



WOODBURY COUNTY BOARD OF ADJUSTMENT

SPECIAL MEETING

Wednesday, September 4, 2024 at 6:00 PM

The Woodbury County Board of Adjustment will hold a public meeting on **Wednesday, September 4, 2024 at 6:00 PM** in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, IA. Please use the 7th St. entrance. Public access to the conversation of the meeting will also be made available during the meeting by telephone. Persons wanting to participate in the public meeting may attend in person or call: **(712) 454-1133** and enter the **Conference ID: 729 498 353#** 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.

AGENDA

1	CALL TO ORDER
2	ROLL CALL
3	PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA
4	APPROVAL OF PREVIOUS MEETING MINUTES: 8/5/24
5	ITEM(S) OF ACTION / BUSINESS
»	ACTION ITEM: PUBLIC HEARING - CONDITIONAL USE PERMIT APPLICATION FOR A DATA PROCESSING BUSINESS ON PARCEL #884403400009. SUMMARY: 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.
»	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.

»	<p>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.</p>
»	<p>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.</p>
6	<p>PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA</p>
7	<p>STAFF UPDATE</p>
8	<p>BOARD MEMBER COMMENT OR INQUIRY</p>
9	<p>ADJOURN</p>

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Minutes - Woodbury County Board of Adjustment – August 5, 2024

The Board of Adjustment meeting convened on the 5th of August 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.

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/
- YouTube Direct Link:
 - o <https://www.youtube.com/watch?v=SigpXD4Nkqs>

BA Members Present:	Daniel Hair, Doyle Turner, Pam Clark, Tom Thiesen, Ashley Christensen
County Staff Present:	Dan Priestley, Dawn Norton
Public Present:	Shelly McCoy Sadler, Bruce Sadler, Dan Bittinger, Jeremy Lane, Mr. Robertson, Gabriel Diaz Ellis, JoAnn Sadler, Brian Sadler, Tony Ashley, Aziah Ashley, Mary Wortman, Anthony Wortman

Call to Order

Chair Daniel Hair formally called the meeting to order at 6:01 PM.

Public Comment on Matters Not on the Agenda

None

Approval of Minutes

The June 3, 2024 minutes were approved. Motion by Clark to approve; Second by Thiesen. 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, and Priestley read the staff summary into the record. AUR Correctionville LLC (Applicant) and the property owners, Ashley Acres Family Limited Partnership, filed a Conditional Use Permit (CUP) application to place a demand response load resource next to the substation in collaboration with the local electric utility, supporting grid resiliency for a proposed data processing business. Priestley clarified that the site would be used for Bitcoin mining. No written comments were received from stakeholders, but Priestley did receive a phone call from JoAnn Sadler, a landowner within the 500-foot notification area. A notification letter sent to Kendall Ashley was returned due to an incorrect address.

The proposed site is located on Parcel #884403400009 in T88N R44W (Wolf Creek Township), approximately 6.2 miles southeast of Merville and 7.7 miles southwest of Correctionville. The Woodbury County Zoning Ordinance's Land Use Summary Table (Section 3.03.4) does not reference data processing or the applicant's specific request. However, under Section 3.03.3, data processing can be interpreted as a comparable utility or industrial use, similar to research and development laboratories, making it a conditional use in the Agricultural Preservation (AP) Zoning District. Based on the submitted information and zoning requirements, the proposal could meet the criteria for approval.

On July 22, 2024, the Woodbury County Zoning Commission voted 4-0 to recommend approval to the Board of Adjustment, with the conditions that the applicants mitigate noise from the facility and provide adequate security measures, including fencing and lighting. Priestley recommended the same, emphasizing the importance of noise mitigation.

Jeremy Lane from AUR presented a slideshow and stated that the Correctionville facility would resemble the one built on Calhoun Ave the previous year. Clark inquired about decommissioning, and Lane explained that the facility is not permanent, with an expected lifespan of 10 years, possibly longer with equipment upgrades. The land would be leased, and decommissioning would be managed with the landowner. The site was placed to allow farm equipment access and direct noise toward a northwest field, away from neighboring landowners. When Turner

asked about noise mitigation, Lane mentioned they would likely use direct drive or hydro cooling fans to minimize noise, estimating levels between 60-70 decibels at 300 feet, similar to normal conversation.

Clark asked Lane to explain the facility in simpler terms. Lane described it as a high-powered system that processes data to mine Bitcoin and other cryptocurrencies. The facility could reduce its energy load during peak demand, operating like a battery to support the electric grid. It would employ two full-time workers, earning approximately \$27/hour with benefits, and generate about \$12,000 in sales tax for the county.

Hair moved to accept additional materials from Lane, seconded by Turner. The motion carried 5-0. (See appendix). Hair then asked about the decision to switch cooling systems, and Lane confirmed they were opting for a closed-loop system with lower maintenance and noise. When asked about internet service, Lane said they would use a local provider, with Starlink as a backup, and assured that the site wouldn't interfere with surrounding landowners' internet or TV connections.

Turner inquired about the temperature of the exiting air, which Lane estimated to be between 120-140 degrees, depending on external conditions. When asked if trees would be used to reduce noise, Lane explained the plan involved using rock and fencing, without vegetation. Hair questioned why the term "Bitcoin" wasn't used more openly, and Lane suggested it tends to have negative associations.

JoAnn Sadler voiced concerns about the project. She questioned the comparison of the facility to research and development, emphasizing that Bitcoin mining does not fit that definition. In response to Sadler's concerns, Priestley acknowledged that Bitcoin mining is not specifically listed in the ordinance but explained that the Zoning Ordinance is not a comprehensive list of all possible land uses. He emphasized that Section 3.03.3 allows the evaluation of comparable uses when a proposed use is not explicitly mentioned. In this case, while the Bitcoin facility is not a utility, data processing involved in cryptocurrency mining is comparable to research and development laboratories in the sense of technological data analysis.

Priestley stated that the interpretation is about technological research and development in terms of data analysis, in the sense of being, analyzed, and ultimately treated as a digital product, much like data research or collection. He compared the data "mining" process to mining for gold in the past, where an asset is sought, collected, as a valuable asset. He also pointed out that last year's Calhoun site was similarly evaluated, drawing on these comparable aspects of data analysis. Sadler indicated that comparing Bitcoin mining to research and development was a stretch and not a fair representation of what the facility does. She also does not think the previous site should have been approved.

Turner, seeking more insight from Sadler, asked her to clarify her concerns about the site itself and the specifics of her objections. Sadler raised concerns about transparency, noting that the number of servers planned for the site was unclear, and she referenced the noisy operations of a similar Bitcoin mining facility in Grundy Center. Sadler highlighted that the Grundy Center facility operates 1,900 servers and consumes 54 million kilowatts of energy annually, more than the entire county of Grundy, equivalent to powering 4,900 homes. She worried that the Correctionville site could similarly expand its energy consumption and noise levels, asking who would regulate future growth if the number of servers doubled or tripled. She also expressed concern over the lack of oversight, stating that while the Board of Adjustment sets the initial conditions, there is no "Board of Adjustment police" to monitor compliance or future changes, especially as board and staff members change over time.

Tony Wortman from Stanton County also spoke, sharing his negative experience living near a data center with eight pods. He noted that, despite being a hydro-cooled system, noise still travels through trees and buildings, rattling homes. Wortman described the project as a "Ponzi scheme," stating that such sites often promise more jobs than they deliver and referenced complaints about noise and energy use.

Tony Ashley, the landowner of the proposed site, expressed his support for the project, stating it would bring economic benefits to the county, including lower energy costs, job creation, and additional tax revenue. He assured that he was involved in the site's planning and noise mitigation efforts and noted that, since he owns the land adjacent to the facility, he would be the first to notice any issues with noise.

