

12 Proposals On The Table

Over the past few years a number of proposals have been made regarding assurance of supply and the establishment of international fuel cycle centres.

1. Reserve of nuclear fuel

USA. The USA announced in Vienna in September 2005, at the 49th regular session of the General Conference, that it would commit up to 17 metric tonnes of high enriched uranium (HEU) to be down-blended to LEU “to support assurance of reliable fuel supplies for states that forego enrichment and reprocessing”.

(Ref: INFCIRC/659, September 2005)

2. Statement on the Peaceful Use of Nuclear Energy

Russian Federation. Vladimir Putin, President of the Russian Federation, outlined a proposal that included “the creation of a system of international centres providing uranium enrichment services, including enrichment, on a non-discriminatory basis and under the control of the IAEA”.

(Ref: INFCIRC/667, February 2006)

3. Global Nuclear Energy Partnership (GNEP)

USA. One of the elements of GNEP is a proposed “fuel services programme to enable nations to acquire nuclear energy economically while limiting proliferation risks. Under GNEP, a consortium of nations with advanced nuclear technologies would ensure that countries who agree to forgo their own investment in enrichment and reprocessing technologies will have reliable access to nuclear fuel”.

(Ref: “Department of Energy Announces New Nuclear Initiatives”, USDOE, 6 February 2006)

4. Ensuring Security of Supply in the International Nuclear Fuel Cycle

World Nuclear Association. A working group, including representatives of the four principal enrichment companies, proposed a three-level mechanism to assure enrichment services:

- (1) basic supply security provided by the existing world market;
- (2) collective guarantees by enrichers supported by governmental and IAEA commitments; and
- (3) government stocks of enriched uranium product.

(Ref: WNA Report, May 2006)

5. Concept for a Multilateral Mechanism for Reliable Access to Nuclear Fuel

France, the Federal Republic of Germany, the Netherlands, Russian Federation, UK and USA. The six enrichment services supplier States proposed essentially two levels of enrichment assurance beyond the normally operating market. At the “basic assurances” level suppliers of enriched uranium would agree to substitute for each other to cover certain supply interruptions to customers in States that had “chosen to obtain supplies on the international market and not to pursue sensitive fuel cycle activities”. At the “reserves” level, participating governments could provide physical or virtual reserves of LEU that would be made available if the “basic assurances” were to fail.

(Ref: GOV/INF/2006/10, June 2006) (restricted access)

6. IAEA Standby Arrangements System for the Assurance of Nuclear Fuel Supply

Japan. Japan proposed an information system to help prevent interruptions in nuclear fuel supplies. The system, to be managed by the Agency, would disseminate information contributed voluntarily by Member States on their national capacities for uranium ore, uranium reserves, uranium conversion, uranium enrichment and fuel fabrication. The proposal is described by Japan as complementary to the concept of reliable access to nuclear fuel as proposed by the six countries and described under paragraph 5.

(Ref: INFCIRC/683, September 2006)

7. Nuclear Threat Initiative

The Nuclear Threat Initiative offered to contribute \$50 million to the Agency to help create an LEU stockpile owned and managed by the Agency that could be made available should other supply arrangements be disrupted. The offer is contingent on the following two conditions being met within two years from when the offer was made:

- (1) that the Agency takes the necessary actions to approve establishment of the reserve; and
- (2) that one or more Member States contribute an additional \$100 million in funding or an equivalent value of LEU.

Every other element of the arrangement — the structure, its location, the conditions for access —

would be up to the Agency and the Member States to decide (In December 2007, the US Congress authorized a US\$50million contribution, and in February 2008, Norway pledged \$5million).

(Ref: NTI Letter, September 2006)

8. Enrichment Bonds

United Kingdom. The UK proposed a “bonding” principle that would, in the event that the Agency determines that specified conditions have been met:

- (a) guarantee that national enrichment providers would not be prevented from supplying enrichment services; and
- (b) provide prior consent for export assurances. Germany and the Netherlands are cooperating with the UK in the development of the enrichment bonds concept.

(Ref: INFCIRC/707, June 2007)

9. International Uranium Enrichment Centre at Angarsk

Russian Federation. Following adoption of the necessary enabling legislation in January 2007, the Russian Federation will establish an International Uranium Enrichment Centre (IUEC) at the Angarsk Electrolysis Chemical Combine “to provide guaranteed access to uranium enrichment capabilities to the Centre’s participating organizations”. On 10 May 2007 the first agreement in the framework of the IUEC was signed by the Russian Federation and the Republic of Kazakhstan.

A mechanism is being developed to set aside a stockpile of LEU which might contribute to a broader assurance of supply mechanism, and “a regulatory basis will be developed in the sphere of export control such that the shipment of material out of the country at the request of the Agency is guaranteed”. (In June 2007, Russia offered to set up an LEU reserve of 120 MT under Agency auspices, and stored under safeguards at Angarsk, for use by IAEA Member States.)

(Ref: INFCIRC/708, June 2007)

10. Multilateralizing the Nuclear Fuel Cycle

Germany. Germany proposed the creation of a multilateral uranium enrichment centre with extraterritorial status, operating on a commercial basis as

a new supplier in the market, under Agency control, providing enrichment services. From there, potential users could then obtain nuclear fuel for civilian use under strict supervision. Such a plant could also help assure the supply of enriched uranium to qualifying States (Germany has proposed a “Multilateral Enrichment Sanctuary Project” for an international enrichment centre established by a group of interested States, on an extra-territorial basis in a host State.)

(Ref: INFCIRC/704, May 2007)

11. Multilateralisation of the Nuclear Fuel Cycle

Austria. Austria proposed a two-track multilateral mechanism. The first track would “optimiz[e] international transparency going beyond current IAEA safeguards obligations”. The second track would place all nuclear fuel transactions under the auspices of a “nuclear fuel bank” to “enable equal access to and control of most sensitive nuclear technologies, particularly enrichment and reprocessing.”

(Ref: INFCIRC/706, May 2007)

12. Nuclear Fuel Cycle

European Union (EU). The EU non-paper noted that flexibility would be appropriate in considering an approach to fuel supply options and proposed criteria for assessment of a multilateral mechanism for reliability of fuel supply. These criteria included, inter alia:

- a) proliferation resistance — minimization of the risk of unintended transfer of sensitive nuclear technology;
- b) assurance of supply — reliability of long term supply arrangements;
- c) consistency with equal rights and obligations — obligations of suppliers, companies, consumer States and the IAEA; and
- d) market neutrality — avoiding any unnecessary disturbance or interference in the functioning of the existing market.

(Ref: EU non-paper, June 2007)

Note: This list is taken from GOV/INF/2007/11 which is a restricted access document.