Exhibit 1

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

TEXAS BLOCKCHAIN COUNCIL, a nonprofit association; RIOT PLATFORMS, INC.,	)	
Plaintiffs	)	**Case No. 6:24-cv-99**
v.	)	
DEPARTMENT OF ENERGY; JENNIFER M. GRANHOLM, in her official capacity as Secretary of Energy; ENERGY INFORMATION ADMINISTRATION; JOSEPH DECAROLIS, in his official capacity as Administrator of Energy Information Administration; OFFICE OF MANAGEMENT AND BUDGET; SHALANDA YOUNG, in her official capacity as Director of Office of Management and Budget,	)	
Defendants.	)	

AMICUS BRIEF OF SIERRA CLUB

Energy markets are complicated, and what customers don't know *can* hurt them. Delaying Energy Information Administration (EIA)'s access to the information requested through Form 862 for months risks not just grid operators' ability to ensure electric reliability to residences and businesses, but prevents grid operators and federal and state regulators from having the information necessary to prevent the abuse of current market rules by cryptocurrency mining companies to charge individual ratepayers, collectively, tens of millions of dollars to

prevent grid outages. The Texas grid, in particular, is susceptible to both these outcomes. Utilities, grid operators, and state and federal regulators urgently require the basic and accurate up-to-date information in EIA's survey to determine whether current electrical capacity is sufficient and to design and price demand response programs to prevent rolling blackouts and price spikes at times of extreme stress on the grid. An outcome in this proceeding that prevents EIA from collecting data for months will materially increase the risk of rolling blackouts in extreme weather events or–as in Texas during Winter Storm Uri–cost customers tens of millions of dollars in payments to cryptocurrency miners to keep their lights on. This amicus brief provides further information about these public harms that are reasonably likely to occur if information collection is delayed. *See* 5 C.F.R. 1320.13.

INTRODUCTION

Residential customers throughout the country rely every day on power grid operators and utilities to keep the lights on at affordable prices. Doing so requires meticulous planning and careful management, to ensure that electricity supply and demand are constantly in balance. In Texas, the massive blackouts in February 2021 during Winter Storm Uri provide an especially stark example of the power grid's importance. At least 246 people–and possibly up to 700 or more–died in the storm, many because they froze to death or perished due to carbon monoxide poisoning in a desperate effort to keep warm. Those who were able to keep the lights on paid billions for that electricity due to price spikes, and some customers will be paying off the power grid's failures that week for decades to come.

To prevent these dire outcomes, grid operators and utilities throughout the United States need accurate information for long-term resource planning–to know how much electricity demand they must meet in future, and to begin planning now to build generation and/or

incentivize reduced demand. To avoid both blackouts and billions of dollars in unnecessary electrical bills, grid operators must be able to respond rapidly to emergencies like Uri by implementing flexible demand response programs that successfully incentivize customers to reduce demand.

After cryptocurrency mining was banned in China in mid-2021, many of the facilities relocated to the United States, joining a rapidly expanding industry. A single cryptocurrency facility can have an electrical load equal to that of a medium-sized town. Identifying these facilities, determining whether their usage is likely to expand, and developing demand response programs and pricing to take advantage of the flexibility of cryptocurrency loads are all critically necessary for grid operators to identify weaknesses in the grid, ensure sufficient generation resources, and maintain reliability for *all* electricity customers. Those processes can take months or years, and delays or mistakes can produce blackouts–often during heat waves or cold snaps when the public needs power the most.

Even where unforeseen changes in demand do not produce blackouts, they force the public to pay dearly to keep the lights on. Cryptocurrency companies, including Riot Platforms, have reported strategically switching between mining Bitcoin and re-selling electricity, activity that distorts demand response programs and can cost tens of millions of dollars during periods of extreme stress like Winter Storm Uri. Without insight into companies' practices, grid operators may misjudge how much electricity is needed, with the potential for price spikes–and even blackouts. In fact, Texas' primary grid operator has warned that cryptocurrency facilities' "inconsistent response" to requests to curtail load "could drive the system into emergency conditions," and that the grid operator "has limited visibility into [the facilities'] sensitivity to price and other forecasts."

