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BBR SMR Impact Study

Bureau of Business Research

Economic Impact of Texas Small Modular Reactor Industry Development, 2024-2033

Proposed Study Briefing for the Advanced Nuclear Working Group

January 31, 2024

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Introduction

Bureau of Business Research

Organization Overview

BBR established in 1926 to provide business owners and policymakers with applied economic research and data to strengthen the business environment in Texas.

BBR is the research arm of the IC² Institute at the University of Texas at Austin.

Research Strengths:

- Quantitative and qualitative economic impact analysis
- Survey research
- Behavioral and decision science modeling
- Customized entrepreneurship training

Study Overview

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Working in conjunction with TANRWG and its four sub-groups, as appropriate, the BBR will develop an estimate, in report format, of the economic size and impact of the creation of an SMR industry in Texas over a 10-year period (2024-2033), including an analysis of the economic impact of building and deploying up to 5 SMRs in Texas.

Study has received approval from UT Austin's Institutional Review Board (IRB).

Study Elements

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REMI Dynamic Macroeconomic Model

- REMI is appropriate because of its forward-looking attributes and customized energy model (E3+).
- Need to understand the "story" of building an SMR to guide model inputs
- 12 Texas regions

Inputs:

- —construction, manufacturing, and operation of SMRs
- —workforce (job titles, salary levels)

Outputs will include:

- —Economic profile and impacts of the new manufacturing sector over 10 years;
- —Economic impact of up to 5 SMRs built and deployed in Texas over 10 years

Study Elements, cont.

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Workforce

Profile of the SMR workforce will be developed during the REMI data collection process, including interviews with industry leaders, nuclear experts, and community colleges and workforce boards. Gaps in the workforce supply will be highlighted, if appropriate.

Study Elements, cont.

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Incentives

- Estimate of state (HB5) and federal financial incentives and subsidies needed to encourage new market participants

Interviews

- Interviews with thought leaders about creation and operational strategies.

Community Survey

- Survey of community members and/or business leaders (Large and SME) to support communications planning and measure interest in SMR development. For firms, how do they value "grid reliability"?

Study Team

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BBR

- Dr. Bruce Kellison
- Dr. Matt Kammer-Kerwick
- Dr. James Jarrett

UT Cockrell School of Engineering

- Dr. Michael Webber

University of Colorado, Boulder

- Brian Lewandowski

What Will Our Role Be?

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Work in conjunction with, and not separate from, the Working Group and Subcommittees.

Our general activities:

- Interviewing industry experts from nuclear and adjacent industries to collect input data for REMI model on costs of building SMRs
- Identifying supply chain inputs
- Mapping Texas economic and industrial assets necessary for the creation of SMR supply chain in Texas
- Participating in Working Group and Subcommittee meetings
- Avoiding effort duplication

What We Need From You

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At the start:

- Recommendations of industry experts to interview, from:
  - ✓ Oil and gas sector
  - ✓ Semiconductor industry
  - ✓ Higher Education
  - ✓ National Laboratories
  - ✓ Reactor developers
  - ✓ Data center sector
  - ✓ Others?
- Your thoughts on a biz or a general population survey
- Recommendations for the 12 Texas Regions to analyze

Toward the end:

- ✓ Review report drafts, findings, recommendations

Study Deliverable and Timing

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BBR Report will include:

- Economic profile and impacts of the new manufacturing sector over 10 years;
- Economic impact of up to 5 SMRs built and deployed in Texas over 10 years
- Profile of the SMR workforce, estimate of training or recruiting for gaps
- Asset map of industrial sectors needed to support new SMR industry and supply chain
- Estimate of state (HB5) and federal financial incentives and subsidies needed to encourage new market participants
- List of NAICS codes of sectors involved in nuclear construction (cross tab with firms in TX with operations in those NAICS codes TBD)
- Survey results from community members and/or business leaders (Large and SME) to support communications planning and measure interest in SMR development.

Timing

Written status reports to the TANRWG on March 15, May 15, and August 15, 2024

Final draft delivered by Oct. 31, 2024.

Please Reach Out!

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