

## Minutes - Woodbury County Board of Adjustment Special Meeting – September 4, 2024

The Board of Adjustment meeting convened on the 4th of September 2024 at 6:00 PM in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse. The meeting was also made available for public access via teleconference.

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### Meeting Audio:

For specific content of this meeting, refer to the recorded video on the Woodbury County Board of Adjustment "Committee Page" on the Woodbury County website:

- County Website Link:
  - o [https://www.woodburycountyiowa.gov/committees/board\\_of\\_adjustment/](https://www.woodburycountyiowa.gov/committees/board_of_adjustment/)
- YouTube Direct Link:
  - o <https://www.youtube.com/watch?v=hge9GmQB2WA>
    - A YouTube generated "unofficial" transcript can be accessed on a PC:
      - Open YouTube by visiting the referenced website above.
      - Click the three dots (...More) below the video title.
      - Select "Show Transcript" from the menu to view the transcript.
        - o The transcript will appear on the right of the screen.

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BA Members Present:	Daniel Hair, Doyle Turner, Pam Clark, Tom Thiesen, Ashley Christensen
County Staff Present:	Dan Priestley, Dawn Norton
Public Present:	William Gary Wilcox, Venita Wilcox, Kathy Bernard, Larry Fixsel, Judy Fixsel, Ron Fixsel, Bruce Sadler, Shelly McCoy Sadler, Karen Heidman, Rex Rundquist, Maria Rundquist, Austin Wilcox, Braden Wilcox, Bob Fritzmeier, Heather Dixon, Heather Dixon, Braden Wilcox, Gayle Palmquist, Patricia Barth, Rosanne Plante, John Herrig, Tony Ashley, Jordan German, Madonna Nitzke, Tina Manker, Greg Manker, Deb Main, Eric Wissing, Alan McGaffin, Terry McGaffin, Jeremy Lane, Linda Waugh, Terry Waugh, Ty Roberson, Gabriel Diaz, Jared Barnes, Lexi McKee-Hemenway, Jan Olson, Kourtney Wilcox

### Call to Order

Chair Daniel Hair formally called the meeting to order at 6:02 PM.

### Public Comment on Matters Not on the Agenda

None

### Approval of Minutes

The August 5, 2024 minutes were approved. Motion by Christensen to approve; Second by Clark. Motion passed 5-0.

### Action Item: Public hearing – Consideration of a Conditional Use Permit Application: Data Processing Business on Parcel #884403400009.

Hair opened the public hearing; Priestley read item summary into record. The consideration of a Conditional Use Permit application from AUR Correctionville LLC (Applicant) and property owners Ashley Acres Family Limited Partnership who have filed for a Conditional Use Permit application "to place a demand response load resource next to the substation in conjunction with local electric utility to support grid resiliency" for the proposed use to operate a data processing business. The proposed site is on Parcel #884403400009 in T88N R44W (Wolf Creek Township) in Section 3 in the SE ¼ of the SE ¼. The property is located around 6.2 miles southeast of Merville and around 7.7 miles southwest of Correctionville. The property is located in the Agricultural Preservation (AP) Zoning District and is not

located in the floodplain. Owner(s)/Applicant(s): Ashley Acres Family Limited Partnership, 3356 170th St., Correctionville, IA 51016 (Owners) and AUR Correctionville LLC, 15988 230th St., Grundy Center, IA 50638.

The following submitted written comments to Planning & Zoning Staff to be entered into the record after meeting material was prepared: Tony Ashley, Jordan German, Dr. BA Huculak, Vicki Hulse, Alan Lucken, Jana Martens, Autin Mitchell, Jayme Huber, Carl Palmquist, David Hoferer, Erick Vera, Charles White. Applicant (AUR) also submitted additional information. Motion to receive into record by Christensen. Second by Thiesen. Carried 5-0. Copies of submissions are available at in the appendix.

Jeremy Lane from AUR discussed the proposed CUP application.

The following provided comment: David Hoferer, Shelly McCoy Sadler, Bob Fitzmeier, Bruce Sadler, Rosanne Plante, Lexi McKee-Hemenway, Gary Wilcox, Jordan German, Venita Wilcox, Gayle Palmquist, Heather Dixon, Tony Ashley, Tyler Roberson, Jan Olson, Greg Manker, Gabriel Diaz. JohnPaul Baric from AUR spoke via telephone.

Motion by Hair to receive material from Bob Fritzmeier. Second by Clark. Carried 5-0.

Motion by Hair to receive material from Lexi McKee-Hemenway. Second by Christensen. Carried 5-0.

Motion by Hair to receive material from Gary Wilcox. Second by Turner. Carried 5-0.

Motion by Turner to hear additional comments from the Sadler family. Second by Thiesen. Carried 5-0.

An article was received by the Sadler family and included in the appendix.

JohnPaul Baric from AUR spoke by phone regarding project and addressed questions previously asked.

JohnPaul, by phone, requested Jeremy Lane to add additional information into record. Motion by Clark. Second by Thiesen. Carried 5-0.

Motion to close public hearing by Christensen. Second by Thiesen. Carried 5-0.

Deliberation by Board members. Motion by Christensen to deny the application due to the application and testimony not clearly addressing the impact upon adjacent property, the character of the neighborhood and the public health, safety, and general welfare of the community. Second by Thiesen. Carried 5-0.

Hair stated applicant could file an appeal within 30 days of the Board's decision with the Woodbury County Planning and Zoning department.

**Information Item: Consideration of a Recommendation Contemplating Decommissioning Requirements As Part of a New Ordinance Regarding Carbon Pipelines. Summary:** The Woodbury County Board of Supervisors at their meeting on August 27, 2024 voted to direct the Planning and Zoning Director to work with Planning and Zoning, the Board of Adjustment, and Legal Counsel in order to make a recommendation contemplating decommissioning requirements as part of a new ordinance regarding carbon pipelines. Staff continues research and asks board members to investigate options.

**Information Item: Board Of Supervisors' Consideration of Changes to the Commercial Wind Energy Conversion Systems (C-WECS) Ordinance #56. Summary:** Following the Woodbury County Fair (2024), the Board of Supervisors (BoS) received a petition from the public to revisit the regulations contained within the C-WECS ordinance (Ordinance #56) on August 6, 2024. Subsequently, the Board

of Supervisors directed county staff to review the ordinance and to make recommendations for changes. This discussion item will include information about the process ahead for the BoS's review and consideration of potential changes. The C-WECS ordinance is a stand-alone ordinance that was originally approved under the home rule provisions of Iowa Code and is not part of the Zoning Ordinance. Staff exploring options. Board asked to provide input.

**Information Item: Planning Process for Nuclear Energy to be Considered for Addition To Woodbury County Zoning Ordinance. Summary:** The Woodbury County Board of Supervisors at their meeting on July 2, 2024 voted to direct the Zoning Commission to begin the process of exploring nuclear energy as a potential energy option in Woodbury County. This agenda item is an update about the process. Staff researching information.