Accurate insight into cryptocurrency facilities' expected contribution to demand, both on a day-to-day basis and in circumstances with exceptionally high demand, is urgently needed. Cryptocurrency facilities are now significant actors in the power grid–but it's unclear exactly how large their impact is and how they will act in crucial moments. Because electrical reliability can be a matter of life or death, and because distorted demand can so heavily impact residential and small business customers' finances, it's essential that grid operators, utilities, federal and state regulators, and the public rapidly gain a better understanding of cryptocurrency facilities' impacts on the system. This is particularly true before next winter brings further extreme cold weather, with the potential for catastrophic results if a storm like Uri triggers another grid failure.

EIA Form 862 is a minimally burdensome means of obtaining information for developing this understanding. The Form's eight substantive questions should be readily answerable from the face of the respondent's monthly energy bills, knowledge of the number and processing power of on-site computers, and information routinely reported in SEC filings and other investor-facing materials.

I. Utility resource planning based on accurate information about load and demand response is critical to ensuring affordable and reliable electricity for customers.

Residential electrical customers both need and expect reliable access to electricity at an affordable cost. Most fundamentally, grid operators–including, most relevant to the Plaintiffs here, the Electric Reliability Council of Texas ("ERCOT")–utilities, and state regulators must ensure there is sufficient electrical generation on the grid to meet total demand (or load). To do so, these entities engage in extensive multi-year planning processes to ensure that there are sufficient generation resources to meet customer demand. Grid operators such as ERCOT also use various pricing mechanisms to induce the construction of increased generation, when necessary, and more immediate decreases in demand or increases in supply when extreme

weather or unplanned plant outages occur, driving load unexpectedly higher or taking resources off the grid unexpectedly. Knowing *where* demand occurs is also important; the quantity of generation doesn't matter if it cannot reach the places it is needed due to limited transmission capacity. Grid operators use congestion pricing to incentivize generators and distribution utilities to match supply with demand across geography as well as time.

The consequences of failure of these planning and response mechanisms can be grave. In February 2021 in Texas, for example, hundreds of people died when the power grid failed to hold up during Winter Storm Uri, which both increased demand and caused numerous power plant outages. Ex. A (Reed Decl.) ¶¶ 13-15. Many Texans were also financially harmed by the huge spike in wholesale electricity pricing to the systemwide cap. *Id.* ¶ 15. One of Texas's largest rural electric cooperatives was forced into bankruptcy, and the securitization of electric costs from the storm means that some Texas customers will be paying off the costs of that week for decades to come. *Id.* ¶¶ 15-16.

Because the stakes are so high, and because demand can peak in a matter of days due to extreme weather conditions, access to accurate information about electricity demand and supply is crucial to utilities, state regulators, and grid operators. As described below, the rapid growth of cryptocurrency mining operations over the past two years has rendered much existing information obsolete and created considerable uncertainty as to what electricity needs will be even six months into the future. It is especially crucial that this information be available before the next cycle of severe winter weather, with the potential to tax grids–as seen in Texas during Winter Storm Uri. Waiting months to collect this data risks delaying access to this information for grid operators, utilities, and the public until it is too late to prevent energy price spikes or

blackouts this winter. *See* Dkt. 1-2 at 3 (EIA description of data collection and publication timeline).

A. Cryptocurrency facilities drastically increase demand on the power grid because of the nature of cryptocurrency mining.

