New Congress Addresses Energy Issues In Economic Stimulus Package

The 11th Congress convened last week with an ambitious agenda that looks ahead to the priorities of the incoming Barack Obama administration, including initiatives in which nuclear energy interests hold a measurable stake.

A developing economic stimulus package seeks to mitigate or reverse a bleak economic outlook with massive investment in infrastructure and job creation, including within the energy sector. NEI is recommending provisions for an economic stimulus package that would provide investment tax credits for expansion of the U.S. manufacturing base for nuclear power facility components, provide tax credits for nuclear work force training and allow public power and electric cooperatives who are partners in nuclear plant projects to use production tax credits authorized in the 2005 Energy Policy Act.

Congress also is likely to develop energy policy focused on green electricity generators, those able to reduce greenhouse gas emissions and improve energy security by focusing on domestic energy sources.

Senate leader Harry Reid (D-Nev.) kicked off the session with legislation intended to set the agenda for the incoming Congress. The most energy-specific of the bills—the Cleaner, Greener and Smarter Act of 2009 (S. 5)—focuses on ways to improve the economy and U.S. security “by reducing the dependence of the United States on foreign and unsustainable energy sources and the risks of global warming.”

The bill encourages “significant investments in green job creation and clean energy across the economy” and requires reductions in greenhouse gas emissions.

The bill does not define the energy sources it considers green. However, nuclear plant construction projects encompass infrastructure and job creation, and nuclear power plants do not produce greenhouse gases. “If you think of an industry that has created the most green jobs over the past 40 years, it is the nuclear industry,” said Marvin Fertel, NEI’s acting president and CEO.

The Obama transition team has taken up the theme in its proposal for the stimulus package, proposing to boost the renewable energy sector and create new jobs. The incoming administration favors a federal Renewable Portfolio Standard (RPS) that will require 25 percent of American electricity to be derived from renewable sources by 2025, which has the potential to create hundreds of thousands of new jobs. An RPS provision, however, is likely to appear as part of an overall energy bill rather than as part of a stimulus package.

The nuclear industry is supporting the following provisions that are consistent with the priorities outlined by the Obama team and congressional leaders:
Allow municipal power companies and rural electric co-ops to receive production tax credits in order to encourage partnerships with commercial power companies to build new nuclear plants. Doing this would strengthen existing partnerships and in all cases make the partners equal in terms of financial outlay for new plants regardless of the companies’ funding sources.

Expand the domestic manufacturing base for nuclear components and equipment by providing a 20 percent investment tax credit to companies that expand nuclear manufacturing capability.

Broaden access to the federal loan guarantee program to municipal power companies and rural electric co-operatives so they have the same opportunity to secure loan guarantees to build new nuclear plants that are now limited to non-tax-exempt power companies.

Include the nuclear industry in any job creation tax credit to encourage workforce development. Companies that train workers in nuclear-grade disciplines would receive the credits.

Congress also has unfinished business from the last session, notably an omnibus budget bill that will carry the government forward through September and determine appropriations for all nuclear energy projects funded by the U.S. Department of Energy.

Progress Energy Signs Agreement with Westinghouse, Shaw Group for Florida Reactors

In signing a contract last week to build two nuclear reactors, Progress Energy in Florida has taken steps toward meeting nearly 60 percent of its responsibility in reaching emission-reduction targets set by the state’s governor.

The contract, signed with Westinghouse Electric Co. and The Shaw Group Inc.’s Power Group, provides equipment, engineering and construction services for two 1,100-megawatt AP1000 reactors. Progress Energy submitted a combined construction and operating license application for the reactors with the U.S. Nuclear Regulatory Commission last July (see Nuclear Energy Overview, Aug. 4, 2008).

“Our investment in state-of-the-art nuclear power is an investment in our state’s energy future,” said Jeff Lyash, president and CEO of Progress Energy Florida. “Expanding our nuclear capacity will ensure our customers will continue to have a reliable supply of energy while reducing reliance on fossil fuels and helping to eliminate greenhouse gas from our environment.”

In 2007, Florida Gov. Charlie Crist directed the state’s electric utilities to reduce greenhouse gas emissions to 2000 levels by 2017, to 1990 levels by 2025, and by 80 percent of 1990 levels by 2050.

Progress Energy plans to retire its two oldest coal-fired plants at the Crystal River Energy Complex in Citrus County after the new reactors are built at a proposed site in Levy County. This action would reduce the company’s carbon dioxide emissions by more than 5 million tons per year and meet nearly 60 percent of the emission reduction targets for the company, Progress Energy reported.