Hair moved to close the public hearing, seconded by Thiesen. The motion carried 5-0. Turner noted a key difference between this site and the Calhoun site is the lack of nearby neighbors at the Calhoun location. He requested more details on the plans and potential noise mitigation measures. Hair expressed concerns and stated

that more information is needed before making a decision. Lane provided details on the noise levels, stating that the decibel readings are as follows: 72 at 1 meter, 69 at 3 meters, and 59 at both 15 and 45 meters—lower than normal conversation levels. He explained that the fans would be hydro-cooled, with three different vendors being considered to supply them.

Thiesen asked Priestley if there had been any noise complaints at the Calhoun site, to which Priestley responded no. Turner noted that the closest home to the Calhoun site is 2,500 feet away. Brian Sadler mentioned that his house is 1,100 feet from the proposed site, with the property line being even closer. Priestley confirmed that, according to Beacon, the distance is approximately 1,100 to 1,200 feet. The closest home to the Calhoun site is 2,300 feet away. Turner added that comparing different sites is challenging due to varying topographies, as seen with wind turbine research.

Ashley properties are generally well-maintained, but Turner emphasized the need to inform neighboring landowners about noise mitigation efforts. Clark supported deferring the decision to gather more information and provide more assurances to the community. Lane explained that a similar project in Stanton County is four times larger and in a less suitable location. He reassured the Board that the proposed project will use hydro-cooling, point sound away from homes, and generate lower decibel levels.

Clark raised concerns about potential future expansion, to which Lane responded that any expansion would require the utility company's involvement. Hair suggested that expansion could be included as a condition in the Conditional Use Permit (CUP). Priestley reminded the Board that they have 35 days to make a decision and work with the applicant to clarify details and establish a timeline. Hair asked about the process for selecting the site, but Lane said he wasn't involved in that aspect.

Clark then motioned to defer the decision until the next Board meeting to allow for more data collection and information gathering. Priestley noted that the next meeting falls on Labor Day, and the Board agreed to reschedule it for Wednesday, September 4th, at 6:00 p.m. in the Courthouse basement meeting room. Clark amended her motion to defer the decision on the CUP to allow for additional fact-finding and clarification, with a final decision to be made on September 4th. Turner seconded the motion.

Lane requested specifics on what additional information should be gathered. Clark further amended her motion to direct Priestley to compile a list of items for investigation, such as noise levels and their impact on residents. Priestley outlined the needed information, including the system type and brand, structure, footprint, noise rating, and distance measurements. Lane asked if the decision could be delayed beyond 35 days, to which Priestley replied that CUPs are decided on a case-by-case basis, and distance and decibel levels would need to be specified.

Clark made a final motion to defer the decision on the CUP until September 4th at 6:00 p.m., empowering staff to collect more information, including schematics of the system, structure details, noise mitigation measures, footprint, and projected noise levels. Christensen seconded the motion, which carried 5-0.

Information Item: Nuclear Energy Reiv of Zoning Regulations Direction to the Zoning Commission from the Board of Supervisors

Priestley provided a summary. At their July 2, 2024 meeting, the Woodbury County Board of Supervisors voted to instruct the Zoning Commission to explore the possibility of adding nuclear energy as an option for the county. This update outlines the Commission's upcoming tasks. Key considerations include whether nuclear power is suitable for Woodbury County, potential locations for a plant, and the type of facility. Local involvement in regulating a nuclear plant would be limited, as federal and state regulations would apply. The Board of Adjustment will not make decisions on this matter, but information will be shared with the Board and the public. Stakeholder feedback will be critical during the early informational stages.

Information Item: Home Occupation Signs Zoning Regulations, Summary

The Zoning Commission has been asked if they would like to see policy change on regulations to the Home Occupation sign ordinance. Zoning Commission and Board of Supervisors have authority to start conversations about ordinance changes.

Public Comment on Matters Not on the Agenda

None

Staff Update

Priestley suggested listening to the Zoning Commission meetings and looking at agenda items.

Board Member Comment or Inquiry

None

Motion To Adjourn

Hair motioned. Second by Christensen. Carried 5-0. Meeting adjourned at 7:56 PM.

APPENDIX

Product Specifications

GIGA



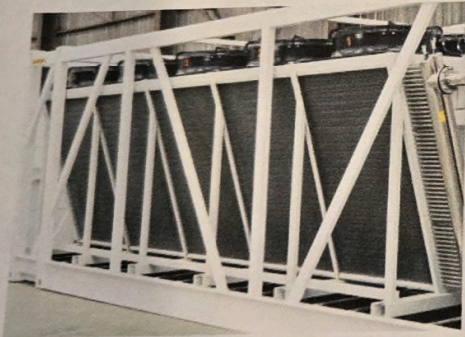
Cooling Distribution Unit (CDU)

- N+1 redundant main water pumps with an additional auxiliary pump to maintain system pressure
- Heater for maintaining humidity levels
- Buffer tanks, filtration, and main water bypass
- Sensors to measure flow, conductivity, pH, pressure, TRT, and temperature levels
- 15" HMI display & Siemens PLC
 - Digital controls for electrical, dry cooler, and CDU



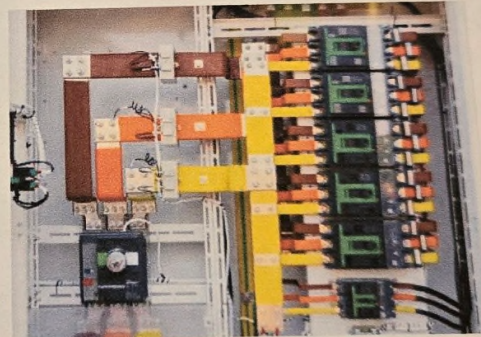
Server Racks

- Hidden piping sub-flooring design
- Integrated Giga PDUs
- 48U server rack cabinets (Whatsminer)
- Seal-welded Goodyear EPDM hoses
- Lankelec hydro quick connects
- Leak sensor multi point leak sensor system
- Stainless steel manifolds with welded hose barb adapter, automatic bleeder valve, individual valves for each miner, and drain cock



Dry Cooler

- Pre-installed cooling system
- Galvanized steel structure
- Epoxy coated aluminum fins
- Stainless steel coolant tubes
- ZIEHL-ABEGG 3.25kW fans, motors, and control units
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- Cooling 10° C (Normal) or 14° C (High Performance)
- Rated Ambient Temp: 40° C



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- Schneider EasyLogic PM2100 Power Meter
- 400A server rack bus bar connections
- Passive cooling cabinet air louver
- Phase loss protection
- Transient voltage surge suppressor (TVSS)

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Container Size	40' HC	45' HC	(2) 45' HC*
Antminers	—	224	Contact us
Whatsminers	72	120	240
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WOODBURY COUNTY PLANNING & ZONING

620 Douglas Street, Sixth Floor, Sioux City, Iowa 51101
712.279.6609 – 712.279.6530 (Fax)

Daniel J. Priestley, MPA – Zoning Coordinator
dpriestley@woodburycountyiowa.gov

Dawn Norton – Senior Clerk
dnorton@woodburycountyiowa.gov

REVISED REPORT – AUGUST 29, 2024

DEMAND RESPONSE LOAD RESOURCE – CONDITIONAL USE PERMIT PROPOSAL

APPLICATION DETAILS

Applicant(s)/Owner(s):	AUR Correctionville LLC / Ashley Acres Family Limited Partnership
Application Type:	Conditional Use Permit
Zoning District:	Agricultural Preservation
Total Acres:	1.5
Current Use:	Unspecified
Proposed Use:	Operation of Data Processing Business
Pre-application Meeting:	June 28, 2024
Application Date:	July 1, 2024
Legal Notice Date:	July 20, 2024
Neighbor(s) Notice Date:	July 18, 2024
Stakeholder(s) Notice Date:	July 3, 2024
Zoning Commission Review:	July 22, 2024
Board of Adjustment Public Hearing:	August 5, 2024 and September 4, 2024