Cryptocurrency mining uses huge amounts of electricity–often the equivalent of the entire capacity of a medium-sized town–because of the unique nature of cryptocurrency work. Proof-of-work cryptocurrency miners earn money by repeatedly calculating a "hash" using a processor designed for that purpose until it finds a mathematical solution, at which point it is rewarded with a Bitcoin or unit of another currency. *See Morici v. Hashfast Techs. LLC*, No. 5:14-CV-00087-EJD, 2015 WL 906005, at *2 (N.D. Cal. Feb. 27, 2015). Because solutions are found at random, "a miner's chances of discovering a Bitcoin relative to another miner is based on the miner's hash rate relative to the total hash rate of all Bitcoin miners on the network." *Id*. (internal quotation omitted). This means miners are incentivized to operate as many computers, performing as many calculations as possible and consuming electricity as they do so. Moreover, the underlying Bitcoin framework increases in difficulty as more Bitcoin are discovered, meaning more computing power–and more electricity–will be required over time.

The result is that a single cryptocurrency facility can require up to 1 gigawatt (GW) (or 1,000 megawatts (MW)) of electricity, roughly twice the load of Lubbock. The Texas facilities of Riot Platforms ("Riot"), one of the plaintiffs in this litigation, are illustrative. Riot has two large-scale cryptocurrency mining facilities in Texas: one in Rockdale, its "Rockdale Facility," and one in Navarro County, its "Corsicana Facility." Ex. D (Riot Platforms, Inc. Form 10-K for the fiscal year ended December 31, 2023) at 4.[1] Riot describes its Rockdale Facility as "believed

[1] Riot Platforms, Inc.'s Form 10-K for the fiscal year ending December 31, 2023 was filed February 23, 2024 with the U.S. Securities and Exchange Commission. It is available for download online. *See* U.S. Secs. & Exchange Comm'n, *EDGAR: Company Search Results: Riot Platforms, Inc.*,

to be the largest single Bitcoin mining facility in North America . . . by capacity" and is considering further expansion. *Id.* Rockdale currently has at least 700 MW of load capacity–i.e., the capacity to draw that much electricity from the grid–and is contemplating further expansion on an unknown scale. *Id.* at 16. Riot intends to begin operating 400 MW of its new Corsicana Facility in the first quarter of 2024. *Id.* at 7. The Texas Public Utilities Commission recently found that the cost to construct a combined-cycle gas plant with a nameplate capacity of 1.2 GW – *i.e.*, enough electricity to serve Rockdale and the first phase of Corsicana–is $1.58 billion. *See Application of Entergy Texas, Inc. to Amend Its Certificate of Convenience & Necessity to Construct Orange Cnty. Advanced Power Station*, No. 473-22-1074, 2023 WL 316554, at *1 (Jan. 12, 2023).

Riot has also told investors it intends to increase the size of the facility to 1 gigawatt over an unspecified time period. Ex. D at 4, 7. As Riot has explained to investors, "Our operations have required significant amounts of electrical power, and, as we continue to expand our mining fleet, operate our Rockdale Facility, and begin to operate our Corsicana Facility, we anticipate our demand for electrical power will continue to grow." *Id.* at 23.

The construction of a cryptocurrency mine thus greatly increases load on the electric grid (or, in other words, demand) over a short time period. Cryptocurrency mining is both unprecedented and unique in the scale and speed at which it increases demand on the electrical grid. *See* Ex. C (Fisher Decl.) ¶¶ 6, 8. The burden that cryptocurrency mining creates–the addition to the grid of demand that requires the equivalent of a mid-sized city's worth of power, virtually overnight–is unique, and poses significant challenges to ensuring affordable and reliable electricity.

---

https://www.sec.gov/edgar/browse/?CIK=0001167419. This Court may take judicial notice of Riot's 10-K. Fed. R. Evid. 201(b); *Basic Cap. Mgmt., Inc. v. Dynex Cap., Inc.*, 976 F.3d 585, 589 (5th Cir. 2020).

B. By greatly increasing load, cryptocurrency mines increase demand, and with that increased demand, energy prices for all customers, not just cryptocurrency mines.