“This contract is a major step to implement the policy direction set by the governor and the legislature in Florida to secure safe, carbon-free nuclear power for our customers,” Lyash said.
Pending regulatory approvals, the first reactor at the Levy County site is expected to be on-line in 2016. The second reactor would begin operation the following year.

**CONTRACT MARKS WESTINGHOUSE, SHAW’S THIRD IN US**

Westinghouse and The Shaw Group have signed two other contracts to construct AP1000 reactors in the United States.

The companies signed a contract last April with Georgia Power to provide two reactors at its Vogtle site in Georgia. The second contract signed a month later with South Carolina Electric and Gas and Santee Cooper is to provide two reactors at the V.C. Summer plant in South Carolina.

Westinghouse President and CEO Aris Candris said the agreement signals that nuclear power will play an increasingly important role in efforts to provide baseload electricity generation needed to spur economic growth without contributing to global climate change. Nuclear plant projects also will help reinvigorate local economies, he added.

“Once operational, each new AP1000 will require the services of 400 to 500 skilled, full-time employees while creating 1,200 indirect jobs,” Candris said. “Additionally, construction of a dual-unit site will require, at peak, the services of about 3,000 workers.”

Shaw and Westinghouse also are providing engineering, design, procurement and project management services for four AP1000 reactors in China, where initial construction is underway.

**US Ratifies IAEA Additional Protocol For Nuclear Safeguards**

The United States has ratified the additional protocol to its nuclear safeguards agreement with the International Atomic Energy Agency (IAEA).

The agreement took effect last week when U.S. Ambassador to the IAEA Gregory Schulte submitted the document to the agency. President Bush signed the instrument of ratification Dec. 30.

The U.S. signed the additional protocol in 1998 and the Senate approved it in 2004, but had not completed the ratification process.

“By agreeing to implement the IAEA’s highest standard of verification, the president has shown our strong support for the IAEA and its critical role in preventing nuclear proliferation,” Schulte said. “We hope that our step will encourage other states to adopt and implement the additional protocol.”

Under the Nuclear Non-Proliferation Treaty (NPT) and other treaties, the IAEA is the global nuclear safeguards agency that verifies that its more than 140 member states are meeting their international commitments not to use commercial nuclear programs for nuclear weapons purposes.

Under NPT-type comprehensive safeguards agreements, the IAEA assesses a state’s declared nuclear material and nuclear-related activities using nuclear material accountability procedures, and containment and surveillance techniques such as tamper-proof seals and cameras that the IAEA installs at facilities.

Events after the first Gulf War revealed the need to strengthen the IAEA’s inspection capabilities. Over the course of several years, the IAEA developed protocols to enable the agency to verify the non-diversion of declared nuclear material as well as provide assurances as to the absence of undeclared nuclear material and activities in a state. Inspectors can conduct short-notice inspections of non-nuclear weapon
states’ nuclear fuel cycle activities and monitor environmental conditions that could detect clandestine nuclear weapons programs.

The additional protocol for declared nuclear weapons states, like the United States, differs significantly from the protocol used for non-nuclear weapon states. The U.S. plans for the protocol to provide IAEA officials with a better understanding of industrial-scale nuclear activities so that inspectors develop a greater ability to detect covert activities in non-nuclear-weapon states.

“Ratification of the additional protocol sends a clear message around the world that the United States is serious about the use of nuclear energy for peaceful purposes and a demonstration that commercial nuclear power does not create a proliferation risk,” said NEI’s Felix Killar, senior director of fuel supply and material licensees. “The additional protocol will put in place the famous words of President Reagan: ‘Trust but verify.’”

To date, 118 countries have signed the additional protocol and 89, including all declared weapons states, have ratified it.

Industry Experts Find Fault with Nuclear Power Cost Study

Industry experts last week rebuffed a study claiming the cost of power produced by new reactors would be three times the current cost of electricity.

The Center for American Progress posted the study, “Business Risks and Costs of New Nuclear Power,” which claims new nuclear plants are “not economically competitive” and “among the costliest private projects ever undertaken.” The study states that new reactors would generate electricity at approximately 25 to 30 cents per kilowatt hour—triple today’s cost.

NEI’s analysis revealed significant flaws in the methodology of the study, conducted by Craig Severance, a certified public accountant based in Iowa. For example, the study’s assumption as to how long a utility finances a nuclear plant inflates this cost projection and is one of the most flawed assumptions in the study.