**No Public Comments on matters not on the agenda.**

**Staff Update:** Staff will continue gathering information on information items. There will be upcoming meetings discussing these issues. Public input is encouraged. Informational meetings will keep harvest in mind when scheduling meetings.

**No Board Member Comment or Inquiry**

**Motion To Adjourn**

Christiansen motioned. Second by Clark. Carried 5-0. Meeting adjourned at 8:44 PM

# APPENDIX – RECEIVED MATERIALS

**Daniel Priestley**

**From:** Tony Ashley <farmertony44@yahoo.com>  
**Sent:** Wednesday, September 4, 2024 12:45 PM  
**To:** Daniel Priestley  
**Subject:** Data center

**CAUTION:** This email originated from OUTSIDE of the organization. Please verify the sender and use caution if the message contains any attachments, links, or requests for information as this person may NOT be who they claim. If you are asked for your username and password, please call WCICC and DO NOT ENTER any data.

Everyone except those who hate traditional energy or just do not like Bitcoin have two simple questions. Is there a solid plan and will there be too much noise. If these two boxes are checked everyone except the haters of traditional energy and/or Bitcoin say the same thing to me. That this is a win/win.

I also had these two concerns. My family has more at risk by far than anyone else. Almost everyone who lives within 1/2 mile of this project is in my family. This includes 5 school aged children and my mother who is in her 80s. Ten of us in total.

This company got around 10 pages of questions from the board of adjustment where they gave comprehensive answers to solidify their plans to fulfill the qualifications for the conditional use permit. There are detailed plans explaining how things will work from set up to decommissioning. This company has a solid track record in Iowa and right here in Woodbury County where their facility that is years in operation and got easy approval by the board of adjustment has received zero complaints or violations.

This company is putting a much more expensive system in for this project than there is in the current system already operating in Woodbury County that has zero violations. That system is air cooled while the one for this project is a water cooled loop system. You can see from the packet that the noise tests are well below any noise concern parameters. Houses within 1/2 mile of this project which are mostly my families should not hear noise above normal according to these readings.

This facility will provide much needed revenue to the Woodbury County REC which should allow them to mitigate the large energy price increases many are experiencing. This helps the pocket book of all in Woodbury County using the REC. This project will provide property tax revenue to Woodbury County along with income tax to the state estimated to be over 70 thousand dollars per year. Two new good paying tech jobs will also be created here locally. A nice win/win.

Tony Ashley  
 General Partner Ashley Acres  
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**Daniel Priestley**

**From:** Jordan German <germjord@gmail.com>  
**Sent:** Tuesday, September 3, 2024 4:46 PM  
**To:** Daniel Priestley  
**Subject:** Data Processing Proposal - Yes Vote

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To the Board of Adjustment,

I am writing to you to encourage a yes vote on this data processing proposal. It is important to support businesses that hire local workers, increase reliability of power, and can lower overall power costs for consumers.

Thank you for your careful consideration of this.

Regards,  
 Jordan German

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**Daniel Priestley**

**From:** Woodbury County Website <no\_reply@woodburycountyiowa.gov>  
**Sent:** Friday, August 30, 2024 2:26 PM  
**To:** Daniel Priestley  
**Subject:** Email from the Woodbury County Website

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**Email from the Woodbury County Website**

**Name:** Dr BA Huculak  
**Email:** kilchickl@yahoo.com

**Comments:**  
 Bitcoin, the most popular cryptocurrency, has concerning impacts on climate, water, and land. Bitcoin price and energy use for Bitcoin mining are highly correlated. A 400% increase in Bitcoin's price from 2021 to 2022 triggered a 140% increase in the energy consumption of the worldwide Bitcoin mining network. Oct 24, 2023 The noise pollution from Bitcoin mining can pose significant health risks to nearby communities. The constant hum and roar of the high-powered computers running day and night are being linked to sleep disturbances, increased stress levels, and other health problems.

<https://time.com/5982015/bitcoin-mining-texas-health/>

<https://www.texastribune.org/2024/07/10/texas-bitcoin-mine-noise-power-grid-cryptocurrency/>

<https://www.nbcdfw.com/news/local/noise-pollution-from-bitcoin-farm-in-hood-county-causing-health-concerns-for-neighbors/3456364/?amp=1>

Residents report ailments like migraines, hypertension, and vertigo since the Bitcoin mine started operating. The mine's noise levels regularly exceed legal limits, causing sleep disturbances and stress. Marathon Digital Holdings, the mine's owner, plans to reduce noise by transitioning to quieter cooling systems.  
<https://www.sciencedirect.com/science/article/abs/pii/S0013935124007023>

The deleterious impact far outweighs the economic benefits. Say No.

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**Daniel Priestley**

**From:** Vicki <brumer56@hotmail.com>  
**Sent:** Wednesday, September 4, 2024 1:06 PM  
**To:** Daniel Priestley  
**Subject:** Bit coin mine

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Here are my thoughts on the subject of the bitcoin farming that will be discussed tonight at the board of adjustment meeting. I am unable to attend, so I hope this counts as my opinion and vote. It would use huge amounts of energy that I am not in favor of. Also the noise is the second big issue. Please deny the bitcoin farm.

Vicki Hulse Woodbury County.  
 Sent from my iPhone

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**Daniel Priestley**

**From:** alan lucken <[alan.lucken@gmail.com](mailto:alan.lucken@gmail.com)>  
**Sent:** Tuesday, September 3, 2024 11:13 AM  
**To:** Daniel Priestley  
**Subject:** Crypto mining proposal

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To the board of adjustment, I am writing to you to encourage a no vote on this crypto proposal. My background has been the Plymouth County Zoning Administrator (recently retired) and 28 years in the electric utility business as I served many years as Board President for Nipeco which is a transmission cooperative in Northwest Iowa who many of you may be familiar with. From a supply point of view, the generation of electricity is in a rather precarious situation as the supply is very tight and the demand is growing at an alarming rate with all the data centers and data centers for artificial intelligence being proposed. Also the charging stations for the increase in electric vehicles will be substantial. Consequently the nation simply does not have the generation and transmission capability for all this growth. These crypto miners provide absolutely no benefit to society other than make profits for the owner. Their main operating expense is for the electricity that runs the servers and the air conditioning to keep them cool. Naturally they try go where the electric rates are the lowest. This increase in demand will drive up our rates without benefiting our society so I am encouraging you to vote no on this proposal. Alan Lucken

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**Daniel Priestley**

**From:** Jana <[janamartens55@gmail.com](mailto:janamartens55@gmail.com)>  
**Sent:** Wednesday, September 4, 2024 8:00 AM  
**To:** Daniel Priestley  
**Subject:** Bitcoin mine

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I'm unable to make the meeting tonight so I would like to give my thoughts. After researching this, many are using geo thermal energy. The massive energy it will use is a big no for me. Also I would not want to live by something that has a constant humming noise why would I wish that on my neighbors. The sound will travel differently with weather conditions in Iowa. I ask that you deny this request. Sincerely Jana martens- Woodbury County Sent from my iPhone

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**Daniel Priestley**

**From:** Austin Mitchell <[AMitchel@synata.io](mailto:AMitchel@synata.io)>  
**Sent:** Wednesday, September 4, 2024 1:25 AM  
**To:** Daniel Priestley  
**Subject:** Support for data processing facility in Woodbury County

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Dear Zoning Board,

I am writing to express my support for the application to develop a data processing site in the county. As someone with a PhD focused on the environmental, economic, and health impacts of energy development, and having worked for multiple energy companies, I understand the significance of projects like these for the future of our energy system. Currently, I serve as the CEO of a software company that helps energy companies manage customers like data processors more efficiently while reducing financial risk.