In electricity markets like ERCOT, when demand is high and supply is steady, prices increase. For example, ERCOT market conditions reflect this basic point. In August 2023, with greatly increased demand, average wholesale day-ahead prices were almost three times what they were a year earlier: in August 2023, more than $300 per MWh, and in August 2022, roughly $100 per MWh. Ex. A (Reed Decl.) ¶ 21. Real-time prices also greatly increased with increased demand, at over $200 per MWh in August 2023 as compared to roughly $90 per MWh in August 2022. *Id.* And prices greatly increase with peak demand spikes because more expensive generators must be brought online to meet the need. When ERCOT issued an emergency energy advisory on September 6, 2023, real-time power prices spiked to roughly $5,000–ERCOT's maximum. *Id.* at ¶ 23. This price increase is felt by *all* customers, not just cryptocurrency miners.

C. Because cryptocurrency facilities increase demand so drastically, planners need accurate information to determine whether and when to add additional supply–to prevent blackouts and price spikes.

Because a single cryptocurrency mining facility can increase demand by an amount roughly equal to the output of a large wind farm or gas plant, Ex. C (Fisher Decl.) ¶ 4, understanding the number, location, and energy usage of cryptocurrency facilities is crucial to utilities' and grid operators' resource planning. Because, as Plaintiffs point out, cryptocurrency mining can be shut down at short notice to reduce load if necessary, it is also critical to understanding the availability of load curtailment (the ability to reduce high demand at short notice to ensure adequate supply) within a grid or load service area to avoid overbuilding generation to accommodate loads that, like cryptocurrency mines, can be curtailed as needed

and, conversely, to ensure that utilities can and do curtail their usage when necessary to sustain the grid.

There is evidence that cryptocurrency facilities are increasing demand–and strain on the electrical grid–but the exact nature of that strain is uncertain. The peak demand for electricity on the ERCOT grid was almost 12 GW (or 12,000 MW) higher in 2023 than it was in 2021. Ex. A (Reed Decl.) ¶ 17. It had previously taken 15 years for demand to grow by 12 GW. *Id.* In other words, electrical usage on the hottest day of the summer in Texas grew by as much from 2021 to 2023 as it did from 2005 to 2021. An unknown but significant source of this growth is cryptocurrency mining. ERCOT has determined that energy users with the same use profile as cryptocurrency facilities (i.e., large demand but the ability to ramp down at short notice) made up 2,523 MW of ERCOT's total demand in 2022 and 4,479 MW in 2023–i.e., such loads nearly doubled in a single year. Ex. A (Reed Decl.) ¶ 25. Between January 2022 and August 2023, ERCOT reported approving 22 new interconnections with a total load of approximately 2,700 MW (or five times the load of the city of Lubbock) to enter the grid within two years or less, "bypassing the established reliability process," that is, the lengthy studies typically undertaken to ensure adding a load of that magnitude will not cause congestion or voltage issues on the grid. Ex. B (ERCOT, *Large Loads–Impact on Grid Reliability and Overview of Revision Request Package*, August 16, 2023, or "ERCOT PowerPoint") at 6.

If, as Plaintiffs allege, cryptocurrency mining operations are a flexible load that ERCOT and other grid operators can switch off during periods of peak demand, *see* Dkt. 1 at 48-49, grid operators cannot take this flexibility into account to reduce load forecasts without accurate information about the size and location of these flexible loads. Without accurate information, grid operators may unnecessarily increase energy prices to induce plant operators to run their

plants more or delay repairs, or even build or induce the building of new excess generation resources–which may, in turn, be unnecessary in light of cryptocurrency facilities' ability to curtail their demand. *See* Ex. C (Fisher Decl.) ¶¶ 7-8. All customers, not just cryptocurrency miners, will pay these costs in new construction and/or higher energy prices.

D. ERCOT's warnings about how large cryptocurrency loads can threaten grid reliability without adequate planning demonstrate the need for further information.

