

'Nuclear Promise' Program Aims to Boost Industry Efficiency, Economic Viability

- Initiative will analyze cost drivers, redesign plant processes to improve efficiency
- Goals include significant reduction in reactor operating expenses by 2018
- Recognition of nuclear energy's value in electricity markets also paramount

Dec. 10, 2015–The U.S. nuclear energy industry is launching a multiyear initiative to enable its nuclear power plants to generate electricity more efficiently, economically and safely.

The Nuclear Energy Institute is coordinating the multifaceted effort, known as "Delivering the Nuclear Promise," with member electric utilities, the [Institute of Nuclear Power Operations](#) (INPO) and the [Electric Power Research Institute](#) (EPRI).



"The plan reflects the industry's foremost commitment to safe and reliable operations, our determination to assure future viability through efficiency improvements and our drive for regulatory and market changes that would fully compensate the value of our facilities," NEI Chief Operating Officer Maria Korsnick said at a Dec. 8 launch event in Washington, D.C.

As part of the initiative, the industry will analyze cost drivers common to all nuclear power plants and recommend programs and processes to improve their efficiency and effectiveness. The goal is to provide companies with innovative solutions that enable a significant reduction in operating expenses by 2018.

"We want to encourage bold ideas, not just tweak current processes," Korsnick said. "We are operating in markets with a glut of natural gas at historically low prices, concurrent with low growth in electricity demand nationally. We are seeking to redesign fundamental plant processes to significantly improve operational efficiencies and effectiveness, and in the process make nuclear energy facilities more economically viable."

U.S. nuclear energy facilities for many years have operated at sustained high levels of safety, as documented by an [array of performance metrics](#). However, many plants in deregulated states have been earning lower revenues during an unprecedented era of low natural gas prices and subsidies for other electricity sources.

As a result of these economic headwinds, facilities in [Vermont](#) and [Wisconsin](#) have retired prematurely in the past two years despite their excellent operating performance. Two more facilities—[Pilgrim in Massachusetts](#) and [FitzPatrick in New York](#)—also will be shuttered prematurely over the next two years because of financial losses.

More broadly, total electricity generating costs at U.S. nuclear plants have increased 28 percent—to an industry average \$36.27 per megawatt-hour—over the past 12 years.

“This is an initiative that the industry should undertake even if natural gas prices weren’t at historical lows as they are today,” Korsnick said. “Low natural gas prices make this mission more urgent for some at-risk facilities, but this initiative is more encompassing than that.”

“A ‘business as usual’ approach will not successfully address the challenges of rising costs and inadequate revenue for our reactors,” she added. “Part of this effort will be aimed at gaining full recognition in electricity pricing for the value of nuclear energy in electricity markets and as a uniquely reliable source for meeting environmental requirements, such as the Clean Power Plan.

“This is an initiative to reduce our operating costs, without question, but advancing safety and reliability are foundational aspects of this plan.”

Teams of industry experts already are examining areas such as engineering, work management and corrective action programs to identify more efficient and effective means to accomplish their work. Chief nuclear officers from across the industry are aligned in their commitment to implement the strategic plan and its goals, with governance by utility chief executive officers.

“We will be looking at a mix of quick wins—things that can be implemented relatively short-term—and things we know are going to take a while to implement, but are very valuable,” Korsnick said. “We will work those until they come to a very clear plan ... There will be different timelines for each, depending on the scope of the item. Some things will be available as early as the first quarter of next year and some will require more time.”

The teams will be assisted by working groups from the industry, in coordination with NEI, EPRI and INPO.

“The U.S. nuclear industry excels in providing reliable electricity with world-class safety performance. This plan will ensure that safe and reliable operations continue to be the first and most important focus of all electric companies with nuclear energy technology,” Korsnick said.