Status Update on USDOE Small Modular Reactor Licensing Technical Support Program

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U.S. Government Program to Support Development and Licensing of SMRs

- Over the past several years, DOE has been considering the potential benefits of SMRs, including:
  - Enhanced safety and security
  - Reduced capital cost requirements
  - Factory fabrication/Shorter construction schedules
  - A method for meeting incremental demand growth
  - Domestic job creation in manufacturing, construction and operation
- In 2012, DOE initiated the SMR Licensing Technical Support program
- Focus on facilitating and accelerating commercial development and deployment of U.S.-based SMR designs at domestic locations
- Financial assistance for design, certification and licensing of promising technologies
- Does NOT support procurement, manufacturing or construction costs
- 6 year/$452 M program; Requires minimum of 50% industry cost share
First DOE Funding Opportunity Announcement (FOA): Accelerating Deployment

- DOE’s initial SMR FOA solicited certification and licensing projects from vendor/utility teams with plans for expeditious deployment
- Generation mPower project selected in November 2012
  - B&W – Design of primary components and systems
  - Bechtel International – Design of secondary side and plant layout
  - Tennessee Valley Authority – Site characterization and licensing for deployment at Clinch River Site
- Efforts under the initial project will help resolve generic industry regulatory issues and establish the SMR licensing framework
Second SMR FOA: Cost-Shared Development of Innovative Small Modular Reactor Designs

- To increase available pool of innovative domestic SMR technologies, a second FOA was issued that emphasizes improvements in safety, operational and economic performance
  - Issue date: March 11, 2013
  - Applications Received: July 1, 2013
  - Award(s) made: Target - End of CY
- Narrows support to design certification only
- Intent is to support one additional award, but may support additional designs if warranted
- Expands licensing horizon to technologies that can be deployed in 2025 timeframe
- Selection most heavily weighted on safety, operability, efficiency, economic and security performance characteristics that exceed capabilities of currently certified designs

All U.S. Government funding for SMR development will come out of the $452 M program budget
Conclusion

• DOE has the full support of the US Government to aggressively promote SMRs
• We believe that SMRs can provide a safe, secure and economical option to meet energy needs, both domestically and internationally
• DOE funding is already having an impact on accelerating the first movers and building the momentum for the industry

“I think [SMRs are] a very promising direction we need to pursue. It’s where a lot of innovation is going on with nuclear energy. There’s a great potential payout there along with very strong safety considerations associated with these reactors.” Dr. E. Moniz Confirmation Hearing April 9, 2013