Texas provides an example of the dangers posed by lack of information about cryptocurrency facilities and the strain they may place on the electric grid. Although the total magnitude of the cryptocurrency load is apparent in the rapid growth of electrical demand in Texas and elsewhere, the location and usage of these facilities are not always well understood by the grid operators and utilities tasked with ensuring the lights remain on. ERCOT, specifically, has identified the need for additional information to understand the capabilities and demand of each site. ERCOT has characterized load forecasting for large loads as a reliability risk, explaining that it has "limited visibility into the location and consumption of all larger Loads." Ex. A (Reed Decl.) ¶ 27; Ex. B (ERCOT PowerPoint) at 7. ERCOT has warned that, as a result, it "is seeing greater load forecast error on extreme or unusual operating days when an accurate forecast is most critical." *Id.* This lack of information hampers ability to predict the timing and amount of load peaks and thus to provide guidance to generators about when to schedule maintenance or needed outages, or to call upon particularly expensive resources to enter the grid. According to ERCOT, the lack of visibility as to how cryptocurrency mines are using the grid "has been evident during summer operations when high prices and 4CP [a measure of peak load] response make industrial load usage difficult to forecast for upcoming days. Increased visibility

into industrial load consumption would have also been useful during both Winter Storm Uri and Elliot, when larger Load usage was a critical forecasting input." *Id.*

The "flexibility" touted by Plaintiffs can also destabilize the grid, particularly in the absence of information as to how cryptocurrency facilities are interacting with the grid. ERCOT has determined that large loads' rapid changes in consumption are a "reliability risk," explaining that "Large Loads can change their MW consumption rapidly enough to exhaust available Regulation service," and that this "was not an issue prior to the connection of the 2700 MW of Large Loads." Ex. A (Reed Decl.) ¶ 29; Ex. B (ERCOT PowerPoint) at 9. When large loads suddenly disconnect, they can cause voltage fluctuations, including one near Odessa in December 2022 where it took more than 10 minutes to restore the grid to normal operation. Ex. B (ERCOT PowerPoint) at 8. Moreover, these large loads do not always respond adequately to periods of resource scarcity. ERCOT reported that "[e]xperience shows inconsistent response from Large Load sites that should be expected to reduce consumption" and that ERCOT "needs the capability to coordinate Large Load response before curtailment of firm Load"--that is, rolling blackouts–is required. *Id.* at 10. To effectively make use of cryptocurrency loads' flexibility, and to avoid their rapid ramping from becoming a threat to grid stability, ERCOT determined it needed to collect "additional information…to improve its load forecasts and operational processes." *Id.* at 11.

Although ERCOT has seen the most intense load growth due to cryptocurrency mines, it is not unique. Other grid operators will face similar risks and require similar information to plan emergency operation protocols, design programs to require load shedding during extreme periods in lieu of relying on voluntary compliance, and identify needed transmission or other physical infrastructure to avoid blackouts during extreme weather conditions or other periods of peak

load. Elsewhere, grid reliability is managed by investor-owned utilities, regional transmission organizations (where they exist), the Federal Energy Regulatory Commission (FERC), and state public utility regulators; these entities need consistent, comprehensive information about large cryptocurrency loads to collaborate and coordinate, and to ensure visibility into major sources of demand on the grid and an understanding of how those sources will respond to economic incentives so that they can adapt their prices and policies accordingly.

II. Cryptocurrency companies engage in hedging activity that undermines the purpose of demand response programs and significantly increases customer bills.

To reduce the need for the construction of new generation and to address uncertainty around peak demand, utilities and grid operators design and implement demand response programs. Rather than build more resources, these programs pay large-scale users of electricity (or aggregators of residential or smaller commercial users) to reduce usage at periods of peak demand. For example, ERCOT "offers Demand Response programs that permit customers to voluntarily participate in Demand Response Services and Emergency Response Services by reducing or modifying their use of electricity. Participants earn money by committing to reducing their energy usage by a certain capacity during a quarterly period and then temporarily reducing their electricity use during times of peak demand." *Viridity Energy Sols., Inc. v. Lone Star Demand Response, LLC*, No. 4:21-CV-419-SDJ, 2022 WL 4004785, at *1 (E.D. Tex. July 12, 2022).

