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RESPONSIVE SUMMARY FOR OGC GENERAL RULE K PROMULGATION

Comes now the Oil and Gas Commission (OGC), by and through Kesia Morrison, Chief Counsel of the Department of Energy and Environment, and provides this Responsive Summary as required under Ark. Code Ann. § 25-15-204(g)(1)(C)(ii)(c).

I. INTRODUCTION

The public comment record for the promulgation of General Rule K contains nine (9) written comments received by the OGC and two (2) oral comments made at the public hearing on January 6, 2025, pertaining to the promulgation of General Rule K regarding the rules regulating digital asset mining.

The Notice of Rule Change was published on December 14, 15, and 16th, 2024, in the Arkansas Democrat-Gazette, and was posted in the Arkansas Register. The Oil and Gas Commission conducted one (1) public hearing on the proposed promulgation of General Rule K in North Little Rock, Arkansas, on January 6, 2025. The public comment period ended on January 13, 2025, at 11:59 p.m. (Central Time).

II. RESPONSES TO WRITTEN COMMENTS

The following people or organizations made written comments during the public comment period:

Commenter: Robert Reynolds

Comment: Concerns with the depletion of the freshwater aquifers located in Arkansas because of operations by digital asset mining businesses.

Response: The Arkansas Oil and Gas Commission (AOGC) acknowledges the comment. Proposed General Rule K-2 e) 6) provides appropriate restrictions on the negative impact to the local water supply. In regard to groundwater concerns, AOGC defers to the Arkansas Natural

Resources Commission (ANRC), which is the agency that has the statutory authority to regulate groundwater usage, availability, and quality.

Commenter: Kim Troboy (Written comment of January 13, 2025, and oral comment at hearing of January 6, 2025.)

Comment: These permit regulations should apply to any free-standing data center, not just the so-called cryptocurrency 'mines' or 'digital asset mining businesses'. Otherwise, Arkansas will in future face the same threats but without the regulations and safeguards proposed by this agency.

I have no such concern about data centers created to support businesses in Arkansas engaged in regular retail, transportation or other businesses. I have observed the operations of data centers in businesses such as Walmart, ArcBest, Acxiom, and Dillard's. These data centers have proved themselves to be good actors and present no threat to Arkansas.

Justification

The equipment in these operations may easily be switched over to providing artificial intelligence (AI) cloud operations by simply loading different software and data. This conversion takes very little time to accomplish. AI cloud operations will contain the very same equipment and use the very same amount of electricity and water (if not more). AI cloud operations host AI agents, their knowledge bases, and the products of their work in terms of text, images, music, software, and other artifacts they produce.

In that case, these very same operations will contain the very same equipment and present the very same threats to public peace, health, and safety, but they will become completely unregulated.

In fact, as an industry, 'digital asset mining businesses' do not have an infinite lifespan at the present level of profits. In fact, the Microsoft AI search agent states,

“As of now, approximately 19.1 million bitcoins have been mined. However, the total number of bitcoins that will ever exist is capped at 21 million. This means there are still about 1.9 million bitcoins left to be mined." (Citing How Many Bitcoin Are There? How Much Supply Left to Mine?)

After this milestone is reached, there will still be blockchains of bitcoin transactions to validate, but the opportunity for large profit margins will be much reduced. Anyone investing this much capital in this sort of business should know this fact and should be looking for alternative ways to deploy their investment more profitably. AI cloud operations would be a very profitable business to move into with a much longer operational time frame.

Legal Basis

The initial Act 851 that allowed blockchain validation operations to conduct business in the State of Arkansas was titled "ARKANSAS DATA CENTERS ACT OF 2023". Stated within that act (highlighting mine):

"14-1-502. Legislative findings and intent.

(a) The General Assembly finds that:

(1) The data centers industry began its modern version in the 1980s, and the industry has seen accelerated growth since 2008;

(2) Data centers have seen global growth with the expansion of bandwidth, the need for analytical data research, and digital currency;

(3) Data centers, digital currency, and blockchain technology are legal in all fifty (50) states; and

(4) Guidance for future industry growth is needed in Arkansas to protect Arkansans from fraudulent business practices.

"14-1-505. Discrimination against digital asset mining business [is] prohibited."

(a) Except as provided by subsection (d) of this section, a local government shall not:

(1) Enact or adopt an ordinance, policy, or action that limits the sound decibels generated from home digital asset mining other than the limits set for sound pollution generally;

(2) Impose a different requirement for a digital asset mining business than is applicable to any requirement for a data center;

(3) Rezone an area in which a digital asset mining business is located without complying with applicable state law and local zoning ordinances; or

(4) Rezone an area with the intent or effect of discriminating against a digital asset mining business.

In 2024, this act was amended by Act 174 and Act 173 so that most of section 14-1-505 above was struck to restore the ability of local governments to enact ordinances regarding so-called 'digital asset mining business'.

Note that section 14-1-502 was not amended by Act 174 or Act 173.

Both Act 173 and Act 174 were passed with an emergency clause that is significant here.

Act 173:

SECTION 9. EMERGENCY CLAUSE. It is found and determined by the General Assembly of the State of Arkansas that increased circulation of digital currency and adoption of digital transformation have led to an influx of digital asset mining businesses in Arkansas in recent years; that digital asset mining businesses have potential to generate excessive noise and that without adequate regulation, digital asset mining businesses can place a strain on, and reduce the quality of life of, residents and communities near them; and that growth of this business sector has been capitalized upon by upon by foreign corporations and other foreign entities and aliens that pose potential threats to the welfare and safety of Arkansas and its residents. Therefore, an emergency

is declared to exist, and this act being immediately necessary for the preservation of the public peace, health, and safety shall become effective on [etc.]

