organizations to their mutual benefit.

1.6.5 The entire GIF may meet at such times and places as the Policy Group may determine.

1.6.6 The principal coordinator of the GIF's communications and activities is the GIF Secretariat. The Secretariat (1) organizes the meetings of the GIF and its sub-groups, (2) arranges special activities such as teleconferences, (3) forwards new member petitions to the Policy Group, (4) coordinates communications with regard to GIF activities and their status, (5) acts as a central source of information for GIF, (6) maintains procedures for its key functions that are approved by the Policy Group, and (7) performs such other tasks as the Policy Group directs.

1.6.7 The Secretariat may, as required, use the services of personnel employed by Policy Group members or international organizations and made available to the Secretariat. Unless otherwise agreed, such personnel will be remunerated by their respective employers and will be subject to their employers' conditions of employment.

1.6.8 The Secretariat will be held by one of the Members and will be chosen by a consensus of the Members. The term of the Secretariat will be for two years and may be rotated or renewed for additional terms at the consensus of the Members.

## **2. *Identifying Research Needs and Interests***

### **2.1 Research Emphasis**

The principal interest of GIF is in intermediate and long-term research. The emphasis will remain primarily on long-term Generation IV objectives; however, the GIF will not exclude other short-term advances consistent with its vision.

### **2.2 Identification and Updating of Research Needs**

The Experts Group will identify research needs in accordance with the vision for the GIF and the interests of the Members. The Experts Group will be responsible for regularly updating the research needs and interests.

### **2.3 Dissemination of Information on R&D Needs and Development of Collaborative Projects**

2.3.1 The Experts Group will identify research areas for consideration by the Policy Group. Once approved by the Policy Group, the information will be made available to the international research community, including industry, academia, government and non-government organizations. These communications will include summaries of the goals for Generation IV, needed areas of research, and summaries of international progress.

2.3.2 The GIF will not directly issue calls for R&D.

2.3.3 The Experts Group will encourage collaborative research between GIF Members.

### **3. *Funding***

#### **3.1 General**

Unless otherwise jointly determined, any costs arising from the activities contemplated by this Charter will be borne by the Member that incurs them. Each Member's participation in GIF activities will be subject to the availability of funds, personnel and other resources.

#### **3.2 Research Project Funding**

Each Member will control its own research management process. A general fund will not be created for research collaborations.

### **4. *Program Review***

The Policy Group, advised by the Experts Group, will review the program of collaborative projects to gain an appreciation of the relevance and impact of the research program. The Experts Group should also provide recommendations to the Policy Group regarding the research agenda.

### **5. *Encouragement of Open Research***

#### **5.1 Open Research**

To the extent practicable, the R&D fostered by the GIF should be open and non-proprietary. The protection and allocation of intellectual property, and the treatment of proprietary information, generated in R&D collaborations under GIF auspices will be defined by implementing arrangements between participating Members.

5.2 Each Member will conduct the activities contemplated by this Charter in accordance with the laws under which it operates.

**6. *Commencement, Extension, Modification, Withdrawal, and Termination***

6.1 Commencement and Modification

6.1.1 Activities under these Terms of Reference may commence on July 16, 2001, provided a minimum of five Members have signed the Charter, and may continue unless discontinued in accordance with Section 6.2.2 hereof.

6.1.2 The Terms of Reference may be modified in writing at any time by unanimous consent of all Members.

6.2 Withdrawal and Discontinuation

6.2.1 A Member may withdraw from membership in the GIF by giving 90 days' advance written notice to the GIF Secretariat.

6.2.2 The Members, acting by unanimity, may by written arrangement discontinue activities under this Charter at any time.

**7. *Counterparts***

This Charter may be signed in counterparts, all of which, when taken together, will constitute the Charter.

**For Argentina:**

COMISION NACIONAL DE ENERGIA ATOMICA

of Argentina

Date  
31 ENE. 2011

Signature  
LIC. NORMA L. BOERO  
PRESIDENTA

**For Brazil:**

COMISSÃO NACIONAL DE ENERGIA NUCLEAR OF BRAZIL.

22/02/2011  
Date

Signature  
Odair Dias Gonçalves  
President

**For Canada:**

Department of Natural Resources of Canada

MAY 13 2011  
Date

Signature  
Mark Corey, Assistant Deputy Minister, Energy Sector

For China:

MINISTRY OF SCIENCE AND TECHNOLOGY  
PEOPLE'S REPUBLIC OF CHINA \_\_\_\_\_ of [Country]

June 7, 2011

\_\_\_\_\_  
Date




\_\_\_\_\_  
Signature

For Euratom:

On behalf of the European Atomic Energy Community (Euratom)

13.07.2011

\_\_\_\_\_  
Date



\_\_\_\_\_  
Signature

Máire Geoghegan-Quinn,  
Member of the European Commission

For France:

Commissariat à l'Énergie Atomique of France

23 février 2011




\_\_\_\_\_  
Christophe BEHAR



For Japan:

The Ministry of Foreign Affairs of Japan

May 10, 2011  
Date

  
Signature

For Korea:

Ministry of Education, Science & Technology  
of the Republic of Korea of [Country]

May 9, 2011  
Date

  
Signature

Yang, Sung-Kwang, Ph.D

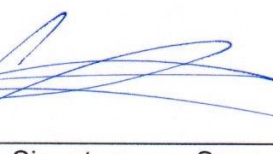
Director General

Space and Nuclear Tchnology Bureau

For Russia:

State Atomic Energy Corporation «Rosatom» of the Russian Federation


June 30, 2011  
Date

  
Signature Sergey Kirienko  
Director General  
State Atomic Energy Corporation «Rosatom»

For South Africa:

Elizabeth Dipuo Peters of [Country]  
Minister of Energy, Republic of South  
Africa.

26/04/2011  
Date

  
Signature

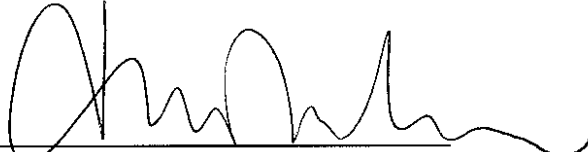
For Switzerland:

State Secretariat for Education and Research SER \_\_\_\_\_ of Switzerland

State Secretary

Mauro Dell'Ambrogio


7.4.2011  
Date

  
Signature

For the United Kingdom:

Department of Energy & Climate Change of [Country]  
United Kingdom

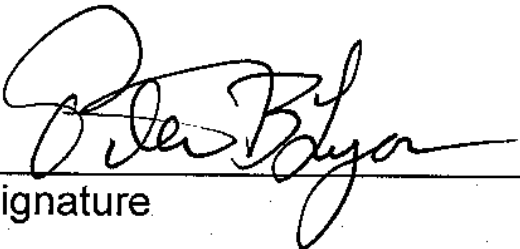
21.04.11  
Date

  
Signature

For the United States of America:

The Department of Energy of the United States of America

March 8, 2011  
Date

  
Signature