



# TESTIMONY

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## HOUSE BILLS 1435 AND 1804: FLEXIBILITY FOR CLEAN NUCLEAR POWER CONSTRUCTION IN MISSOURI

*By Avery Frank*

Testimony before the Missouri House Utilities Committee

### **TO THE HONORABLE MEMBERS OF THIS COMMITTEE**

Thank you for the opportunity to testify. My name is Avery Frank. I am a policy analyst at the Show-Me Institute, a nonprofit, nonpartisan, Missouri-based think tank that advances sensible, well-researched, free-market solutions to state and local policy issues. The ideas presented here are my own and are offered in consideration of enabling the construction of clean nuclear energy projects in Missouri.

The nuclear energy sector is a lot different now than it was 50 years ago, but the facilities that make up our infrastructure are not. Most of the United States' fleet, including our very own Callaway Plant, was built between 1970 and 1990.<sup>1</sup> However, following the Three Mile Island

incident, and owing to general fear surrounding nuclear technology in the Cold War; some anti-nuclear policies (both at the federal and state level) emerged that have hampered the growth of clean, reliable, and powerful nuclear energy.<sup>2</sup> One such policy passed in Missouri prevents utilities from raising rates in order to help pay for construction works in progress. This 1976 construction work-in-progress (CWIP) law appeared to be created partly to halt the growth of nuclear energy in Missouri—and it has done its part for half a century.<sup>3</sup>

Facing stringent state and federal regulations, the nuclear energy industry has had to adapt in order to survive in a difficult regulatory environment. One adaptation has been the development of small modular reactors (SMRs). These types of reactors are different from our well-known Callaway Plant. They are

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smaller (both in size and in power production) and more versatile. Specifically, they can be pre-fabricated, combined together, and built in a wider range of geographical settings. In addition, they are even safer than older and larger nuclear reactors—which themselves are very safe. Finally, SMRs are less likely to be affected by a natural disasters or targeted attacks, as they do not require power from the grid to start-up or cool down.<sup>4</sup>

HB 1435 and 1804 would help Missourians reap the benefits of a nuclear renaissance with the emergence of SMRs and would help lay a foundation for nuclear energy development by neutralizing a regulation that was created in part to limit the industry. By allowing utilities to raise rates for SMR projects only, this bill could make nuclear investment more feasible in Missouri. HB 1435 and 1804 would help give Missourians future access to clean, powerful, and reliable energy even as coal plants continue to be decommissioned.<sup>5</sup>

### **Nuclear Energy's Construction Process**

A nuclear project is an enormous undertaking, but the benefits are long-lasting, with experts saying there are no “technical limits” to plants operating for 80 years or longer.<sup>6</sup> Such a lengthy lifespan helps justify the admittedly significant upfront construction costs.<sup>7</sup>

In Missouri, the CWIP law prohibits utilities from charging current energy customers for expenses during the construction phase. For nuclear energy, this is seemingly a dealbreaker. The current law essentially requires a state utility to fund the entire project on its own without passing on any of its additional charges on to customers during the construction process.<sup>8</sup> This is an issue for nuclear construction, which can be derailed for months due to the understaffed Nuclear Regulatory Commission (NRC).<sup>9</sup> HB 1435 and 1804 would make future capital-intensive nuclear projects more feasible.

The SMRs that would benefit from HB 1435 and HB 1804 have several advantages over larger, traditional reactors. The shortcomings of the latter have become evident in the time overruns that have plagued Georgia's two newest traditional reactors (Vogtle Units 3 & 4).<sup>10</sup> Whether it is due to regulations, risk-averse investors, or other challenges associated with large construction

projects nowadays<sup>11</sup>—there may great hesitancy towards constructing traditional power plants with enormous cooling towers.

However, as mentioned, the nuclear energy sector is changing, and Missouri should be ready for a potential renaissance brought about by SMRs.

SMRs are pre-fabricated, so when reactor designs are approved, the same design can be used are numerous projects. Thus, construction costs and invested time should decrease as more successful designs are approved.

SMRs are also smaller and safer. Tennessee's first planned SMR would produce 300 megawatts of electricity and have a facility the size of a football field.<sup>12</sup> Nuclear energy in general is not land intensive, with solar and wind needing 31 and 173 times more land to produce the same amount of electricity, respectively.<sup>13</sup> One of the reasons SMRs can be so small is that they do not need power to cool down. In traditional reactors like Callaway, there are enormous cooling towers that contribute to keeping the reactor at normal temperatures. That is not needed for SMRs, which have built-in mechanisms to cool them down in case of emergency.

### **How These Bills Could Benefit Missouri**

As coal power is being phased out, Missourians will need an energy source that will keep the lights on and the air clean. Nuclear power can check both of these boxes—but power plants do not arise out of thin air, and they won't be built in Missouri if the regulatory environment here makes them infeasible or prevents them from being cost-effective. Neutralizing the CWIP law through HB 1435 and HB 1804 would help utilities shoulder the up-front cost of plant construction so that they can work with both domestic and international nuclear developers to revive our state's nuclear industry.<sup>14</sup>

### **HB 1435 and 1804 Should Add a Potential Safeguard for Missouri Citizens**

HB 1435 and 1804 could benefit from incorporating a refund provision to protect consumers in case construction is never completed. There are valid concerns with potentially paying for a project that may never come

to fruition. Adding a refund measure (if the project is cancelled) could help ease the concerns of ratepayers. A refund measure would also give utilities an additional incentive to finish what they started, which would further signal resolve to develop these reactors.

## NOTES

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