PROPERTY DETAILS

Parcel(s):	884403400009
Township/Range:	T88N R44W (Wolf Creek)
Section:	3
Quarter:	SE ¼ SE ¼
Zoning District:	Agricultural Preservation (AP)
Floodplain:	Zone X (Not in Floodplain)
Property Address:	No address

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Specific Description and Project Narrative	
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Application	
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Supplemental Information	

SUMMARY

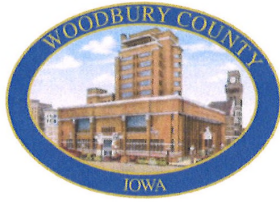
AUR Correctionville LLC (the Applicant) and the property owners, Ashley Acres Family Limited Partnership, have submitted a Conditional Use Permit application to establish a demand response load resource near a substation, in collaboration with the local electric utility, to enhance grid resiliency. The proposed site, located on Parcel #884403400009, is within the Agricultural Preservation (AP) Zoning District and outside the floodplain. While the Land Use Summary Table (Section 3.03.4) of the Woodbury County Zoning Ordinance does not specifically reference data processing or this type of request, it may be interpreted under Section 3.03.3 as a comparable utility use or similar to the industrial use of research and development laboratories, particularly in relation to data analysis. Therefore, data processing can be considered a conditional use under Section 3.03.3 within the AP Zoning District. On August 5, 2024, the Board of Adjustment deferred action on this application until September 4, 2024, to allow for further clarification of the relevant standards and considerations for a conditional use permit. Enclosed are the applicant's responses to additional questions from staff, along with an updated staff analysis for review. Staff acknowledges progress in the application, but key details like noise mitigation and specific system information would need to be further expounded. Although noise impact assessments have improved, precise data on how the equipment will meet zoning standards remains unclear. The Board of Adjustment will need to consult the available information and further public testimony and potentially craft detailed conditions—such as noise limits, security, decommissioning, etc.—to determine if a conditional use permit is feasible at this location.

AERIAL MAP



ZONING COMMISSION RECOMMENDATION

At their regular meeting on July 22, 2024, the Woodbury County Zoning Commission voted 4-0 to recommend approval to the Board of Adjustment with the condition that the applicants and property owner mitigate noise generated from the facility and provide adequate security for the facility including the use of fencing and lighting.



WOODBURY COUNTY
ZONING COMMISSION

WOODBURY COUNTY COURTHOUSE
620 DOUGLAS STREET
SIOUX CITY, IA 51101

Woodbury County Board of Adjustment
620 Douglas Street
Sioux City, Iowa 51101

RE: Zoning Commission Recommendation to the Board of Adjustment

CONDITIONAL USE PERMIT APPLICATION REVIEW

Applicant(s)/Owner(s): AUR Correctionville LLC / Ashley Acres Family Limited Partnership	Parcel(s): 884403400009
Application Type: Conditional Use Permit	Township/Range: T88N R44W (Wolf Creek)
Zoning District: Agricultural Preservation	Section: 3
Total Acres: 1.5	Quarter: SE ¼ SE ¼
Current Use: Unspecified	Zoning District: Agricultural Preservation (AP)
Proposed Use: Operation of Data Processing Business	Floodplain: Zone X (Not in Floodplain)
	Property Address: No address

Dear Members of the Woodbury County Board of Adjustment:

This letter is to inform you that the Woodbury County Zoning Commission reviewed the **Conditional Use Permit** application from the applicant(s) as referenced above following the scheduled review that occurred at the regularly scheduled public meeting of the Woodbury County Zoning Commission on July 22, 2024.

Following the review, the Zoning Commission voted 4-0 to recommend approval to the Board of Adjustment with the condition that the applicants and property owner mitigate noise generated from the facility and provide adequate security for the facility including the use of fencing and lighting.

Please refer to the draft copy of the Zoning Commission minutes for details about the Commission's recommendation. Additionally, the Zoning Commission meeting audio from July 22, 2024 is available for inspection on the Woodbury County website at:
https://www.woodburycountyiowa.gov/committees/zoning_commission/

Dated this 31 day of July, 2024


Christine Zellmer Zant, Chair
Woodbury County Zoning Commission

Minutes - Woodbury County Zoning Commission – July 22, 2024

The Zoning Commission (ZC) meeting convened on the 22nd of July, at 5:00 PM in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, IA. The meeting was also made available via teleconference.

Meeting Audio:

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

- County Website Link:
 - o https://www.woodburycountyiowa.gov/committees/zoning_commission/
- YouTube Direct Link:
 - o <https://www.youtube.com/watch?v=6Qu3SXAs-io>

ZC Members Present:	Barb Parker, Jeff Hanson, Corey Meister, Chris Zant
County Staff Present:	Dan Priestley, Dawn Norton
Public Present:	Jeremy Lane, Jared Barnes, Sandy Heilman, Huey Heilman

CALL TO ORDER:

Chair Chris Zellmer Zant called the meeting to order at 5:00 p.m. Tom Bride was absent.

PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA:

None

APPROVAL OF MINUTES: June 24, 2024 minutes – Motion by Hanson to approve. Second by Paker. Zellmer Zant abstained. Approved 3-0.

PUBLIC HEARING (ACTION ITEM) FOR PROPOSED MINOR SUBDIVISION – SANDPORT ADDITION.

Priestley read the preliminary staff report into the record. Sandra J. Heilman has filed for a one (1) lot minor subdivision on the property identified as Parcel #874730400007. This subdivision is being completed to establish a lot for the potential use as a contractor yard. The property is presently zoned General Industrial (GI) which allows for construction contractor yards. This minor subdivision proposal has been properly noticed in the Sioux City Journal legals section on July 11, 2024. The neighbors within 1000 FT have been duly notified via a July 8, 2024 letter about the July 22, 2024 Zoning Commission public hearing. Appropriate stakeholders including government agencies, utilities, and organizations have been notified and have been requested to comment. Priestley requested for the commission to receive the Woodbury County Engineer's review memo into the record. Motion to receive: Parker. Second: Hanson. Carried: 4-0. (Memo available in the Appendix.) The Woodbury County Engineer found the proposal in compliance with Iowa Code closure requirements and found that the lot(s) have adequate access. The property owner should contact the County Engineer's office to obtain a permit for a future driveway. As noted, this property is located in the General Industrial (GI) Zoning District and portions were located in the Zone X 0.2 percent floodplain but were removed on July 17, 2024 when the new Flood Insurance Rate Map (FIRM) went into effect. The City of Salix waived their extraterritorial review authority with the approval of Resolution No. 2024-05. Based on the information received and the requirements set forth in the Zoning and Subdivision Ordinance, the proposal meets appropriate criteria for approval. No questions or comments from public or board members. Motion to close public hearing: Meister. Second: Hanson. Carried 4-0. Motion to recommend approval of the Sandport Addition to the Woodbury County Board of Supervisors: Hanson. Second: Meister. Carried 4-0.

REVIEW OF CONDITIONAL USE PERMIT APPLICATION FOR A DATA PROCESSING BUSINESS ON PARCEL #884403400009 (ACTION ITEM).

