Office of the Secretary
Service Date
October 5, 2022

# BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

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| **IN THE MATTER OF THE APPLICATION OF IDAHO POWER COMPANY FOR AUTHORITY TO ESTABLISH A NEW SCHEDULE TO SERVE SPECULATIVE HIGH-DENSITY LOAD CUSTOMERS** | ) ) ) ) ) ) | **CASE NO. IPC-E-21-37**<br><br><br>**ORDER NO. 35550** |

On November 4, 2021, Idaho Power Company ("Company" or "Idaho Power") applied to the Commission for authority to establish a new schedule to serve speculative high-density customers ("Application")—specifically, large-scale, high-density load cryptocurrency mining operators ("HDL Customers"). Application at 1.

On December 1, 2021, the Commission issued a Notice of the Company's Application and Notice of an Intervention Deadline. Order No. 35276. The Industrial Customers of Idaho Power ("ICIP") and 2140 Labs LLC ("2140 Labs") were granted intervention into this case. *See* Order No. 35276.

On February 2, 2022, the Commission issued a Notice of Modified Procedure and set public comment and Company reply comment deadlines. Order No. 35308.

On April 12, 2022, Commission Staff ("Staff") and 2140 Labs filed comments to which the Company replied. The Commission received 14 timely and untimely comments regarding the Company's proposed Schedule 20. These comments supported and opposed the Company's Application.

On June 15, 2022, the Commission approved the Company's Application, as filed. *See* Order No. 35428.

On July 6, 2022, GeoBitmine LLC ("GeoBitmine") filed a Petition for Reconsideration and a late Petition for Intervention as a Party ("Petition").

On July 13, 2022, the Company filed an Answer to GeoBitmine's Petition ("Answer").

On August 3, 2022, the Commission denied GeoBitmine's untimely request to intervene but granted its request for reconsideration and set a 21-day deadline for current intervenors, the Company, and Staff to file written comments, associated documents, affidavits, and relevant evidence and a 28-day deadline for GeoBitmine to file a reply. *See* Order No. 35488.

Staff and the Company timely filed comments. GeoBitmine timely filed a reply.[1] With this Order, as fully articulated below, we deny GeoBitmine's Petition to reject the Company's Application.

Having reviewed the record in its entirety and additional arguments lodged by the Parties, we now issue this Order denying GeoBitmine's Petition as more fully described below.

## BACKGROUND

The Company stated that cryptocurrency mining is "the process of computers solving complex calculations to validate cryptocurrency transactions on a blockchain network." Application at 2. The Company asserted that "in exchange for the cryptocurrency miners' work to secure the blockchain network, new digital 'coins' are created which incentivize miners to expand their efforts." *Id*. Idaho Power asserted that it is most profitable to mine when the cryptocurrency's dollar value is rising. *Id*. Idaho Power alleged that cryptocurrency mining uses "powerful computers with significant processing capabilities" that can be significant consumers of energy. *Id*. at 3. The Company alleged that by design the Bitcoin ("BTC") network, a form of cryptocurrency, "only releases new cryptocurrency every 10 minutes and the number of coins it releases is set to diminish in the future." *Id*. at 4. The Company asserted that this makes the competition to obtain new BTC "more energy intensive because the only way to boost one's probability of solving the mathematical calculations is to increase computing power through the number of machines online." *Id*.

## THE APPLICATION

The Company asserted that "surging interest from large-scale cryptocurrency mining operators" located in Idaho Power's service territory, and receiving electrical service from it, may "require significant system resource investment and creates risk of those investments becoming stranded assets whose costs may ultimately be borne by all Idaho Power customers." *Id.* at 1. Idaho Power represented that it had recently received inquiries from 17 cryptocurrency operators for approximately 1,950 megawatts ("MW").[2] *Id*. The Company contended that if a fraction of these interested cryptocurrency miners interconnected to Idaho Power's system, the

[1] The Commission granted GeoBitmine additional time to file reply comments. Order No. 35518.

[2]Idaho Power asserted that it received limited interest from Bitcoin mining operations between 2019 and 2020. Application at 5. However, the Company contends that because of recent Chinese restrictions on Bitcoin mining Idaho Power has received renewed interest in Idaho Power's service area largely due to the Company's favorable rates, open parcels of land in the Company's service area, and high reliance on hydroelectric power that can supply operations with desired clean energy. *Id*.

additional load could constrain its ability to meet peak demand until the anticipated completion of the Boardman to Hemingway transmission line in 2026. *Id.* at 1 and 5. As a result, Idaho Power asserted it sought to proactively mitigate potential system costs and reliability issues by creating a new service class offering that is fair, just, and reasonable for this type of customer. *Id.* at 1-2. Specifically, the Company requested authorization for "(1) establishment of a new customer classification applicable to high-density load HDL [C]ustomers operating in a speculative industry, and (2) approval of Schedule 20, Speculative High-Density Load ("Schedule 20") for HDL Customers which includes energy priced at marginal cost and the requirement to be fully-interruptible at the Company's discretion." *Id.* at 2.

The Company alleged that "[u]nlike traditional enterprise data centers that invest significant capital into facilities with state-of-the-art infrastructure, cryptocurrency mining operations have the ability to locate anywhere—from abandoned warehouses to stacked rail cars." *Id.* Idaho Power asserted this leads to cryptocurrency mining operations siting where there is available electrical capacity that requires minimal electrical distribution infrastructure investment. *Id.* In response to Staff's Production Requests, Idaho Power asserted that a single cryptocurrency mining machine is the size of a shoe box and ranges in load from 1.3 kilowatts ("kWs") to over 3 kWs. The Company alleged these machines have limited infrastructure needs, namely electricity and internet, and may be disaggregated quickly in response to economic signals. *Id.*

The Company also asserted that other common characteristic of cryptocurrency mining operations included: (1) high energy use annually and load factor; (2) the ability to relocate and disaggregate equipment to obtain favorable rates; (3) volatile load growth and load reduction; (4) highly responsive to short-term economic signals or volatility; and (5) lack of demonstrated financial viability. *Id.*

As proposed, Schedule 20 incorporated three modifications to Schedule 9's[3] (Large General Service) and Schedule 19's[4] (Large Power Service) rate design: (1) mandatory,

[3] Schedule 9 applies to:

> [c]ustomers whose metered energy usage exceeds 2,000 [kilowatt hours] kWh per Billing Period for a minimum of three Billing Periods during the most recent 12 consecutive Billing Periods and whose metered Demand per Billing Period has not equaled or exceeded 1,000 [kilowatts] kW more than twice during the most recent 12 consecutive Billing Periods.