Act 174:

SECTION 8. EMERGENCY CLAUSE. It is found and determined by the General Assembly of the State of Arkansas that digital asset mining businesses present significant threats to the public peace, health, and safety, including without limitation significant noise emissions, massive power consumption, the use of large quantities of water that potentially threatens water resources, and potential issues with cybersecurity; that the continuous noise emitted by digital asset mining businesses threatens the public peace, health, and safety as it risks potential damage to the hearing and quality of life of the citizens of this state; that in light of these threats it is imperative that the General Assembly regulate by permit digital asset mining businesses to protect the public peace, health, and safety; and that this act should become effective at the earliest opportunity to begin the regulatory process and protect the citizens of the state from any harmful actions related to digital asset mining businesses. Therefore, an emergency is declared to exist, and this act being immediately necessary for the preservation of the public peace, health, and safety shall become effective on: [etc.]

Therefore, Arkansas will be faced with these very same threats, unprotected by regulations, if this agency does not include other types of free-standing data centers in these proposed regulations.

Response: AOGC acknowledges the comment. AOGC regulates digital asset mining businesses as defined in Ark. Code Ann. § 23-119-102(2) and lacks the statutory authority to regulate all data centers.

Comment: In Rule K-2, section (e), (7), the issue of ownership by a prohibited foreign owner is addressed. I realize that this issue is being litigated in the courts. However, I do want to point out that a colleague, Maj. Gen. Bill Harmon, who spent his career in U.S. Army intelligence, was able to investigate a number of existing facilities and discover Chinese or Chinese Communist Party ownership well-hidden further up a shell game of ownership. In addition, the equipment and software may easily be leased from Chinese sources by an American citizen. This is a significant security threat to the entire United States, including the electrical grid, nuclear power plants, and anything else remotely linked to the Internet. If you watched 60 Minutes last Sunday, the outgoing FBI director declared China the number one security threat to the United States for these very reasons. I beg of you to not leave our security up to a "notarized affidavit". We have cybersecurity expertise in the Arkansas Division of Information Systems and in some of our state universities. Take advantage of them.

Response: AOGC acknowledges the comment. Under Ark. Code Ann. § 14-1-606(d), the Attorney General has the authority to investigate any complaints pertaining to illegal ownership.

Comment: The permit application should contain a plan for how the business will dispose of the computer equipment used in these operations. Whether the equipment is removed from the business in small units over time or as a whole if the business is shut down, this equipment poses a significant risk in our landfills and to our water sources should the equipment wind up in a landfill.

This agency should require each business to present a detailed plan on how the equipment will be disposed of or, preferably, recycled and apply significant fines should this plan not be executed as approved. Since dissolution of a business may provide the means by which an operator may avoid such requirements and fines, perhaps a bond should be required to solve the problem if the owner does not execute the plan appropriately.

Response: AOGC acknowledges the comment. AOGC lacks explicit statutory authority to regulate disposal of solid waste, disposal of hazardous waste, and reuse of recovered materials. The Arkansas Department of Energy and Environment, Division of Environmental Quality (DEQ) is currently authorized by statute and regulation to investigate and compel compliance with requirements for disposal of solid waste, disposal of hazardous waste, and reuse of recovered materials. *See* Ark. Code Ann. § 8-6-201 et seq., Ark. Code Ann. § 8-7-201 et seq., 8 CAR § 60-101, and Arkansas Pollution Control and Ecology Commission (APC&EC) Rule 23 (not yet codified).

Comment: The Oil & Gas Commission should require Entergy to report energy usage to either this agency or the Public Service Commission by these businesses on a regular basis. Many users received higher than usual bills from Entergy near the end of last year, citing need to buy power on the open market at higher rates. Without timely reports from Entergy, it may not be possible to determine whether increased usage by digital asset mining businesses caused the need for such purchases. Certification from Entergy (or a water utility) may not stand the test of time. Entergy should be held accountable in this. The only way to do that is for the data to be available to the Commission (or Public Service Commission). In many other locations where these businesses have operated, retail customers experience significantly higher costs for electricity.

Microsoft's Copilot states,

“Bitcoin mining has indeed led to higher electric rates for retail customers in some areas. For example, a study from the University of California, Berkeley, found that in upstate New York, cryptocurrency mining operations increased annual electric bills by about $165 million for small businesses and $79 million for individuals. This was due to the high energy demands of mining operations, which can consume large amounts of electricity (1).

In other regions, such as parts of China, the influx of crypto miners has also driven up electricity costs, leading to rationing and higher rates for other industries and residents. (2)”

1. Power-hungry cryptominers push up electricity costs for locals - Haas News | Berkeley Haas
2. https://www.chicagobooth.edu/review/why-youre-paying-bitcoins-energy-bill"

And

"Energy consumption and environmental concerns are indeed significant factors behind the restrictions on Bitcoin mining in Russia and China. However, there are also other reasons, including economic and geopolitical factors.

In Russia, the government has implemented seasonal restrictions and outright bans in certain regions to balance energy demands and maintain grid stability (2). Despite legalizing Bitcoin mining in late 2024, Russia has imposed these measures to manage energy resources effectively and maximize tax revenues (1).

China, on the other hand, banned Bitcoin mining entirely in 2021 due to concerns about energy consumption, financial risks, and environmental impact. The Chinese government aimed to reduce carbon emissions and maintain financial stability by cracking down on cryptocurrency activities (1).

