



United States Senate Committee
on Environment & Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

Michael F. Keller
Hybrid Power Technologies LLC
14713 Woodward
Overland Park, Kansas 66223
March 9, 2017

Re: Nuclear Energy Innovation
And Modernization Act of 2017, S.512

Dear Chairman Senator Barrasso and Committee Members,

As a small US business developing a unique US patented nuclear/fossil technology, Hybrid Power Technologies welcomes Congressional efforts to further advanced-nuclear reactors. However, we have reservations regarding the ultimate effectiveness of proposed Act.

The Act will improve the process of obtaining a license for an Advanced Reactor. However, the fundamental problem remains: the excessively long time-frames and massive costs involved are incompatible with obtaining financial support from the private sector. Cost-sharing is at best a "Band-Aid" that does not correct the root cause of the problem.

We propose the Act be modified to induce private sector financial support while simultaneously meaningfully reducing costs and time-frames for those Advanced-reactors that are significantly safer than current reactors. In summary:

1. Private Sector Support. Provide tax credits to those investment firms and similar entities that deliver capital to support licensing activities involving Advanced-reactors.
2. Streamlined Licensing. For those Advanced-reactors that can readily demonstrate superior inherent passive protection of the public, the large majority of regulatory efforts be directed at the key safety elements of the design.

Attachment (1) provides mark-ups to the Act to effect these suggested changes.

Also, as a small US business we are quite certain that the cost-sharing provisions of the Act will **not** "... enable inventors, scientists, engineers, and students to pursue licensing advanced reactor concepts." As an engineer who invented and patented a completely new approach to nuclear energy as well as owner of a small US business, we (and the vast majority of small firms) do not have access cost-sharing capital. The matter is easily resolved by allowing the Department of Energy Secretary to waive cost-sharing requirements for small US Businesses and individuals.

In closing, our firm has developed an advanced reactor that readily overcomes the competitiveness problems plaguing nuclear energy - see attachment (2) which was presented at the Advanced Reactor Summit held at Argonne National Laboratory earlier this year. Our technology saves the US nuclear (and coal) industries. However, absent significant reform of the US regulatory process, we are of the opinion that there is little likelihood the US will regain a leadership role in the development and deployment of advanced nuclear energy.

With Respect,

Michael F. Keller

Michael F. Keller
President and CEO
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Attachments:

- (1) Hybrid Mark-up S.512
- (2) Hybrid Presentation USNIC Argonne Labs

* A small Kansas US Business

Brief Bio:

BS Nuclear Engineering, University of Virginia, 1972

MS Mechanical Engineering, Rensselaer Polytechnic Institute, 1979

MBA, St Martins College, 1986

Professional Engineer, State of Kansas, #14158

Senior Reactor Operator Certificate

Several US Patents involving nuclear energy.

Over 45 years in power industry performing, directing and managing activities involving: project development, financing, design, construction, start-up, operation, overhaul, power sales, and plant management for all types of nuclear and fossil power stations located in the US and overseas.