This proposed site would provide economic benefits to the community by increasing local tax and business revenue. More importantly, data processing facilities like this are flexible and responsive to electricity prices, making them essential for modernizing the electricity grid. They help stabilize the grid, support the integration of renewable resources, and inspire innovation in the energy sector.

By supporting this development, you are positioning your community to remain relevant in the evolving energy landscape and enabling future technological advancements that will benefit us all. I strongly urge the zoning commission to approve this application.

Thank you for your consideration.

Sincerely,

Austin Mitchell PhD  
Co-founder, CEO  
419.283.9858 [Mitchel@synata.io](mailto:Mitchel@synata.io)

**synAa**

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Daniel Priestley

From: Jayme Huber <jhuber@nipco.coop>
Sent: Friday, August 30, 2024 9:28 AM
To: Daniel Priestley
Subject: Response from NIPCO regarding Conditional Use Permit AUR Correctionville LLC (Applicant)
Attachments: Conditional Use Permit response from NIPCO 83024.pdf

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Attached is the conditional use permit letter NIPCO received on 8/16/2024 regarding the AUR Correctionville LLC (Applicant). I have highlighted the description of this facility in the first paragraph of this letter. NIPCO does not object to this conditional use permit but NIPCO objects to the title of the facility as highlighted. It should be edited to say instead the following:

\*to place a new bitcoin load using system capacity that will be interrupted during peak times.\*

Reasons:

- This load will not contribute to grid resiliency, in fact, it uses up available capacity from the system in this area.
They are not doing their own demand resource response but will be interrupted by the utility during peak times.

Please let me know if you have any follow up questions.

Regards

Jayme

Jayme Huber
V.P. Engineering & Operations
NIPCO
Northwest Iowa Power Cooperative
PO Box 240
31002 County Road C38
Le Mars, IA 51031
Lhuber@nipco.coop
Office - 712-546-3509
Cell - 319-457-0976
Receptionist - 712-546-4141



A Totchtstone Energy Cooperative Y&R

RECEIVED

AUG 19 2024

NIPCO
LE MARS, IA



WOODBURY COUNTY PLANNING & ZONING

620 Douglas Street, 8th Floor, Sioux City, Iowa 51101
712.279.6609 - 712.279.6530 Fax
Daniel J. Priestley, MPA - Zoning Coordinator
Dawn Horton - Senior Clerk

Northwest Iowa Power Cooperative
PO Box 240
Le Mars, IA 51031

DATE: August 16, 2024
TO: Property Owners Within 500 Feet
FROM: Daniel J. Priestley, MPA - Zoning Coordinator
RE: CONDITIONAL USE PERMIT REQUEST - Data Processing Business

This notice is to advise you that AUR Correctionville LLC (Applicant) and property owners Ashley Acres Family Limited Partnership have filed for a Conditional Use Permit application "to place a demand response load resource next to the substation in conjunction with local electric utility to support grid resiliency" for the proposed use to operate a data processing business. The proposed site is on Parcel #584403400009 in T88N R44W (Wolf Creek Township) in Section 5 in the SE 1/4 of the SE 1/4. The property is located around 6.2 miles southeast of Moviile and around 7.7 miles southwest of Correctionville. The property is located in the Agricultural Preservation (AP) Zoning District and is not located in the floodplain. Owner(s)/Applicant(s): Ashley Acres Family Limited Partnership, 3356 170th St., Correctionville, IA 51016 (Owners) and AUR Correctionville LLC, 18968 230th St., Grundy Center, IA 50638

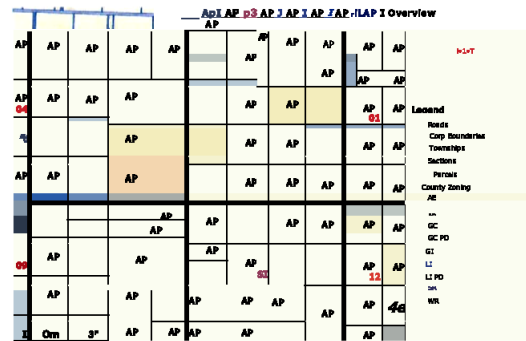
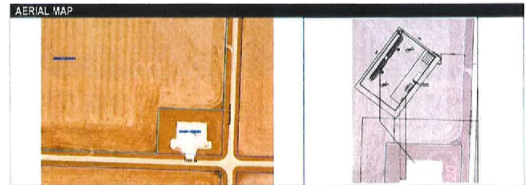
To learn more about this conditional use permit request and how it may affect you and the character of your neighborhood, you may call the Woodbury County Community and Economic Development (Planning and Zoning) office at 712-279-6609, attend the Board of Adjustment public hearing, and/or send in written comment.

The Woodbury County Board of Adjustment public hearing will be held on Wednesday, September 4, 2024 during their special meeting which begins at 6:30 PM in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, Iowa. Please enter through the 7th Street entrance. Security procedures are in place when entering the building. Persons wanting to participate in

the public hearing may attend in person or call: 712-454-1133 and enter the Conference ID: 729 498 3538 during the meeting to listen or comment. It is recommended to attend in person as there is the possibility for technical difficulties with phone and computer systems.

You may forward your written comments by mail or email to: Woodbury County Community and Economic Development, 8th Floor, Woodbury County Courthouse, 620 Douglas St., Sioux City, IA 51101; Email should be sent to Dan Priestley at: d.priestley@woodburycountyia.gov. Only signed comments will be considered and should be received no later than 10:00 AM on Wednesday, September 4, 2024.

If you have questions, please call the Woodbury County Community and Economic Development (Planning and Zoning) office at 712-279-6609. If you wish to be heard regarding this item, please attend the meetings and/or forward written comment.



