

Chapter 28 CRYPTOCURRENCY AND DATA MINING

Sec. 28-1. Permissibility.

Commercial cryptocurrency mining and data mining are prohibited in the unincorporated areas of Gilmer County.

Sec. 28-2. Legislation enacted to the contrary.

Should legislation be enacted by the State of Georgia that provides that local governments cannot ban or prohibit commercial cryptocurrency mining and data mining, then it is the intent of Gilmer County Government that Sections 28-3 through 28-9 would govern commercial cryptocurrency mining and data mining.

Sec. 28-3. Purpose.

The purpose of this chapter is to establish definitions relating to cryptocurrency and data mining, to establish standards to protect the public health, safety, and welfare, and to avoid unintended impacts on resources and adjacent uses.

By enacting this chapter, it is the intent of Gilmer County Government to enable the development of cryptocurrency mining and data centers, to the extent possible, in areas where any potential adverse effects on the community will be minimized.

(Res. No. 23-168, 12-14-2023)

Sec. 28-4. Definitions.

Code enforcement officer means any person contracted with or employed by a state, county, or municipality who has enforcement authority for health, safety, or welfare requirements and is authorized to issue citations or file formal complaints regarding the same O.C.G.A. 36-74-21(1).

Commercial cryptocurrency mining means the commercial process by which cryptocurrency transactions are verified and added to the public ledger, known as the block chain, and also the means through which new units of cryptocurrencies are released through the use of server farms. Any equipment requiring a high-density load service, for the purposes of operating a cryptocurrency mining server farm, will constitute a commercial cryptocurrency mining operation.

Cryptocurrency means A digital currency in which encryption techniques are used to regulate the generation of units of currency and to verify the transfer of funds while operating independently of a central bank.

Cryptocurrency data center means leased or owned boundaries of floor space devoted to the operating data processing equipment for commercial cryptocurrency mining: excludes spaces for data centers not otherwise engaged in commercial cryptocurrency mining, commercial offices, storage, shipping and receiving, warehousing, or any other space that is not electronic processing.

Cryptocurrency server farm means three or more interconnected computers housed together in a single facility either air-cooled or water cooled, whose primary function is to perform cryptocurrency mining or associated data processing.

Data mining means the commercial process by which volumes of data are analyzed to find patterns, discover trends, and gain insight into how the data can be used will constitute a commercial data mining operation.

High-density load service means any individual service at or above 600 amps in which the energy use intensity (EUI) is calculated as greater than 250 kWh/feet² /year in total for all operating square footage.

(Res. No. 23-168, 12-14-2023)

Sec. 28-5. Applicability.

- (a) This chapter shall apply to all commercial cryptocurrency mining and data mining operations installed, constructed, or modified after the effective date of this chapter.
- (b) All commercial cryptocurrency and data mining operations shall be designed, erected, and installed following all applicable local, state, and federal codes, regulations, and standards.

(Res. No. 23-168, 12-14-2023)

Sec. 28-6. Standards for commercial cryptocurrency mining operations.

- (a) All principal and accessory structures used for cryptocurrency mining operations, server farms, and/or data mining centers, shall be arranged, designed, and constructed to be harmonious and compatible with the site and with the surrounding properties. If prefabricated, pre-engineered or modular structures are installed, the following standards are required:
 - (1) All structures shall have concrete foundations.
 - (2) All exterior facades shall have muted earth tone colors, and shall not be defective, decayed, or corroded.
 - (3) The use of cargo containers, railroad cars, semi-truck trailers and other similar storage containers for any component of the operation is prohibited.
 - (4) Commercial cryptocurrency mining facilities shall only be located in the CT-1 (commercial technology) zoning district.
 - (5) Minimum Lot Size: 50 acres
 - (6) Setbacks: 500 feet Front, 500 feet Sides, 500 feet Rear
 - (7) Hours of operation: 6:00 a.m. to 10:00 p.m.
- (b) The operators shall not cause, allow, or permit the operation of any source of sound which creates a sound level measured at the property lines that exceeds a continuous sound level of 50 dBA.
- (c) The operators shall not cause, allow, or permit the operation of any source of sound or vibration which creates a pure tone where the one-third (1/3) octave band sound pressure level in the band of interest exceeds the arithmetic average of the sound-pressure levels for the two adjacent one-third (1/3) octave bands by the corresponding decibel (dB(Flat)) values as follows:
 - (1) 5 dB for center frequencies of 500 Hertz and above,
 - (2) 8 dB for center frequencies between and including 160 and 400 Hertz, and
 - (3) 15 dB for center frequencies less than or equal to 125 Hertz.
 - (4) A pure tone shall be deemed present by measurement.

For permitting and compliance purposes, measurements shall be performed using a calibrated type 1 sound level meter, configured to log and record 1/3 octave flat-weighted equivalent sound pressure levels, and A-weighted equivalent level (Leq), slow time weighting, with a 15-minute averaging interval. Measurements shall be made at the property line. Transient background sounds must be excluded from the measurement period by post-processing or other means. Compliance is indicated if the noise solely generated by the operator cannot be discriminated from the equivalent-continuous background sound pressure level, or if the noise levels solely generated by the operator otherwise conform to the requirements of subsections (c) and (d).