1. Crypto Regulations in Russia: Geopolitical Factors Behind the Move – OneSafe Blog
2. Russia bans crypto mining for 6 years in 10 regions

In Arkansas, we need to deal with this issue in advance. We can at least preserve data that will allow us to determine whether these operations are a significant cause behind higher utility costs.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: In Rule K-2, section (e), part (4), there is a requirement for a map within a two-mile radius of the 'mining' facility. While I realize this size area may flow from one of the legislative acts covering these businesses, I suggest that you may need more than a two-mile radius in hilly or mountainous areas. In Moreland, where two of these facilities are operating, polluted water may easily and quickly flow downhill more than two miles because of the force of gravity and the terrain. If you wish to protect these citizens and their livestock, perhaps a larger radius of five miles is more appropriate. In addition, you may wish to include more than just residences. There may be farms, churches, schools, fire departments, and other types of entities located within this radius that may be affected. This also applies in Rule K-2, section (e), part (C) (i). There may be other types of structures in the vicinity of where a proposed operation will be located, such as churches, clubs, and so forth.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: In Rule K-2, section (e), part (6), I'd like to point out that in many rural areas, there may be many residences, farms, and other entities on well water and dependent on the local water supply. They are not likely monitored by a water utility or a private owner of a well offering to supply a 'mining' operation with water. How are these citizens protected here?

Response: AOGC acknowledges the comment. General Rule K-2 e) 6) provides appropriate restrictions on the negative impact to the local water supply. In regard to groundwater concerns,

AOGC defers to ANRC, which is the agency that has the statutory authority to regulate groundwater usage, availability, and quality.

Comment: In Rule K-2, section (f), part (1), the proposed regulations call for notice to be placed in a newspaper. While I realize this sort of publication has been used traditionally for legal notice purposes, the number of Arkansans who pay for subscriptions to any newspaper has dropped precipitously in recent times.

It would serve the public far better today if such notices were placed prominently on state websites and state social media sites. It's time for a change.

For example, despite considerable public concern over bitcoin 'mining' operations, only one person (myself) spoke at the Commission Public Hearing. This is likely due in part to Arkansans getting their news mostly from the Web and social media now. Both of these sources are free, and many Arkansans feel that they cannot afford newspaper subscriptions these days.

The Public Notice for the Public Hearing was somewhat obscure and buried somewhat at the Oil & Gas Commission webpage, enough so that an ordinary citizen could easily have difficulty finding it. It took me some time to find it after I was informed it was there. As I pointed out earlier, rates of Web and social media participation have gone up dramatically while subscriptions rates to newspapers have been falling just as dramatically. I encourage all government agencies to respect where citizens expect to see news by posting notices prominently on their websites and on several social media platforms.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: In Rule K-2, section (e), part (8), (C), again, there may be structures other than residences or commercial use within 2,000 feet of the facility. There may be churches, first-responder facilities, clubs, or other types of structures.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. AOGC structured its rule to correspond with the language in Ark. Code Ann. § 14-1-604(b)(3)(C).

Comment: In Rule K-2, section (f), part (1), and part (2) (C) the regulations call for all surface owners of record within one mile of the mining facility should receive notice by mail at least 45 days prior to filing the application. As described above, if the terrain is hilly or mountainous, this radius should be expanded to at least three miles in the downhill watershed area below the facility. They could easily be affected by polluted water moving quickly downhill.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: In Rule K-2, section (f), part (3), (D), there is no time frame for an applicant to deliver a copy of the application to and interested party who has requested a copy. It may be in the interest of the applicant to delay such a delivery. I recommend the Commission set a reasonable length of time within which the applicant must deliver that copy.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: As you may have noticed, I have continually referred to these facilities as 'mining' operations using single quote marks. This is language from the Blockchain Council that has been picked up in popular articles and commentary. In reality, they are Bitcoin Blockchain data validation operations. No other cryptocurrency needs the computing power these operations require, as they use other methods. I also want to point out that our legislature also adopted the term 'digital asset' from the Blockchain Council, despite the fact that there are many, many other forms of digital assets. A few other forms of digital assets include AI and AI artifacts, virtual reality (platforms, objects, and worlds), and images used by corporations on the Web (icons, logos, etc.).

These sorts of definitions allow and industry to protect themselves and limit the scope of legislation and to deceive and confuse legislators and citizens. I do wish the Arkansas Legislature had taken the time to consult more neutral experts regarding the terms used. Such experts could have informed them about many hazards and against the self-dealing tactics of the industry

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. AOGC regulates digital asset mining businesses as defined in Ark. Code Ann. § 23-119-102(2) and lacks the statutory authority to regulate all data centers.

Commenter: Kenneth Graves (Oral comment at January 6, 2025, hearing)

Comment: Mr. Graves appeared at the hearing and requested a copy of Rule K.

Response: OGC staff provided a copy of Rule K to Mr. Graves.

Commenter: Leah Acoach

Comment: I am writing pursuant to the comment period related to potential crypto regulations. First and foremost, the citizens and residents of Arkansas should always be given priority to water and electrical capacity before these operations. That should be the primary goal. Secondarily, any strain on utility system should not be equally shared by all who utilize but rather if these businesses are drawing a significant enough load to endanger the supply, any increased burden for capacity should be placed on those businesses. Additionally, existing industry should not be hampered by the introduction of one of these businesses entering the area in which the industry operates. My primary concern in this regard is agriculture. These businesses are notorious for overuse of the utility systems, and we must make certain that no agricultural operations are going to be impacted by their introduction. Lastly, the noise generated by these businesses must be contained as to not impact the quality of life for residents or wildlife alike.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Commenter: Faith Petit-Shah

Comment: I am very concerned that NO ONE is paying attention to the true costs of Crypto. It's not fair that Arkansas citizens ultimately pay for the profit of a very few. Crypto should be

forced to pay much higher rates for the electricity usage. But more than that... crypto is extremely harmful to our fragile environment. The industry should be FORCED to generate their own electricity. Period. Think of the future.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Commenter: James Babb