Demand response is thus a resource for ERCOT and other grid operators throughout the country to deal with periods of insufficient generation to meet demand. Demand response programs have both short-term and long-term benefits. In the short term, having the ability to shut off certain customers who have agreed to be shut off in advance helps to avoid blackouts affecting critical resources or ordinary individuals in emergency conditions. In the longer term,

because grid operators and utilities require or are required to construct sufficient generation to meet periods of peak load, securing a promise from certain large-scale customers to cut power during extreme periods allows utilities and grid operators to build less generation, because less is required during peaks. These programs help reduce retail prices and enhance grid reliability; as FERC has found, "enabling demand-side resources, as well as supply-side resources, improves the economic operation of electric power markets by aligning prices more closely with the value customers place on electric power." *Wholesale Competition in Regions with Organized Elec. Markets*, 125 FERC ¶ 61,071, 61,401 (2008) (FERC Order 719 at ¶ 16).

To maximally enhance reliability, balance supply and demand, and minimize customer cost of new generation, demand response programs, including interruptible retail rate tariffs, must incorporate accurate price signals. The more information utilities have about the size, location, and price-sensitivity of large electrical loads on their system, the better able they are to determine the appropriate price to pay for the right to shut off electricity to customers during peak periods. *See* Ex. C (Fisher Decl.) ¶¶ 8, 43.

A. During periods of especially high energy prices, cryptocurrency facilities become energy resellers.

In the absence of accurate information about the location, usage, and ramping ability of cryptocurrency mining operations, some mining companies have used demand response programs to engage in electricity price hedging, at significant cost to customers. For example, under the current ERCOT tariff, according to Riot SEC filings, Riot may participate in these programs "by offering their electrical loads into the ERCOT markets, or indirectly by reducing their energy usage in response to increasing power demand in the ERCOT marketplace." Ex. E (Riot Platforms, Inc. 10-Q for quarter ending September 30, 2023) at 9-10. As a result, "[f]or

each respective Demand Response Services Program, the Company receives a cash payment based on hourly rates for power, and the amount of electrical load into which it bids." *Id.* at 10.

According to its November 2023 10-Q filing, Riot procures 345 MW in long-term, fixed-price power.[2] Riot receives income from ERCOT demand response programs in two ways: (1) reselling this electricity to other users during peak period *and* (2) agreeing to curtail its usage during peak periods if requested, whether or not it is actually required to do so. *Id*. at 10. Again according to Riot's own SEC filing, during 2022, Riot received $27.3 million in credits against future power costs; during 2023 it received $71.2 million. Ex.4 at 36-37. This translates into close to $100 million in free electricity for Riot. Thanks to these "strategic curtail[ments]," Riot reported that "[f]or the three months ended September 30, 2023, the net costs" of mining Bitcoin "were negative due to power curtailment credits exceeding costs of revenue." Ex. E at 26. In other words, according to its November 10-Q filing, Riot *was paid to use electricity* during the third quarter of September 2023.

Although it does not classify the demand response programs and corresponding settlements as trading activities or proceeds, Riot has effectively become an electricity trader akin to Enron: purchasing long-term power contracts for the equivalent of a small gas power plant (345 MW), then deciding whether to use the corresponding electricity to generate Bitcoin or resell depending on the relative price of the cryptocurrency or energy. Nor is this hedging activity incidental to its mining operations. Riot has stated, "We believe our ability to offer power back to the grid at market-driven spot prices, thereby reducing our operating costs, is

[2] Notably, to the extent Riot (or any other cryptocurrency miner) obtains electricity at spot prices, the miners have an economic incentive to cease mining at points when electricity prices are high enough that they will pay more to generate a Bitcoin than the Bitcoin is currently worth. Thus, it is important for utilities and grid operators to understand how much of a mining operation's electricity is secured through fixed-price contracts to anticipate economic behavior and thus the need for additional demand response incentives to take advantage of cryptocurrency's putative flexibility as a load.

integral to our overall strategy . . . .” Ex. D at 39. Further, “The Company’s power strategy combines participation in Demand Response Services Programs and sales of power during times of peak demand, to attempt to manage operating costs most efficiently.” *Id.* at F-28.