“The study assumes a payback period of 40 years, and that’s way too long,” said David Bradish, NEI’s manager for energy information. From an investors perspective, substantially shorter periods of time would be included, he said.

“Changing that one assumption in the study basically cuts the cost of electricity from a nuclear plant in half,” Bradish added.

Severance’s report is not consistent with other recent reports from The Brattle Group or individual utilities, which indicate that while electricity produced at new reactors will be expensive, the cost of generating electricity from new reactors is competitive with other electricity generation sources.

Industry estimates and analyses have been provided to the public service commissions that determined new nuclear power plants will be competitive. Even at overnight costs of between $4,000 and $6,000 per kilowatt-hour nuclear energy will be competitive and in the best interests of consumers, according to the estimates.

On the Wall Street Journal’s Environmental Capital blog last week, Keith Johnson noted the “spirited battle brewing over the true costs of nuclear power” and linked to posts on blogs hosted both by NEI and Climate Progress.

Other experts found additional areas where the study’s assumptions may not accurately convey actual outcomes. Jack Spencer, a research fellow in nuclear energy at the Heritage Foundation, stated that the study’s initial capital cost estimate is misleading because it is a conservative estimate of the first reactor build from advanced designs.
Government


Industry

Art Stall will retire as FPL Group’s chief nuclear officer and executive vice president of its nuclear division after the first quarter of 2010. Stall joined Florida Power & Light Co. in 1996 as site vice president of the St. Lucie plant and was appointed to his current position in 2002. To facilitate the transition, he will serve as president of FPL Group Nuclear, while Mano Nazar will become senior vice president and chief nuclear officer.

David Kudsin will become president of Nuclear Fuel Services, a provider of specialty nuclear fuels and related services that The Babcock & Wilcox Co. recently acquired. Kudsin most recently served as director of the Specific Manufacturing Capability project at Idaho National Laboratory.

International

Christoph Frei has been appointed as secretary general of the World Energy Council. Since 2001, Frei has been a senior director and member of the executive council of the World Economic Forum.

NRC Launches Tracking System for Radioactive Materials

The U.S. Nuclear Regulatory Commission has deployed a centralized national registry to provide “cradle-to-grave accounting” of specified high-risk radioactive source materials. NRC licensees are required to begin using the National Source Tracking System (NSTS) by Jan. 31.

The tracking system was mandated by Congress in the Energy Policy Act of 2005 and requires licensees to report transactions involving the manufacture, transport, receipt and disposal of certain radioactive sources. The system will improve the ability of regulators to detect and act on discrepancies, respond to emergencies, and verify valid import, export, ownership and use of those sources.

The tracking system “harmonizes” domestic requirements with internationally recognized guidance for the safety and security of certain radioactive sources that, if not properly controlled, may pose a safety and security risk to the public and the environment, according to the NRC. Radiation sources that will be tracked fall into Category 1 and Category 2 of the International Atomic Energy Agency’s ranking of radioactive materials.

“The NRC is dedicated to protecting the public’s health and safety and the common defense by enhancing the security of these most sensitive radioactive materials,” NRC Chairman Dale Klein said. “The National Source Tracking System will enhance our ability to monitor transactions involving radioactive material and improve our knowledge of where they are being used.”

Felix Killar, NEI senior director of fuel supply and material licensees, said that radioisotope manufacturers, who are responsible for the primary input of the data, are concerned about some implementation issues that remain outstanding, such as batch loading of data, the handling of discrepancies in submitted information and use of the system for validation of licensee data.

“Overall, the tracking system is a major step forward, but some issues remain to be worked out over the next few months,” Killar said.

Information about the NSTS is available on the NRC’s Web site at www.nrc.gov/security/byproducts/nsts.html.

EDF Buys British Energy for £12 Billion

Electricité de France (EDF) became the official purchaser of British Energy last week, clearing the last hurdles in the European Union regulatory process.

The purchase of British Energy essentially denationalizes nuclear energy in Great Britain, as EDF has bought out the 36 percent stake the government held in the company. The cost of the purchase is £12.5 billion or approximately $18.2 billion.
EDF plans to build four reactors in Great Britain. British Energy currently operates eight reactors, all of which are due to be decommissioned within 15 years. To ensure that EDF does not create a monopoly over the wholesale electricity market in Great Britain, European Union regulators approved the sale on condition that EDF divest itself of some of British Energy’s holdings, including four coal-fired units at its Eggborough plant.

