

FREQUENTLY ASKED QUESTIONS

Cryptocurrency Mining Zoning Regulations

Missoula County Community and Planning Services
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1. Why is Missoula County interested in regulating cryptocurrency mining?

Cryptocurrency mining is a relatively new industry which first appeared in Missoula County in 2017. Soon after, the county government began receiving complaints about some of the local impacts of this industry. The county investigated the issue and determined that the impacts of cryptocurrency mining can include excessive energy consumption, noise, and electronic waste, and that regulation was needed to protect public health, safety, and general welfare. The excessive energy consumption of this industry is particularly concerning to the county given the urgency to address climate change.

2. Is this zoning a moratorium on cryptocurrency mining?

No, this is not a moratorium on cryptocurrency mining. Commercial cryptocurrency mining facilities may operate in Missoula County if certain conditions are met.

3. Under what zoning conditions can cryptocurrency mining occur?

There are four conditions that must be met in order to operate a commercial cryptocurrency mining facility.

- Must be zoned for industrial use
- Must be reviewed as a conditional use or special exception
- Must develop or purchase new renewable energy to offset all electricity used by the facility
- Must dispose of electronic waste at a DEQ-licensed electronic waste recycling company.

4. Can existing cryptocurrency mining facilities continue to operate?

Yes, existing cryptocurrency mining facilities can continue to operate at their current level; however, expansion to the building footprint, into unused portions of a building, or into new structures requires compliance with the zoning conditions.

5. Where do these zoning regulations apply?

These regulations apply countywide but do not apply within the city limits.

6. Why does the renewable energy for cryptocurrency mining need to be new?

When a new large-scale energy consumer purchases power from an *existing* clean generator (such as an existing wind farm, solar farm, or hydroelectric dam) which was previously serving other customers, the net effect is an increase in fossil fuel generation and associated carbon emissions. This is because the customers who were previously served by the clean generator will end up being served by other generation sources, and there's no guarantee that those other sources will be renewable.

The distinction between new and existing renewable energy is a well-established principle among companies with renewable energy goals. For example, the Corporate Renewable Energy Buyers' Principles were developed by dozens of leading multinational corporations to articulate what they are looking for when buying renewable energy. One of the principles is "Access to new projects that reduce emissions beyond business as usual" (emphasis added).

7. How can a cryptocurrency mining operation meet Missoula's requirement for new renewable energy?

The county has identified several potential pathways that a cryptocurrency mining operation could explore in order to meet the renewable energy requirement. Some options listed may not be available to every company. Renewable energy technologies and policies are evolving rapidly, and applicants are welcome to propose compliance pathways not included on this list. These options are intended to be illustrative, not prescriptive.

- On-Site Renewable Energy (e.g. rooftop solar)
- Power Purchase Agreement (PPA)
Under Montana law, only a few of the very largest businesses in the state (those that use more than 5 megawatts of electricity) have the option to enter into a PPA with a power provider other than their default utility. A cryptocurrency mining operation that falls into this category could choose to enter into a PPA with the developer of a new renewable energy project.
- Virtual (or Financial) Power Purchase Agreement (VPPA)
A VPPA is a financial mechanism whereby a company contracts with a renewable energy developer (which may be in another state) to pay a fixed rate for power produced by a new renewable energy project. That commitment allows the project to be built. The buyer then re-sells the power generated by the project into the wholesale electricity market in the region where the project is located.
- Green Tariff
Green tariffs are utility-run programs in which the utility either builds or contracts with a third party to build a new renewable energy generator, with the output sold to one or more utility customers through a special rate on their power bills. In Montana, NorthWestern Energy is currently investigating the development of a green tariff.
- Renewable Energy Certificates (RECs), under certain circumstances
RECs are tradeable commodities that represent proof that one megawatt-hour of renewable electricity was generated. Typically, RECs do not demonstrate additionality (meaning that they are not associated with the development of new renewable energy), but there may be exceptions which would allow a cryptocurrency mining operation to meet the renewable energy requirement through the purchase of RECs associated with new renewable energy projects.

More information about all of these options is available from the US Environmental Protection Agency at <https://www.epa.gov/greenpower/green-power-supply-options>.

The Renewable Energy Buyers' Alliance (<https://rebuyers.org/>) is another resource for businesses looking to procure renewable energy.