Parcel ID: 0940204-09
Sub/Twp/Rng: 0300 44
Property Address: 0096
Brief Tax Description: WOLF CREEK TOWNSHIP C 1.2 OF SE 1.4 OF 3 88 44 1/4 TCT IN SW COR OF E OF SE 1/4 BEING 300 FT BY 200 FT AND (8) AN UNDIV TCT DESCRIBED AS COR AT NE COR OF E 1/4 OF SE 1/4 T88N R44W 39 FT TO POB-TI SEC 5 779 89 FT-TI SEC 6W 883 29 FT-TI SEC 6W 314 816 FT-TI SEC

20240816 7 8 2024
Last: 2024/08/16 14:26:13.119

1904C 003, 3 44333

**Daniel Priestley**

**From:** Cari Palmquist <castviewfarm@gmail.com>  
**Sent:** Wednesday, September 4, 2024 1:13 PM  
**To:** matt@miningstore.com; Jeremy Taylor; Keith Radtke; Daniel Bringer; Mark Neisary; Daniel Priestley; Joshua Widman  
**Subject:** Inside the 'Nightmare' Health Crisis of a Texas Bitcoin Town

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A Bitcoin mine moved to a small town in Texas. One by one, the residents fell ill.

Source: TIME  
[https://search.ap\\_pixt.dfxxyhtypgkrrLau](https://search.ap_pixt.dfxxyhtypgkrrLau)

Sent from my iPhone

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- The conditional use will not adversely impact natural, scenic or historic features — There is no evidence that any meaningful assessment was conducted to determine if this requirement is met.
- The conditional use is necessary or desirable to provide a service in the public interest or will contribute to the general welfare — The only issue addressed by the planning and zoning commission was an alleged increase in the tax base. But the ordinance clearly envisions a broader consideration than just the tax base.
- All possible efforts have been taken to minimize adverse impacts — The only issues noted by the planning and zoning commission are noise and security (fencing and lighting). There was no consideration of minimizing the impacts of the issues presented above.

As a general observation, it is apparent that the zoning administrator and the planning and zoning commission simply took all of AUR's representations at face value, without any questioning or further investigation. Consideration of a conditional use permit application requires more than that.

On behalf of Iowa Chapter Sierra Club, and the Northwest Iowa Group of Sierra Club, we request that you please turn down the conditional use request.

David Hofer

Executive Committee Co-Chair

Northwest Iowa Group of Sierra Club

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**Daniel Priestley**

**From:** Northwest Iowa Group of Sierra Club <nwiasterragroup@gmail.com>  
**Sent:** Wednesday, September 4, 2024 11:24 AM  
**To:** Daniel Priestley  
**Cc:** David Hoferer  
**Subject:** Per proposed data mining center proposal

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Dear Mr Priestley,

Thank you in advance for reading this letter per the proposed data mining center proposal.

AUR Corcoranville has filed for a conditional use permit to construct a data mining center for cryptocurrency. AUR refers to this facility as a "demand response load resource" to operate a data processing business. This is an attempt by AUR to give a benign description to a facility that actually has a significant adverse impact.

Cryptocurrency data mining centers use an extraordinary amount of energy. AUR claims that the electricity for the facility will come from local rural electric cooperatives. Are the REC's capable of providing the required electricity and still service its regular customers? Will the additional load on the REC's result in higher utility costs for customers? If the REC's need to obtain extra electricity from other sources, will the additional power come from renewable sources?

In order to obtain a conditional use permit, an applicant must satisfy the requirements of the county's zoning ordinance for a conditional use. This project does not satisfy those requirements.

First, the zoning administrator and the planning and zoning commission admit that a data mining center does not come within the description of any use listed as a conditional use in an agricultural district. So AUR and the planning and zoning commission created a false equivalent of claiming the data center is a research and development laboratory. That borders on the absurd. A research and development laboratory does not require the massive amount of energy required by a data center. Nor is there any other valid comparison between a research laboratory and a data center. The law does not allow this sort of manipulation of the conditional use ordinance. The purpose of a conditional use ordinance is to specify certain uses that can be compatible with the existing zoning district.

Second, the proposed data center does not comply with the requirements for a conditional use permit. The ordinance lists 6 requirements and 2 limitations.

- The conditional use is authorized in the zoning district — As noted above, a data center is not authorized in an agricultural district.
- The conditional use is compatible with the zoning ordinance and the general plan — Zoning staff contend that the project will encourage diversification of the county's economy. But there is no evidence that the project will benefit the economy. AUR admits that the data center will only employ two people. While the project may increase the tax base, the Board must also consider the costs and adverse impacts. There is no indication that the planning and zoning commission did that.
- The conditional use will not substantially or unduly impact adjacent property and other attributes of the surrounding property or the general welfare — AUR makes an inconsistent claim that on one hand it will somehow provide a benefit by using excess power from the REC substation, and on the other hand, can somehow provide excess power back to the community. How is it a benefit to use excess power? Does the REC actually produce excess power? Why not put any excess power back on the grid to benefit the public? If the data center is using power, how can it have excess power to provide back to the community? The Board must do its due diligence and obtain answers to these questions.
- The conditional use will be compatible with the surrounding neighborhood — The only point that the planning and zoning commission addressed was the noise. A much broader consideration is required.
- Public services will adequately serve the conditional use — There is no showing that the REC can adequately provide the massive amount of power required for a data center. That issue must be investigated before any decision on a conditional use permit.

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**Daniel Priestley**

**From:** Erick Vera <erick@luxor.tech>  
**Sent:** Tuesday, September 3, 2024 10:56 PM  
**To:** Daniel Priestley  
**Cc:** jd@mminingstore.com; Ethan Vera  
**Subject:** Support for Bitcoin Mining in Woodbury County

**CAUTION:** This email originated from OUTSIDE of the organization. Please verify the sender and use caution if the message contains any attachments, links, or requests for information as this person may NOT be who they claim. If you are asked for your username and password, please call WCICC and DO NOT ENTER any data.

Dear Woodbury County Representatives, I hope you all are well. We are writing to express our support on behalf of MiningStore for the potential Bitcoin mining operations in Woodbury County. As a leading Bitcoin mining company in the US, we have seen how it has impacted communities positively as per the following: **Job Creation:** Bitcoin mining can create diverse employment opportunities, from IT specialists to operational roles, engineers and logistics as security staff. This would not only increase employment rates but also stimulate local economic growth with good paying jobs. **Increased Tax Revenue:** The infrastructure required for mining operations would increase income and other taxes, providing new revenue streams that can be reinvested into public services and infrastructure improvements. **Grid Stability:** Bitcoin mining can enhance your electric grid by consuming excess energy during low demand periods and reducing usage during peak times. This flexibility supports grid stability and the integration of renewable energy sources without major footprint to the current landscape. All major grids are looking at using Bitcoin mining as a way to improve their stability. **Positioning Iowa as a Tech Hub:** Embracing Bitcoin mining can position Woodbury County as a leader in blockchain technology, attracting more tech companies and setting Iowa on the map as a technology and energy hub. In summary, Bitcoin mining offers a unique opportunity to boost your economy, stabilize the energy grid, and elevate your region's technological profile. We fully support and trust MiningStore efforts to bring this industry to Woodbury County. Best regards, Erick Vera Business Development Lead, Luxor Technology erick@luxor.tech

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**Daniel Priestley**

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**From:** Charles White <[cwhite2001@gmail.com](mailto:cwhite2001@gmail.com)>  
**Sent:** Tuesday, September 3, 2024 4:54 PM  
**To:** Daniel Priestley  
**Subject:** BRcoin/data center

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Hello, I am writing to support the proposed new data center for the county of Woodberry. It should bring in lots of money developing the site and instead of supporting an old outdated infrastructure, we are modernizing it with a purpose. I understand it will also bring a few full-time jobs, and I'm sure there will be some tax revenue to the county and state, from the jobs and the electricity used. These are also tech jobs this area badly needs to keep the higher-paying jobs locally and provide positions to our younger people with degrees so they aren't moving to larger cities. Thank you for taking the time to read this.