British Business Secretary Peter Mandelson said that the takeover “opens the way for new nuclear build [and] should provide many billions of pounds more opportunity for the U.K. supply chain.”

**NRC Accepts Industry Guidelines for LLW Management**

The U.S. Nuclear Regulatory Commission has accepted industry guidelines for low-level radioactive waste storage at reactor sites.

The Barnwell low-level radioactive waste storage facility in South Carolina closed to all but three states last year, leaving low-level waste generators in 36 states without access to a disposal facility for certain types of waste (see Nuclear Energy Overview, July 7, 2008). South Carolina officials announced that decision several years earlier, and the nuclear industry took steps to adopt low-level waste management strategies prior to the closure.

The industry guidance includes strategies for storing Class B and C waste onsite. Class A waste, which has the lowest level of radioactivity and accounts for nearly all low-level waste, is still accepted by EnergySolutions at a facility in Utah.

On Dec. 30, 2008, the NRC released a regulatory issue summary, or RIS, of its current position on low-level radioactive waste storage (RIS 2008-32) that includes the Class B and C low-level waste management strategies developed by the industry. The summary consolidates generic communications the agency has issued since 1981 and clarifies past agency positions regarding the long-term storage of the material.

The summary confirms that industry guidelines for storage of low-level radioactive waste at reactor sites are acceptable for meeting regulatory requirements. The guidelines were developed by the Electric Power Research Institute (EPRI) using a joint EPRI-NEI industry task force.

“Regulatory acceptance of the industry guidelines marks an important milestone in our ongoing constructive interactions with NRC staff to assure safe and secure management of low-level radioactive waste,” said Ralph Andersen, NEI director of radiation safety and low-level radioactive waste management. “It also reflects the high level of effective teamwork and collaboration between NEI, EPRI and the industry in addressing low-level radioactive waste management issues.”

The summary also clarifies that current reactor licenses encompass onsite storage of low-level radioactive waste during the period of plant operation. Therefore, a license amendment is not needed and no specific time limitation applies for storage.

The NRC summary can be found at www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2008/.

**NRC Endorses NEI Guidance on Lifting Heavy Loads at Reactors**

The U.S. Nuclear Regulatory Commission in December issued a regulatory issue summary that notifies reactor licensees of industry guidance on the consistent safe use of cranes to lift reactor vessel heads, used fuel casks and other heavy loads.
NEI published the guidelines, “Industry Initiative on Control of Heavy Loads” in August 2008 (NEI 08–05) to drive greater consistency in plant licensing bases regarding heavy load handling and to ensure that workers conduct heavy load lifts safely (see Nuclear Energy Overview, Aug. 4).

A task force of industry experts from nuclear plants, architectural/engineering firms and vendors prepared the guidelines NEI 08-05, which included direction for the following activities:

- managing the risk associated with maintenance involving movement of heavy loads
- performing consequence analyses for postulated reactor vessel head drops
- establishing the use of single-failure-proof cranes or their equivalent when used for reactor vessel head lifts
- updating the description of heavy load handling programs in the safety analysis report.

The regulatory issue summary is available from ADAMS, the NRC’s electronic database, by accessing http://adamswebsearch.nrc.gov/dologin.htm, and entering MLo82460291.

B&W Subsidiary Acquires Nuclear Fuel Services

Babcock & Wilcox Co. (B&W) subsidiary last week completed the acquisition of Nuclear Fuel Services, Inc. (NFS), a provider of specialty nuclear fuels and related services.

B&W said the acquisition will enhance the company’s position as a leader in providing nuclear manufacturing and services for government and commercial markets. “NFS expands our nuclear offerings and is a great addition to our operations. We are excited about the opportunities this acquisition will bring and our plans to capitalize upon them,” said Brandon Bethards, CEO of B&W.

David Kudsin will serve as the new president of NFS. He has been employed by B&W or one of its affiliates for 33 years, most recently serving as director of the Specific Manufacturing Capability Project at the Idaho National Laboratory.

“We are looking forward to working with everyone at NFS to continue to provide high quality products to our customers and further the ongoing safety enhancements at the site,” Kudsin said. “B&W recognizes that NFS is a great place to work and a vital community partner, and we are proud to join with the NFS team to make sure both of those things remain true.”

B&W said it will pursue new business opportunities to complement the plant’s existing capabilities. NFS will operate as a wholly-owned, indirect subsidiary of B&W.

