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Nuclear/SMR Risks -- Testimony on Oregon HB2038 and HB2410

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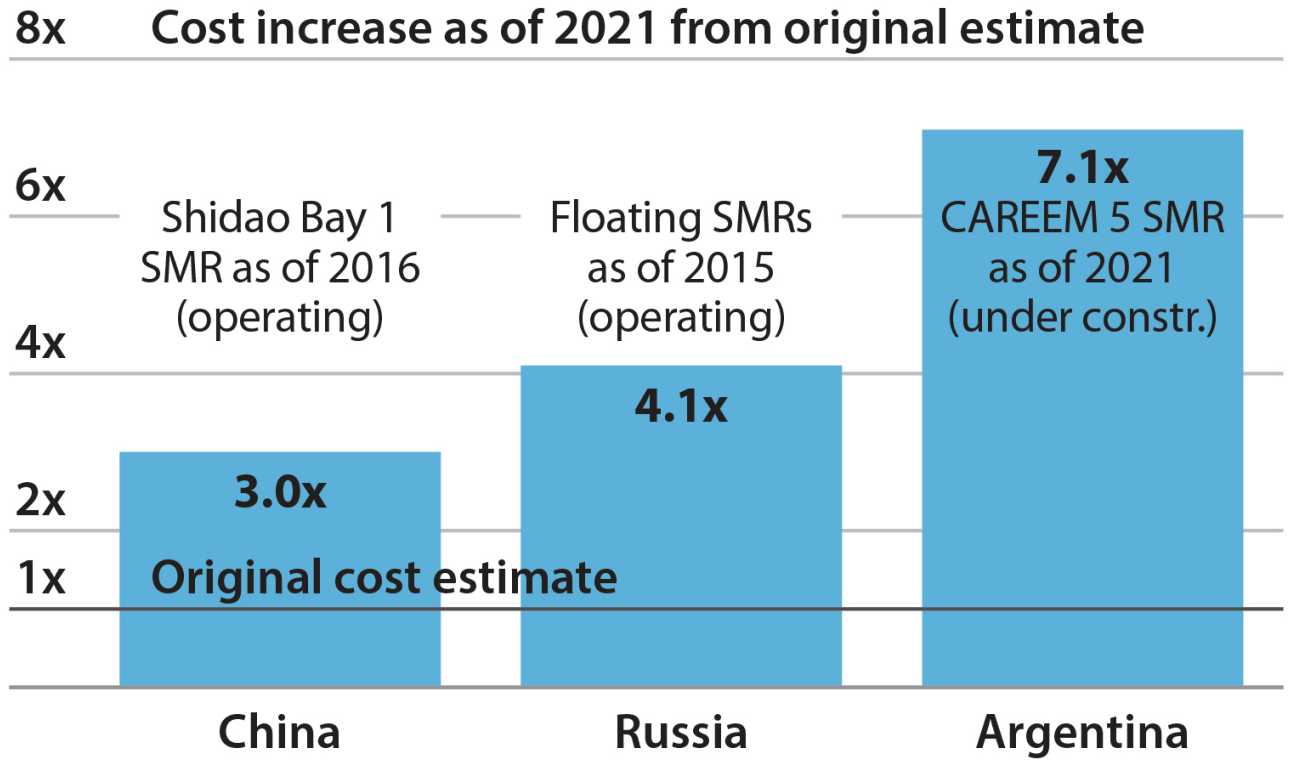
SMR Risks – Cost Increases and Schedule Delays

- Small modular reactors (SMRs) involve untested technologies
- No SMR has been built in the U.S., is under construction or approved by the U.S. nuclear regulatory commission
- The nuclear industry has a long history of huge cost overruns and years-long schedule delays
    - For example, the Columbia reactor in Washington State cost more than $3.2 billion to build, or more than 8 times what was originally budgeted, and was 6 years late when it went into commercial operation in 1984
    - The two most recent reactors built in the U.S., at the Vogtle Nuclear Project, went into service in 2023 & 2024, or more than 7 years late, and cost more than $36 billion to build, or $22 billion more than initially estimated

Actual Costs of Building SMRs in Other Countries Have Been Much Higher than Originally Predicted

- Final construction costs likely are even higher than shown here
- No SMR project has met initial cost and schedule predictions - costs ballooned during project planning phases and again after construction began



Estimated Costs of SMRs Being Marketed in U.S. Have Risen Sharply, Years Before Construction Scheduled to Start

- Additional cost increases should be expected before the projects are completed

- Proposed NuScale reactor project in Idaho was cancelled in late 2023 after estimated cost skyrocketed and communities in Utah balked at writing blank checks for the project

- Costs of new reactors overseas also have increased dramatically during planning, licensing & construction

Recent Reactors With New Designs Have Experienced Years of Schedule Delays

- The SMRs built in China and Russia took as long as triple and quadruple original estimates to build

- Recent large reactor projects in also have taken much longer to complete than originally claimed by proponents – with numerous delays of of 4 to 5, and as long as 9 to 12, years

Illustrative Cost Comparison From Last Fall Shows Nuclear Much More Expensive than Renewables

- Updated power cost estimates will show even higher costs for the power from proposed SMRs and large reactor projectsars

Conclusions

- Nuclear projects pose substantial financial, fiscal & economic risks for taxpayers, ratepayers and investors who will be asked to bear rising costs
    - Just ask the customers of Georgia Power who recently experienced “Rate Shock” when hit with a 23.7% rate increase to pay for the 2 Vogtle reactors
- There is no benefit or award from rushing and being first in starting a reactor project – better to take your time & learn from others’ successes and mistakes
- Legislature should vote NO on HB 2038 & HB 2410

For More Information

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My Background

- Engineering degrees from the Massachusetts Institute of Technology (MIT) and Stanford University
- Law Degree from Stanford School of Law
- Studied nuclear engineering & project management in non-degree program at MIT
- Worked on energy, utility, environmental and numerous nuclear issues for over five decades
- Testified as an expert witness in state regulatory commissions in over 35 states and before the U.S. Nuclear Regulatory Commission and the Federal Energy Regulatory Commission, and in state and federal court proceedings
- Filed expert testimony in over 130 state regulatory commission proceedings
- See my work at www.ieefa.org and www.Schlissel-technical.com