Sincerely,

Charles White



• All possible efforts have been taken to minimize adverse impacts. The only issues noted by the planning and zoning commission are noise and security (fencing and lighting). There was no consideration of minimizing the impacts of the issues presented above.

As a general observation, it is apparent that the zoning administrator and the planning and zoning commission simply took all of AUR's representations at face value, without any questioning or further investigation. Consideration of a conditional use permit application requires more than that.

On behalf of Iowa Chapter Sierra Club, and the Northwest Iowa Group of Sierra Club, we request that you please turn down the conditional use request.

David Hester  
Executive Committee Co-Chair  
Northwest Iowa Group of Sierra Club

### Subject: Per proposed data mining center proposal

Dear Board of Adjustment Committee members,

Thank you in advance for reading this letter per the proposed data mining center proposal.

AUR Correctionville has filed for a conditional use permit to construct a data mining center for cryptocurrency. AUR refers to this facility as a "demand response load resource" to operate a data processing business. That is an attempt by AUR to give a benign description to a facility that actually has a significant adverse impact.

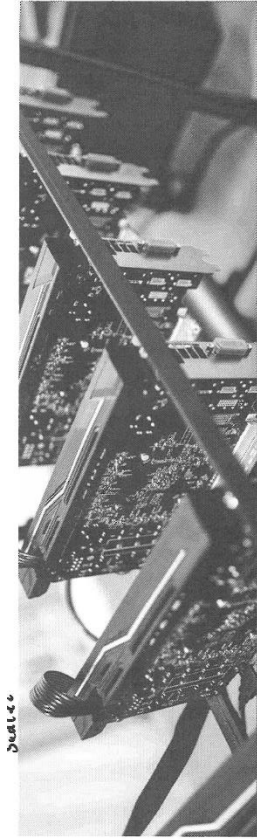
Cryptocurrency data mining centers use an extraordinary amount of energy. AUR claims that the electricity for the facility will come from local rural electric cooperatives. Are the RECs capable of providing the required electricity and still service its regular customers? Will the additional load on the RECs result in higher utility costs for customers? If the RECs need to obtain extra electricity from other sources, will the additional power come from renewable sources?

In order to obtain a conditional use permit, an applicant must satisfy the requirements of the county's zoning ordinance for a conditional use. This project does not satisfy those requirements.

First, the zoning administrator and the planning and zoning commission admit that a data mining center does not come within the description of any use listed as a conditional use in an agricultural district. So AUR and the planning and zoning commission created a false equivalent of claiming the data center is a research and development laboratory. That borders on the absurd. A research and development laboratory does not require the massive amount of energy required by a data center. Nor is there any other valid comparison between a research laboratory and a data center. The law does not allow this sort of manipulation of the conditional use ordinance. The purpose of a conditional use ordinance is to specify certain uses that can be compatible with the existing zoning district.

Second, the proposed data center does not comply with the requirements for a conditional use permit. The ordinance lists 6 requirements and 2 limitations.

- The conditional use is authorized in the zoning district – As noted above, a data center is not authorized in an agricultural district.
- The conditional use is compatible with the zoning ordinance and the general plan – Zoning staff contend that the project will encourage diversification of the county's economy. But there is no evidence that the project will benefit the economy. AUR admits that the data center will only employ two people. While the project may increase the tax base, the Board must also consider the costs and adverse impacts. There is no indication that the planning and zoning commission did that.
- The conditional use will not substantially or unduly impact adjacent property and other attributes of the surrounding property or the general welfare – AUR makes an inconsistent claim that on one hand it will somehow provide a benefit by using excess power from the REC substation, and on the other hand, can somehow provide excess power back to the community. How is it a benefit to use excess power? Does the REC actually produce excess power? Why not put any excess power back on the grid to benefit the public? If the data center is using power, how can it have excess power to provide back to the community? The Board must do its due diligence and obtain answers to these questions.
- The conditional use will be compatible with the surrounding neighborhood – The only point that the planning and zoning commission addressed was the noise. A much broader consideration is required.
- Public services will adequately serve the conditional use – There is no showing that the REC can adequately provide the massive amount of power required for a data center. That issue must be investigated before any decision on a conditional use permit.
- The conditional use will not adversely impact natural, scenic or historic features – There is no evidence that any meaningful assessment was conducted to determine if this requirement is met.
- The conditional use is necessary or desirable to provide a service in the public interest or will contribute to the general welfare – The only issue addressed by the planning and zoning commission was an alleged increase in the tax base. But the ordinance clearly envisions a broader consideration than just the tax base.



Iowa Environmental Council

# CRYPTOCURRENCY MINING - FINANCIAL & ENVIRONMENTAL RISKS TO IOWANS

August 2024

Cryptocurrency, such as Bitcoin, is a complex technological development that has some people chasing short-term profits. Proponents make big claims about the value and potential of this technology as an alternative to traditional money and finance. However, current processes for creating cryptocurrency are wasteful, can create a nuisance for their neighbors, and can drive up bills for other ratepayers.

### What is a Cryptocurrency mine?

The creation of new cryptocurrency is a complicated computing process referred to as *mining*. Bitcoin, like other cryptocurrencies, exists only on a digital network that is distributed across millions of computers around the world. This network (called the *blockchain*) generates new Bitcoin through a competitive program that requires users to solve a complex equation by racing their computer systems against others on the network. The first user to solve the equation receives new Bitcoin. This process repeats over and over again, 24 hours a day. This competition is winner-take-all for each Bitcoin and requires a fast, powerful system of computers to compete. This fast, powerful computer system is called a *cryptocurrency mine*, and these mines consume massive amounts of electricity and water, while generating considerable electronic waste.

