

2015 Financial Survey: Nuclear Energy

U.S. Department of Energy, Office of Nuclear Energy
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Washington, D.C.

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2015 Financial Survey: Nuclear Energy

- 8th Annual Survey, May 11 – June 4, 2015
- 42 participants and in-person interviews representing mainstream U.S. power and utility finance – bankers, investors, rating agencies, analysts
- Survey topics in addition to Nuclear Power, include the EPA Clean Power Plan, the evolving electric grid, natural gas, and renewables



3rd year of DOE/ONE sponsorship

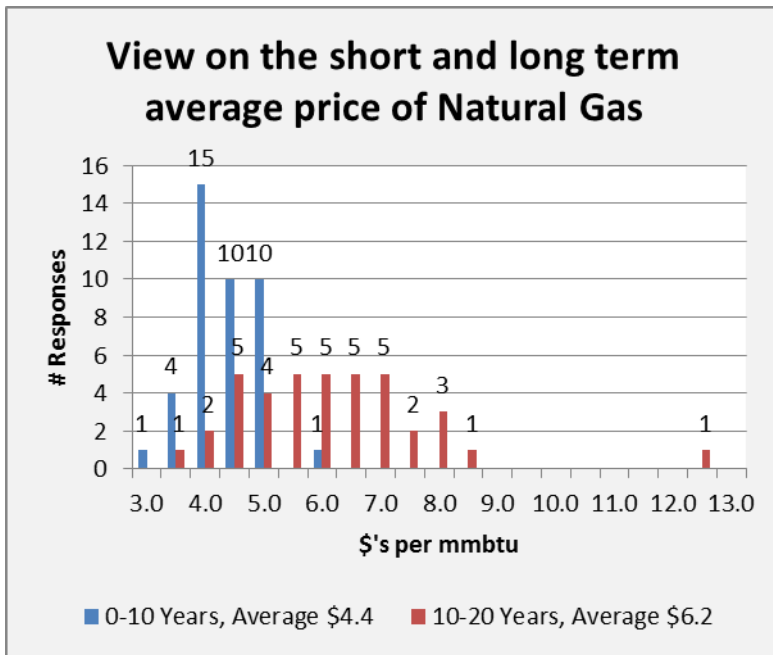
Summary

Wall Street is not monolithic

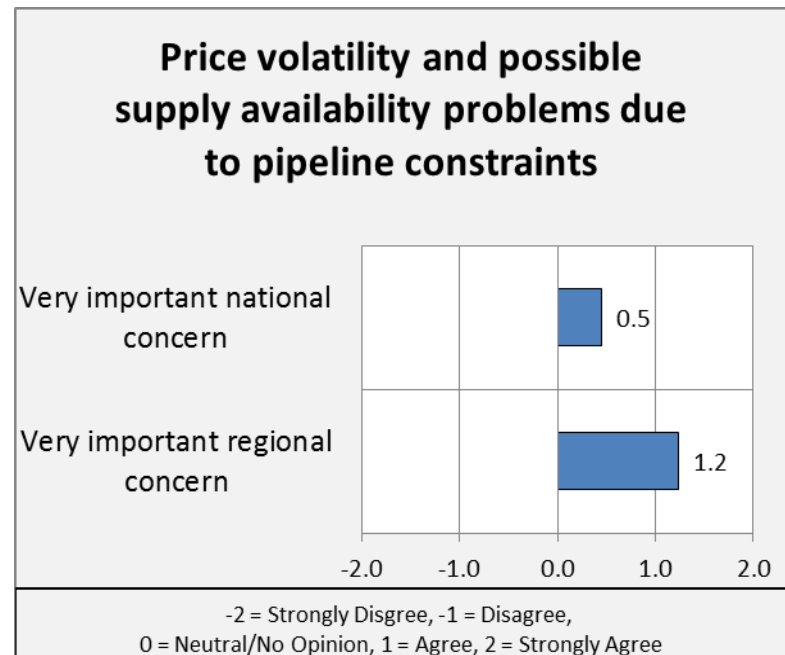
- Natural Gas rules
- Vogtle and Summer are sending mixed signals for the future of U.S. nuclear
- 2015 attitudes toward SMRs show a positive turn
- Wall Street generally supports government development support for most technologies, but long term commercial viability is the test

Natural Gas

Q – What is your view on the short and long term average price of natural gas?