Idaho Power Company Tariff, Large General Service, Sheet No. 9-1.

uncompensated fully interruptible service during the summer peak season between 1:00 p.m. and 11:00 p.m. Monday through Friday; (2) a reallocation of the portion of cost-of-service derived summer generation capacity costs currently collected in an On-Peak demand charge; and (3) pricing "energy at a marginal cost in all pricing periods, based on Avoided Cost Averages [("ACA")] as listed in . . . the Company's most recently acknowledged Integrated Resource Plan [("IRP")]." *Id.* at 14-15. The Company proposes to update energy rates when there is "any change to fixed cost revenue requirement for Schedule 9 or Schedule 19" and on January 1 each year for the energy marginal cost component which would follow the IRP ACA. *Id*. at 15.

The Company also proposes Power Cost Adjustment ("PCA") treatment for customers served under Schedule 20 be modified in relation to other customers to reflect the marginal cost energy pricing. *Id*. To do this, the Company would: (1) not apply the Schedule 55 PCA rate to energy sales to customers served under Schedule 20; (2) include the costs of supplying power to customers under Schedule 20 to the PCA; and (3) all revenues received by the Company from Schedule 20 customers would be treated like surplus sales and used to offset power supply costs. *Id.* The Company noted that "Schedule 20 energy sales would not be included as Idaho retail sales for the purposes of the sales based adjustment in the PCA, rather treating the energy sales as if they were an off-system sale for PCA accounting purposes." *Id*.

The Company explained that service under Schedule 20 would apply to customers whose usage did not exceed more than 20 MW, who had the ability to relocate quickly in response to short-term economic signals, and met four or more of the following criteria: (1) high energy use density; (2) high load factor; (3) portable and distributable load; (4) highly variable load growth or load reduction as an individual customer and/or in aggregate with similar customers in the Company's service area; (5) high sensitivity to volatile commodity or asset prices; (6) part of an industry with potential to quickly become a large concentration of power demand; (7) lack of credit history or ability to demonstrate financial viability. *Id*. at 12; *see also* Attachment 1, Proposed Schedule 20, Sheets No. 20-1 – 20-2. Schedule 20 requires—like Schedule 19—that customers with a demand greater than 20 MW *must* enter a special contract and those with a

[4]Schedule 19 is mandatory and applies to, "[c]ustomers who register a metered Demand of 1,000 kW or more per Billing Period for three or more Billing Periods during the most recent 12 consecutive Billing Periods." Idaho Power Company Tariff, Large Power Service, Sheet No. 19-1. Customers whose demand exceeds 20 MW *must* make special contract arrangements with the Company and do not qualify for service under Schedule 19. *Id.* Customers whose demand is greater than 10 MW but less than 20 MW *may* enter a mutually agreed upon special contract with the Company, subject to Commission approval.

demand between 10 MW and 20 MW *may* enter a mutually agreed upon special contract subject to Commission approval. *Id.*

In conclusion and in support of its proposed Schedule 20, Idaho Power stated that:

> cryptocurrency miners are uniquely situated where the mining operation can scale up or down from several kW to hundreds of MW at a location. Scalability, plus the ability to relocate mining pods, allow miners to easily disaggregate customer load to fall under Idaho Power's 20 MW special contract threshold. It is the combination of ability to disaggregate load (thus avoiding establishing service under a special contract subject to the review of the Commission) plus business viability linked to a speculative, volatile commodity, that differentiates these customers and creates a higher risk to Idaho Power and its customers that costs created by cryptocurrency miners may become the responsibility of all customers.

*Id*. at 13.

## STAFF COMMENTS

Staff believed it was reasonable for the Company to proactively mitigate risks inherent to cryptocurrency mining by establishing the proposed customer class and Schedule 20. Staff Comments at 2. Staff stated that Idaho Power designed Schedule 20 based on its position that cryptocurrency miners would have unstable and unpredictable loads and have questionable financial viability making them a high risk for stranded asset costs that core customers may be responsible to cover. *Id.*

Staff stated the mandatory interruptible service provision in Schedule 20 minimized stranded-asset cost risks by reducing the Company's need to acquire additional capacity to serve HDL Customers. *Id.* at 4. Staff concluded that this provision struck a reasonable balance between mitigating stranded asset risks and the Company's obligation to meet customer demand. *Id.*

Staff noted the parameters and methods for determining the scope of interruptible service in developing Schedule 20 were based on similar parameters and methods recently approved to determine curtailment for demand response participants in Case No. IPC-E-21-32. *Id.* at 5. Staff further noted that HDL Customers who desired non-interruptible service could enter special contracts allowed for customers requiring an excess of 10 MW, reduce their capacity to qualify for service under a different schedule, or obtain electric service elsewhere. *Id.*

Staff believed that the parameters for interruptible service should be scrutinized in the next general rate case or after Schedule 20 customers were established and data had been collected "to determine the amount, frequency, and timing of interruptions in service." *Id.* at 4. Staff also recommended that after it gained further experience with Schedule 20 customers, the

Company consider allowing HDL Customers with loads less than 10 MW to be eligible to enter special contracts. *Id*.

Staff noted the Company's current customers' energy rates were based on embedded average costs derived from a test year. *Id.* at 6. To determine the energy rates for Schedule 20 customers, however, Staff noted the Company proposed to use the ACA in the Company's IRP as a marginal cost of energy. *Id*. Staff noted that, while the Company currently used an embedded average cost rate structure for its current customer classes, there must be a level of stability within each customer class under the embedded cost rate structure to ensure each customer's cost-of-service allocation remains relatively stable between rate cases. If the assumption held true that the Schedule 20 customer class lacks stability, Staff agreed that a marginal energy rate was appropriate since it is based on the cost of the next increment of electricity beyond what is needed by the Company's core customers. *Id.*

Staff stated that Schedule 20's demand charges were based on Schedule 9 and Schedule 19 rate designs. *Id.* Staff noted that Schedule 9 and Schedule 19 both have an On-Peak Demand charge that charges customers for their highest 15 minutes of use during On-Peak hours only during summer months. *Id*. at 6-7. Staff supported the Company's proposal to reallocate cost of service derived summer generation capacity costs from the On-Peak Demand charge to the standard Billing Demand charge to ensure Schedule 20 customers paid their fair share for use of the Company's system.

