

# NUCLEAR ENERGY FUTURES

## Research Project Publication

### GNEP Watch: Developments in the Global Nuclear Energy Partnership

*A monthly report prepared by Miles Pomper in Washington DC for the CIGI Nuclear Energy Futures Project*

Number 10, September/October 2008

#### GNEP Adds Four New Members, But Future Remains in Doubt

As the Bush administration winds down, its controversial Global Nuclear Energy Partnership (GNEP) continues to win additional adherents abroad, but faces continued opposition at home.

Bush administration officials have claimed that GNEP, which seeks to develop new nuclear technologies and new international nuclear fuel arrangements, will cut nuclear waste and decrease the risk that an anticipated growth in the use of nuclear energy worldwide could spur nuclear weapons proliferation. Critics assert that the administration's course would exacerbate the proliferation risks posed by the spread of spent fuel reprocessing technology, be prohibitively expensive, and fail to significantly ease waste disposal challenges without any certainty that the claimed technologies will ever be developed.

Current reprocessing technologies yield pure or nearly pure plutonium that can be used in fuel for nuclear reactors or to provide fissile material for nuclear weapons. GNEP proposes eventually to build reprocessing facilities able to produce a product that would retain other elements from the spent fuel along with the plutonium, making it less attractive for weapons production than pure plutonium. But critics note that this fuel would be much less proliferation-resistant than when the spent fuel is left intact and not reprocessed. They also point out that GNEP's near-term plans include more proliferation-prone technologies.

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#### Ministerial Meeting

On October 1, 2008, energy ministers from 23 (of 25) member countries and 27 observer states met in Paris to advance GNEP. The resulting joint statement was short on new initiatives, aside from a call to "pursue new ways to support nuclear energy projects through finance mechanisms." However, the members represented included four countries that had just joined the partnership – Armenia, Estonia, Morocco and Oman (GNEP, 2008).

None of the new members is a major nuclear energy producer. Morocco has a research reactor and has indicated that it would like to build a nuclear power plant in the next decade. It has won nonproliferation plaudits, however, for signing in 2004 (but not yet ratifying) a Model Additional Protocol. Such protocols grant the International Atomic Energy Agency (IAEA) greater inspection authority than the comprehensive safeguards agreements required of non-nuclear weapon states, as well as requiring the state to furnish cradle-to-grave information on its nuclear activities. Oman has little or no existing nuclear infrastructure or expertise and the IAEA only approved its application to join the agency on September 29, 2008. Estonia has no nuclear power plants but may build one soon depending in part on what is done to replace a Soviet-era nuclear power plant in neighboring Lithuania that is being shut down and that supplies Estonia with much of its electricity (IISS, 2008; BNS, 2008; Collier, 2008; NTI-Estonia, 2008).



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Armenia inherited two Soviet-built VVER-400 reactors that were built in a seismically active region. One of the reactors was already shut down after a 1988 earthquake devastated the country. The other, which currently supplies about 40 percent of Armenia's electricity, is slated to close down in 2016 and Armenia would like to replace it with a new reactor (NTI-Armenia, 2008).

In a October 7, 2008 interview, a senior US Department of Energy official defended the decision to invite countries with limited nuclear experience to join the partnership, arguing in part that as they learned more about nuclear power, they might opt not to pursue it.

Indeed, this summer, administration officials said that the group's existing members had invited 25 countries to join the partnership, most of whom had little or no experience with nuclear energy. These included such countries as Algeria, Cameroon, Indonesia, Saudi Arabia, the United Arab Emirates, and Vietnam (See GNEP Watch, No. 9).

Most of these countries did not leap at the chance to join the group. Rather than sign its statement of principles and participate in the effort, some chose to observe the meeting. States that sign the statement of principles pledge to uphold basic safety, security, and nonproliferation standards and support the development of a fuel cycle that involves reprocessing spent nuclear fuel without separating pure plutonium.

The new observer states join 16 existing observers – including Germany, Egypt, Sweden, and South Africa – that had previously been invited to join the partnership, but have so far chosen not to do so (GNEP, 2008).

The US Department of Energy official denied that the failure to enlist the bulk of the invited countries represented a lack of enthusiasm for the program or a recognition that waning political support for the program in the United

States had left its future open to question (See GNEP Watch, No. 9).

"It's really a matter that we ask these countries to undertake a significant commitment when they join and it's not surprising that they would first want to come and observe it before they feel comfortable enough to join," the official said.

The official also claimed that even without the leadership of the United States, the effort would continue, given the significant interest on the part of other countries and the group's success in building a viable organization. France led the October gathering, the official noted, and China is slated to host next year's ministerial meeting.

### US Domestic Developments

Still, the program remains under assault at home from the Democratic-led Congress.

