



Cryptocurrency defined: If it looks like Bitcoin ...

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the district.

The rates that go with the definition are still being developed. The hope, Wright said, is to present them at the July 23 PUD commission meeting, leading up to the scheduled Aug. 6 public hearing on the status of the moratorium on new cryptocurrency service connections.

The moratorium was called in March to give PUD staff time to figure out how best to handle an overwhelming number of applications for power service from cryptocurrency miners that followed the spike in digital currency values last fall.

The concern was not just with the amount of power being requested by companies, but from the discovery of unauthorized mining operations, many in residential areas that PUD staff said create reliability and safety issues.

The proposed new rate class would be separate from the "Schedule 35" high density load rate that went into effect in January 2017, also following a moratorium on new blockchain service connections.

WENATCHEE — If it looks and acts like Bitcoin mining, it is.

That's a short version of Chelan County PUD's definition of cryptocurrency on which a new rate schedule will be based.

Chelan PUD commissioners on Tuesday reviewed a proposed "new class definition" that will separate cryptocurrency miners — and the volatility and unpredictability that come with them — from other, more stable, high density load customers.

"We had new industries that were interested in coming to Chelan County and making large investments in facilities that suggested they were going to make a long-term commitment to being here," PUD General Manager Steve Wright told commissioners. "They are higher energy users, which have consequences, but you have a fairly high level of confidence that you will recover the costs for the investment you made. They are different than what we see with cryptocurrency miners that come with a transient risk."

The new rate class definition centers on how energy is being used — "any amount of computing or data processing load related to cryptocurrency mining, Bitcoin, blockchain, proof-of-work or other loads having similar characteristics."

Those characteristics include:

High energy use density.

High load factor.

Abnormal alterations to electric service facilities to maintain safety.

Portable and distributable units of power.

Volatile load growth and load reduction.

The ability to relocate quickly in response to short-term economic signals.

High exposure to volatile commodity or asset prices.

Being part of an industry with the potential to demand a large concentration of power in

"The existing Schedule 35 definition was our initial effort at understanding the impacts (of blockchain technology) to the system," said Lindsey Mohns, PUD customer utility business manager. The HDL rate includes an "energy use intensity" or EUI calculation of 250 kilowatts per square foot.

"We have customers reading the schedule and assuming it doesn't apply to them," she said. "Smaller cryptocurrency operations typically go in someone's basement, a back room or closet because they are so small. The customer interprets the EUI to be the square footage of the entire house rather than the closet."

That's been difficult to explain and difficult for customers to understand, she said.

The need for clarification is one of the drivers for developing a new rate class just for cryptocurrency or blockchain processing, she said.

The impact to the system is the other driver.

"The average U.S. home nationwide uses about 1,000 kilowatts a month," she said. "Our energy use here is a little higher, but in general, the average energy use in a single-family home is about the same as one ASIC (application-specific integrated circuit) machine."

ASIC devices, the computers that run the complicated calculations required in cryptocurrency mining, are small enough that several can fit into a small space, each adding to the power load.

"This makes a huge difference to us on the infrastructure side of things and serving residential areas where we plan for a load that looks like a single home," Mohns said. "As soon as you start adding machines in a home, it's like having three, four or five homes stacked on top of each other in one single-service point."

The proposed cryptocurrency and blockchain class definition will help address those gray areas as well as allow for changes in the future.

"We do recognize that things are going to progress and change," she said. "Just in the two years since the last time, we've seen changes. Based on these characteristics, we hope to address various risks and challenges we see with these loads."

PUD Commissioners Randy Smith and Steve McKenna said they liked the idea of a separate rate.

McKenna said, fees aside, it's important to be able to defend the different rate categories.

"Philosophically, I need to have the rationale to address that concern regardless of what the rates are. I need that rationale that we can present to people and say, 'Try to argue this,'" he said.

Reach Nevonne McDaniels at 509-664-7151 or mcdaniels@wenatcheeworld.com.