Comment: Thank you in advance for your consideration in the following K1 crypto mining changes: Our company name is True North Computation(Juice-Tech Inc.} We currently have 3 Existing mining facilities in Arkansas. Our locations are: 1)Little Rock 2)Newport 3)Walnut Ridge I would like to submit the following comment per the window for public comment period, and would hope the Oil and Gas Commission would consider making changes per the following: Rule K2;d)2)c)- states that a mining facility must provide notice by mailing to All surface owners of record within one (1) mile of the mining facility. The above mentioned rule will require our company to send to approximately 1,000 surface owners per each of our (3) locations. *please note the google earth map reference for our Walnut Rodge location attached. The purple lines suggest your proposed 1 mile radius and the surface owners. The yellow lines suggest a 1/2 mile radius and the reduction in surface owners. ** also note that the above referenced google earth map was prepared by the Walnut Ridge Mayor (Charles Snapp) and myself. Mayor Snapp and I feel that for our existing crypto mining locations, that the following 2 modifications should be considered as the level of noise has not been an issue of concern to surface owners or local government officials outside the 2,000 feet perimeter of our mining facilities. 1) Decreasing the notification mailing to 2,000 feet, referencing 1 the Oil & Gas Commissions above noted rule K2;c)8)i) 2) Completely doing away with the surface owner notification process for All Existing Crypto Mining Facilities. Thank you again for your consideration of change.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Commenter: John Whiteside

Comment: I am requesting that energy usage disclosure be required for all digital mining asset operations. Citizens should have the right to know how much electricity is being used by these operations and the ability to access that information via a public website maintained and hosted by the Oil & Gas Commission under the Rule-K regulations. Transparency and straightforward disclosure of these operations will go along way in building trust with the citizens of Arkansas. The proposed rules state that regulations will ensure these digital asset mining operations "cannot stress electrical utility capabilities." Public disclosure of each operation's annual total energy/electricity usage will help ensure the commission achieves this· stated goal of their proposed regulations. The citizens of Arkansas deserve the right to know how these operators impact the electrical grid that we all share and pay to maintain.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Commenter: Tami Hornbeck

Comment: With the contentious nature of this industry and effects on surrounding property values there should be more notice of facilities desiring to locate in a community with public notice in local news media and social media sites, along with public hearings at least 90 days prior to locating in an area. The radius needs to be further than a mile as these facilities have impact much farther than a 1 mile radius.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: Regardless of the type of facility ... whether immersion cooled or water cooled, totally enclosed or not and regardless of location there should be a decibel threshold within levels to maintain the health and safety of people, pets, livestock and wildlife located in the area of the facility.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: With impacts to local grids and water supplies these facilities should be required to report the quantity of electricity provided to them in MW, as well as their water source and usage to ensure it doesn't threaten local water supplies.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: The permits should have to be renewed annually and facilities should be inspected without notice by the Oil and Gas and ADEQ. If a facility wishes to expand, public hearings and permit application must be repeated.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. DEQ has inspection authority as set out in its applicable rules and statutes. In accordance with Ark. Code Ann. § 23-119-105, AOGC can inspect digital asset mining businesses upon complaint.

General Rule K-2 d) gives AOGC the ability to issue permits that are not in excess of a five-year term. AOGC has regulatory authority to revoke a permit once issued, pursuant to General Rule K-2 j), for non-compliance with applicable statutes or laws. These provisions allow AOGC the sufficient ability to regulate a permit holder until a permit renewal application is required or if non-compliance with a current permit is an issue.

AOGC will consider expansions of a facility on a case-by-case basis to determine if a new permit application process will be required.

Comment: These facilities must be required to properly dispose of the immersion cooling liquid, waste water and recycle the massive amounts of electronic equipment (computers) to a pre-approved facility that can handle this volume. Local recycling facilities and landfills shouldn't be overwhelmed with this equipment nor subjected to the hazards it proposes. They should also receive approval and be permitted for their cooling liquid/water disposal and sites tested several times a year for compliance.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. AOGC lacks explicit statutory authority to regulate disposal of solid waste, disposal of hazardous waste, and reuse of recovered materials. DEQ is currently authorized by statute and regulation to investigate and compel compliance with requirements for disposal of solid waste, disposal of hazardous waste, and reuse of recovered materials. *See* Ark. Code Ann. § 8-6-201 et seq., Ark. Code Ann. § 8-7-201 et seq., 8 CAR § 60-101, and APC&EC Rule 23 .

Comment: These facilities should positively impact the community in which they are located instead of taking away quality of life for area residents and negatively impacting property values and local economies.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Commenter: The Arkansas Cryptomining Association

Comment: The Commission should adopt a reasonable transition rule for existing facilities to apply for a permit.

Rule K-1(b)(2) prohibits existing digital mining asset businesses from operating unless they apply for a permit within 90 days after Rule K is promulgated. However, Rule K-2(f)(1) and (2) require that a digital asset mining business publish a public notice and provide mailed notice to certain parties "at least forty-five (45) days prior to filing the application with the Commission." In addition, Rule K-2(f)(3)(D) requires that during this 45-day pre-application public notice period that the applicant must "deliver the application to [an] interested party as directed by the Commission."

As a practical matter, for existing digital asset businesses this process requires that a final permit application be ready and available to the public within 30 to 40 days after the rule becomes final, at the risk of being deprived of the right to operate if the public notice is not published within 45 days before the 90-day application deadline. Furthermore, some required application items such as the electric and water utility certifications required by Rule K-2(e)(5) and (6), and the technical schematic and engineering specifications in Rule K-2(3)(8), may not be readily available during such a short time period. The rule does not contain a mandate for electric or water utilities to make such a certification; nor is there a time limit for the utilities to do so.

At a minimum the Rule should include a process for existing facilities to obtain extensions of time for the 45-day public notice deadline and the 90- day permit application filing deadline.