**2140 LAB COMMENTS**

2140 Labs contended there was no need to create a new Schedule to serve HDL Customers as there were no new or existing customers who would qualify under Schedule 20. 2140 Lab's Comments at 1-2. 2140 Labs further contended that the Company's research regarding cryptocurrency was scant and too selective. *Id.* at 2. Labs argued that when cryptocurrency mining user load was compared to residential user demand and the fluctuation in the price of BTC was compared to other markets (e.g., Gold, S&P 500, and oil) over a longer time span, the Company's assertions that cryptocurrency load was inconsistent and unpredictable, and that its price was highly volatile were inaccurate. *Id.* at 3. 2140 Labs also argued that cryptocurrency mining operations entailed a host of economic development opportunities.

Based on the above arguments, 2140 Labs requested the Commission consider renaming Schedule 20 as "Emerging Industry" rather than "Speculative High-Density Load." *Id.* at 4. 2140 Labs averred that the word "speculative" had negative connotations and, moreover, did not aptly describe cryptocurrency operations.

**COMPANY REPLY COMMENTS**

The Company represented it is committed "to balancing its obligation to reliably serve with the need to mitigate potential system risks related to acquiring generation which may, in the long run, ultimately impact the broader customer base." Company Reply Comments at 1. The Company asserted that Schedule 20, strikes that balance to: "1) meet the obligation to serve a new customer segment with efficient utilization of the Company's generation and transmission system, and 2) reduce the potential risks of acquiring additional capacity to serve these customers which potentially becomes stranded investment." *Id.* at 2.

The Company first represented that although it does not currently have a customer that Schedule 20 would apply to it continues to receive outreach from potential cryptocurrency mining operations. *Id.* at 2. The Company also reiterated the importance of Schedule 20 by pointing to the recent example of a large-scale cryptocurrency mining operation breaking its five-year power purchase agreement and quickly relocating to a different service area to meet clean energy and other corporate goals. *Id.* at 3.

Idaho Power stated it has become aware of solicitations to its customers who are currently interested in smaller-scale cryptocurrency mining to house operations in shipping containers located at the customer's premise. *Id*. at 4. The Company asserted that this movability creates a stranded cost risk to all other customers. *Id*.

The Company also acknowledged the potential that current technological advances in cryptocurrency mining could reduce electricity demand by 99.9 percent creating a real potential that stranded asset costs would be incurred and ultimately borne by the Company's core customers.

The Company also stated that it agreed with 2140 Lab's assessment that cryptocurrency mining load operates at a consistent and predictable load but cautioned against the risk of conflating the cryptocurrency miners' high load factor with transitory load and the associated stranded cost risks the Company seeks to mitigate with the proposed Schedule 20. *Id*. at 5.

## ORDER NO. 35428

The Commission found that "the Company's creation of a new electric service schedule to provide service to potential HDL Customers is a reasonable approach to proactively mitigate potential stranded asset costs to its core customers." Order No. 35428 at 6. Nevertheless, the Commission "encouraged the Company to continue to evaluate assumptions regarding the risks and need for mandatory interruptible service, the need for non-interruptible service through special contracts or other options for customers with loads below ten MW, and the need for marginal cost-based rates." *Id.* at 5-7. The Commission directed the "Company to evaluate and compare other methods for determining a marginal cost of energy in addition to the use of ACA in the IRP for setting the Schedule 20 energy rate" before its next general rate case. *Id.*

## GEOBITMINE'S PETITION

In its Petition for Reconsideration GeoBitmine stated it is a Puerto Rican limited liability company that is duly qualified to do business in the state of Idaho.[5] GeoBitmine asserted it "pursues a unique business model of combining cryptocurrency mining operations with high-capacity indoor farming technology." Petition for Reconsideration at 2. GeoBitmine represented it would use waste energy from cryptocurrency mining to sustain year-round greenhouse farming operations. *Id.* GeoBitmine alleged it plans to co-locate its "cryptocurrency mining operations with indoor food production, University of Idaho seed research[6] and [J.R.] Simplot [Company][7] potato storage in Aberdeen, Idaho." *Id.* at 4.

GeoBitmine argued there were practical and legal problems with Schedule 20 and the process by which the Commission approved Order No. 35248. GeoBitmine was concerned about the mandatory, uncompensated interruption period for up to 225 hours a year during the summer

[5] According to publicly available records on the Idaho Secretary of State's website an entity named "GeoBitmine LLC., an Idaho limited liability company, was formed on July 1, 2022. *See* https://sosbiz.idaho.gov/search/business. These records do not indicate that a Puerto Rican limited liability company is a member or governor of this Idaho limited liability company. Thus, it is unclear whether or not the Puerto Rican limited liability company referenced in the GeoBitmine's Petition for Reconsideration is actually authorized to do business in the state of Idaho.

[6] GeoBitmine in a subsequent pleading represented that the University of Idaho asked GeoBitmine to clarify that the University "has to date [09/06/2022] no business, Professional, or other relationship with GeoBitmine (either on a formal or an informal basis) and that GeoBitmine's reference to the University was made without input or review by the University and that the University did not approve or give license to GeoBitmine to use its trademarked logos." GeoBitmine LLC Reply Comments on Reconsideration, at 19, fn. 43.

[7] The Company represented that, based on its communications with a representative of the J.R. Simplot Company ("Simplot"), Simplot did not have a current business relationship with GeoBitmine as of July 13, 2022. Company's Answer at 15.

peak season. GeoBitmine argued that losing electricity during the summer heat would be catastrophic "for indoor food production, potato storage, and seed research" and made "it impossible for its to secure financing or investment" in its proposed Aberdeen location. *Id.* at 5. GeoBitmine also took issue with the marginal energy rates under Schedule 20 which it argued placed it at a competitive disadvantage and was inconsistent with the Company's other "similarly situated ratepayers" who it asserted enjoy the benefits of an average or embedded cost for rate setting purposes. *Id*.

