

Rep. Biggs – Member Day Statement – 4/15/2026

Thank you Mr. Chairman. I appreciate the opportunity to appear before the Committee today on a matter that may not make headlines, but that I believe carries serious consequences for our national security.

I want to talk about something called short-wave infrared quantum dot materials - SWIR quantum dots. They are a foundational input for the next generation of infrared sensor systems: sensors that guide precision munitions, enable surveillance in contested environments, support our warfighters in low-light and adverse-weather conditions, and underpin many of the advanced capabilities we are counting on to maintain our edge over peer adversaries.

Here is the problem. The dominant commercial suppliers of these materials are physically located in - or owned by entities tied to - the People's Republic of China. And to my knowledge, there is currently no domestically owned producer operating at a scale sufficient to meet defense industrial base demand. **Let me say that plainly:** for a material that feeds directly into our most sensitive sensor systems, we are substantially dependent on a strategic adversary.

This is precisely the kind of technical vulnerability that our adversaries exploit and that we tend to discover only after the supply chain breaks. We have seen this story before with rare earths, with semiconductors, with active pharmaceutical

ingredients. We cannot afford to learn this lesson again with materials that sit inside our most critical platforms.

The good news is that American companies *are* working on this. There are U.S.-owned entities that have demonstrated real capabilities for advanced quantum dot materials and are actively pursuing manufacturing scale-up. What they need now is a signal from the Department and from Congress that there is a viable path to market in the defense supply chain.

That is why I am urging this Committee to include my language in the FY2027 NDAA directing the Secretary to prioritize U.S.-owned entities with demonstrated capability in this space, and to require a report on the domestic supply chain for quantum dot materials used in SWIR sensor systems. That report should include a concrete, recommended course of action for establishing sufficient domestic supply to meet projected demand by fiscal year 2030.

FY2030 is not far away. The procurement pipelines that depend on these materials are already being written. If we do not act now to develop domestic supply, we will find ourselves soon making a very uncomfortable choice: delay critical programs or continue accepting components from a supplier in Beijing.

I'll be honest - when I came to Congress, I did not expect to spend Member Day talking about quantum dot synthesis. But that is exactly the point. Our adversaries

are investing in these layers of the supply chain *because* they are unglamorous, and *because* they fall between the cracks of our oversight.

I'm thankful for the opportunity to appear before the Committee today and I look forward to working with you to close this vulnerability in the upcoming NDAA.