### Cryptocurrency and noise pollution

Keeping the computers in a crypto mine temperature-controlled requires powerful air conditioning, and that means noise. The roar of fans in cooling systems can reach 95 decibels, as loud as standing next to a revving motorcycle, and the noise runs all day and night.<sup>1</sup> Noise complaints from residents has been a major factor in multiple rejections of new crypto mines throughout Iowa, including proposed operations in Black Hawk County and Grundy County.<sup>2</sup>

<sup>1</sup> This noise is often as loud as a jet engine. <https://www.fox31.com/news/2022/08/10/neighbors-complain-noise-from-crypto-mining-facility/>

<sup>2</sup> See our report on the proposed crypto mine in Grundy County, Iowa. <https://www.fox31.com/news/2022/08/10/neighbors-complain-noise-from-crypto-mining-facility/>

# CRYPTOCURRENCY MINING - FINANCIAL & ENVIRONMENTAL RISKS TO IOWANS

### How much electricity does crypto mining use?

According to the Energy Information Administration, cryptocurrency consumes over 2% of U.S. electricity; US Bitcoin production alone consumes roughly the same amount of energy as Utah.<sup>3</sup> Globally, crypto mining uses, conservatively, 204.5 TWh of electricity, as much energy as Greece or Australia, with a carbon footprint (1088.94 kgCO<sub>2</sub>) of the oil nation Kuwait.<sup>4</sup> Crypto activity in the United States is estimated to result in CO<sub>2</sub> emissions similar to those from diesel fuel used in railroads in the United States. A crypto mine in Grundy Center, Iowa uses as much electricity as 4,900 homes, more electricity than all the residential customers in Grundy Center, population 2,800, combined.<sup>5</sup>

Expansion of electric generation to allow for crypto mining will lead to higher rates for all customers as the cost of expansion is eventually rolled up into the rates we all pay. If the crypto mines are in MidAmerican or Alliant service territory, the mines can also benefit from demand-response programs that pay them to be willing to interrupt their electricity service during peak energy use hours, whether they actually ever shut down or not.<sup>6</sup>

### How much water does crypto mining use?

A massive amount of water is needed to cool the computer rigs that process and maintain the Bitcoin blockchain and to cool the fossil fuel power plants that supply the crypto mines power; as a result, the global water footprint is 16,279 liters per transaction as of 2020.<sup>7</sup> That's equivalent to flushing over 4,300 toilets for each and every transaction. The total water footprint of US Bitcoin miners is approximate to the average annual water consumption of 300,000 US households, comparable to a city like Washington, DC.<sup>7</sup>

### How much electronic waste does crypto mining create?

Discarded computers, circuit boards, cables, and other electronic waste from crypto mining contributes to electronic waste. Without standards and enforcement of proper disposal methods, electronic waste can cause air and water pollution, expose workers to toxic substances, and damage public health. Lead and mercury are the most common toxic elements in electronic waste.<sup>8</sup> In June 2022, Bitcoin mining activity produced electronic waste at an estimated rate of 35,000 tons per year, equivalent to the annual electronic waste of the Netherlands.<sup>9</sup> A phenomenon driving all this waste is the pace of innovation in mining ASICs, or application-specific integrated circuits, the dedicated computer units for crypto mining. Improvements in technology can double computer processing speeds of new ASICs every eighteen months, requiring constant upgrading to remain competitive.<sup>10</sup>

<sup>3</sup> Energy Emissions and the Energy Intensity of Cryptocurrency Mining. <https://www.eia.gov/analysis/studies/crypto/cryptocurrency-emissions-and-energy-intensity-of-cryptocurrency-mining.php>

<sup>4</sup> Global Cryptocurrency Mining Carbon Footprint. <https://www.ourworldindata.org/global-cryptocurrency-mining-carbon-footprint>

<sup>5</sup> The Carbon Footprint of Cryptocurrency Mining. <https://www.ourworldindata.org/cryptocurrency-mining-carbon-footprint>

<sup>6</sup> The Carbon Footprint of Cryptocurrency Mining. <https://www.ourworldindata.org/cryptocurrency-mining-carbon-footprint>

<sup>7</sup> The Carbon Footprint of Cryptocurrency Mining. <https://www.ourworldindata.org/cryptocurrency-mining-carbon-footprint>

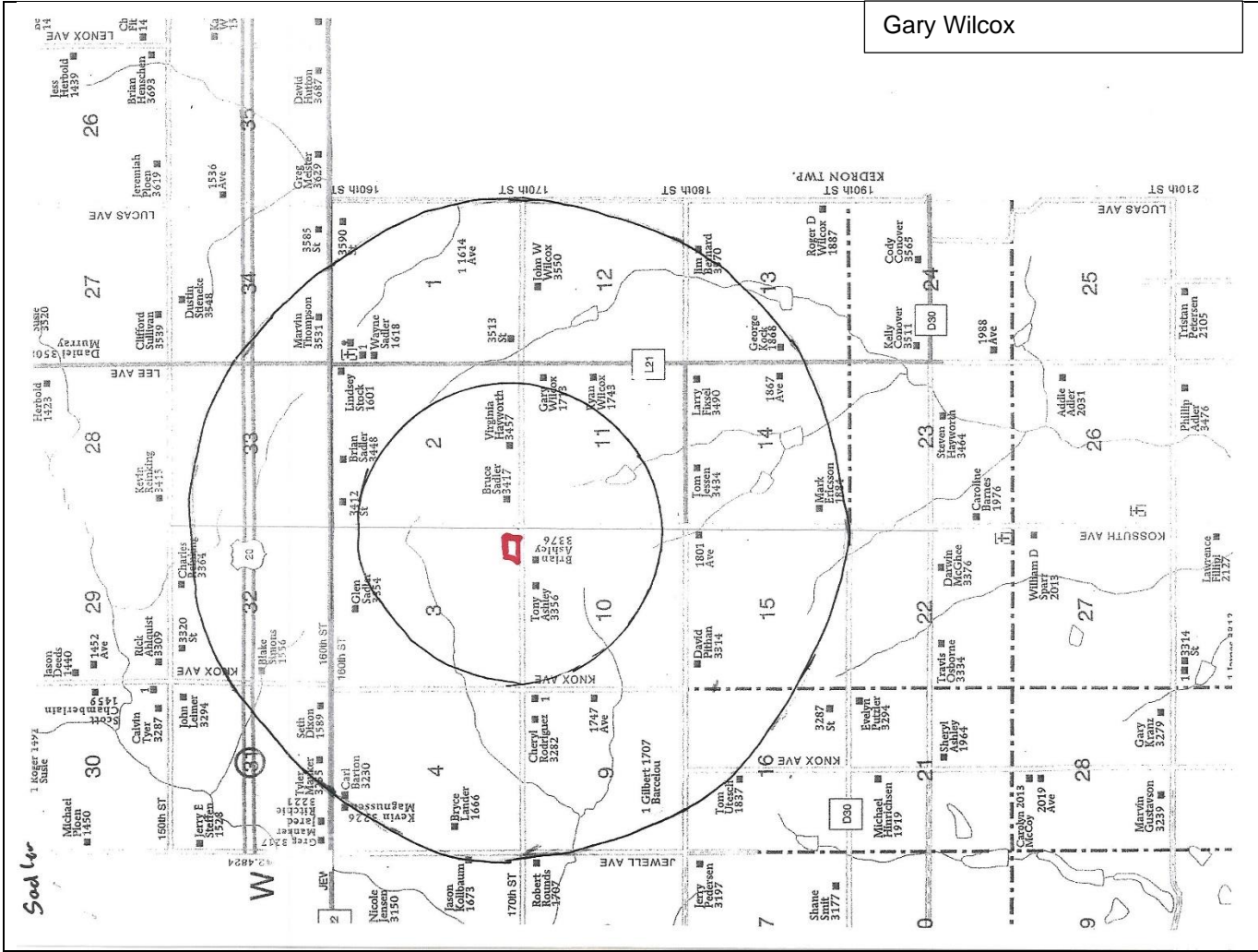
<sup>8</sup> The Carbon Footprint of Cryptocurrency Mining. <https://www.ourworldindata.org/cryptocurrency-mining-carbon-footprint>