Priestley read the preliminary staff report into the record. 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 #884403400009. The parcel is located in the Agricultural Preservation (AP) Zoning District and is not located in the floodplain. The Land Use Summary Table (Section 3.03.4) of the Woodbury County Zoning Ordinance does not reference data processing or this specific request by the applicant. However, this can be interpreted under Section 3.03.3 of the Woodbury County Zoning Ordinance as a comparable utility use or comparable to the industrial use of research and development laboratories in the sense of data analysis. Therefore, for the purposes of this request, data processing can be interpreted as a conditional use under section 3.03.3 in the Agricultural Preservation (AP) Zoning District. Hence, based on the information received and the requirements set forth in the Zoning and Subdivision Ordinance, the proposal could meet the appropriate criteria for approval. Priestley stated a precedence

was set with the approval of a data processing center last year along Calhoun Avenue. He reminded the commission this was a review session to look at criteria and make a recommendation to the Board of Adjustment for their August 5th meeting. Jeremy Lane from AUR Correctionville LLC submitted a video presentation to be added to the record. Motion to accept: Parker. Second: Hanson. Carried: 4-0. Lane gave a brief overview of project. Board members expressed concerns of noise affecting neighboring homeowners. Lane stated noise emitted from a site is approximately 45 decibels, less than conversational decibels, which are around 60 decibels. The site would be air cooled, noise emitted comes from cooling fans. Newer sites can have water cooling with less noise. There would be 2 on-site employees Monday thru Friday. Lane stated local contractors will be used to complete project. The landowners contributed to the design of this site plan to allow planter access. Zellmer Zant asked who the customers are for this type of project. Lane stated anyone who is wanting to invest. Hanson asked if it was Cryptocurrency mining? Lane answered yes. Hanson asked if there are any plans to use wind or solar to power site? Lane stated those resources are used in other counties but wouldn't be used in Woodbury County. He also explained the system is similar to a battery. It uses and gives back power. There is the ability to lower power during peak energy usage to prevent drain on grid. Mesiter brought up concerns of taking ag land out of production for sites, which was one of the reasons the public was against wind and solar. Hanson asked if there have been any complaints regarding site approved last year? Lane stated no. Staff recommends the applicants and property owners provide for the mitigation of any noise generated by the facility that could adversely impact the neighboring properties. Staff also recommends security fencing and lighting. Hanson inquired about the hours of operation. Land responded with 8 AM to 5 PM. Motion to recommend approval to the Board of Adjustment with the condition that the applicants and property owners mitigate noise generated from the facility and provide adequate security for the facility including the use of fencing and lighting by Parker. Second: Hanson. Carried: 4-0.

NUCLEAR ENERGY DIRECTION FROM THE BOARD OF SUPERVISORS (INFORMATION / DISCUSSION ITEM) 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 information item is only preliminary discussion on how to proceed with future work sessions and public hearings. Supervisor Radig stated wind and solar sources have been explored and would like research for nuclear as an option for the County. Priestley stated nuclear is heavily regulated by the federal government and if it were to be an option, it would be several years of planning and permitting by the developer(s) before it would even be built. Priestley stated permitting could be similar to current communication tower permitting, the federal government would be the main agency involved. Woodbury County's Land Use Summary Table line items would need to be reviewed by the Zoning Commission and Board of Adjustment to decide where and how nuclear could be placed. If a site were to be considered, it would most likely be located near a water source and in a General Industrial (GI) Zoning District. After communicating with other Iowa counties, Priestley found a conditional use permit could be required, but that could be the extent of permitting the county would be involved in. It would be imperative to have input from county citizens, the City of Sioux City, MidAmerican Energy, and other stakeholders. Zellmer Zant suggested an informational work session in August for board members to bring information and comments gathered from public and stakeholders.

HOME OCCUPATION SIGNS ZONING REGULATIONS REVIEW (INFORMATION / DISCUSSION ITEM) SUMMARY:

This information item is for a preliminary discussion on how to proceed with addressing the permitting of home occupation signs. The Zoning Ordinance allows for one home occupation sign that is 25 square foot or less. This initial discussion will look at potential ways to address the permitting of different types of signs and sizes for home occupation purposes. Consideration might entail a potential conditional use permit process for signs that exceed 25 SF. For example, if a property owner operates a home occupation business out in a rural area and wishes to have a sign greater than 25 SF, a process could be considered to enable the Zoning Commission and Board of Adjustment to evaluate whether a sign greater than the allowed maximum size could fit with the neighborhood. The ordinance could possibly include a range such as 25 SF or below is allowed outright and 26 to 100 SF requires Zoning Commission review and Board of Adjustment approval. Consideration could also be given to the types of signs including free-standing signs and building signs. Hanson is open to look at changes to ordinance, but not just for one person. Zellmer Zant researched other Iowa counties, most have more restrictive size specifications.

PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA:

None.

Staff Update:

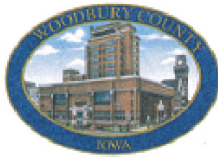
Priestley spoke of the flood recovery efforts and procedures moving forward. Before repairs can begin, a floodplain development permit must be applied for, and damage must be assessed. Property owners must present a damage estimate if the repairs are estimated over 50% or more of the structures pre-flood market value. Structures will then need to be flood-proofed or elevated to reduce potential future flood damage. Woodbury County has received a Presidential declaration making some potential federal funds available to landowners to help with the flood recovery efforts. Woodbury County Emergency Management Coordinator, Michael Montino has done a great job coordinating efforts.

Commissioner Comment or Inquiry

Parker appreciates the mention of consideration of agriculture land being used for data centers and suggests limits on the number of data centers. Meister also suggested limits as data centers may have a negative effect for possible housing sites.

Motion to Adjourn:

Meister. Second: Hanson. Carried 4-0. Meeting ended 6:26 PM.



Woodbury County Secondary Roads Department

759 E. Frontage Road • Merville, Iowa 51039
Telephone (712) 279-6484 • (712) 873-3215 • Fax (712) 873-3235

COUNTY ENGINEER
Mark J. Nahra, P.E.
mnahra@woodburycountyiowa.gov

ASSISTANT TO THE COUNTY ENGINEER
Benjamin T. Kusler, E.I.T.
bkusler@woodburycountyiowa.gov

SECRETARY
Tish Brice
tbrice@woodburycountyiowa.gov

To: Dan Priestley, Woodbury County Zoning Coordinator
From: Mark J. Nahra, County Engineer
Date: July 17, 2024
Subject: Sandpoint Addition – a minor subdivision application


The Secondary Road Department has reviewed the information provided for the above referenced subdivision forwarded with your memo dated July 3, 2024.

I am offering the following comments for your consideration.

- We checked the closure on the plat and found it in compliance with the requirements for the full subdivision of 1 in 10,000 and 1 in 5,000 for lot 2 as required by Section 355.8 of the Code of Iowa.
- There is no driveway accessing the proposed Lot 1 exclusively. It appears the driveway at the SE corner of the lot is shared with the neighbor and may be on the neighboring property. There is good sight distance on the road and a driveway serving Lot 1 would be easy to site. The landowner should contact my office to obtain a permit for a driveway.
- I have no other concerns or issues with this minor subdivision application.

If there are any more questions or issues that arise later, please contact this office.

Cc: File



Aurum Capital Ventures Data Processing Facility



About Aurum Capital Ventures Inc.

Aurum has been operating in Iowa since 2019 and has 25MW of active operations across.

Grundy Center REC: 6.5MW developed in 2019 and 6.6MW in the pipeline for 2024

Consumers Energy: 5MW developed in 2022 and 2.5MW in the pipeline for 2024

Osceola County REC: 5MW developed in 2022

Woodbury County REC: 4.8MW developed in 2023

Midland Cooperative: 8MW developed in 2024 and 8MW in the pipeline for 2024

What if local electric grids could....