GeoBitmine argued the Company's proposal to charge Schedule 20 customers marginal energy rates would subject customers under the Schedule "to the vagaries of the volatile and typically very expensive unregulated spot markets for electricity." *Id*. at 6. GeoBitmine noted that no other rate schedule take service at the marginal energy price. *Id*. GeoBitmine argued that based on its anticipated load, it would fit within Schedule 19. *Id*. GeoBitmine believed that Schedule 20's rate structure places it "at unique risk and an extreme competitive disadvantage" and makes it impossible to attract investors. *Id*.

In addition to mandatory interruptible service and marginal energy rates, GeoBitmine argued that, because there were no clear guidelines defining what constituted a Schedule 20 HDL Customer, the Company had unconstrained discretion to mandate who took service under Schedule 20. GeoBitmine believed that the Company's process for determining which customers would receive service under Schedule 20 gave the Company too much discretion. GeoBitmine argued that the seven criteria the Company used are vague, and the Company applied them ambiguously and without offering explanation of which applied specifically to GeoBitmine. GeoBitmine registered its objections to the seven criteria and argued they lacked proper definition.

GeoBitmine made the legal argument that "Schedule 20 is an illegally discriminatory classification and hence in violation of law and beyond the Commission's authority to approve." *Id.* at 11. *Id.* at 11-12.

GeoBitmine also cited *Idaho State Homebuilders v. Washington Water Power* ("*Homebuilders*") for the proposition that any discrimination in rates and charges must be "justified by a corresponding classification of customers that is based upon factors such as cost of service, quantity of electricity used, differences in conditions of service, or the time, nature and pattern of the use." 107 Idaho 415, 417, 690 P.2d 350, 354 (1984) (citing *Utah-Idaho Sugar*

*v. Intermountain Gas Co.*, 100 Idaho 368, 597 P.2d 1058 (1979)). GeoBitmine argued that Schedule 20 discriminated between old and new customers without any reasonable justification and was approved by the Commission without any consideration of the factors listed in the *Homebuilders* decision. Petition at 14.

In sum, GeoBitmine argued that the Commission failed to make a reasoned decision supported by sufficient findings of fact and substantial evidence in its order approving Schedule 20.

GeoBitmine also petitioned to intervene based on its direct and substantial interest in the proceeding and to preserve its appeal rights if the Commission denied its Petition for Reconsideration.

**THE COMPANY'S ANSWER**

The Company replied that: (1) Schedule 20 complied with *Idaho Code* § 61-315 and the caselaw interpreting it; (2) based on the information before it, the Company properly determined that Schedule 20 applied to GeoBitmine; and (3) GeoBitmine's Petition to Reconsider Order No. 35248 and to intervene should be denied.

The Company argued that the rates and terms of service under Schedule 20, including interruptible service provisions and pricing based on marginal rates, were reasonable and existed in other utility customer contracts—either approved, pending approval, or previously approved by the Commission. The Company argued that GeoBitmine's discussion of the proposed marginal rates under Schedule 20 was "factually incorrect." Company Answer at 8. The Company reasserted that the rates were based off the IRP ACA which are published with the IRP filing and list five season and time-differentiated prices for the following 20 years. The Company explained that it proposed to update the marginal prices on the same two-year schedule as the IRP. *Id*. at 9. The Company stated IRP ACAs are known, consistent for each seasonal time-differentiated period during the year, and do not introduce any . . . spot risk." *Id*. The Company argued that rates under Schedule 20 may be economically advantageous to GeoBitmine because the "inclusion of marginal cost-based energy prices and their treatment under the [PCA]. . . ." *Id.*

The Company asserted there is "history of Commission-approved rate differentiation that requires interruptible service as part of utility service in recognition of the potential system impacts from that customer segment. Answer at 5. The Company identified Idaho Power's Special Contract with Astaris LLC and a Special Contract with Hoku as examples of this. *Id*. The

Company noted that in approving the Hoku Special Contract the Commission found that the use of marginal rates was "a reasonable approach toward enabling the integration of certain high load customers." Answer at 5 (citing Order No. 30748 at 4). The Company also mentioned that the Commission was currently reviewing a Special Contract which included a mix of marginal and embedded cost components to integrate the [customer's] load on Idaho Power's electric system and serve it. *Id.* at 5-6 (citing Case No. IPC-E-21-42).

The Company further explained that marginal based energy prices are based on known and consistent inputs—the IRP and the ACA. *Id.* at 9.

The Company explained that the GeoBitmine's concern regarding the mandatory interruptability feature of Schedule 20 were exaggerated. *Id*. at 10. The Company pointed to other customers in its service area who repeatedly choose to operate with interruptible service without any detriment to their operations. The Company mentioned that interruptible service with "interruptible rates tailored for cryptocurrency mining operations," was also not uncommon and existed in other jurisdictions. *Id*. at 11. The Company pointed out that even with the possibility of 225 event hours of interruptible service between June 15 and September 15—the Company's period of highest customer demand on the system—that Schedule 20 customers could still maintain a load factor of 97.4 percent. *Id*. at 10. The Company also argued that GeoBitmine's argument that interruption would harm its secondary greenhouse food production endeavors was unlikely due to the interruptions happening during the hottest part of the hottest season. *Id*. at 10-11.

**ORDER NO. 35488**

The Commission found that additional consideration of the issue of whether "the existing 'evidentiary record' . . . as well as the applicable law requires that the Commission modify Order No. 35428 by denying [the Company's] Application for approval of Schedule 20" was appropriate. Order No. 35488 at 9. The Commission granted Staff and the Company 21 days to file comments and supporting material and granted GeoBitmine 28 days to file a response.

Because the Commission granted GeoBitmine's petition to reconsider, it denied GeoBitmine's petition to intervene.