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<sup>10</sup> The Carbon Footprint of Cryptocurrency Mining. <https://www.ourworldindata.org/cryptocurrency-mining-carbon-footprint>

Lexi McKee-Hemenway

Gary Wilcox



*Time Magazine*

22 MINUTE READ

UPDATED: JULY 16, 2024 12:27 PM EDT | ORIGINALLY PUBLISHED: JULY 8, 2024 12:00 PM EDT

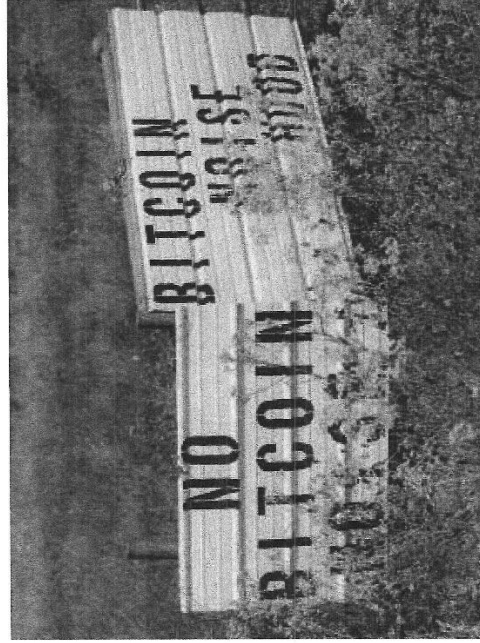
**O**n an evening in December 2023, 43-year-old small business owner Sarah Rosenkranz collapsed in her home in Granbury, Texas and was rushed to the emergency room. Her heart pounded 200 beats per minute; her blood pressure spiked into hypertensive crisis; her skull throbbed. “It felt like my head was in a pressure vise being crushed,” she says. “That pain was worse than childbirth.”

Rosenkranz’s migraine lasted for five days. Doctors gave her several rounds of IV medication and painkiller shots, but nothing seemed to knock down the pain, she says. This was odd, especially because local doctors were similarly vexed when Indigo, Rosenkranz’s 5-year-old daughter, was taken to urgent care earlier that year, screaming that she felt a “red beam behind her eardrums.”

It didn’t occur to Sarah that these symptoms could be linked. But in January 2024, she walked into a town hall in Granbury and found a room full of people worn thin from strange, debilitating illnesses. A mother said her 8-year-old daughter was losing her hearing and fluids were leaking from her ears. Several women said they experienced fainting spells, including while driving on the highway. Others said they were wracked by debilitating vertigo and nausea, waking up in the middle of the night mid-vomit.

None of them knew what, exactly, was causing these symptoms. But they all shared a singular grievance: a dull aural hum had crept into their lives, which grew louder or roared depending on the time of day, rattling their windows and rendering them unable to sleep. The hum, local law enforcement had learned, was emanating from a Bitcoin mining facility that had recently moved into the area—and was exceeding legal noise ordinances on a daily basis.

Over the course of several months in 2024, TIME spoke to more than 40 people in the Granbury area who reported a medical ailment that they believe is connected to the arrival of the Bitcoin mine: hypertension, heart palpitations, chest pain, vertigo, tinnitus, migraines, panic attacks. At least 10 people went to urgent care or the emergency room with these symptoms. The development of large-scale Bitcoin mines and data centers is quite new, and most of them are housed in extremely remote places. There have been no major medical studies on the impacts of living near one. But there is an increasing body of scientific studies linking prolonged exposure to noise pollution with cardiovascular damage. And one local doctor—ears, nose, and throat specialist Salim Bhaloo—says he sees patients with symptoms potentially stemming from the Bitcoin mine’s noise on an almost weekly basis.



Cheryl Shadden's homemade signs on her property across the street from the mine.

2

Bruce & Shelly Sadler

"I'm sure it increases their cortisol and sugar levels, so you're getting headaches, vertigo, and it snowballs from there," Bhaloo says. "This thing is definitely causing a tremendous amount of stress. Everyone is just miserable about it."

Not all data centers make noise. And industry insiders say they have a technical fix for the ones that do, which involves replacing their facilities' loud air fans with much quieter liquid-based cooling solutions. But some of their touted methods, including "immersion cooling" in oil, are expensive and untested on a large scale.

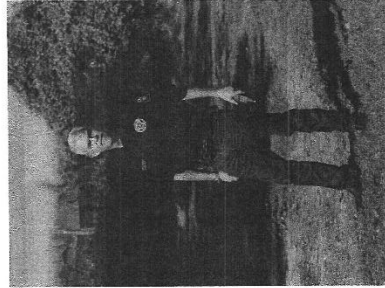
A representative for Marathon Digital Holdings, the company that owns the mine, did not answer questions about health impacts, but told TIME that it is working to remove the noisy fans from the site. "By the end of 2024, we intend to have replaced the majority of air-cooled containers with immersion cooling, with no expansion required. Initial sound readings on immersion containers indicate favorable results in sound reduction and compliance with all relevant state noise ordinances," they wrote in an email.

The number of commercial-scale Bitcoin mining operations in the U.S. has increased sharply over the last few years; there are now at least 137. Similar medical complaints have been registered near facilities in Arkansas and North Dakota. And the Bitcoin mining industry is urgently trying to push bills through state legislatures, including in Indiana and Missouri, which would exempt Bitcoin mines from local zoning or noise ordinances. In May, Oklahoma governor Kevin Stitt signed a "Bitcoin Rights" bill to protect miners and prevent any future attempts to ban the industry.

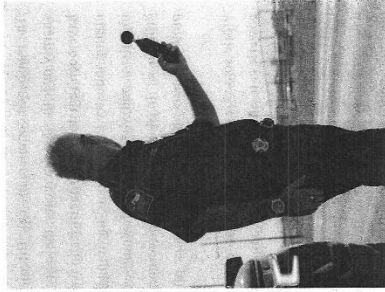
While some Granbury residents are fiercely protesting the mine, many others feel powerless to alter the will of a company with legal, political, and financial might. And the data center industry at large is only growing more dominant, thanks to the twin forces of Bitcoin mining and AI, the latter which spends a vast amount of energy training generative models to find patterns in data sets. According to a recent report, data centers will use 8% of total U.S. power by 2030, up from 3% in 2022. And if operators continue to locate the centers near existing communities and prioritize profits above all else, then the story of Granbury could become the story of countless small towns across America.

