

**HOUSE ENERGY AND COMMERCE COMMITTEE
SUBCOMMITTEE ON ENERGY, CLIMATE,
AND GRID SECURITY**

**ON THE ROLE OF ARTIFICIAL INTELLIGENCE IN
POWERING AMERICA'S ENERGY FUTURE**

OCTOBER 19, 2023

Questions for the Record for The Honorable Paul Dabbar

The Honorable Brett Guthrie

1. In your testimony, you highlight China's dominance of hardware and software supply chains. Could you talk more about just how reliant we are on China? And with that in mind, how does integration of AI in our energy sector make us more vulnerable to our adversaries like China?

China provides significant amount of lower end semiconductors for computing systems. And in integrated energy systems like their wind turbines, solar cells, and electric vehicles, the preponderance of the power electronics are China manufactured chips and operating software.

In particular, as AI capabilities are added to Chinese supplied wind, solar, EV and other products, it is quite likely all of those products would be security challenged. With significant downsides for U.S. power supply risks, and EV safety, included targeting specific American citizens driving.

- a. What can Congress do to help mitigate these national security risks?

Congress could ban all Chinese products in the energy sector that the U.S. has alternatives suppliers from anywhere else globally. Some systems would be easy to ban without much impact to U.S. energy

component options, such as nuclear, turbines, and drilling equipment. For example, full bans of all Chinese wind turbines, or any wind components, could be looked at today without significant impact to U.S. wind system supply, since most wind systems deployed in the U.S. are from U.S. or European manufacturing. The same can be done for electric vehicles, and any car components, including for internal combustion cars, that include power electronics.

Solar systems would be harder to immediately ban given the preponderance of Chinese manufacturing globally currently. But Congress could add strong system security inspection requirements immediately, and could pass a future year-full ban on all Chinese solar systems. Similar to how Congress is looking at banning Russian enriched uranium in a few years, to allow time for additional U.S. manufacturing to be built.