Response: AOGC acknowledges the comment. AOGC has has proposed amendments to the rule to address the 45-day public notice timeframe. Section 7 of Act 174 of the 2024 Fiscal Session addresses the permitting processes and requirements for existing facilities. Additionally, the Applicant and AOGC could enter into a voluntary enforcement agreement, or the Applicant could file an application under applicable hearing procedures, to extend the public notice deadline.

Comment: The ability to operate should not be conditioned on compliance "with all local government ordinances."

Rule K-1(b)(3)(C) requires that in order to operate, a digital asset mining business must maintain compliance with all local government ordinances. This is overbroad, since it effectively delegates veto power over the ability of a digital asset mining facility to operate to a local governmental body, regardless of whether a particular local ordinance is related to any aspect of Rule K, or the statutes governing digital asset mining. Moreover, this could result in uneven development and regulation of cryptomining across the state.

This Rule should provide that contrary provisions of local government ordinances and regulations are preempted by the issuance of a Commission permit.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. Pursuant to Ark. Code Ann. § 23-119-105(a), AOGC has jurisdiction of and authority over all persons and property necessary to administer and enforce effectively the Arkansas Digital Asset Mining Business Act (Ark. Code Ann. § 23-119-101, et seq.) and the Arkansas Data Centers Act of 2023 (Ark. Code Ann. § 14-1-601, et seq.). Specifically, Ark. Code Ann. § 14-1-604(a)(1) provides that "[a] digital asset mining business may operate in this state if the digital asset mining business complies with [a]ny ordinance." AOGC promulgated rules that conform to this statutorily defined requirement.

Comment: Prohibiting digital asset mining businesses from operating based on non-compliance with other ordinances and state and federal laws is overbroad and discriminates against digital asset mining businesses.

Rules K-1(b)(3)(C) and (E) are overbroad and discriminate against digital asset mining businesses by conditioning authority to operate on maintaining compliance with all local government ordinances and all applicable state and federal laws. Other ordinances and laws have their own enforcement, penalties, and compliance mechanisms that are tailored to the specific ordinance or law at hand and that are deemed effective to compel compliance; however, this provision of Rule K adds on top of those penalties and compliance regimes, the prospect that digital asset mining businesses would not be able to operate based on "non-compliance" with any such an ordinance or law. Any determination of non-compliance should be made only through the existing enforcement mechanisms and limited to the prescribed penalty, under the applicable local governmental ordinance or applicable state or federal law, not through a separate determination by the Commission.

Furthermore, this provision is discriminatory because it only applies to digital asset mining businesses, and other types of businesses that may be in non-compliance with a local ordinance or state or federal law are not faced with the prospect of not being able to operate even though they may be in non-compliance.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. Pursuant to Ark. Code Ann. § 23-119-105(a), AOGC has jurisdiction of and authority over all persons and property necessary to administer and enforce effectively the Arkansas Digital Asset Mining Business Act (Ark. Code Ann. § 23-119-101, et seq.) and the Arkansas Data Centers Act of 2023 (Ark. Code Ann. § 14-1-601, et seq.). Specifically, Ark. Code Ann. § 14-1-604(a) provides that "[a] digital asset mining business may operate in this state if the digital asset mining business complies with [a]ny ordinance . . . [and] [s]tate and federal law." AOGC promulgated rules that conform to these statutorily defined requirements.

Comment: The Rule should clarify that local regulation of digital asset mining businesses is limited to areas of regulation that are not addressed by state or federal law or the Commission's rule, and that local regulation of digital asset mining businesses must be consistent with federal law, state law, and the Commission's rule.

Rules K-1(c)(10) and (13) define "Legislative body" and "Ordinance" respectively for purpose of Rule K. "Ordinance" is defined to include "appropriate" enactments; however, it does not define what is "appropriate." Consistent with Ark. Code Ann. § 23-119-105(f), "appropriate" should be defined to mean (a) matters or areas of regulation not already addressed by federal law, state law or the Commission's rules and (b) legislative enactments that are consistent with federal law, state law or the Commission's rules. In addition, in Rule K-1(c)(13) the word "appropriate" should modify the words "ordinance" and "resolution" as well as "other legislative enactment of a legislative body."

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. The terms defined in General Rule K-1 c) 9) and 13) conform with the statutory definitions of "legislative body" and "ordinance" found in Ark. Code Ann. § 14-1-603(7) and (10).

Comment: The Rule should only regulate persons who have actual control over a digital asset mining business.

Rule K-1(c)(15) defines "regulated entity" as "any person associated with a mining facility, a digital asset miner, or a mining facility." (emphasis added). Rules K-4(b), (c), (d) and (e) subject a "regulated entity" to enforcement action by the Commission. This Rule is overbroad. There is no definition of "associated with" and consequently the Rule provides the Commission with authority to take enforcement action against service providers, investors, finance companies, accountants, attorneys and many other types of individuals who have some connection with a digital mining asset facility. The term regulated entity should be limited to persons with actual control over the digital asset mining facility. In addition, the definition repeats the phrase "mining facility," which is redundant.

Response: AOGC acknowledges the comment and has proposed amendments to the rule to address the concerns.

Comment: The Rule lacks an effective mechanism to compel electric and water utilities to certify the impacts of a digital asset mining business.

Rules K-2(e)(5) and (6) require a digital asset mining business as part of the application for a permit to provide a copy of an agreement with an electric power supplier or a water supplier or utility that certifies that the use of electricity will not negatively impact the local electric grid or the local water supply or increase electric costs or water rates to local customers. However, the Rule does not require an electric utility or water utility to prepare and provide such a certification; consequently, it may be impossible for a digital asset mining business to comply with this permit application requirement, and for existing digital asset mining businesses to comply in a timely manner to meet the 90-day requirement for filing a permit application.

