



## **Statement of Ranking Member Frank Lucas**

### **Energy Subcommittee Markup**

*H.R. 5374, the Advanced Geothermal Research and Development Act*

December 19, 2019

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Thank you, Chairman Lamb. This morning, I am grateful for the opportunity to discuss my bill, H.R. 5374, the Advanced Geothermal Research and Development Act of 2019, which is co-sponsored by Chairwoman Johnson and authorizes research, development, and demonstration of innovative geothermal energy technologies at the Department of Energy (DOE).

Geothermal energy systems draw from the constant and naturally occurring heat that radiates beneath the surface of the earth. This heat is a source of clean and renewable energy that is always “on.” Our country has significant geothermal energy resources, and if harnessed correctly, these resources can provide secure, baseload power and energy storage for Americans across the country.

Yet although the United States leads the world in installed geothermal capacity, geothermal energy contributes less than one percent to the total utility-scale U.S. electricity generation.

This is because today’s geothermal energy technologies are often too expensive, time-consuming, or risky for industry to take to scale. While I’ve seen the potential of geothermal energy in my district in Oklahoma, more work needs to be done to allow the rest of the country to access the full power of this resource.

In order to effectively leverage these vast untapped energy resources, geothermal technologies and techniques must become more efficient and less expensive for American consumers. Fortunately, we are uniquely positioned to prioritize the basic and early stage research that leads to groundbreaking technology.

Federally funded research programs have a history of paving the way for industry innovation. So I am pleased to see DOE and its Geothermal Technologies Office taking the lead in this valuable science.

It is critically important to our clean energy future that they have the support they need to pursue research that industry cannot undertake.

My legislation will provide DOE with critical funding and program direction to enable innovative research in advanced geothermal technologies, strengthen the U.S. geothermal workforce, and encourage international collaboration. More specifically, it will authorize and expand the Department's early-stage research in enhanced geothermal systems and the major user facilities needed to support this work.

H.R. 5374 will also authorize a new program in advanced geothermal computing and data science R&D. This will leverage DOE's best-in-the-world computational capabilities to provide geothermal researchers with modeling and simulation tools that will allow them to more accurately understand complex subsurface systems.

With these tools, industry can improve the next generation of geothermal energy technologies, using advanced designs to save time and money in planning, and producing power more efficiently with less impact on the environment.

We know that American industry has the resources to successfully commercialize new technology. What they often lack is the infrastructure to conduct early stage research and test new technologies. This is where DOE, the national labs, and academia can help, providing experimental facilities and computational tools that will drive costs down and innovation forward.

If we want to ensure a diverse portfolio of clean energy technologies now and in the future, we in Congress should prioritize this important fundamental research.

I want to thank Chairwoman Johnson and her staff for working with me on this legislation. I believe this bill is an excellent example of our shared goals on this Committee, and I look forward to continuing to work with you all to support this common sense, productive, and bipartisan legislation. I yield back the balance of my time.

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