Granbury sits about an hour southwest of Fort Worth in Hood County, which houses a mostly rural and Republican population of about 65,000 people. About a 15-minute drive south of Granbury's charming historic town center—which includes a 19th-century opera house—lies a gas plant called Wolf Hollow II. Driving toward the plant on a windy, predawn morning in May, it rises out of the sky like an oil rig in a pitch-black ocean, lights ablaze.

But the glowing gas plant never caused substantial issues for the local residents. Rather, the problems started when Constellation Energy, which operated the plant, signed a deal in 2021 to power a new Bitcoin mining facility that would sit directly on its lot. The new facility consisted of 163 squat metal boxes resembling shipping containers, which housed a total of over 30,000 computers. These computers started running in the summer of 2022, and seemed to be switched on all day and night. As of December 2023, the Granbury mine is owned by Marathon, one of the largest Bitcoin holders in the world.



Constable John Shirley, a former Oath Keeper, has been focused on keeping the mine accountable.



Shirley takes sound readings near the Wolf Hollow data site on May 20, 2024.

The computers power a process called proof-of-work mining. Rather than relying on a central bank or governmental agency, Bitcoin is created, maintained, and guarded by

watchdogs around the world known as miners, who prevent tampering through a complex cryptographic process and are rewarded with bitcoin for doing so. Bitcoin's first supporters hoped that this new system would support a global digital currency that would bring freedom, financial fairness, and wealth to its adopters.

But the system also requires an immense and ever-increasing amount of electricity. While Bitcoin's first miners were solo operators often working out of their bedrooms, the industry is now dominated by a handful of billion-dollar corporations who operate industrial-size server farms across the globe. In the month of March 2024 alone, the Bitcoin mining industry generated a record \$2 billion in revenue.

Much of the American Bitcoin mining industry can now be found in Texas, home to giant power plants, lax regulation, and crypto-friendly politicians. In October 2021, Governor Greg Abbott hosted the lobbying group Texas Blockchain Council at the governor's mansion. The group insisted that their industry would help the state's overtaxed energy grid; that during energy crises, miners would be one of the few energy customers able to shut off upon request, provided that they were paid in exchange. After meeting with the lobbyists, Abbott tweeted that Texas would soon be the "#1 [state] for blockchain & cryptocurrency." The following month, the Commissioners Court of Hood County approved the development of a cryptocurrency operation at Wolf Hollow. The owners promised local jobs and said that they would mostly use "stranded energy" that would otherwise go unused.

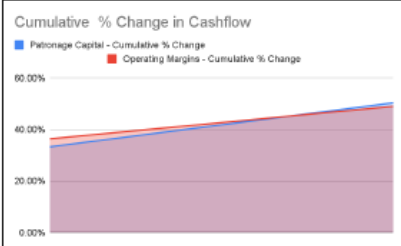
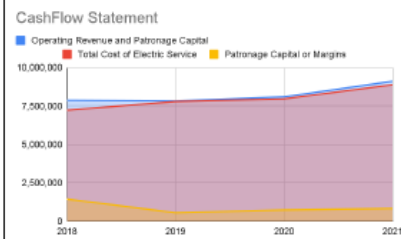
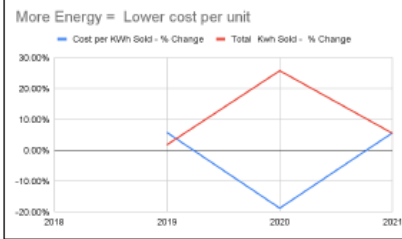
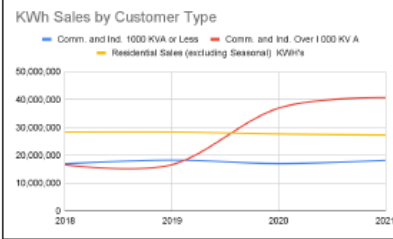
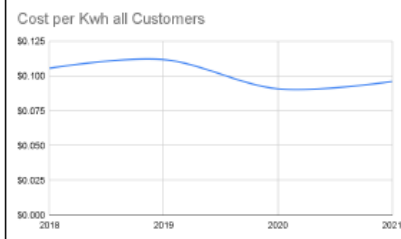
For months during 2022, Granbury residents Nick and Virginia Browning sat in their front yard watching the new metal boxes of the massive facility be installed in the dirt across the road. "It layered our houses with dust. We haven't gotten it all out yet," Nick Browning, 82, says.

The dust, it turns out, was just a prelude to the noise. In order to cool the machines, the site's operators attached thousands of fans to the containers, which churned constantly, emitting a vicious buzz. As more machines were switched on, the noise sounded like a ceiling fan, then a leaf blower, then a jet engine. It consumed afternoon dog walks and revved through cloudless nights, vibrating the trailer homes of many of the low-income residents who live blocks from the facility. The noise floated miles down the winding Brazos river, through the lush golf courses in the gated community Pecan Plantation and past county lines.

At first, residents responded to the intrusion by vacating their porches, retreating inside, and turning up their fans and air conditioners to the max. But many still felt tremors in their beds—including Larry Potts, a 77-year-old retired pastor who lives up the road from the plant. Potts says he stopped sleeping and started losing hearing in both ears. In February, his heart gave out after another sleepless night; he was rushed to the hospital and kept alive by an external pacemaker. There, he was diagnosed with third degree atrioventricular block, hypertension, and depression.

Case Study: Cheaper Energy Rates for All Electric Customers.

Jeremy Lane / JohnPaul Baric



In 2020, an Iowa based electric cooperative welcomed a significant new industrial load customer, marking a transformative moment for the cooperative and its members. This new partnership not only brought in additional revenue but also optimized the cooperative's operational efficiency. With the increase in electricity consumption by the industrial customer, the cost per kWh sold began to decrease steadily. This shift was a direct result of the cooperative's ability to distribute fixed costs over a larger volume of energy sales, reducing the per-unit cost for all members.

By 2021, the impact of this strategic addition became even more pronounced. Operating revenue and patronage capital saw a substantial rise, reaching over \$9 million, up from just over \$7.8 million in 2019. Meanwhile, the total cost of electric service, though slightly increased due to higher demand, was offset by the improved margins. The cooperative's operating margins showed a positive cumulative percentage change, jumping from 33.29% in 2020 to an impressive 50.37% by 2021. This significant improvement underscored the cooperative's enhanced financial stability and its capacity to reinvest in infrastructure and services, benefiting all cooperative members.

The addition of the new industrial customer thus served as a catalyst for growth and sustainability. It enabled the cooperative to reduce overall costs for its members, ensuring more affordable rates while maintaining high service standards. This strategic move not only strengthened the cooperative's financial health but also fostered a more resilient and robust community, where members could enjoy the dual benefits of reduced costs and improved service quality. The success story of integrating a new industrial load customer became a model for future growth, inspiring confidence in the cooperative's ability to adapt and thrive in a competitive energy market.

The drop in kwh price(Cost of energy) to all members was 19% with no other major loads added.

Laney