Without access to basic information about mining facilities’ electrical capabilities and price sensitivity of its mining activities, regulators lack the ability to prevent facilities from using this hedging to engage in price manipulation in, for example, transmission-constrained electricity markets. Because cryptocurrency facilities, as exemplified by Riot, will switch between mining and energy resale based on the relative price of electricity and Bitcoin, it is crucial that grid operators and utilities understand how much revenue a mining operation can generate through the use of electricity for *mining*. This understanding will enable grid operators to anticipate this switching behavior and appropriately price programs, such as ERCOT’s demand response program, that compensate miners for this flexibility. The information requested in EIA Form 862 will enable grid operators and regulators to understand what this breakeven point is and respond accordingly to prevent energy price manipulation, maximize reliability, and minimize customer cost. *See* Ex. C (Fisher Decl.) ¶ 46.

B. The cost of these demand response payments from ERCOT is borne by all electricity customers in the state.

Both the costs of demand response programs and the cost of energy price spikes due to mismatched load forecasts and generation supply are ultimately paid by ordinary utility customers. When Riot receives a credit for curtailing its electricity during periods of peak demand, that means it does not pay for generation it consumes in the future. The cost of generating that electricity is borne by the remaining electrical customers. If large loads do *not* participate in demand response, or are inconsistent or unpredictable in doing so (as ERCOT suggests has historically been the case), Ex. B (ERCOT PowerPoint) at 10, the total load on the

grid increases, more generation is required, and customers pay to build that generation. As then-Kentucky Attorney General Daniel Cameron pointed out in opposing a reduced rate for a cryptocurrency mine in that state, to effectively use demand response to reduce peak load and thus the need for new capacity utilities must accurately anticipate when peak load will occur and direct miners to curtail their usage during that window. Mistakes can be costly–in the order of tens of millions of dollars in new generation buildout cost.[3]

Another ERCOT strategy for ensuring sufficient capacity during periods of peak demand is raising the System Wide Offer Cap in hopes of inducing generators for whom it would otherwise be uneconomic to operate to come online. During Winter Storm Uri, ERCOT kept the cap at the then-maximum of $9,000/MWh for several days. Ex. A (Reed Decl.) ¶ 15. As a result, distribution utilities were left with enormous wholesale bills and debt, which they are now in the process of paying off through retail surcharges. *Id.* ¶ 20. Customers of the Pedernales Electric Cooperative, for example, will pay $160 million in storm-related debt as a result of Winter Storm Uri. *Id*. When cryptocurrency loads drive demand and thus prices higher, distribution utilities–the entities responsible for delivering electricity to homes and businesses–pay more for electricity and pass on those added costs to customers.

III. Without the basic information in EIA Form 862, customers may face blackouts or foot the bill for tens of millions of dollars in demand response charges.

As Winter Storm Uri illustrates, even a single period of extreme weather can result in hundreds of deaths and hundreds of millions of dollars in additional energy costs if the grid is unprepared to meet a surge in demand with a combination of planned curtailment and generation

[3] Post-Hearing Brief of the Attorney General and Kentucky Industrial Utility Customers, *Matter of Electronic Tariff Filing of Kentucky Power Company for Approval of a Special Contract with Ebon International, LLC*, Case No. 2022-0387 (Filed August 8, 2023) at 17-18, available at https://psc.ky.gov/pscecf/2022-00387/mkurtz%40bkllawfirm.com/08082023035800/KIUC-AG_Ebon_Brief_%28PUBLIC%29.pdf.