**STAFF COMMENTS ON RECONSIDERATION**

On reconsideration, Staff filed comments concluding that: (1) Schedule 20 was a reasonable measure that mitigated the risk of stranded asset costs and cost shifts to customers

and did not violate *Idaho Code* §§ 61-315 and 61-502; (2) HDL Customers had unique characteristics that justified a distinct classification under Schedule 20; and (3) absent an HDL Customer entering a special contract, Schedule 20 was necessary to protect customers.

a. Schedule 20 complies with the relevant statutes and caselaw

Staff contended that Schedule 20 did not violate *Idaho Code* §§ 61-315 and 61-502. *See* Staff's Reconsideration Comments at 5-6. *Idaho Code* § 61-315 proscribes utilities from establishing rates that prejudice or disadvantage a ratepayer and are unreasonably discriminative. *Idaho Code* § 61-502 provides that the Commission shall determine just, reasonable, or sufficient rates. Staff stated that Schedule 20 was consistent with the criteria denoted in *Grindstone Butte Mut. Canal Co. v. Idaho Pub. Util. Comm'n* ("*Grindstone*"), 102 Idaho 175, 627 P.2d 804 (1981) and the *Homebuilders* case. After considering the relevant statutes and the caselaw, Staff concluded that the unique characteristics of HDL Customers justified a rate differentiation under Schedule 20. *Id.* at 6.

b. Unique Characteristics of HDL Customers

Staff further explained that Schedule 20 applied to customers who take electricity as a primary input and have the ability to easily disaggregate. *Id.* at 7. These characteristics, Staff noted, differed from other typical Schedule 9 and 19 customers who often depend on:

> (1) investments in infrastructure, such as land and buildings; (2) access to waste treatment; (3) other energy inputs, such as renewable energy and natural gas; (4) logistics, such as air cargo, trucking and rail; (5) a trained labor force; (6) local suppliers of goods and services; (7) access to raw materials; and (8) local customer markets as a source of revenue.

Staff Reconsideration Comments at 7. As Staff elucidated, a potential Schedule 20 customer does not rely on any of the above inputs. A potential Schedule 20 customer's primary concern, as Staff explained, is the cost of electricity. Staff further explained that a potential Schedule 20 customer can easily relocate to areas with the lowest cost electricity.

Staff noted that a customer with "scalable infrastructure requiring little or no integration with other infrastructure elements, except for electricity and data connections" can easily disaggregate. *Id.* at 8. Staff contrasted a cryptocurrency mining operation with a traditional data center. Staff pointed to GeoBitmine's statement that, should the Company interrupt its service, it would be devastating to its indoor food production, potato storage, and seed facility. Staff

explained that a traditional data center invests in redundant power sources and backup generation to maintain key operating systems and data.

Staff further noted that the Commission has considered the ability of a customer to disaggregate in setting avoided cost rates for qualifying facilities under the Public Utility Regulatory Policies Act of 1978 ("PURPA"). *Id.* at 8. Staff noted that, without Schedule 20, an HDL Customer using more than 20 MW could disaggregate its operations to avoid having to enter a special contract under Schedule 19. *Id.* at 8-9.

c. Special Contracts and Schedule 20

Staff pointed out that the Company requires customers with large loads to enter special contracts to protect against stranded asset costs. Staff noted the example of a high-energy demand customer (Hoku) who sought service from the Company but never took service. To provide service to Hoku, the Company upgraded distribution lines, substations, and transmission lines. Staff noted that had the customer not entered a special contract agreeing to pay for these upgrades, the Company's customers would have borne these costs. Staff explained that the Company, just like it did with Hoku, could make investments to provide service to GeoBitmine who could then, as evidenced by its proven ability to rapidly adjust its electricity demand from 20 MW to 6 MW and change the location of its operation from the Hoku plant to the Aberdeen, Idaho plant, or leave the Company's service territory once it found cheaper power.

## COMPANY'S COMMENTS ON RECONSIDERATION

The Company asserted that the law and case record supported the Commission's establishment of Schedule 20. In support of this conclusion, the Company pointed out that other jurisdictions had approved moratoriums on new service for cryptocurrency miners or implemented service schedules specific for cryptocurrency miners. The Company also noted that Idaho Supreme Court case law allows a utility to implement customer rates based "time, nature, and pattern of use." Company's Comments on Reconsideration at 3 (citing *Homebuilders*, 107 Idaho at 420, 690 P.2d at 355). The Company argued that the "transitory nature" of cryptocurrency mining operations provided justification for creation for Schedule 20. *Id.* at 4 (emphasis in the original). The Company reiterated that Schedule 20's rate components and interruptability requirements mirrored other components that had been approved by the Commission.

The Company next argued that Schedule 20's criteria identify "speculative transitory loads that pose heightened stranded asset risk to customers." *Id.* The Company expressed that Schedule 20 does not look to the applicant's "proffered industry" but considers objective factors such as "the nature of the load that results given the potential transitory nature of their operations, the quantity of electricity used, and the nature and pattern of use, which have repercussions for Idaho Power's system and other customers." *Id.* at 4. The Company explained that due to the "proof-of-work" authentication method, HDL Customers "share certain traits that may increase volatility on electrical load; they are able to both quickly establish service in high concentrations at single or various locations in a utility's service area, and with the same speed reduce load or relocate outside of a utility's service area." *Id.* at 5.

The Company explained how the service criteria a customer must meet under Schedule 20 were developed to protect the electrical system from impacts.[8] The Company noted that the first criterion—the ability to relocate quickly in response to short-term economic signals—is a characteristic that a traditional mineral mining operation lacks. The Company explained that while a traditional mineral miner and a cryptocurrency miner may have exposure to short-term economic signals the traditional mineral miner, "due to . . . large investments in plant, equipment, machinery, and buildings required to extract mineral substances," does not have the ability to relocate quickly. *Id.* at 6-7. The Company further explained how the remaining criteria under Schedule 20 could be objectively applied to a potential Schedule 20 customer.

The Company examined the system costs and benefits of having the uncompensated, mandatory interruption period. The Company explained that interruptible rates were common in utility regulation and cryptocurrency mining operations specifically. The Company acknowledged that it would evaluate implementing a credit component to the interruption requirement later.

Last, the Company discussed how the current cryptocurrency market validated the Commission's adoption of Schedule 20 to protect customers. Specifically, the Company

[8]Again, Schedule 20 is required for Customers with loads less than 20 MW who have the ability to relocate quickly in response to short-term economic signals and meet four or more of the following criteria: (1) high energy use density; (2) high load factor; (3) portable and distributable load; (4) highly variable load growth or load reduction as an individual customer and/or in aggregate with similar customers in the Company's service area; (5) high sensitivity to volatile commodity or asset prices; (6) part of an industry with potential to quickly become a large concentration of power demand; (7) lack of credit history or ability to demonstrate financial viability.

discussed the diminishing price of cryptocurrencies and related bankruptcies, and the change in using less energy intensive methods to mine cryptocurrency.