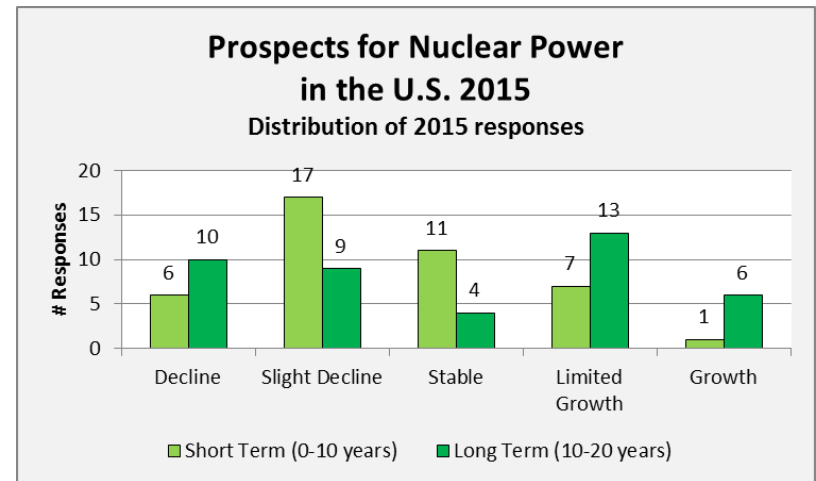
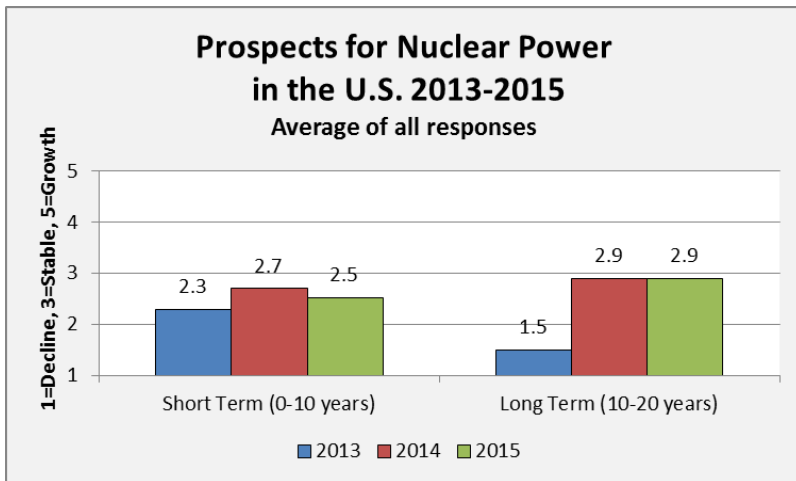


Q – Regarding price volatility and possible supply availability problems due to pipeline constraints.



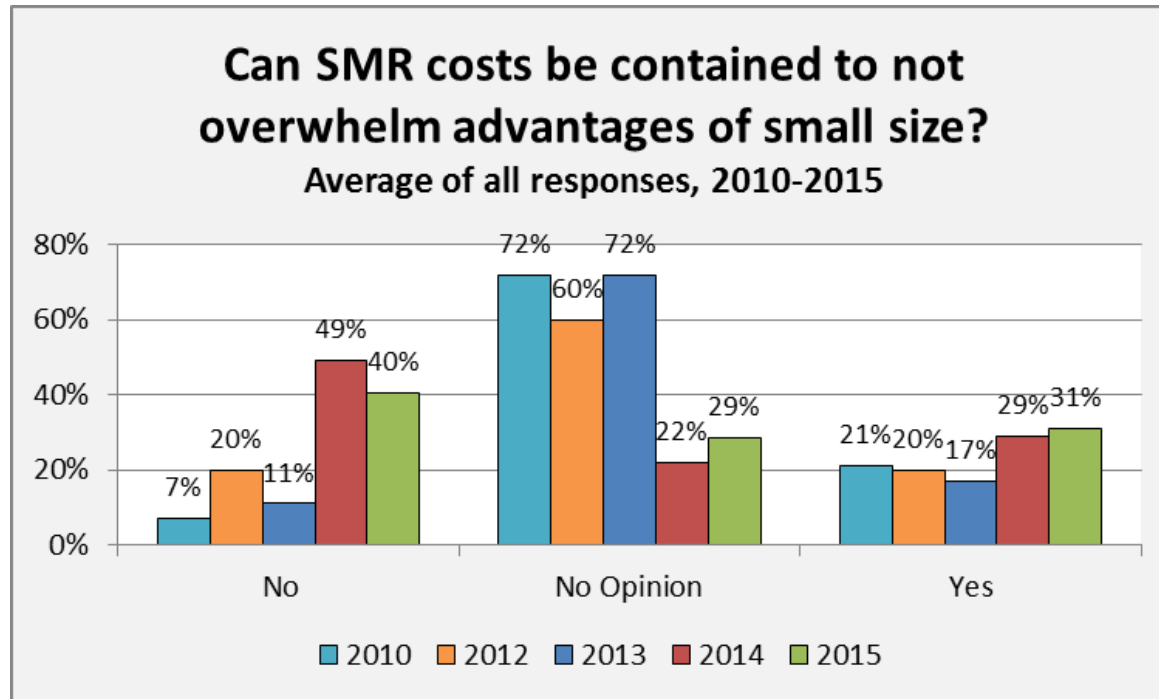
Prospects for Nuclear Power in the U.S.

