



U.S. DEPARTMENT OF
ENERGY

Nuclear Energy

DOE Office of Nuclear Energy Updates

Dr. Pete Lyons
Acting Assistant Secretary for Nuclear Energy
U.S. Department of Energy

December 9, 2010
NEAC Meeting



Leadership Changes

Nuclear Energy

- **Pete Miller retired**
- **Pete Lyons - Acting NE-1**
- **Shane Johnson - Acting NE-2**
- **Dennis Miotla - Acting COO**
- **Monica Regalbuto – Acting DAS for Fuel Cycle Technologies**
- **John Herczeg- Acting ADAS for Fuel Cycle Technologies**
- **John Kelly – DAS for Nuclear Reactor Technologies**
- **Bob Boudreau- Acting ADAS International Nuclear Energy Coop**



Monica Regalbuto



John Kelly



NE University Programs (NEUP) – Overview and FY 2011 Schedule

- Cumulative NEUP Funding (FY 2009 - 2010) - \$110 M
- 66 Universities in 32 states have received awards (R&D, Infrastructure, or Fellowships / Scholarships)
- FY 2011 Schedule:

NEUP FY 2011 Solicitations Schedule				
	RPA/FOA	Pre-Applications	Proposals Due	Awards Announced
R&D (PS and Blue Sky)	Oct. '10	Dec. '10	Feb. '11	May '11
Integrated Research Projects (IRP)	Dec. '10		Late Jan '11	April '11
Infrastructure	Jan. '11		Mar. '11	May '11
Scholarships & Fellowships	Dec. '10		Feb. '11	April '11



NEUP – New Element for FY 2011 Program-Directed Research



- **Approximately 17% of FY 2011 NEUP funding (supports two fully-funded projects)**
- **Integrated Research Projects (IRP):**
 - Larger projects, maximum of \$2.5M/year for three-years (potential to re-compete once)
 - Solicitation will identify specific research challenges
 - Requires detailed full proposals with the most comprehensive relevance and peer review
- **Evaluation Weights are 50% Relevance and 50% Technical Quality**
 - Peer review team evaluates technical quality (highly recommended, recommended, not recommended)
 - Federal Program staff evaluates relevance (highly relevant, relevant, not relevant)
 - Relevance-impact based on achieving near-term program goals

Integrated Research Projects (IRP)

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- In FY 2011, NEUP will solicit IRPs focused on developing an Advanced Thermal Reactor Concept and experimental testing capabilities for Accelerated Aging of Used Nuclear Fuel in Storage
- Projects will be for 3 years
- Proposing teams must include:
 - Designated lead university and at least one other university
- Proposing teams are encouraged to include:
 - One or more industry partner (may receive funding – cost share)
 - One or more National Laboratory (may receive funding)



Summary of International Developments

■ **Trilateral MOU**

- On the margins of the Generation IV International Forum (GIF) Policy Group meeting, the SFR Trilateral Executive Committee met and signed a new MOU
- The new MOU reflects each country's current national strategy and expanded the cooperative areas of research and development
- A follow up Trilateral Steering and Executive committee Meeting was held in Paris, France to further refine the specific work plans for cooperation
- A SFR Trilateral Safety Authorities meeting will be held in Tokyo in late January in order to bring together Safety Authorities and engage them in SFR issues.

■ **International Framework for Nuclear Energy Cooperation (IFNEC)**

- At the 2010 IFNEC Executive Committee Meeting, Participant countries agreed that IFNEC should examine barriers to financing new reactor construction and the development of a cradle-to-grave nuclear fuel management framework
- The Steering Group is considering holding a special session on financing in early 2011
- The Infrastructure Development and Reliable Nuclear Fuel Services Working Groups are to hold a joint meeting in early 2011 to examine the infrastructure and legal requirements for implementing a cradle-to-grave framework
- The Infrastructure Development Working Group met Dec 6-7 and covered Radwaste management, SMR and Human Resource Development topics. Korea is making significant progress on SMART.

■ **U.S.-Russia Nuclear Energy and Nuclear Security Civil Nuclear Energy Working Sub-Group (Poneman-Kiriyenko Efforts)**

- The Sub-Group Co-Coordinator met Dec 5-8 and affirmed their desire to continue R&D cooperation under the Civil Nuclear Energy Cooperation Action Plan and the recently ratified 123 agreement
- Areas covered in talks included MPC&A, fuel returns, reactor conversion, material consolidation and conversion, plutonium management and disposition, combating illicit trafficking, international safeguards, export controls, elimination of weapons grade plutonium production, emergency response, and the Global Initiative to Combat Nuclear Terrorism



FY 2011 Outlook

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- **Lame duck omnibus bill seems unlikely**
- **Continuing resolution likely until March; potentially all of 2011**

Program:	FY 2010 Approp	FY 2011 Request	FY 2011 House Mark	FY 2011 Senate Mark
Research & Development				
Integrated University Program	5,000	0	5,000	5,000
RE-ENERGYSE	0	5,000	0	0
Nuclear Power 2010	101,960	0	0	0
Generation IV	212,904	0	0	0
Reactor Concepts RD&D	0	195,000	215,362	188,500
Fuel Cycle R&D	131,938	201,000	201,000	191,000
Nuclear Energy Enabling Technologies	0	99,300	77,420	62,000
Infrastructure				
Radiological Facilities Management	71,760	66,818	61,818	61,818
Idaho Facilities Management	172,716	162,482	174,000	173,000
Idaho Sitewide S&S	83,358	88,200	88,200	88,200
International Nuclear Energy Coop.	0	3,000	3,000	3,000
Program Direction	73,000	91,452	86,452	91,452
Congressionally Directed Projects	2,500	0	0	7,400
Other Adjustments	2,800	0	0	0
Total, Office of Nuclear Energy:	855,136	912,252	912,252	871,370



Nuclear Energy Summit

December 7, 2010

- Co-hosted by Senators Voinovich and Carper, organized by Third Way
- Secretary Chu, Carol Browner, NRC Chairman Jaczko were among the speakers during the executive session
- Attended by industry, academia, government stakeholders
- Working groups are intended to produce reports with recommendations



“We were once at the forefront of this industry, and we need to recapture that dominant position” – Carol Browner