

US Launches Search For Advanced Fuel Recycling Sites

Five years after we recommended the action.

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The US Department of Energy (DOE) is looking for expressions of interest from public or private sector organisations to evaluate sites where it can demonstrate advanced recycling technologies under the new Global Nuclear Energy Partnership (GNEP).

Energy secretary Samuel Bodman, who announced the GNEP on 6 February 2006, said the closing date for expressions of interest is 31 March 2006. Mr Bodman said last month GNEP would “enable the expansion of emissions-free nuclear energy worldwide”.

The GNEP strategy includes designing advanced burner reactors to produce energy from recycled nuclear fuel, and establishing a fuel services programme that would allow developing nations to acquire and use nuclear energy economically, while minimising the risk of proliferation.

The DOE’s deputy secretary of energy, Clay Sell, said the successful demonstration of GNEP recycling technologies will allow the US and its international partners to change the way spent nuclear fuel is managed, assuring a safe, long-term, and environmentally clean energy supply while greatly reducing proliferation concerns. “Seeking the best ideas from the public and private sectors on where to build the demonstration facilities is a key step forward for GNEP,” Mr Sell added.

Under the DOE’s plan, communities and private-public consortia are being asked to consider participation in the GNEP technology demonstration and submit ideas on how DOE should best solicit, evaluate and award site evaluation study contracts for recycling technology demonstrations.

A total of 20 million US dollars (USD) (16 million euros), or USD 5 million at individual sites, is available in 2006 for site evaluation studies. The DOE said it anticipates issuing a request for proposals this spring and awarding 90-day site evaluation studies in the summer 2006.

Three major elements of the GNEP technology plan are to demonstrate a proliferation-resistant process to separate usable elements contained in commercial spent nuclear fuel from its waste elements, to develop and fabricate new fuels from the transuranic elements contained in spent fuel, and to demonstrate the ability to consume transuranic fuels in an advanced burner test reactor.

The GNEP, part of US president George Bush’s Advanced Energy Initiative, is designed to increase US and global energy security, encourage clean development around the world, reduce the risk of nuclear proliferation, and improve environmental quality. Accelerating the development and demonstration of new technologies for recycling spent nuclear fuel is a key aspect of the programme.

The DOE said the “anticipated deliverable” of each contract is a site evaluation study report containing detailed information about the proposed location, facilities that will be used in the demonstration project, regulatory requirements, project milestones and estimated project costs.