

# OHIO SENATE

## Energy and Public Utilities Committee

### HOUSE BILL 434

**Advanced Nuclear Technology Helping Energize Mankind (ANTHEM)**

**TESTIMONY TYPE:** Proponent

**TESTIMONY DATE:** November 29th, 2022

**PROPONENT NAME:** Jon Paul Morrow

**PROPONENT ORGANIZATION:** eGeneration Foundation

**TESTIMONY:**

Dear Chairman McColley, Vice-Chair Schuring, ranking member Martin, and the rest of the committee,

I thank you for the opportunity to provide testimony on HB434.

In 2013, before the eGeneration Foundation came into existence, the founders of the eGeneration Foundation worked with former legislators Terry Boose and the late Andy Thompson to build support for the development of new nuclear technology. As a result, we have taken meticulous measures to educate legislators, at least those that would listen, on why developing new nuclear technologies is a great thing.

Nuclear development is normally thought of as the exclusive domain of the Federal Government. Because the NRC (Nuclear Regulatory Commission) is a cost recovery agency - the private sector is put at a disadvantage due to large development costs. As a result, a tremendous amount of nuclear technology development is done by the Federal Government. This largely means a development schedule that is overseen by the Federal Government - largely by the USDOE (United States Department of Energy) and the Department of Naval Reactors. Creating alternate pathways toward nuclear development is needed to pursue technologies that are not a priority or have not been conceived of yet.

HB434 takes advantage of the Atoms for Peace program and the 1954 Atomic Energy Act that allows States - such as Ohio to develop nuclear technologies. Upon a successful agreement with the Federal Government and rulemaking development - a pathway will open to provide a tremendous amount of investment into advanced manufacturing technologies.

There is a tremendous difference between current nuclear and new nuclear technologies - so much so - that the rest of the world is sprinting towards developing new technologies. China, using American technology could quite possibly leapfrog the world in nuclear technology with its small modular molten salt reactor. A technology that was once envisioned to be developed in Ohio. Their proof of concept reactor got the go ahead to power up in [August of this year](#), two years ahead of schedule.

## **WHAT HAVE BEEN THE PROBLEMS IN PASSING THIS BILL INTO LAW?**

**OHIO LEGISLATORS HAVE ASKED,** *“Why pass a bill for nuclear development when the Federal Government has made no provisions for working jointly with States on the development of nuclear power?”*

**ANSWER:** “Federal agencies tell us they cannot create rules for the joint development of nuclear technology until 1) a State officially requests them to do so -and- 2) That there is a receiving authority that is empowered to accept and make decisions on joint development.

So, we are left with a chicken and an egg problem. State legislators see no need to create an authority because federal rules don't exist. And, federal regulators see no need to make federal rules because state legislators will not create an entity they can work with.

The Department of Energy has nuclear development agreements with many foreign countries - it is time that Ohio demands one.

We are not asking for a handout - we are asking for a hand-up. We believe that independent development allowed by the Federal government through state collaboration will enable more pathways towards discovery and innovation. Some of the largest venture capitalists in the world are helping fund this technology because they can see how it will fundamentally affect the world and the prosperity it will produce.

## **WHY OHIO LEGISLATORS SHOULD SUPPORT NEW NUCLEAR DEVELOPMENT**

1. New nuclear technology will be affordable and safe. [Many experts](#) predict a price point at less than \$.02 per KW/HR when all revenue streams are considered and load following is considered.
2. Smaller reactors and more of them, especially those that can [load-follow](#) have the potential to make the grid much more robust and resilient.
3. The grid will be greatly simplified without the need for fast-ramp technologies such as SCGTs (Simple Cycle Gas Turbines)
4. Some of these reactors will have the ability to consume [80% to 90% of our high-level nuclear waste](#).
5. [Medical isotopes](#) can be produced by liquid reactors that process [nuclear materials](#) in situ.
6. With a cheaper power source, [plasma gasification](#) can become a reality, and America and Ohio can [do away with landfills](#) and make 100% recycling a reality.
  - a. Plasma Gasification produces a high performing aggregate locally from MSW (Municipal SOLid Waste) for road construction
  - b. Plasma Gasification can produce ultra Clean Gasoline and Diesel Fuel, without a refinery, cost effectively with \$.02 per KW/HR electricity
  - c. Plasma Gasification can consume subgrade coal
  - d. Plasma Gasification can consume municipal sewage and sludge
7. We can greatly reduce Green House Gas emissions.
8. The creation of thousands of good-paying jobs
9. States like Tennessee, Texas, Idaho, and California are set to reap the rewards of encouraging new nuclear development.
10. [National Security](#), [Maritime Applications](#), and Space exploration.

The answer to our most pressing broad-based problems with energy and security will most likely never be accommodated by Wind or Solar. So we can trade an artificial perception of doing good for our environment - with really doing good for our environment and economy.

Please, let us prosper!

Please pass HB434 out of committee!

Thank you for your time and consideration.