This permit application requirement is outside the effective control of a permit applicant, and may be subject to the regulatory authority of other state agencies, including but not limited to the Arkansas Public Service Commission. The Rule does not contain provisions, nor does the Rule identify the source of the Commission's authority, to require electric and water suppliers to provide such certifications to a permit applicant in a timely manner.

The Rule does not provide any definition of "negatively impact" to guide digital asset mining businesses or electric utilities or water utilities in making such an assessment.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: The Rule should not limit the types of noise-reduction techniques that may be used.

Rule K-2(e)(8) as written requires a digital asset mining business to include in its permit application technical information for one of three types of noise reduction techniques – (1) liquid or submerged cooling; (2) full enclosure with material reasonably calculated to reduce noise emissions; or (3) passive cooling without complete enclosure for a location at least 2000 feet away from the nearest residential or commercial structure, or in an area zoned for industrial or other approved use. However, Ark. Code. Ann. § 14-1- 604(b)(3) does not limit noise-reduction techniques to those three possibilities. That provision states that a digital asset mining business must apply "noise-reduction techniques", but does not limit such techniques to those three possibilities. The Rule should clarify that other techniques and technology may be used to meet statutory requirements, for example noise easements or licenses, noise canceling technology, etc.

Furthermore, the Rule is arbitrary in that for fully enclosed systems it only requires use of material reasonably calculated by industry standards to reduce noise emissions to a level acceptable to a reasonable person, but for passively cooled systems the digital asset mining facility must relocate at least 2000' feet from a residential or commercial structure or an industrial zoned area, even if the passively cooled system reduces noise emissions to a level acceptable to a reasonable person. Because the purpose of the Act is to "reduce noise emissions to a level acceptable to a reasonable person", and because digital asset mining facilities may be able to satisfy that purpose even if located closer than 2000' feet from a residence, the 2000' setback requirement or location in an industrial zoned area is arbitrary.

Furthermore, the Act distinguishes home digital asset mining from a digital asset mining business, and appears to allow home digital asset mining in residential areas without having to apply noise reduction techniques or to "reduce noise emissions to a level acceptable to a reasonable person."

In addition, the Rule should provide a longer transition period for existing facilities to come into compliance with the requirement to install noise-reduction techniques or relocate existing facilities to approved locations. Furthermore, the technology requirements in Rule K should not apply to facilities constructed before the effective date of the Arkansas Data Centers Act, Ark. Code Ann. §§ 14-1-601, et seq., which preempts any contrary provision under the Rule.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. The wording of General Rule K-2 e) 8) is patterned after the statute and does not include any limitation that is not in Ark. Code Ann. § 14-1-604(b)(3).

Comment: The Rule should adopt the same regulatory scheme as used for sound levels generated by gas compressor facilities. See Ark. Code Ann. § 15-71-110; General Rule D-20 ("Noise Level Requirements for Non-Wellhead Compressor Facilities").

Commission Rule D-20 regulates noise from natural gas compressor stations and does so by defining "noise sensitive areas" and then determining compliance with the noise standard from the nearest point of a "noise sensitive area" at the time of the construction of the facilities. See Rule D-20 (c) and (d).

Under that regulatory regime, "noise sensitive area" is defined as "a building with an established mailing address that is being utilized as a private residence, school, hospital, church, nursing home, or other building of a type that is regularly used for overnight accommodation." Rule D-20(b)(3).

The Commission should consider adopting a time-weighted noise standard for Rule K that would protect against significant harm to public health and safety or damage to property, and a similar compliance regime as Rule D-20 by defining "noise sensitive area" and demonstrating compliance with the noise standard at the boundary of the noise sensitive area at the time of construction.

Rule D-20(c) provides that the sound levels should be "measured from the exterior of the nearest noise sensitive area at the time of commencement of initial construction of the non-wellhead compressor facility or station." (emphasis added).

For the same reasons discussed above, the purpose of the Rule, in part, is to keep sound levels from the mining facilities at a level acceptable to a reasonable person. Therefore, the Rule should prioritize actual individuals, not structures. Currently, the Rule is overbroad in this respect and would encompass areas where people are not necessarily present. For example, under the current Rule, mining facilities would be prevented from locating next to abandoned "residential" or "commercial use structures." Moreover, there are several "commercial use structures" located in Arkansas that would be louder than digital asset mining facilities.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. The statute contains specific requirements for noise reduction techniques. *See generally* Ark. Code Ann. § 14-1-604. The rule that is proposed fully implements the legislative requirements.

Comment: Rule K-2(f)(3) should be re-written to make the time frame for public notice of a permit application consistent with the time frame for filing that permit application with the Commission.

Rule K-2(f)(3) does not make sense. It requires publication of a notice stating that the permit application may be obtained from the Commission 45 days before the application is required to be filed with the Commission per Rule K-2(f)(1). The rule should be rewritten to require public notice of the application at the time the application is filed with the Commission, or to delete the language stating that a copy of the permit application may be obtained from the Commission.

Response: AOGC acknowledges the comment and has proposed amendments to the rule to address the concerns.

Comment: If no objections are received for a permit application and the application is complete, the permit should be issued without referral to the Commission.

Rule K-2(g)(2) provides that the Director may refer a permit application to the Commission under certain circumstances even if the application is administratively complete and no timely objections have been received. If no timely objection has been received and the application is complete and complies with statutory requirements, the Director should be required to issue the permit.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: The Rule should have a time deadline for issuing a non-controverted permit, and to take final action on a controverted permit.