The Company argued "Schedule 20's marginal rate and load interruption during Idaho Power's peak load periods prudently addresses and/or minimizes the potential investment necessary to accommodate a volatile industry. . . ." *Id.* at 12. The Company noted that cryptocurrency mining in the U.S. has attracted the attention of the U.S. Senate and stated that "[it] is not alone in recognizing that cryptocurrency mining creates new impacts and risks to the electrical system, and that additional oversight or operational parameters may be required." *Id.* at 12-13.

In conclusion, the Company reiterated that HDL Customers constitute a distinct customer class "characterized by certain attributes, paramount of which is transience, that justify the different rates and charges implemented through Schedule 20." *Id.* at 13.

## GEOBITMINE'S COMMENTS ON RECONSIDERATION

GeoBitmine's overall argument on reconsideration was that the Commission lacked and still lacks, notwithstanding the additional comments on reconsideration, an adequate record and rationale for approving Schedule 20. In support of this general argument, GeoBitmine asserted that: (1) the Company was incorrect that the mandatory, uncompensated interruption provision of Schedule 20 is common; (2) the Company's reliance on *Cytline, LLC v. Pub. Util. Dist. No. 2 of Grant Cnty., Washington*, 849 F. Appx 656 (9th Cir. 2021) is misplaced; and (3) the Company did not properly consider the factors from the *Homebuilders* case. GeoBitmine further asserted that: (1) there is no evidentiary record upon which the Commission can make its findings namely because the Commission cannot consider hearsay; (2) the Commission failed to consider the impact Schedule 20 would have on HDL Customers and, particularly, GeoBitmine; and (3) Staff's comments on cryptocurrency mining entities disaggregation ability and its analysis of the need for Schedule 20 is faulty and is based on a mere assumption.

## FINDINGS AND DECISION

The Commission has jurisdiction over this matter under *Idaho Code* §§ 61-502 and 61-503. The Commission is empowered to investigate rates, charges, rules, regulations, practices, and contracts of public utilities and to determine whether they are just, reasonable, preferential, discriminatory, or in violation of any provision of law, and to fix the same by order. *Idaho Code*

§§ 61-502 and 61-503. We have reviewed the entire record in this case, including the comments, additional materials that were filed, and arguments provided by the parties on reconsideration.

Staff and the Company both set forth criteria that distinguish HDL Customers from other customers. These criteria include transience, the nature and number of inputs required for operation, and infrastructure that is easy to disaggregate. These characteristics, as Staff and the Company asserted, create the potential that HDL Customers could cause the Company to incur significant costs that would be borne by other ratepayers if HDL Customers suddenly leave the Company's service territory. We believe these characteristics, and the risk of stranded asset costs from HDL Customers being passed to other customer classes, justify establishing the HDL customer class and rates under Schedule 20.

Based on the record, we also find that the rates in Schedule 20 that are based off the IRP ACA are reasonable. These rates are published with the IRP filing and list five season and time-differentiated prices for the following 20 years. These rates are updated on the same two-year schedule as the IRP. The Commission finds that the IRP ACAs are known and consistent for each seasonal time-differentiated period during the year, and do not introduce any spot risk. Further, we find that there is support for interruptability. As the Company and Staff noted, there is a history of Commission-approved rate differentiation that requires interruptible service as part of utility service in recognition of the potential system impacts from that customer segment. The transitory nature of cryptocurrency mining and risk of strand asset costs justifies interruptability in this case. We also find merit in the Company's representation that 225 event hours of interruptible service between June 15 and September 15 that Schedule 20 customers could still maintain a load factor of 97.4 percent. This load factor cuts against GeoBitmine's assertion that this would harm its secondary greenhouse food production endeavors using waste heat was unlikely due to the interruptions happening during the hottest part of the hottest season.[9]

Based upon our review, we find that the record supports the establishment of Schedule 20 and its components with one exception. The Commission finds that an unresolved question remains with respect to whether some compensation should be provided to customers under Schedule 20 if the mandatory interruptability provision is exercised by Idaho Power. The Commission's reasoning is set forth more fully below.

[9] The Commission notes there is some evidence in the record that GeoBitmine's proposed project, which it represented involves Simplot and the University of Idaho, is speculative as both of those parties have indicated they currently do not have any business or any other relationship with GeoBitmine

### A. Factors Required for Consideration

GeoBitmine argues on reconsideration that *all* of the factors in the *Homebuilders* decision must be considered by the Commission when setting different rates and charges for different classes of customers. GeoBitmine's Comments on Reconsideration at 15. The Commission disagrees.

A careful reading of *Homebuilders* shows that the Commission is not required to consider any specific factor or factors when making a rate determination.[10] Nothing in the *Homebuilders* decision provides for an exclusive list of factors to consider, nor a requirement that certain factors *must* be considered. In fact, the concluding statement from the *Homebuilders* Court, coming after its discussion of the classification factors GeoBitmine points to, provides that "[a]bsent a legislative pronouncement to the contrary, we find it within the Commission's jurisdictional province to consider in its rate making capacity 'all relevant criteria . . . .'" *Homebuilders*, 107 Idaho at 420, 690 P.2d at 355 (citing *Grindstone*, 102 Idaho at 180-181, 627 P.2d. at 809-810).

The Commission also notes that the statement from *Homebuilders*, upon which GeoBitmine's argument relies, came from an earlier case, *Utah-Idaho Sugar v. Intermountain Gas Co*., 100 Idaho 368, 597 P.2d 1058 (1979)), which was decided two years before the Court published its opinion in *Grindstone*. In *Grindstone*, the Idaho Supreme Court considered the legitimacy of a rate increase only applicable to "high volume-high load factor" customers within a specific electric service Schedule 24. *Grindstone*, at 177, 627 Idaho at 806. The high volume-high load factor customers appealed the Commission's order approving Schedule 24 based on the lack of a cost-of-service analysis supporting a rate increase within Schedule 24 for high volume-high load factor customers and a rate decrease for low volume-low load factor customers within the same schedule. *Id.* at 179, 627 P.2d at 808. In affirming the Commission's decision, the Court clarified that a "cost-of-service" analysis was "but one criterion among many for consideration in forming a basis for rate differentiation between classes of service . . . ." *Id.* The

[10] In *Homebuilders*, the Court uses the operative phrase "such as" in its statement that any discriminatory rate "must be justified by a corresponding classification of customers that is based upon factors such as cost of service, quantity of electricity used, differences in conditions of service, or the time, nature and pattern of the use." 107 Idaho at 420, 690 P.2d at 355. "Such as" is an idiom "used to introduce an example or series of examples." https://www.merriam-webster.com/dictionary/such%20as (accessed September 30, 2022).

