



# THIS WEEK'S PROGRAM

April 15, 2025

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### Foundation Joe Morris

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## *Ryan Brookhart, Economics of Nuclear Power*

by Layne McGuire

Tuesday's speaker was Ryan Brookhart, President of Zachary Nuclear. Mr. Brookhart shared insights into nuclear power and its significance in the energy sector. After a twenty-one-year career with the U.S. Navy, Mr. Brookhart retired as a Commander and joined civilian life at Zachary Group in the Nuclear Engineering business unit, where he has held numerous positions. With 35 years of experience, Mr. Brookhart brings a wealth of knowledge about the economic considerations of various power sources and the economic benefits that nuclear power provides for meeting our growing energy needs while benefiting our local communities.

Mr. Brookhart set the stage by providing us with an overview of power generation. The discussion of various power sources, including hydro, coal, natural gas, and nuclear, provided valuable context for the non-engineer Rotarians. He emphasized the importance of base load power sources that provide consistent electricity and can supplement other intermittent renewable sources like wind and solar. In addition, he illustrated how the costs associated with nuclear power plants go back into the community in many ways in the form of high salaries, taxes, and maintenance investments.

Given the concerns and misconceptions that often surround nuclear power, Mr. Brookhart noted that nuclear power plants face stringent regulatory oversight from the Nuclear Regulatory Commission (NRC). This includes environmental regulations, requiring detailed studies and community input before construction. This ensures minimal impact on local ecosystems as compared to some traditional sources of power.

In addition, he highlighted the economic benefits of nuclear power, including lower fuel costs and long-term operational efficiency. He compared the costs and efficiency of nuclear plants to coal and natural gas plants, noting that nuclear plants, despite higher initial costs, offer better long-term returns. In addition to the nuclear plants that we may be somewhat familiar with, Mr. Brookhart explained how Small Modular Reactors (SMRs) can increase capacity on a shorter timeframe than what is needed for a

traditional plant. The development of SMRs aims to make nuclear power more economically viable by reducing construction time and costs. These smaller reactors can be built in factories and assembled on-site, offering a promising future for nuclear energy.

To build any plant, public support is needed. The NRC's licensing process involves federal approval and local community input. Public meetings are held to discuss potential impacts, and community concerns must be addressed before a plant is licensed. Local support for nuclear power is often strong among residents living near existing plants.

Mr. Brookhart concluded by emphasizing the importance of investing in nuclear power for its long-term benefits and reliability. He encouraged communities to educate themselves about the costs and benefits of different power sources and to support the development of nuclear energy.

A recording of the meeting can be found here:

With Slides: <https://vimeo.com/1075833771>

Without Slides: <https://vimeo.com/1075838580>

The program begins at 21 minutes and 50 seconds.