Rule K-2(h) states that if the applicant satisfies the requirements of all applicable statutes and Rule K, then a permit shall be issued. For a non- controverted permit application, the permit should be issued within 30 days after the permit application is filed. For permit applications referred to the Commission, the permit should be issued or denied within 120 days after the permit application is filed.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: The issuance of a permit should act as a shield.

The Rule should clarify that issuance of a permit should act as a shield, e.g., a complete affirmative defense against a lawsuit brought under Ark. Code Ann. § 14-1-604(g).

Alternatively, a complainant should be required to exhaust administrative remedies by filing a complaint with the Director under Rule K-4(d), before initiating a lawsuit under Ark. Code Ann. § 14-1-604(g).

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: The rule should clarify that denial of a new or renewal permit application should not be based on failure to abate a violation of any statue or rule.

Rule K-2(h)(2) and (3) allows denial of a new or renewal permit if the applicant or other person with a five percent (5%) interest in the digital asset mining business has failed to abate any outstanding violation "of statutes or rules." This Rule exceeds the Commission's statutory authority.

Alternatively, this provision should be clarified that it is limited to failure to abate violations of the Arkansas Digital Asset Mining Business Act (Ark. Code Ann. § 23-119-101) or the Arkansas Data Centers Act (Ark. Code Ann. § 14-1-601), or regulations promulgated thereunder.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. Pursuant to Ark. Code Ann. § 23-119-105(a), AOGC has jurisdiction of and authority over all persons and property necessary to administer and enforce effectively the Arkansas Digital Asset Mining Business Act (Ark. Code Ann. § 23-119-101, et seq.) and the Arkansas Data Centers Act of 2023 (Ark. Code Ann. § 14-1-601, et seq.). Specifically, Ark. Code Ann. § 14-1-604(a) provides that "[a] digital asset mining business may operate in this state if the digital asset mining business complies with [a]ny ordinance . . . [and] [s]tate and federal law." Given these provisions, this rule does not exceed AOGC's statutory authority.

Comment: Permit denial should not be based on a history of violations of other statutes or rules by five percent (5%) owners of a digital asset mining business.

Rule K-2(h)(4) requires denial of a new or renewal permit if the Director determines that a person with an interest exceeding five percent (5%) of the digital asset mining business has "a history of violating any applicable statutes, Commission rules, permit condition or order of the Commission, the Arkansas Pollution Control and Ecology Commission, or any other state or federal regulatory agency." (emphasis added).

This provision, particularly with respect to the underlined phrases, is overly broad and over reaching. Furthermore, it exceeds the Commission's authority because is not authorized by statutes. Unlike the so called "non- compliance determination" provision of Pollution Control & Ecology Rule 8.204, there is no statute that authorizes such a far-reaching provision, like Ark. Code Ann. § 8-1-106. Even so, such a provision runs the risk of violating the constitutional right to freely associate because it is not narrowly drawn to achieve the goals of the authorizing statute.

Additionally, the term "history of violating" is undefined. As written, that phrasing suggests that even entities which have become fully compliant with all applicable statutes, rules, permit conditions, and orders could remain at risk of deprivation of existing uses of their property interests due solely to past non-compliance. The Commission should supply a definition of "history of violating" that includes a specific exception for previous compliance issues which have been substantially abated or this provision should be deleted.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: Rule K should not allow revocation of a permit for violation of any other statute or law.

Rule K-2(j)(C) permits the Director to revoke a permit based on failure by the permit holder to meet any applicable statute or law. This provision should be clarified that "applicable" means the Arkansas Digital Asset Mining Business Act (Ark. Code Ann. § 23-119-101) or the Arkansas Data Centers Act (Ark. Code Ann. § 14-1-601). Otherwise, the provision is overbroad, raises the potential of interference with other regulatory agencies, and violation of the anti-delegation doctrine.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. Pursuant to Ark. Code Ann. § 23-119-105(a), AOGC has jurisdiction of and authority over all persons and property necessary to administer and enforce effectively the Arkansas Digital Asset Mining Business Act (Ark. Code Ann. § 23-119-101, et seq.) and the Arkansas Data Centers Act of 2023 (Ark. Code Ann. § 14-1-601, et seq.). Specifically, Ark. Code Ann. § 14-1-604(a) provides that "[a] digital asset mining business may operate in this state if the digital asset mining business complies with [a]ny ordinance . . .[and] [s]tate and federal law." Given these provisions, this rule does not exceed AOGC's statutory authority.

Comment: Rule K-2(j)(2) should contain a procedure for lifting the stay during a permit appeal.

Rule K-2(j)(2) allows a permit holder to appeal the Director's decision to revoke a permit. During the appeal process operation of a facility may not commence or continue. This is overly broad. For existing permits, the ability to operate should remain in effect during the appeal unless it is shown that continued operation during the appeal would cause significant harm to public health and safety or damage to property. (see Rule K-4(b)(1)(C)). For new permits, the stay should be lifted during the appeal if the stay would have adverse economic or financial impacts on the permit applicant and operation of the facility during the appeal would not cause significant harm to public health and safety or damage to property.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: Transfer of a digital asset mining business permit should apply to the transfer of ownership or control of the digital asset mining facility – not to the transfer of an ownership interest in the digital asset mining business or facility.

Rule K-3 sets forth the procedure for transferring a digital asset mining permit. Rule K-3(b) states that the procedure applies to "all transfers of the interest of the permit holder, including…A change of ownership or membership in the corporate entity that operates the digital asset mining business [.]" This requirement is too broad and would apply to any change in the membership of a permit holder, regardless of whether that change could or would affect the ability to control or operate the facility, and regardless of whether that change involved a prohibited foreign party.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: Rule K-3(f)(2) and (f)(4) are not clear, are vague and ambiguous, and do not make sense.