Court reasoned that the Commission could consider *any* relevant criteria in differentiating among rates, including:

> the quantity of the utility used, the nature of the use, the time of use, the pattern of use, the differences in the conditions of service, the costs of service, the reasonable efficiency and economy of operation and the actual differences in the situation of the consumers for the furnishing of the service[,][…] contribution to peak load, costs of service on peak demand days, costs of storage and economic incentives[, and] concepts of conservation, optimum use and resource allocation.

*Id.* at 180-181, 627 P.2d at 809-810 (internal citations and quotations omitted).

Ultimately, the Court concluded that in reviewing a rate differentiation established by the Commission, the proper inquiry is whether "the evidence as a whole in light of the circumstances of the particular case supports the differentiation, substantially, competently and with a just and reasonable result." *Id.* at 181, 627 P.2d at 810.

Here, the Commission finds that the transitory nature of potential HDL Customers, including their ability to rapidly alter their electric demand requirement and location of service due to the limited number of inputs needed to operate, constitutes a "nature and pattern of the use" that justifies a distinct customer classification. *Homebuilders*, 107 Idaho at 420, 690 P.2d at 355. This "transitory" nature of potential HDL Customers was a significant and relevant criterion the Commission considered in approving the Company's Application for Schedule 20 in Order No. 35428, and the Commission finds that the evidence as a whole, in light of the circumstances of this particular case, supports the differentiation and achieves a "just and reasonable result." *Grindstone*, 102 Idaho at 181, 627 P.2d at 810.

**B. Sufficiency of the Evidence and Hearsay**

GeoBitmine argues on reconsideration that the evidentiary record does not sufficiently establish facts showing the transitory nature of cryptocurrency miners and their potential to create stranded asset costs which would ultimately be borne by other customer classes. *See GeoBitmine* Comments on Reconsideration at 11-14. GeoBitmine points to the Company's use of newspaper articles to support its claims that Schedule 20 is a reasonable measure to prevent the incurrence of stranded asset costs wrought by cryptocurrency miners. GeoBitmine contends that newspaper articles are "classic, inadmissible hearsay" and cites to *Application of Citizens Utilities Co.*, 82 Idaho 208, 211, 351 P.2d 487, 488 (1960), for the proposition that the "Idaho Supreme Court has banned the use of all hearsay evidence for purposes of supporting the

Commission's findings." GeoBitmine Comments on Reconsideration at 13-14. The Commission disagrees.

Pursuant to the Commission's Rule of Procedure 261:

> Rules as to the admissibility of evidence used by the district courts of Idaho in non-jury civil cases are generally followed, but evidence (including hearsay) not admissible in non-jury civil cases may be admitted to determine facts not reasonably susceptible of proof under the Idaho Rules of Evidence. The presiding officer, with or without objection, may exclude evidence that is irrelevant, unduly repetitious, inadmissible on constitutional or statutory grounds, or inadmissible on the basis of any evidentiary privilege provided by statute or recognized in the courts of Idaho, and order the presentation of such evidence to stop. All other evidence may be admitted if it is a type generally relied upon by prudent persons in the conduct of their affairs. The Commission's expertise, technical competence and special knowledge may be used in the evaluation of the evidence.

IDAPA. 31.01.01.261. GeoBitmine's Comments on Reconsideration provide in relevant part:

> Even though Rule 261 of the Commission's rules provides for the admission of hearsay to determine "facts not reasonably susceptible of proof under the Idaho Rules of Evidence," the Idaho Supreme Court has banned the use of all hearsay 'evidence' for purposes of supporting the Commission's findings. *Application of Citizens Utils. Co.*[,] 82 Idaho 208, 214 351 P.2d 487, 490 (Idaho 1960). In that case, the Idaho Supreme Court unequivocally declared that the Commission "cannot make a finding based upon hearsay." *Id*. In addition, the Supreme Court declared that the Idaho Commission cannot, under its rulemaking authority, "*authorize findings based on facts not in evidence. In any event, the commission cannot by rule transcend the constitutional requirement of due process.*" *Id*. at 215, 315 P.2d at 491. Therefore, the Commission is precluded from making its findings based upon the dozens of newspaper articles cited by Idaho Power.

GeoBitmine's Comments on Reconsideration at 15. The Commission takes some issue with the argument as presented. First, GeoBitmine does not attempt to reconcile *Citizens Utilities Co.* with Commission Rule 261. Given that *Citizens Utilities Co.* was issued in 1960, the Commission has some understanding as to why the Court did not provide a reason as to why it "banned the use of all hearsay" in administrative proceedings in contradiction to an established Rule of Procedure.

Second, GeoBitmine's contention that "the Supreme Court declared that the Idaho Commission cannot, under its rulemaking authority, '*authorize findings based on facts not in evidence[,]*'" is false. The Court in *Citizens Utilities Co.* actually stated:

> Except as to facts referred to in subsection (c), this rule does not purport to authorize findings based on facts not in evidence. In any event the commission cannot by rule transcend the constitutional requirement of due process.

*Citizens Utilities Co.*, 82 Idaho at 215, 351 P.2d at 491. The Court in *Citizens Utilities Co.* was interpreting the Commission's Rule of Procedure 9.20 (now Rule 263). GeoBitmine has taken a partial quote out of context to proffer an Idaho Supreme Court declaration not supported by the authority presented.

**C. Fair, Just, and Reasonable**

The Commission does not find it reasonable to require that HDL Customers be interconnected and taking power from the Company's system so that data on these types of customers can be collected before a schedule outlining service to them can be established. Ratemaking is prospective. *See Blocktree Properties, LLC v. Pub. Util. Dist. No. 2 of Grant Cnty. Washington*, ("*Blocktree*") 447 F. Supp. 3d 1030, 1040 (E.D. Wash. 2020), *aff'd sub nom. Cytline*, 849 F. Appx 656 (citing *Prentis v. Atlantic Coast Line Co.*, 211 U.S. 210, 29 S.Ct. 67, (1908) for the proposition that ratemaking is legislative and that "[l]egislation . . . looks to the future and changes existing conditions by making a new rule, to be applied thereafter to all or some part of those subject to its power. The establishment of a rate is the making of a rule for the future . . . .").