Q – What is your view on the prospects for Nuclear Power in the U.S.?



Small Modular Reactors

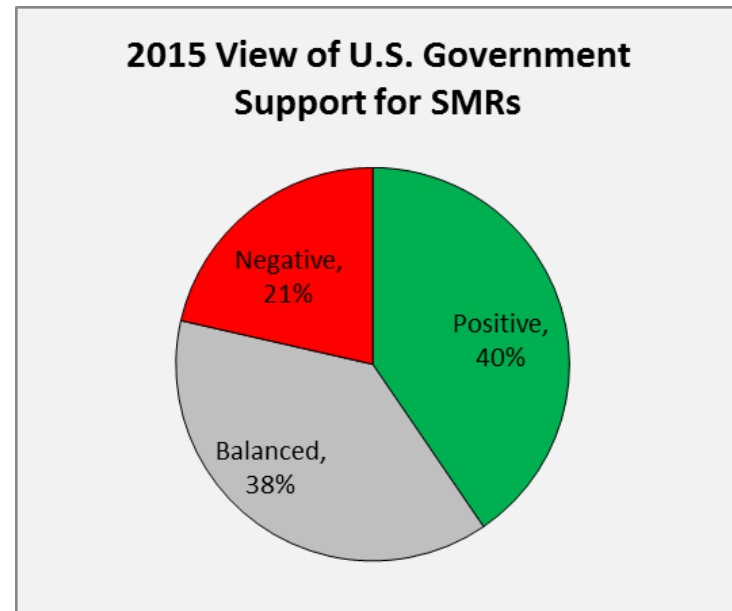
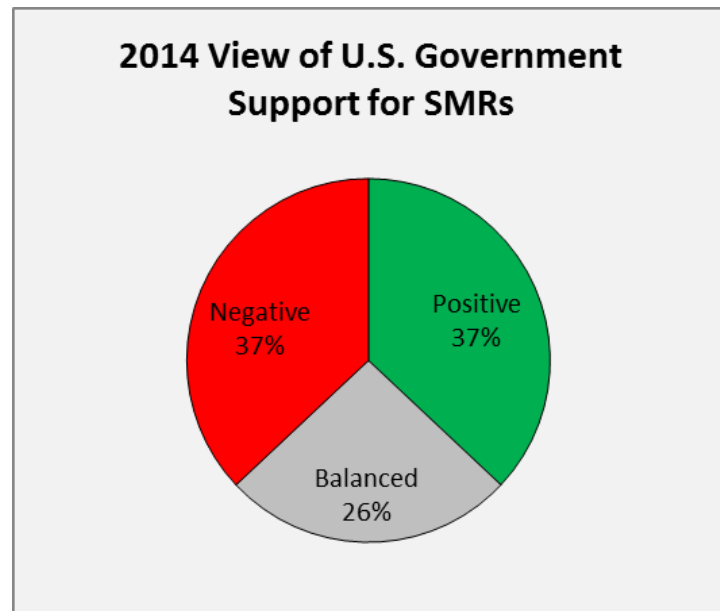
Q – Do you believe the costs of SMRs can be contained such that those costs do not overwhelm the potential advantages associated with their smaller size and greater flexibility?