Increase revenue



Upgrade Infrastructure without CapX



Lower rates



Use more renewable energy

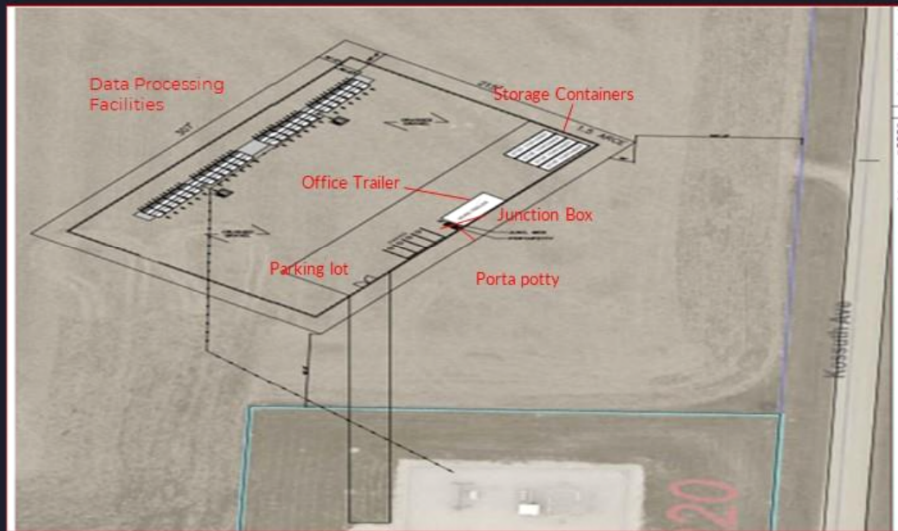


Add high paying tech jobs

Existing Air Cooled Data Processing Facilities



Site Layout 1.5 Acres of Land

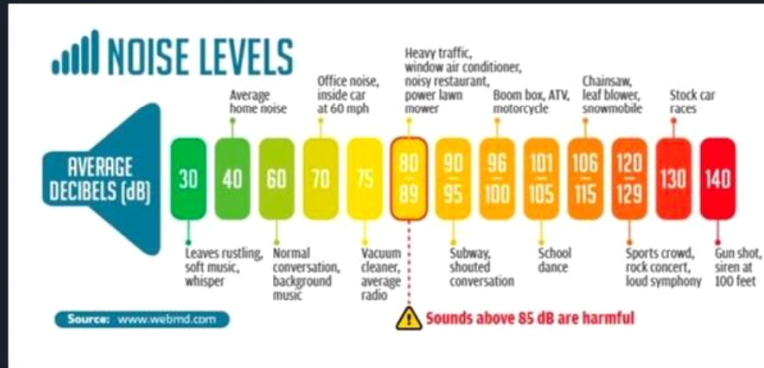


Closest Home is 1,296 FT away

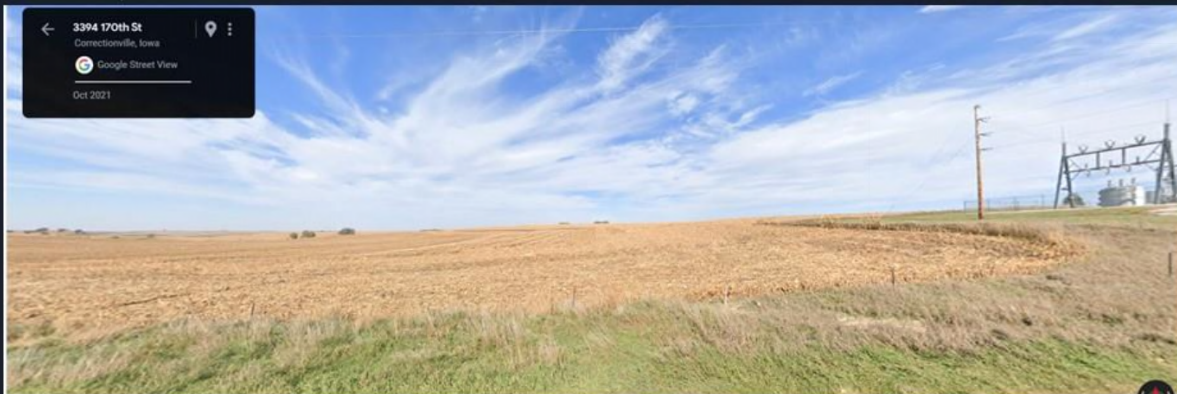


Site Sound Readings

From only 370 Feet on the opposite side of the exhaust fans the noise emitted was less than 45 decibels. Facilities have similar sound profiles to grain elevators.



Topography



Project Lifespan: Minimum of 10 Years

The project will operate for a minimum of ten years in this location, increasing utilization of previously built electrical infrastructure.

With the potential to decrease cost of service for all cooperative members while increasing patronage payments to members.

High Efficiency and Energy Saving

- PUE as low as 1.03
- Optional heating components can provide heat recovery
- Variable frequency fan control
- This Reduces
 - Water consumption
 - Energy consumption
 - Noise

Safe and Reliable

- The entire system has passed UL (cTUVus) certification and can be used in the United States and Canada.
- The container body has passed CCS classification society certification
- Condensation and leakage detection/alarm
- Cooling tower cage ladder and guardrail meet OSHA standards
- 3D face recognition access Control panel
- Panic bars with latches or bolts
- Remote video monitoring
- GPS positioning
- One button emergency stop
- Electric cabinet interlock design

Impact on the Community

New Local Employees

- This site will support two full time technicians making an average of \$27 per hour.
- Technicians receive health care benefits, gym memberships and company housing













Contractors

- We invest in the community by using local contractors to help build and maintain the site.

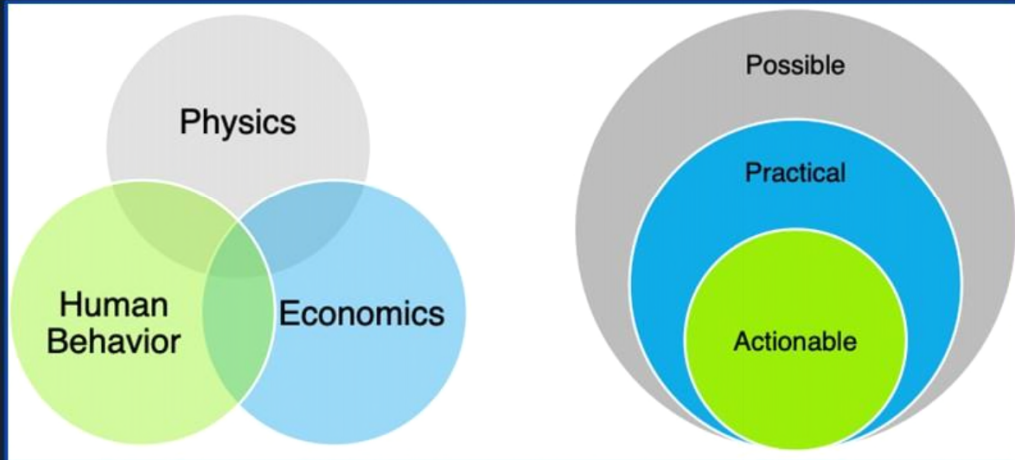
County Sales Tax on Energy 1%

- Most counties charge a 1% sales tax on energy around 12k a year.

Demand Side Management (DSM)

 Energy Effectiveness (EE)	 Distributed Energy Resources (DER)	 Energy Code Inspections
 Electrification	 Demand Response (DR)	 Energy Use Analysis
 Account Management (Consultation)	 GHG Emissions	 TREES
 Low/Med. Income (LMI) Assistance Programs	 Tax Exemption Review	 Analysis & Metering