Rule K-3(f)(2) provides that the Director shall deny a permit transfer if "the Commission has not approved the transfer in accordance with paragraph e) above." However, Rule K-3 does not contain any requirement for Commission approval of a permit transfer; instead Rule K-3 contemplates that the Director will make a decision on transfer approval (see Rule K-3(k)), and that if the permit transfer is denied, the permit applicant can appeal to the Commission. Furthermore, paragraph e) referenced in Rule K-3(f)(2) contains no reference to Commission approval, but simply states broad requirements for the new permit holder. This provision should be deleted or clarified.

Rule K-3(f)(4) permits the Director to deny a permit transfer if "no other permits may be issued in accordance with paragraph e) above." Again, the provisions of paragraph (e) do not make any sense in connection with the phrase "no other permits may be issued." This subparagraph should be deleted or clarified.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: Rule K-3(h) should be limited to the statutes that Rule K implements.

Rule K-3(h) should clarify that the reference in the first line to "any rules, statutes" is to the Arkansas Digital Asset Mining Business Act (Ark. Code Ann. § 23-119-101) or the Arkansas Data Centers Act (Ark. Code Ann. § 14-1-601), or a rule promulgated to implement a provision of those acts.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: Rule K-3(l) should remove or modify the provisions regarding operation upon revocation of a permit transfer or appeal of denial of a permit transfer decision.

Rule K-3(l) allows the Director to revoke a permit transfer approval and requires a permit holder to cease operation upon notice from the Director. This is overbroad, unreasoned and is different from the permit revocation provision in Rule K-2(j)(2); no explanation of the reason for this difference is given. Rule K-3(l) allows the permit holder to appeal the Director's decision to revoke a permit transfer decision. During the appeal process operation of a facility may not commence or continue. Like the provision in Rule K-2(j) this is overly broad and unreasoned. For existing permits, the ability to operate should remain in effect during the appeal unless it is shown that continued operation during the appeal would cause significant harm to public health and safety or damage to property (see Rule K-4(b)(C)). For new permits, the stay should be lifted during the appeal if the stay would have adverse economic or financial impacts on the permit applicant and operation of the facility during the appeal would not cause significant harm to public health and safety or damage to property.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: Rule K-1(b)(3)(B) and K-2(e)(7) are preempted by federal law.

Rule K-1(b)(3)(B) imposes as a pre-condition for the operation of a digital asset mining business a requirement that the business "establish[] that the business is not a prohibited foreign-party-controlled business as defined by and in accordance with Ark. Code Ann. § 14-1-606." Rule K-2(e)(7) requires submission of a "notarized affidavit certifying" compliance with Ark. Code Ann. § 14-1-606 as part of the application for a permit.

The federal government, not the Arkansas Oil and Gas Commission, governs foreign affairs. The Arkansas Oil and Gas Commission cannot promulgate rules that conflict with or otherwise implicate the federal government's foreign affairs powers. Additionally, the Arkansas Oil and Gas Commission cannot promulgate rules that conflict with the provisions of federal law, including the

operations of the Committee on Foreign Investment in the United States ("CFIUS"), as statutorily codified by the Foreign Investment Risk Review Modernization Act of 2018 ("FIRRMA"). Nor can the Arkansas Oil and Gas Commission promulgate rules that conflict with the statutory definitions of foreign ownership and foreign control set forth in the International Traffic in Arms Regulations ("ITAR").

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: Rule K-1(b)(3)(B) and K-2(e)(7) are unconstitutional.

Rules K-1(b)(3)(B) and K-2(e)(7) facially discriminate based on alienage while not being narrowly tailored to serve a compelling governmental interest. They discriminate or invite discrimination based on race and national origin while not being narrowly tailored to serve a compelling governmental interest. They violate the right to due process of law. They impermissibly favor in-state commerce and discriminate against interstate and foreign commerce in violation of the commerce clause. As to existing operations, they threaten takings of private property without affording any compensation to existing operators.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Comment: The look-back period in Rule K-4 should be modified.

The look-back period for determining previous violations under Rule K- 4(e)(2)(B) and under Rule K-4(e)(3)(B) is unreasonable and should be changed to two (2) years, instead of five (5) years.

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted.

Commenter: Bradley D. Barnes

Comment: In addition to regulating Arkansas's growing crypto mining industry, the Department of Energy and Environment and the Arkansas Oil and Gas Commission should regulate wind energy developers as well.

Please review the attached analysis of a typical wind project. My analysis references the Nimbus project, by Scout Clean Energy proposed for Carroll County, although the report is relevant to the discussion of wind energy statewide.

Wind development is a very short sighted land use decision, and poses an existential threat to the tourism industry of Arkansas, which added $9.9 billion to the state's economy in 2023. These proposed ridge-top turbines will be among the tallest available, and will be placed at the highest elevations in the Ozarks.

Why are developers so anxious to grant Arkansas such a wonderful opportunity? Investment tax credits on deals of this size return upwards of $100 million to their investors, per project. Wind developers do not care if they wreck the Ozarks and lay waste to Arkansas, because of their lucrative tax credits. The developers are offering only 'liquidated damages' to affected counties.

Compared to the tax incentives the developers pocket, local counties get a penny on the dollar, sometimes less.

With no restrictions, it may be difficult to stop anyone from building a hog farm right next door, but hog farms are not taller than the Seattle Space needle. It would seem unthinkable to construct dozens and dozens of structures taller than the St. Louis Arch on ridge tops throughout the state, especially in the Ozarks. But developers are willing to do just that.

We need to stop Wind Farms from spreading like wildfire across the Ozarks.

(Attachment omitted)

Response: AOGC acknowledges the comment but has determined that no changes to the rule are warranted. This comment is not germane to the rule.

Respectfully Submitted,

By: *<u>/s/ Kesia Morrison</u>*

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