Small Modular Reactors

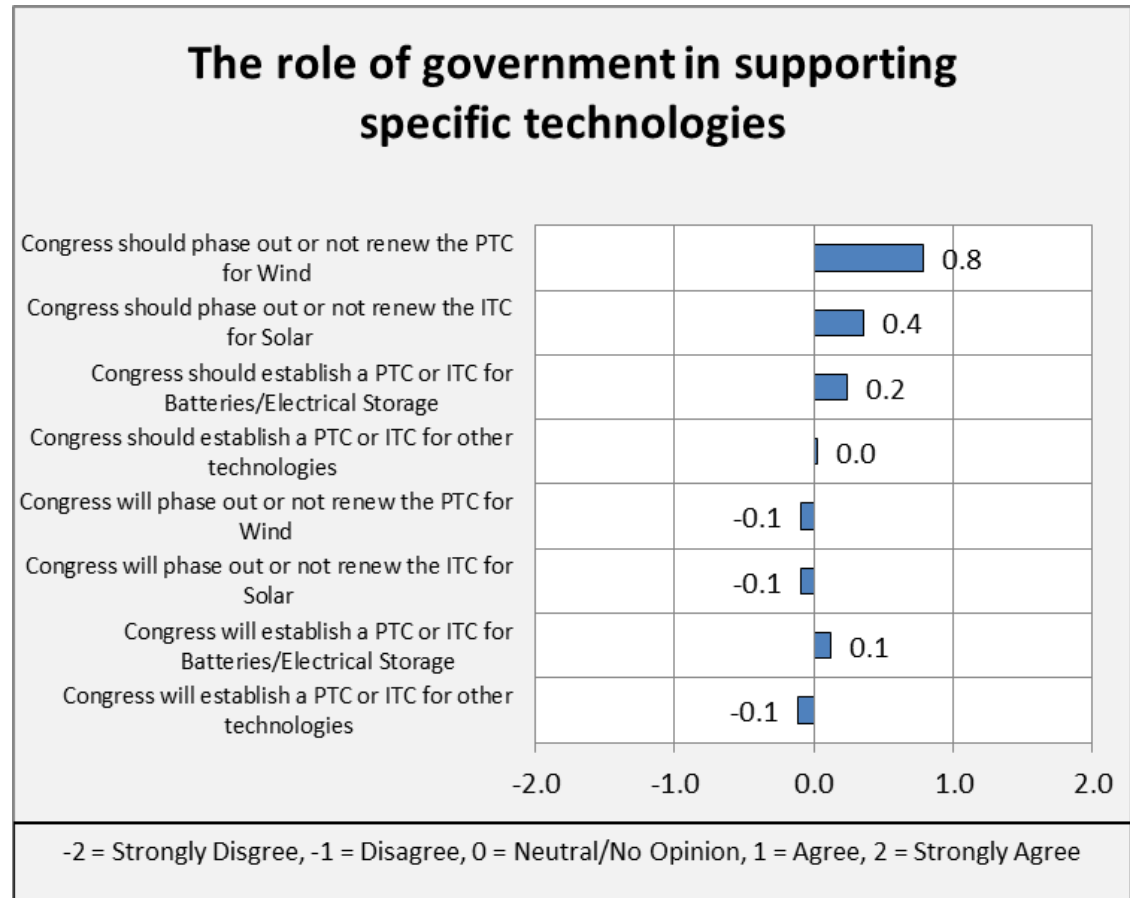
Role of DOE Support

Q – What additional confidence does US Government support for SMRs give you in terms of improving their future deployment potential?



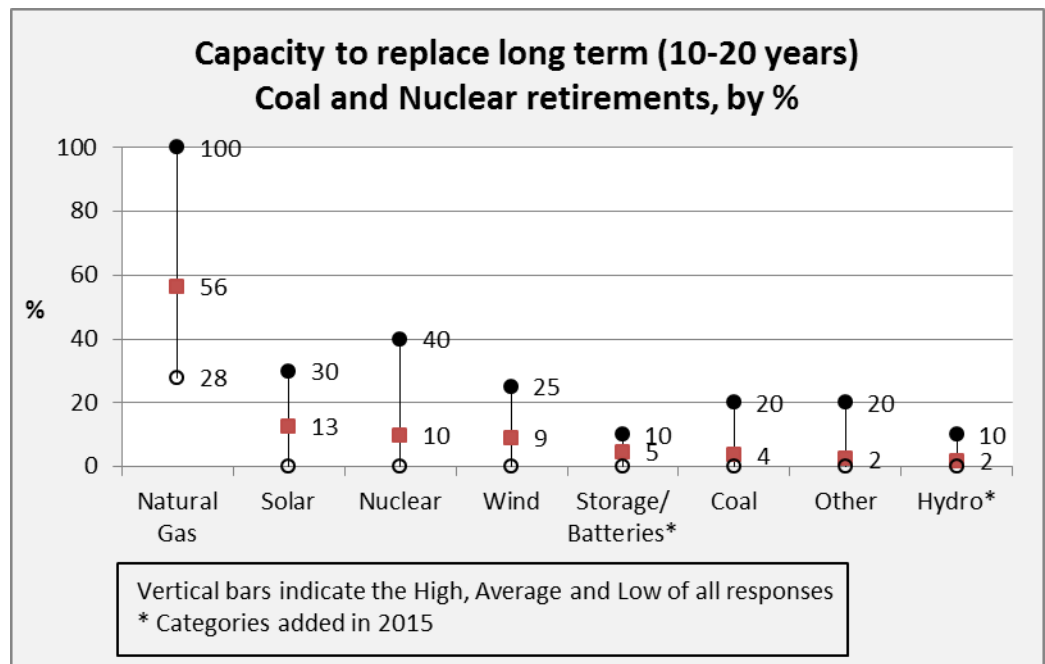
Role of Government in Supporting Specific Technologies