- (d) Prior to the issuance of a certificate of completion or occupancy, a report with noise level test results shall be submitted for approval by the applicant from a noise control engineering professional for the purpose of demonstrating compliance. The expense for testing and reporting the results, in written format, to the County will be the responsibility of the applicant.
- (e) A noise reduction barrier or device may be required at the discretion of the County when it is conclusive that noise level tests do not conform to subsections (c) and (d). If this is required of the applicant or facility, the expense of compliance shall be the applicant's and not the County's.
- (f) Terminology as used herein related to acoustic levels and measurements follow American National Standard ANSI S12.9: "Quantities and Procedures for Description and Measurement of Environmental Sound - Part 1: Basic Quantities and Definitions," and ANSI S12.9: "Quantities and Procedures for Description and Measurement of Environmental Sound. Part 3: Short-term measurements with an observer present".
- (g) All servers, computers, processors, materials, and equipment must be enclosed within buildings. These buildings will be subject to commercial design standards.
- (h) The equipment used in any commercial cryptocurrency mining operation shall be housed in a metered (either individually or collectively in primary-metered services), electrically grounded, and pre-engineered metal-encased structure with a fire rating designed to resist an internal electrical fire for at least 30 minutes. The containment space shall contain baffles that will automatically close in the event of fire independent of a possible electric system failure.
- (i) Prior to issuance of a building permit, the applicant shall provide written verification from the power provider (Georgia Power or Amicalola EMC) that the applicant has calculated the maximum potential electrical consumption of the proposed use and has verified the utility supply equipment and related electrical infrastructure is sufficiently sized and can safely accommodate the proposed use during the power provider's peak consumption hours.
- (j) Power shall only be provided by either Georgia Power or Amicalola EMC. No use of alternative power, such as solar, wind, or hydro, is permitted, whether on-site or off-site.
- (k) Any use or activity producing air, dust, smoke, glare, exhaust, heat, or humidity in any form shall be carried on in such a manner that it is not perceptible at or beyond the property line.
- (l) A security fence with a minimum height of eight feet must be installed around the perimeter of the server farm building. Each commercial cryptocurrency mining and data mining operation shall provide a 24-hour emergency contact signage visible at the access entrance. Signs shall include company name if applicable, owner/representative name, telephone number, and corresponding local power company and telephone number.
- (m) No facade of any commercial cryptocurrency mining operation shall have more than twenty percent (20%) of the area exposed with apparatus (e.g., vents, fans, HVAC systems, etc.).
- (n) An active clean agent fire protection system must be provided and maintained in good working order within any structure which contains a server farm. High sensitivity smoke detectors shall be installed and operational in order to activate the clean agent fire suppression system.

- (o) There shall be an emergency electrical termination switch installed outside of any containment structure which contains a server farm. The switch shall be appropriately signed so that responding public safety officials can quickly identify it.
- (p) The equipment used in any server farm shall be housed in an individually metered, electronically grounded structure with a fire rating designed to resist an internal electrical fire for at least 30 minutes. The containment space shall contain baffles that will automatically close in the event of fire independent of a possible electric system failure.
- (q) All building requirements required by this section, including but not limited to heat transfer apparatuses, fire detection/suppression systems, or containment structures shall be designed by a State of Georgia licensed engineer and in accordance with all applicable codes and standards.
- (r) The ambient temperature inside of a containment space which houses a server farm shall not exceed 120 degrees Fahrenheit at any time. No person shall be permitted to regularly inspect and work within the containment area which houses a server farm if the ambient temperature within the containment area exceeds 90 degrees Fahrenheit.
- (s) Any Server Farm shall ensure that no more than twenty percent (20%) of the heat dissipated by the mining activity shall be released directly to the outside when the average daily temperature is less than 40 degrees Fahrenheit.
- (t) All requirements of Section 28-6. must be maintained after the issuance of a certificate of occupancy. Any violation of such will be handled in accordance with Section 28-8.

(Res. No. 23-168, 12-14-2023)

Sec 28-7. Application and approval.

No commercial cryptocurrency or data mining operation may be developed without site plan review and verification by the planning and zoning department that all requirements within this ordinance are met.

(Res. No. 23-168, 12-14-2023)

Sec. 28-8. Violations.

- (a) Any section of this chapter that is not followed constitutes a violation. Each incident is a separate violation such that multiple violations may occur on the same date and subsequent dates.
- (b) The code enforcement officer has the discretion to issue a warning or a citation on a case-by-case basis.
- (c) Any violation shall have a maximum punishment not to exceed a fine of \$1,000.00 per each day of a continuing violation, imprisonment for 60 days, or both.

(Res. No. 23-168, 12-14-2023)

Sec. 28-9. Effectiveness, interpretation, separability.

- (a) This chapter shall become effective immediately upon its adoption.
- (b) All ordinances, or parts of ordinances, in conflict herewith are replaced.
- (c) If any part of this chapter conflicts with any other applicable federal, state, or local regulation, the more restrictive regulation shall control.

- (d) If any section, clause, portion or provision of this chapter is found unconstitutional, such invalidity shall not affect any other portion of this chapter.

(Res. No. 23-168, 12-14-2023)