



*spotlight on the*  
**New Nuclear  
Framework**

*An IAEA Special Event focuses on  
multiple new approaches to the nuclear fuel cycle.*

A new framework to strengthen controls over access to sensitive nuclear technology—uranium enrichment and plutonium separation—is gaining international attention. A Special Event hosted by the IAEA at its annual General Conference in Vienna this September brings together high-level experts from the Agency’s 140 Member States.

On the agenda are options to bring facilities capable of producing weapons-usable nuclear material under multinational control. Dozens of countries today know how to produce such material, experts have estimated.

“The margin of security under the current non-proliferation regime has become too slim for comfort,” IAEA Director General Mohamed ElBaradei has said. “It is time to limit the processing of weapons-usable material (separated plutonium and high-enriched uranium) in civilian nuclear programmes, as well as the production of new material through reprocessing and enrichment, by agreeing to restrict these operations exclusively to facilities under multinational control. These limitations would need to be accompanied by proper rules of transparency and, above all, by an assurance that legitimate users could get their supplies.”

A nuclear “fuel bank”—where the IAEA administers a nuclear fuel reserve—is among proposals. It would enable the Agency to act as a guarantor for the supply of fissile material to civilian nuclear users.

“The importance of this step is that, by providing reliable access to fuel at competitive market prices, we remove the incentive or justification for countries to develop indigenous fuel cycle capabilities. In so doing, we could go a long way towards addressing current concerns about the dissemination of sensitive fuel cycle technologies,” Dr. ElBaradei said.

Both the US and Russia have announced their willingness to make nuclear material available for a fuel bank, under such a scheme. An IAEA administered fuel bank was a key proposal made by an Expert Group in 2005, tasked with finding options to improve controls over fuel enrichment, reprocessing, spent fuel repositories and spent fuel storage.

## New Approaches Proposed

A number of suggestions have been put forward regarding new approaches to the nuclear fuel cycle and, more specifically, in connection with the assurance of supply of enriched uranium and associated access to reactor technology:

› An independent international **Expert Group on Multilateral Approaches to the Nuclear Fuel Cycle (MNA)** was established at the IAEA in 2004. This expert group included participants from 26 countries who examined the nuclear fuel cycle and multinational approaches. The Group's report was circulated to all IAEA Member States as INFCIRC/640 and distributed at the May 2005 Review Conference of the 189 States party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

The report of the Expert Group outlined five approaches to strengthen controls over fuel enrichment, reprocessing, spent fuel repositories and spent fuel storage, including: "Developing and implementing international supply guarantees with IAEA participation. Different models should be investigated, notably with the IAEA as guarantor of service supplies, e.g. as administrator of a fuel bank..."

› At the IAEA General Conference in 2005, several Member States addressed the issue of MNAs. The **US announced** that it would make available 17.4 metric tonnes of high enriched uranium (HEU) to be down-blended as fuel and used as part of a fuel bank under an assurance of supply scheme. Later in 2005, the US together with France, Germany, The Netherlands and the United Kingdom initiated discussions on a proposal for establishing a mechanism for reliable access to nuclear fuel.

› In January 2006, **Russian President Vladimir Putin** outlined a proposal to create a system of international centres providing nuclear fuel cycle services, including enrichment, on a non-discriminatory basis and under the control of the IAEA.

› The US announced its **Global Nuclear Energy Partnership** in February 2006 that along with international partners will develop a fuel services programme to supply developing nations with reliable access to nuclear fuel in exchange for a commitment to forgo the development of enrichment and recycling technologies.

› In June 2006, France, Germany, the Netherlands, the Russian Federation, the United Kingdom of Great Britain

**The report outlined five approaches to strengthen controls over fuel enrichment, reprocessing, spent fuel repositories and spent fuel storage, including: "Developing and implementing international supply guarantees with IAEA participation. Different models should be investigated, notably with the IAEA as guarantor of service supplies, e.g. as administrator of a fuel bank..."**

› **The Report of the Secretary-General's High-Level Panel on Threats, Challenges and Change**, of December 2004, recommended *inter alia* that an arrangement be set up based on the IAEA Statute, which would enable the Agency to act as a guarantor for the supply of fissile material to civilian nuclear users. The April 2005 Report of the Secretary-General, for decision by Heads of State and Government in December 2005, entitled "In Larger Freedom: Towards Development, Security and Human Rights for All", also proposed, *inter alia*, that States should be guaranteed supply of nuclear fuel at market rates for peaceful purposes with the IAEA acting as a guarantor.

› **The Conference on Multilateral Approaches for the Nuclear Fuel Cycle**, held in Moscow in July 2005, considered assurances of supply of nuclear fuel cycle services together with assurances of non-proliferation.

and Northern Ireland and the United States of America circulated a proposal entitled: "**Concept for a Multilateral Mechanism for Reliable Access to Nuclear Fuel**".

› Speaking to the Board of Governors in March 2006, the Director General stated that during the 2006 session of the Agency's General Conference, the Secretariat intends to hold a Special Event focused on "...aspects of a potential 'new framework' that would facilitate safety, security and proliferation resistance in the future utilization of nuclear energy".

---

For more information, see [www.iaea.org/NewsCenter/News/2006/assurancesofsupply.html](http://www.iaea.org/NewsCenter/News/2006/assurancesofsupply.html)