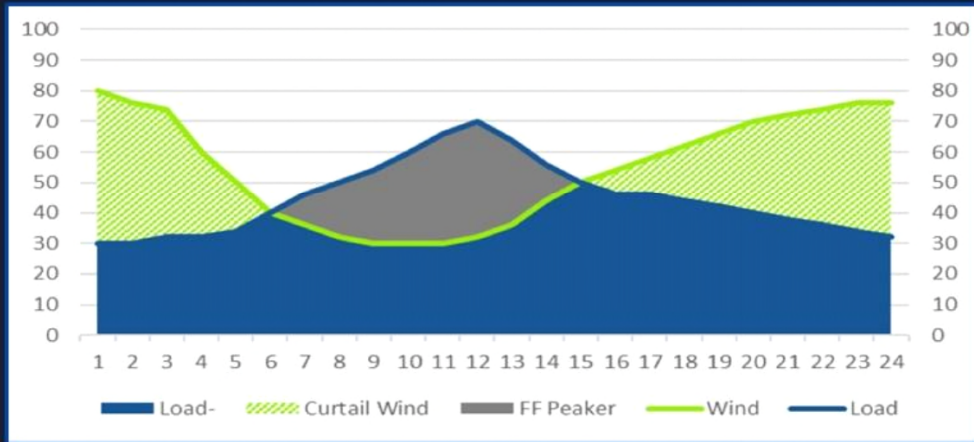
Program Considerations



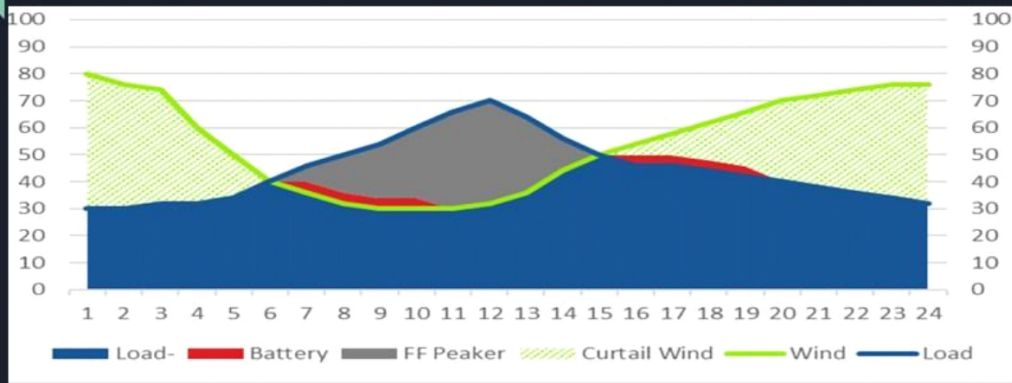
Grid Electric Consumption



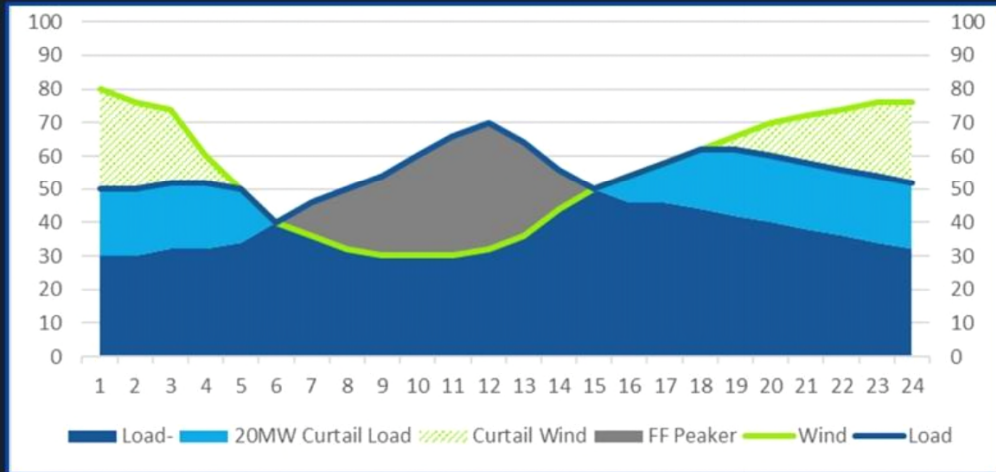
Firm Load, FF Peaker, Renewable Curtailment



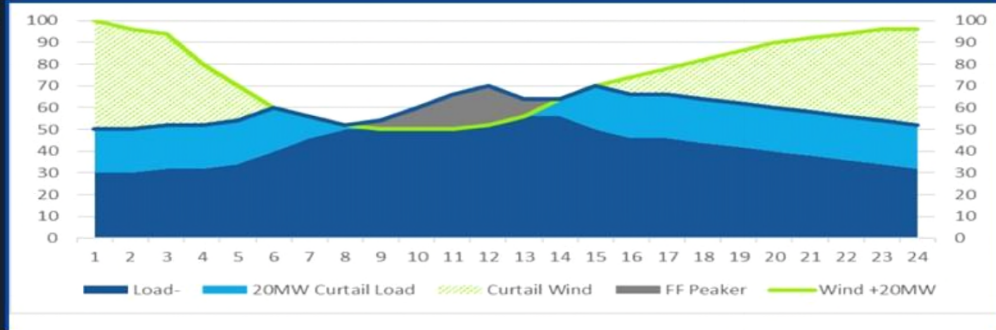
Add Expensive Battery Storage



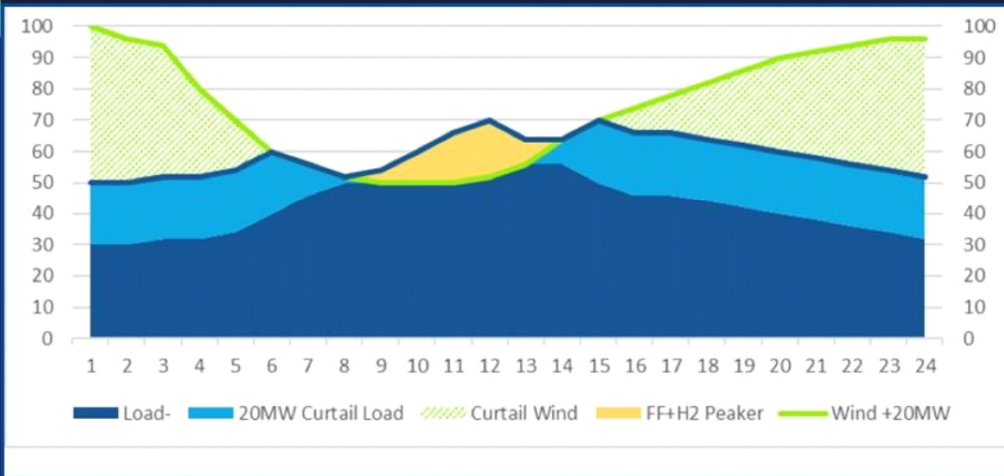
Add Fast- Acting Flexible Load



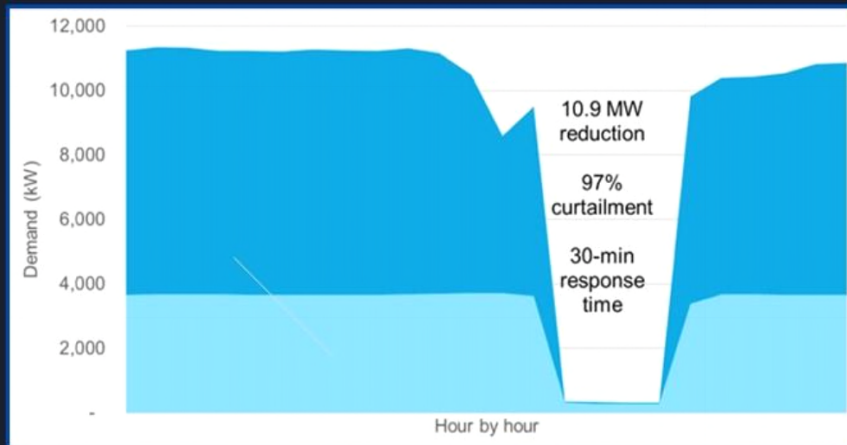
Increase Renewable Energy Capacity



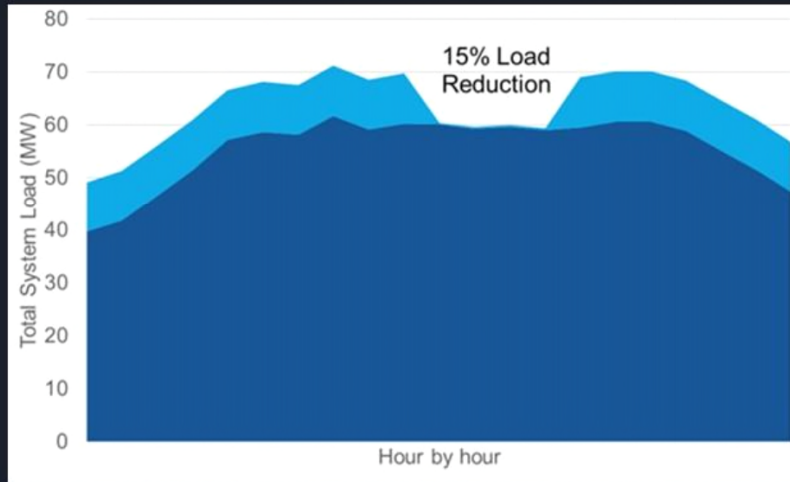
Transition to Sustainable Peaking Plants