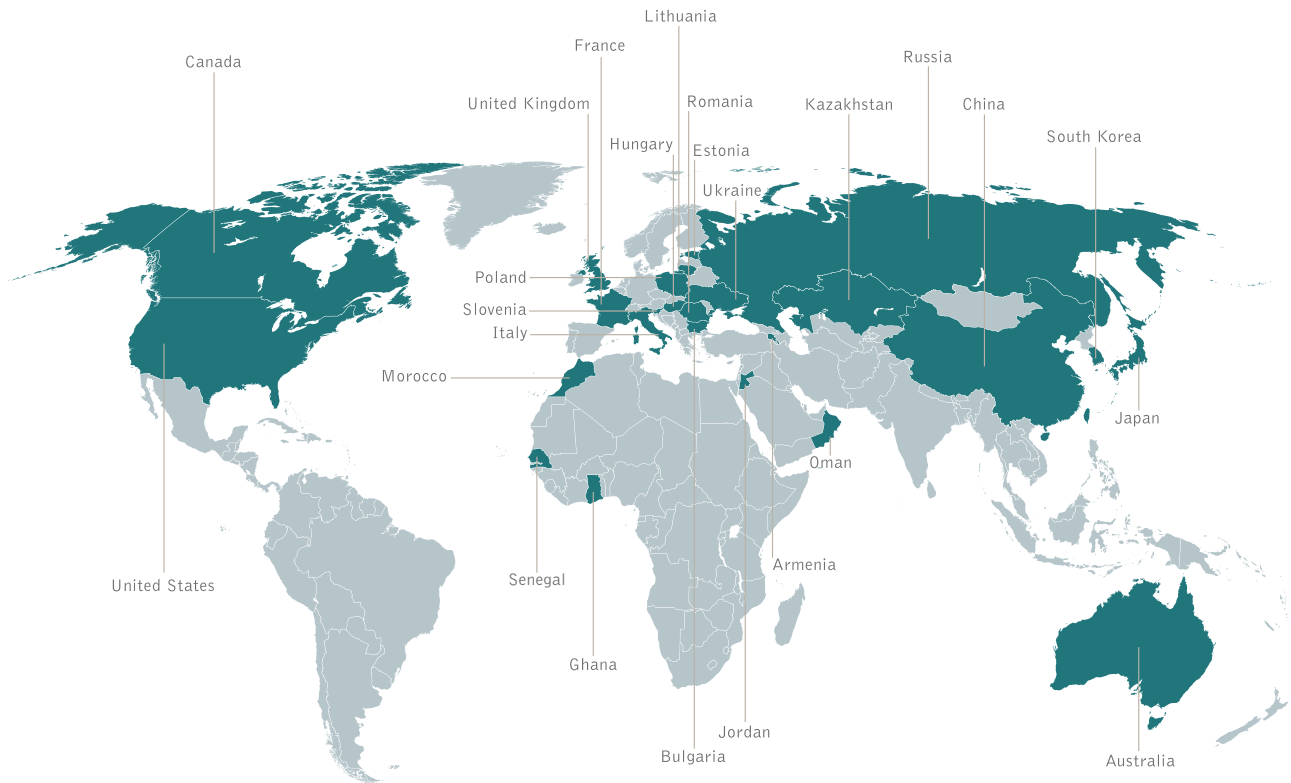
In wrapping up its budget for fiscal year 2009, which began on October 1, 2008, Congress passed legislation which significantly trimmed the small portion of GNEP funds (around US\$15 million) requested by the Bush administration for the nonproliferation and nuclear security efforts of the Department of Energy. The defense authorization bill approved by the US Congress in late September 2008 limited such GNEP spending to no more than US\$3 million in fiscal 2009. The Senate Armed Services Committee in its May 12, 2008 report on the bill explained the cuts, saying that it "believes that the nonproliferation programs should not directly support specific future energy technologies."

The bulk of the Bush administration's request for GNEP was included in the peaceful energy portion of the Department of Energy's budget. Earlier in the congressional session, lawmakers looked likely to pass legislation cutting that budget. Several months ago, however, they

### CIGI Nuclear Energy Futures Project

The Nuclear Energy Futures project investigates the implications of the purported nuclear energy revival for nuclear safety, security and nonproliferation over the coming two decades and will propose recommendations for consideration by the international community, particularly in the area of global governance. Chaired by CIGI Distinguished Fellow Louise Fréchette, the project is a partnership between CIGI and the Canadian Centre for Treaty Compliance (CCTC) at the Norman Paterson School of International Affairs, Carleton University, Ottawa. The project is directed by CIGI Senior Fellow and CCTC Director Trevor Findlay. For more information on CIGI's Nuclear Energy Futures Project visit: [www.cigionline.org/cigi/Research/globalse/nuclear](http://www.cigionline.org/cigi/Research/globalse/nuclear)

## GNEP Members as of October 2008



decided to effectively postpone action until next year because Democratic lawmakers believed they would be in a better bargaining position if November's elections produce larger majorities for their party in Congress and led to the election of their standard-bearer, Senator Barack Obama of Illinois, as president.

Instead, they approved legislation that continued spending levels for fiscal year 2008 (which ended September 30, 2008) through March 2009. Those levels were determined in legislation that Congress passed in December 2007 (see GNEP Watch, No. 4).

Nonetheless, the earlier measure provided money for research but blocked any expenditures for constructing commercial facilities or technology demonstration projects.

In addition, by continuing the previous legislation, Congress is likely to provide far less than the US\$302 million President Bush requested for fiscal year 2009 for the Advanced Fuel Cycle Initiative (AFCI), the technology development arm of GNEP (See GNEP Watch, No. 5). Continuing current spending patterns means that Congress will provide less than US\$100 million to AFCI through March 2009. It also means that Congress did not meet

Bush's request for US\$20 million to go toward the development of smaller-scale reactors aimed at developing countries with "smaller and less developed power grids."

GNEP suffered another indirect blow in September. After Russia's conflict with Georgia in August, US President George W. Bush said he no longer wanted Congress to consider a US-Russian nuclear cooperation agreement. The pact was seen as a major step in advancing GNEP and, after Bush's action, the decision on whether and when to proceed has been effectively left to the next president (Rice, 2008).

The Republican presidential nominee, Senator John McCain of Arizona, has generally adopted a tough stand on Russia. Senator Obama in a statement on August 26, 2008 after Russia recognized Abkhazia and South Ossetia said that Russia's move "makes it impossible for Congress to enact the civil nuclear agreement" (Obama, 2008). Moreover, even if the United States and Russia somehow overcome the dispute over Georgia, the agreement will face an uphill battle in the US Congress. Lawmakers have questioned the wisdom of the agreement given Russian help to Iran's nuclear program and limited Russia's support for UN sanctions on Iran.

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