Opening Statement of Ranking Member Morgan Griffith
Subcommittee on Oversight & Investigations Hybrid Hearing
"Cleaning Up Cryptocurrency: The Energy Impacts of Blockchains"
January 20, 2022

As Prepared for Delivery

Finally, today we meet as a Committee to do our congressional duty—conduct oversight—after a four-month long pause. It is disappointing that Democrat leadership has not allowed this subcommittee to hold hearings to address some of the nation's most pressing issues. With that being said, I appreciate the Chairwoman pushing to get our second hearing room up and running and look forward to working with her to tackle some of the important issues facing our country. I hope that we will start to dig into crucial oversight.

Bitcoin and other cryptocurrencies have grown increasingly popular in the past few years. One of the main reason's cryptocurrency remains successful is the technology behind it—blockchain. A blockchain is a shared ledger for recording transactions and tracking assets that protects against manipulation, ensuring valid transfers without the use of a centralized clearinghouse, such as a bank.

Blockchains have already proven to be a lucrative technology.

Cryptocurrencies, that apply blockchain technology, are digital money in electronic payment systems. Some estimates have found that as of 2020, there were more than 5,100 different cryptocurrencies.[1]

Certain estimates place cryptocurrency assets at a total value exceeding three trillion dollars.[2] Policymakers should understand the cryptocurrency ecosystem—including the baseline technology, the key players, the market, and the ways in which the U.S. government can help advance its development.

Today, we review the cryptocurrency ecosystem through the lens of energy consumption. Energy is consumed when computers perform calculations to validate transactions and a cryptocurrency is "mined." Cryptocurrency mining is the process by which new digital currency are made or discovered and entered into circulation. This process often consumes large amounts of energy due to the specialized hardware involved in validating transactions.

[1] https://sgp.fas.org/crs/misc/R45427.pdf
[2] https://www.bloomberg.com/opinion/articles/2021-11-10/is-crypto-really-worth-3-trillion

As prices for cryptocurrency have increased, the incentive for miners to invest increasing amounts of capital in larger computer systems to validate more transactions has also increased.

Bitcoin mining makes up the largest share of cryptocurrency mining. Bitcoin miners receive a reward, in the form of Bitcoins for validating transactions. This reward is halved every four years. Today, the reward is 6.25 Bitcoins. As of January 2022, Bitcoin traded at around $43,000, making 6.25 bitcoins worth nearly $270,000. As the payoff has declined, more expensive and complex computer systems have been necessary to mine smaller amounts of the token.

Some experts estimate Bitcoin mining uses anywhere from 110 to 188 terawatts of the world's energy annually, more energy usage than that of some small countries.

The relatively new proof-of-stake validation method, used by many other tokens, generally consumes less energy. However, some experts have voiced concerns with security and having too few validators participating.

The question is, can our current electrical infrastructure support this level of consumption.

Grid operators may need to update their infrastructure to accommodate the energy usage of some miners, which can be expensive and time-consuming.

Short of updating their grid infrastructure, all grid operators have demand response programs. Most of these programs include contracts that state the cryptocurrency mining customer will turn on and off their load depending on the demand and the available supply of electricity. For example, cryptocurrency mining companies in Texas are enrolling in programs with ERCOT to become a "controllable load resource." This can provide stability to a grid as well as lower prices for other customers.

Additionally, cryptocurrency miners are partnering with solar farms, wind turbines, and hydropower plants to support their operations. Often in creative ways, cryptocurrency miners have stepped in to make other energy businesses more profitable.

For example, Bitcoin miners have partnered with solar farms to use the excess energy the farm generates during the day.

Another example is the repurposing of orphaned natural gas wells for cryptocurrency mining. Cryptocurrency companies reclaim orphaned natural gas wells that otherwise would release flare gas into the air. This flare gas, that produces methane emissions, did not previously have a use or value. These alliances between cryptocurrency miners and oil and gas companies could give use to the over two million orphaned natural gas wells in the U.S.

However, the cryptocurrency industry is not shy of risks. Cryptocurrency invites skepticism from some because it is still a new asset subject to market volatility. These risks could potentially impact a reliant industry or a community in which cryptocurrency miners operate.

Examples of this risk include communities in Eastern Washington and upstate New York, where the community bore the brunt of bad actors' mining operations through increased utility rates and health and safety risks, such as fires in apartment complexes from unmonitored, overheating mining hardware. Though concerning, these incidents appear to be outliers in the industry.

I look forward to learning more about the industry and its impact on communities and the economy. Blockchain technology presents a transformational platform to empower citizens, and I look forward to hearing more about it.

I thank the witnesses for being here, and I yield back.