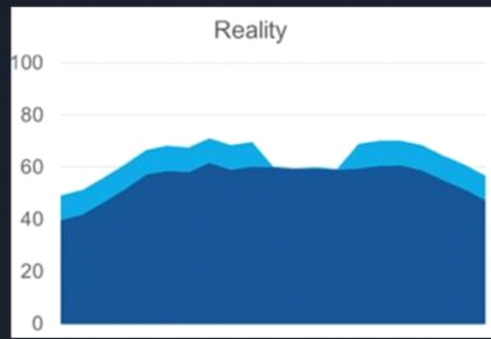
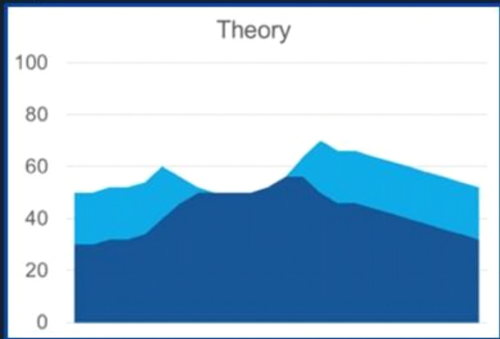
Curtailment Example



Curtailment Example



2021 Theory vs 2022 Reality



Thank You for you interest in working with us.



Minutes - Woodbury County Board of Adjustment – August 5, 2024

The Board of Adjustment meeting convened on the 5th of August 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.

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/
- YouTube Direct Link:
 - o <https://www.youtube.com/watch?v=SigpXD4Nkqs>

BA Members Present:	Daniel Hair, Doyle Turner, Pam Clark, Tom Thiesen, Ashley Christensen
County Staff Present:	Dan Priestley, Dawn Norton
Public Present:	Shelly McCoy Sadler, Bruce Sadler, Dan Bittinger, Jeremy Lane, Mr. Robertson, Gabriel Diaz Ellis, JoAnn Sadler, Brian Sadler, Tony Ashley, Aziah Ashley, Mary Wortman, Anthony Wortman

Call to Order

Chair Daniel Hair formally called the meeting to order at 6:01 PM.

Public Comment on Matters Not on the Agenda

None

Approval of Minutes

The June 3, 2024 minutes were approved. Motion by Clark to approve; Second by Thiesen. 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, and Priestley read the staff summary into the record. AUR Correctionville LLC (Applicant) and the property owners, Ashley Acres Family Limited Partnership, filed a Conditional Use Permit (CUP) application to place a demand response load resource next to the substation in collaboration with the local electric utility, supporting grid resiliency for a proposed data processing business. Priestley clarified that the site would be used for Bitcoin mining. No written comments were received from stakeholders, but Priestley did receive a phone call from JoAnn Sadler, a landowner within the 500-foot notification area. A notification letter sent to Kendall Ashley was returned due to an incorrect address.

The proposed site is located on Parcel #884403400009 in T88N R44W (Wolf Creek Township), approximately 6.2 miles southeast of Merville and 7.7 miles southwest of Correctionville. The Woodbury County Zoning Ordinance's Land Use Summary Table (Section 3.03.4) does not reference data processing or the applicant's specific request. However, under Section 3.03.3, data processing can be interpreted as a comparable utility or industrial use, similar to research and development laboratories, making it a conditional use in the Agricultural Preservation (AP) Zoning District. Based on the submitted information and zoning requirements, the proposal could meet the criteria for approval.

On July 22, 2024, the Woodbury County Zoning Commission voted 4-0 to recommend approval to the Board of Adjustment, with the conditions that the applicants mitigate noise from the facility and provide adequate security measures, including fencing and lighting. Priestley recommended the same, emphasizing the importance of noise mitigation.

Jeremy Lane from AUR presented a slideshow and stated that the Correctionville facility would resemble the one built on Calhoun Ave the previous year. Clark inquired about decommissioning, and Lane explained that the facility is not permanent, with an expected lifespan of 10 years, possibly longer with equipment upgrades. The land would be leased, and decommissioning would be managed with the landowner. The site was placed to allow farm equipment access and direct noise toward a northwest field, away from neighboring landowners. When Turner

asked about noise mitigation, Lane mentioned they would likely use direct drive or hydro cooling fans to minimize noise, estimating levels between 60-70 decibels at 300 feet, similar to normal conversation.

Clark asked Lane to explain the facility in simpler terms. Lane described it as a high-powered system that processes data to mine Bitcoin and other cryptocurrencies. The facility could reduce its energy load during peak demand, operating like a battery to support the electric grid. It would employ two full-time workers, earning approximately \$27/hour with benefits, and generate about \$12,000 in sales tax for the county.

Hair moved to accept additional materials from Lane, seconded by Turner. The motion carried 5-0. (See appendix). Hair then asked about the decision to switch cooling systems, and Lane confirmed they were opting for a closed-loop system with lower maintenance and noise. When asked about internet service, Lane said they would use a local provider, with Starlink as a backup, and assured that the site wouldn't interfere with surrounding landowners' internet or TV connections.

Turner inquired about the temperature of the exiting air, which Lane estimated to be between 120-140 degrees, depending on external conditions. When asked if trees would be used to reduce noise, Lane explained the plan involved using rock and fencing, without vegetation. Hair questioned why the term "Bitcoin" wasn't used more openly, and Lane suggested it tends to have negative associations.

JoAnn Sadler voiced concerns about the project. She questioned the comparison of the facility to research and development, emphasizing that Bitcoin mining does not fit that definition. In response to Sadler's concerns, Priestley acknowledged that Bitcoin mining is not specifically listed in the ordinance but explained that the Zoning Ordinance is not a comprehensive list of all possible land uses. He emphasized that Section 3.03.3 allows the evaluation of comparable uses when a proposed use is not explicitly mentioned. In this case, while the Bitcoin facility is not a utility, data processing involved in cryptocurrency mining is comparable to research and development laboratories in the sense of technological data analysis.

Priestley stated that the interpretation is about technological research and development in terms of data analysis, in the sense of being, analyzed, and ultimately treated as a digital product, much like data research or collection. He compared the data "mining" process to mining for gold in the past, where an asset is sought, collected, as a valuable asset. He also pointed out that last year's Calhoun site was similarly evaluated, drawing on these comparable aspects of data analysis. Sadler indicated that comparing Bitcoin mining to research and development was a stretch and not a fair representation of what the facility does. She also does not think the previous site should have been approved.

Turner, seeking more insight from Sadler, asked her to clarify her concerns about the site itself and the specifics of her objections. Sadler raised concerns about transparency, noting that the number of servers planned for the site was unclear, and she referenced the noisy operations of a similar Bitcoin mining facility in Grundy Center. Sadler highlighted that the Grundy Center facility operates 1,900 servers and consumes 54 million kilowatts of energy annually, more than the entire county of Grundy, equivalent to powering 4,900 homes. She worried that the Correctionville site could similarly expand its energy consumption and noise levels, asking who would regulate future growth if the number of servers doubled or tripled. She also expressed concern over the lack of oversight, stating that while the Board of Adjustment sets the initial conditions, there is no "Board of Adjustment police" to monitor compliance or future changes, especially as board and staff members change over time.