We find that the Company taking proactive steps by implementing a schedule under which future HDL Customers can take service is a fair and reasonable approach that protects current customers on the Company's system. Being proactive in this situation sends appropriate signals to prospective customers who would take service under Schedule 20 and allows decision makers to make determinations about their businesses before locating, instead of retroactively implementing a schedule that would affect the business after it had decided to locate in the Company's service territory.

The Commission is not foreclosed from approving Schedule 20's rate classification so long as there is substantial and competent evidence in the record demonstrating the Commission considered the relevant criteria as discussed in several Idaho Supreme Court decisions. Notably, GeoBitmine was able to change its service demand amount and territory within a short period of time.[11] In addition, while other states may have specific statutes, and different utilities may have

[11] Idaho Power asserted that GeoBitmine initially inquired about the possibility of receiving electric service in excess of 20 MW at the former Hoku plant location in Pocatello, Idaho. Answer at 12.

tariffs for cryptocurrency miners, we do find the record is sufficient to establish that HDL Customers—namely cryptocurrency miners—possess unique characteristics that create a risk of stranded-asset costs justifying the creation of a new schedule.

Additionally, the Company claims that the United States Court of Appeals for the Ninth Circuit, in the *Cytline* case, upheld a Washington Public Utility District's ("PUD's") implementation of a cryptocurrency mining schedule. Company Answer at 2; Company Comments on Reconsideration at 3. GeoBitmine argues that the Company's citation to *Cytline* is misplaced because "PUD's in Washington State are free to set rates without regard to whether those rates are fair or discriminatory." Reply Comments on Reconsideration at 15. GeoBitmine cites to the *Blocktree* case—the district court decision that was affirmed in the *Cytline* case.

A review of the case shows that while the *Cytline* court upheld the district court's ultimate decision, the Ninth Circuit held that the district court "erred in finding that [the Plaintiff cryptocurrency miner] has no protected interest in a non-arbitrary rate." *Cytline*, 849 F. Appx at 658. As the *Cytline* court clarified, "[c]ustomers of public utilities in Washington have a due process right to nonarbitrary rates, even though they do not have a right of participation in ratemaking proceedings . . . ." *Id.* Additionally, a more expansive reading of *Blocktree* indicates that, while a Washington ratepayer in a PUD may lack a property interest in nondiscriminatory, non-arbitrary electric rates, Washington law does not allow a PUD to disregard all notions of fairness and nondiscrimination in setting rates. *See Blocktree*, 447 F.Supp. 3d at 1039 (citing Wash. Rev. Code Ann. § 54.24.080 (West)).

We recognize that the law governing PUDs, and public utilities in Washington in general, may differ from the law in Idaho. However, the Commission is not convinced that Washington law, and the circumstances in the *Cytline*, case are so dissimilar from Idaho law and the circumstances of potential cryptocurrency mining in Idaho Power's service territory as to render them unworthy of consideration. That other jurisdictions have implemented electric service schedules for cryptocurrency miners, and that at least one schedule has been upheld after review by the Ninth Circuit Court of Appeals, is persuasive evidence and authority that implementing an electric service schedule applicable to cryptocurrency miners in the Company's service territory is a reasonable and fairly normal measure to protect customers from the potential risks of cryptocurrency operations.

Although we believe that many of the components of Schedule 20 are reasonable, upon review we find the record is insufficient to support the uncompensated mandatory interruptability requirement. In Order No. 35428, we noted Staff's comments that "the parameters and methods for determining the scope of interruptible service to minimize stranded-asset cost risk in this case were based on similar parameters and methods recently approved to determine curtailment for demand response participants in Case No. IPC-E-21-32." Order No. 35428 at 3. We find that the record in this case supports some type of interruptible service feature for Schedule 20, akin to the interruptible service periods delineated in Case No. IPC-E-21-32. The demand response periods in Case No. IPC-E-21-32 were developed to avoid the necessity of the Company developing new capacity resources on its system. Accordingly, we find that mandatory interruptible service during the peak summer season under Schedule 20 is a reasonable provision to protect customers from the risk of stranded-asset costs created by HDL Customers who may interconnect then suddenly abandon the system if the economics of cryptocurrency change.

We do not believe, however, that the record is sufficient to support establishing an uncompensated mandatory interruptible service provision. We note that participants in the demand response program are compensated for interruption events. The record in this case contains conflicting evidence as to whether there exists an uncompensated, mandatory interruptible service provision (aside from in emergency situations) in an electric service schedule anywhere in the Company's system or in any other jurisdiction. The Company stated that "interruptible rates are common in utility regulation and specifically in relation to cryptocurrency mining operations." Company's Comments on Reconsideration at 8. In response, GeoBitmine asserted that the Company did not cite a single example of a service schedule—either on the Company's system or in another jurisdiction—containing a mandatory, uncompensated interruptability provision. Indeed, it does not appear, the record in this case, fully evaluates the need nor reasonableness of compensation for mandatory interruptions.

While the record is sufficient to support the interruptability component, the parties have not submitted sufficient evidence for the Commission to determine if compensation for mandatory interruption is required, and if so, an amount of compensation that is fair, just, and reasonable to interrupt customers under Schedule 20. Accordingly, based upon the record, we affirm Order No. 35428 granting the Company's Application to implement Schedule 20. However, the use of Schedule's 20 interruptability provision is conditioned on a subsequent

Commission determination of an amount, if any, that is fair, just, and reasonable. The Company is directed to apply to the Commission for a determination of a fair, just, and reasonable amount of compensation, if any, for interruptability under Schedule 20.

**ORDER**

IT IS HEREBY ORDERED that GeoBitmine's Petition is denied.

IT IS FURTHER ORDERED that the Company must file an Application with the Commission by December 31, 2022 to determine the amount of compensation that is fair, just, and reasonable under Schedule 20's interruptability provision.

THIS IS A FINAL ORDER ON RECONSIDERATION. Any party aggrieved by this Order may appeal to the Supreme Court of Idaho pursuant to the Public Utilities Law and the Idaho Appellate Rules. *See Idaho Code* § 61-627.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 5th day of October 2022.

ERIC ANDERSON, PRESIDENT

JOHN CHATBURN, COMMISSIONER

JOHN R. HAMMOND JR., COMMISSIONER

ATTEST:

Jan Noriyuki
Commission Secretary

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