



U.S. DEPARTMENT OF
ENERGY

Nuclear Energy

NE Update

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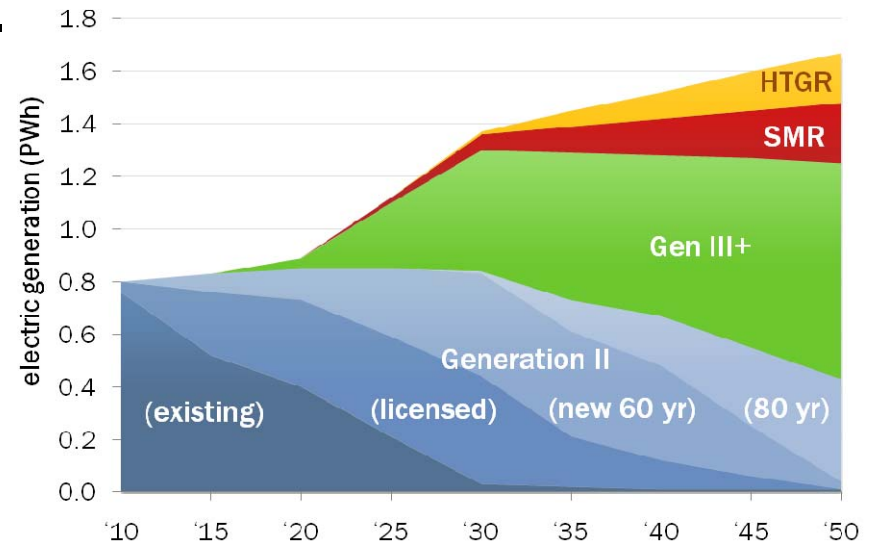
NEAC Meeting
April 29, 2010



4 Nuclear Energy Objectives

Nuclear Energy

- 1) Develop technologies and other solutions that can improve the reliability, sustain the safety, and extend the life of current reactors.
- 2) Develop improvements in the affordability of new reactors to enable nuclear energy to help meet the Administration's energy security and climate change goals.
- 3) Develop sustainable fuel cycles.
- 4) Understanding and minimizing the risks of nuclear proliferation and terrorism.



January 27, 2010: President Obama's State of the Union Speech

“But to create more of these clean energy jobs, we need more production, more efficiency, more incentives. And that means building a new generation of safe, clean nuclear power plants in this country.”



January 29, 2010: Blue Ribbon Commission announced

- **Secretary of Energy Steven Chu announced the formation of a 15-person commission to conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle**
- **It is co-chaired by former Congressman Lee Hamilton and former National Security Advisor Brent Scowcroft**
- **The Commission will provide recommendations for developing a safe, long-term solution to managing the United States' used nuclear fuel and nuclear waste**
- **The commission will produce an interim report in 18 months, and a final report no later than 24 months; first meeting was March 25-26**
- **The Obama administration announced that it would withdraw the Yucca Mountain license from the NRC “with prejudice”**

February 16, 2010: President Obama announces loan guarantee for new nuclear plant construction

"We need to look no further than the worker and apprentices standing behind me to see the future that's possible when it comes to clean energy."

"And this is only the beginning. My budget proposes tripling the loan guarantees we provide to help finance safe, clean nuclear facilities – and we'll continue to provide financing for clean energy projects in Maryland and across America"





April 12-13, 2010: The President's Nuclear Security Summit

- **47-nation Summit focused on enhancing international cooperation to prevent nuclear terrorism**
- **The goals of the summit were**
 - to come to a common understanding of the threat posed by nuclear terrorism
 - to agree to effective measures to secure nuclear material, and
 - to prevent nuclear smuggling and terrorism
- **The Summit focused on the security of nuclear materials, leaving other broad topics such as nonproliferation, disarmament, and peaceful nuclear energy to different forums**



Major Procurements

Nuclear Energy

- **\$40M in awards for the Next Generation Nuclear Plant project**
 - Two teams: Westinghouse and General Atomics
 - Nuclear Energy Advisory Committee will provide analysis of the proposals to DOE
 - Secretary of Energy will decide whether to proceed to Phase 2
- **Received proposals for Funding Opportunity Announcement (FOA) for the new Modeling and Simulation Energy Innovation Hub.**
 - Proposals involve a total of up to 8 national laboratories, 12 universities, 4 vendors and utilities operating 25 nuclear power plants working on interesting approaches to apply modeling and simulation to nuclear energy problems.
- **Nuclear Energy University Program R&D solicitation issued**
 - ~\$35M to be awarded; additional solicitations for reactor upgrades and equipment (~\$15M) and fellowships/scholarships (~\$5M) planned for FY 2010

Closing Thoughts

- Great support from POTUS and DOE Leadership
- FY2011 appropriations process will run its course this year
- FY2012 planning process has already begun
- Next Blue Ribbon Commission meeting probably in May or June
- Possible loan guarantee announcements in the near future
- Excitement over Small Modular Reactors
- Increased international collaboration and cooperation
- Working with Congress and the Blue Ribbon Commission to chart a way forward on high-level waste and used nuclear fuel
- A clear path forward is needed for infrastructure enhancements