Deadline Nears for TIP Award Submissions

The deadline for Top Industry Practice (TIP) award submissions is just three weeks away.

Organizers of the annual awards are urging teams to add their projects to the entries already submitted as
the Feb. 2 deadline nears.

The TIP process award categories are based on the Standard Nuclear Performance Model and include:

- operate plant
- maintenance
- equipment reliability/engineering
- materials management
- management processes and support services
- plant support
- training
- nuclear fuel
- community relations

Submission guidelines and more information on the TIP awards can be found on NEI’s member Web site, **member.nei.org**. Click on “2009 TIP Awards” on the home page.
The conference concerns an industry issue of gas (air) getting into safety-related piping systems of nuclear power plants and impacting the ability of pumps, valves and instruments to work properly.

The conference has several objectives:

1) discuss plant actions and lessons learned from the U.S. Nuclear Regulatory Commission generic letter 2008-01 responses requiring plants to demonstrate that they meet their licensing basis and procedures for gas accumulation management

2) present and discuss actions needed to further mitigate the harmful effects of gas intrusion and accumulation in safety systems

3) present updated research and evaluations on gas transport, suction-side criteria and plant evaluation methods

4) discuss progress on longer-term actions to mitigate gas accumulation such that there never again is a challenge to safety system operability

5) present new plant system methods to mitigate the effects of gas accumulation.

Who Should Attend?

Plant system and design engineering managers and those responsible for gas accumulation management programs; operations personnel responsible for venting and filling operations and procedure development; licensing personnel, project managers, vendors and consultants supporting gas accumulation mitigation and testing; regulatory personnel responsible for system gas accumulation monitoring; international representatives from areas outlined above; industry support personnel (INPO, EPRI or owners groups) responsible for addressing generic programs to manage and evaluate gas accumulation effects; personnel responsible for the design of new plant systems and gas accumulation protection.

Hotel Accommodations

Please identify yourself as an attendee of the NEI System Gas Accumulation Management Workshop to secure the special room rate of $199. The hotel must receive all room reservations no later than 5 p.m. on Jan. 19, 2009. Reservations received after this time are subject to availability.
Fundamentals of Nuclear Communication

March 2-5, 2009

Who Should Attend:

- Communications professionals new to the nuclear energy industry
- Industry personnel new to the field of communications
- Individuals who are energized, prepared and ready for interactive training on how best to address industry issues with various stakeholders.
  (See the workshop requirements below for more information about pre-workshop preparation.)

Workshop Requirements:

This participatory learning experience requires that, in advance of the workshop, attendees:

- complete and return a questionnaire by Feb. 13 so that workshop activities can be tailored to each participant's needs;
- develop a one-to two-minute sound byte that addresses a key issue their companies are facing for on-camera media training.

NEI also encourages participants to bring case studies and company best practices to share with their industry communications colleagues.

Objectives:

This interactive, multimedia-focused workshop will help you:

- build and enhance your communications skills for addressing industry, company, and site specific issues
- develop a greater understanding of nuclear technology and radiological sciences
- gain a better understanding of stakeholder priorities and interests
- learn how stakeholder and policy groups interact with the industry and the media
- become familiar with NEI and the resources available.

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Class size: Enrollment for Fundamentals of Nuclear Communications is limited to approximately 20 people on a first-come, first-served basis.
Nuclear Manufacturing Outreach Workshop

The nuclear industry is set for resurgence across the country and around the world. Join industry leaders in reactor design, engineering, construction and procurement to learn how your company can become part of this growing market.

WHO SHOULD ATTEND

The Manufacturing Outreach Workshop is an excellent opportunity for companies interested in entering the nuclear sector to gain insights into the current market for components, commodities and services, as well as industry requirements to enter the market. In addition, participants will have the opportunity to interact directly with procurement personnel from some of the leading firms in the nuclear industry, including:

- AREVA
- Babcock & Wilcox
- Bechtel
- CH2M Hill
- Fluor
- GE-Hitachi
- Sargent & Lundy
- Shaw Group
- URS Washington Division
- Westinghouse

WORKSHOP LOCATIONS

Multiple regional workshops will be held around the country and each workshop will be similar in content. Please choose to attend one or more of the following workshops:

- **February 18**
  - Chattanooga, Tenn.
  - The Chattanoogaan Hotel

- **August**
  - Chicago

- **June**
  - TBD

- **October**
  - Florida

Co-sponsored by National Association of Manufacturers and the American Society of Mechanical Engineers.

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