capacity. To prevent these public harms, utilities and grid operators must proactively develop contingency plans as well as identify any need for additional physical infrastructure. Cryptocurrency mining facilities, because of their energy needs, have a disproportionate impact on the electricity grid on a per-facility basis. As ERCOT has explained, "Large Load behavior can magnify the severity of grid events, increasing the negative impact to reliability." Ex. A (Reed Decl.) ¶ 28; Ex. B (ERCOT PowerPoint) at 8. Alarmingly, ERCOT has identified the unpredictability of large loads (again, a category that includes cryptocurrency facilities) as a "reliability risk," explaining that "Large Loads have exhibited inconsistent behavior during Resource scarcity events." Ex. A (Reed Decl.) ¶ 26; Ex. B (ERCOT PowerPoint) at 10. This is a threat to both keeping the lights on and keeping costs low for customers: "If ERCOT plans for expected Large Load response and the Load does not respond, it could drive the system into emergency conditions. If ERCOT plans for no response, it will increase customer costs unnecessarily when the Load does respond." *Id.*

Because of the magnitude of cryptocurrency facilities' impact and their current unpredictability, without the basic information provided by EIA Form 862 there is a serious risk that grid operators, including ERCOT, will make forecasting mistakes that result in load and capacity mismatch or pay tens of millions of dollars to cryptocurrency operators to avoid blackouts.

With this information, grid operators and utilities are able to adapt to the new load in a way that protects current electricity customers. These adaptations do not preclude the operation of cryptocurrency facilities, but ensure that miners use their flexibility for the benefit of all customers. For example, the Idaho Public Utilities Commission approved a Speculative High-Density Load tariff in June 2022 that requires customers with flexible loads over 20 MW to

negotiate an interruptible rate.[4] The Arkansas Public Service Commission approved a similar rate structure designed to ensure such large loads were interruptible in a manner that conformed with the way in which the relevant grid operator (called MISO) measured peak load. Fisher Decl. ¶¶ 18-19.

The information provided by EIA Form 862 is crucial for all actors in the grid system, state and federal, to have access to the same–and comparable–sets of information. Federal and state regulators and utilities quickly need to identify large loads that pose a challenge to grid reliability and determine the impact those loads have and are likely to have in the future. They need this information to determine how to best balance the need for interruptible service to avoid both blackouts and costly new construction (where possible), on the one hand, with, on the other, disincentivizing behavior that benefits miners at the expense of customers who depend on electricity for their homes and businesses and who are not large enough to drive prices. In particular, understanding facilities' hashrate and per-unit energy consumption is critical for forecasting the "breakeven price at which a cryptomining operation will curtail." This information is essential for forecasting whether emergency measures are likely to be necessary and how to appropriately price the demand response services cryptominers claim to provide. *See* Ex. C (Fisher Decl. ¶ 43). Moreover, understanding not only the specifics of a single locality but trends and commonalities across the country is urgently necessary to understand how best to keep the lights on for customers, at a low cost, before another season of severe winter weather with a much greater cryptocurrency load on the grid.

[4] *See* Order on Reconsideration, *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, Order No. 35550 (Idaho Pub. Util. Com'n. Oct. 5, 2022), *available at* https://puc.idaho.gov/Fileroom/PublicFiles/ELEC/IPC/IPCE2137/OrdNotc/20221005Reconsideration_Order_No_35550.pdf.

CONCLUSION

Given the significant and growing impact of cryptocurrency mining on the United States electrical grid, the rapidity with which new loads can come online, and the lack of information necessary to effectively manage those new loads, public harms are reasonably likely to occur if EIA is unable to obtain the requested information in time to plan for, and develop responses to, emergency conditions on the grid–such as extreme weather conditions and other unexpected events. Sierra Club urges the Court to consider these public harms in resolving this case.

Dated: February 27, 2024

Respectfully submitted,

/s/ *Casey Roberts*

Casey Roberts
Sierra Club
1536 Wynkoop Street, Ste 200
Denver, CO 80202
(303) 454-3355
casey.roberts@sierraclub.org

Kathryn Huddleston
Sierra Club
6406 N I-35, Ste 1805
Austin, TX 78752
kate.huddleston@sierraclub.org

Megan Wachspress
Sanjay Narayan
Sierra Club
2101 Webster St, Ste 1300
Oakland, CA 94612
(415) 977-5635
megan.wachspress@sierraclub.org
(415) 977-5769
sanjay.narayan@sierraclub.org