Q – Please indicate your level of agreement with each combination of “Should” or “Will” for each indicated Congressional action.



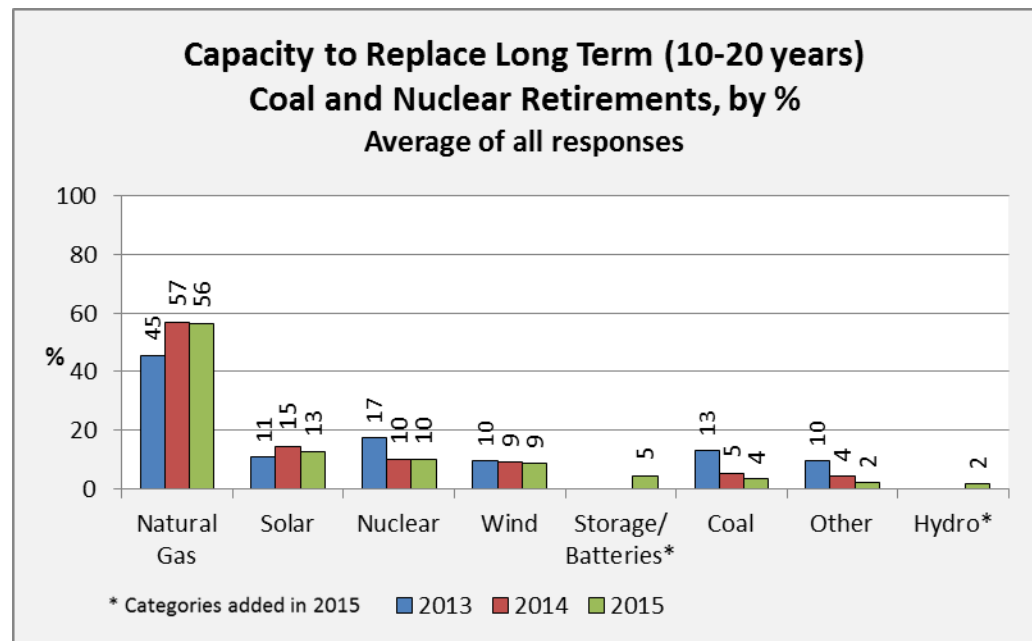
Long Term Replacement Capacity for the U.S.

Q – What is your expectation for the long term (10-20 years) allocation by type of generation to replace existing U.S. base load generation assets, e.g. coal and nuclear assets, as coal plants are shut down and nuclear plant licenses expire?



Long Term Replacement Capacity for the U.S. Trend over three years

- Natural Gas clearly dominates
- Solar is the top second tier technology, combined with batteries becomes even stronger
- Nuclear is the number two second tier technology
- Wind is bottom of second tier
- Coal appears to have little or no future



Challenges/Recommendations

- Challenges for U.S. DOE/ONE
 - AP1000 site #3
 - Commercial deployment, including manufacturing, of NuScale product
 - SMRs recognized as attractive as Natural Gas and Roof Top Solar
- Recommendations for DOE/ONE & Wall Street
 - Continue monitoring Wall Street attitudes
 - Revise DOE SMR support question to include large and advanced reactors
 - Consider tailored outreach/relationship building with Wall Street

Thank You

Discussion

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