Tony Wortman from Stanton County also spoke, sharing his negative experience living near a data center with eight pods. He noted that, despite being a hydro-cooled system, noise still travels through trees and buildings, rattling homes. Wortman described the project as a "Ponzi scheme," stating that such sites often promise more jobs than they deliver and referenced complaints about noise and energy use.

Tony Ashley, the landowner of the proposed site, expressed his support for the project, stating it would bring economic benefits to the county, including lower energy costs, job creation, and additional tax revenue. He assured that he was involved in the site's planning and noise mitigation efforts and noted that, since he owns the land adjacent to the facility, he would be the first to notice any issues with noise.

Hair moved to close the public hearing, seconded by Thiesen. The motion carried 5-0. Turner noted a key difference between this site and the Calhoun site is the lack of nearby neighbors at the Calhoun location. He requested more details on the plans and potential noise mitigation measures. Hair expressed concerns and stated

that more information is needed before making a decision. Lane provided details on the noise levels, stating that the decibel readings are as follows: 72 at 1 meter, 69 at 3 meters, and 59 at both 15 and 45 meters—lower than normal conversation levels. He explained that the fans would be hydro-cooled, with three different vendors being considered to supply them.

Thiesen asked Priestley if there had been any noise complaints at the Calhoun site, to which Priestley responded no. Turner noted that the closest home to the Calhoun site is 2,500 feet away. Brian Sadler mentioned that his house is 1,100 feet from the proposed site, with the property line being even closer. Priestley confirmed that, according to Beacon, the distance is approximately 1,100 to 1,200 feet. The closest home to the Calhoun site is 2,300 feet away. Turner added that comparing different sites is challenging due to varying topographies, as seen with wind turbine research.

Ashley properties are generally well-maintained, but Turner emphasized the need to inform neighboring landowners about noise mitigation efforts. Clark supported deferring the decision to gather more information and provide more assurances to the community. Lane explained that a similar project in Stanton County is four times larger and in a less suitable location. He reassured the Board that the proposed project will use hydro-cooling, point sound away from homes, and generate lower decibel levels.

Clark raised concerns about potential future expansion, to which Lane responded that any expansion would require the utility company's involvement. Hair suggested that expansion could be included as a condition in the Conditional Use Permit (CUP). Priestley reminded the Board that they have 35 days to make a decision and work with the applicant to clarify details and establish a timeline. Hair asked about the process for selecting the site, but Lane said he wasn't involved in that aspect.

Clark then motioned to defer the decision until the next Board meeting to allow for more data collection and information gathering. Priestley noted that the next meeting falls on Labor Day, and the Board agreed to reschedule it for Wednesday, September 4th, at 6:00 p.m. in the Courthouse basement meeting room. Clark amended her motion to defer the decision on the CUP to allow for additional fact-finding and clarification, with a final decision to be made on September 4th. Turner seconded the motion.

Lane requested specifics on what additional information should be gathered. Clark further amended her motion to direct Priestley to compile a list of items for investigation, such as noise levels and their impact on residents. Priestley outlined the needed information, including the system type and brand, structure, footprint, noise rating, and distance measurements. Lane asked if the decision could be delayed beyond 35 days, to which Priestley replied that CUPs are decided on a case-by-case basis, and distance and decibel levels would need to be specified.

Clark made a final motion to defer the decision on the CUP until September 4th at 6:00 p.m., empowering staff to collect more information, including schematics of the system, structure details, noise mitigation measures, footprint, and projected noise levels. Christensen seconded the motion, which carried 5-0.

Information Item: Nuclear Energy Reiv of Zoning Regulations Direction to the Zoning Commission from the Board of Supervisors

Priestley provided a summary. At their July 2, 2024 meeting, the Woodbury County Board of Supervisors voted to instruct the Zoning Commission to explore the possibility of adding nuclear energy as an option for the county. This update outlines the Commission's upcoming tasks. Key considerations include whether nuclear power is suitable for Woodbury County, potential locations for a plant, and the type of facility. Local involvement in regulating a nuclear plant would be limited, as federal and state regulations would apply. The Board of Adjustment will not make decisions on this matter, but information will be shared with the Board and the public. Stakeholder feedback will be critical during the early informational stages.

Information Item: Home Occupation Signs Zoning Regulations, Summary

The Zoning Commission has been asked if they would like to see policy change on regulations to the Home Occupation sign ordinance. Zoning Commission and Board of Supervisors have authority to start conversations about ordinance changes.

Public Comment on Matters Not on the Agenda

None

Staff Update

Priestley suggested listening to the Zoning Commission meetings and looking at agenda items.

Board Member Comment or Inquiry

None

Motion To Adjourn

Hair motioned. Second by Christensen. Carried 5-0. Meeting adjourned at 7:56 PM

APPENDIX

Product Specifications

GIGA



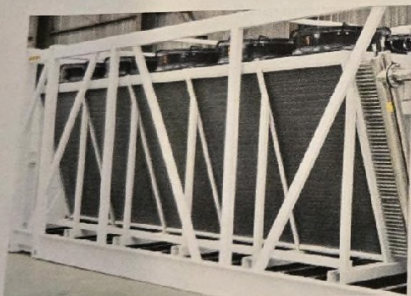
Cooling Distribution Unit (CDU)

- N+1 redundant main water pumps with an additional auxiliary pump to maintain system pressure
- Heater for maintaining humidity levels
- Buffer tanks, filtration, and main water bypass
- Sensors to measure flow, conductivity, pH, pressure, TRT, and temperature levels
- 15" HMI display & Siemens PLC
 - Digital controls for electrical, dry cooler, and CDU



Server Racks

- Hidden piping sub-flooring design
- Integrated Giga PDUs
- 48U server rack cabinets (Whatsminer)
- Seal-welded Goodyear EPDM hoses
- Lankelec hydro quick connects
- Leak sensor multi point leak sensor system
- Stainless steel manifolds with welded hose barb adapter, automatic bleeder valve, individual valves for each miner, and drain cock



Dry Cooler

- Pre-installed cooling system
- Galvanized steel structure
- Epoxy coated aluminum fins
- Stainless steel coolant tubes
- ZIEHL-ABEGG 3.25kW fans, motors, and control units
- Single closed-loop cooling system
- Cooling 10° C (Normal) or 14° C (High Performance)
- Rated Ambient Temp: 40° C



Electrical System

- Input Voltage: 480 - 415V
- 2kVA 120V auxiliary transformer
- Exterior facing electrical cabinet
- Schneider main disconnect, feeder breakers
- Schneider EasyLogic PM2100 Power Meter
- 400A server rack bus bar connections
- Passive cooling cabinet air louver
- Phase loss protection
- Transient voltage surge suppressor (TVSS)

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+1 (832) 844-7622

SALES@GIGAENERGY.COM

Giga Box Hydro™

Please direct inquiries to sales@gigaenergy.com

GIGA



Giga Energy offers hydro-cooled bitcoin mining containers designed for Whatsminer & Antminer hydro series miners with 100% redundant pumping systems, integrated dry coolers, and quality components built for simplicity & reliability.

	M Series	L Series	XL Series
Price	\$149,999	\$279,999	\$539,999
Power Capacity	750 kW	Up to 1,440 kW	2,660 kW
Container Size	40' HC	45' HC	(2) 45' HC*
Antminers	—	224	Contact us
Whatsminers	72	120	240
Dry Cooler			40°C Ambient

*The XL Series Giga Box Hydro is (1) 45' data center with an additional 45' dry cooler stacked on top.

High-grade materials, combined with sophisticated engineering design systems are key elements of a hydro-cooled mining container that will deliver years of reliable service.

Made to order lead times: 10 - 12 weeks

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+1 (832) 266-1722

SALES@GIGAENERGY.COM

QUESTIONS FOR CLARIFICATION

On August 5, 2024, the Board of Adjustment determined more information is required for the conditional use permit request from AUR Correctionville LLC (Applicant) and property owners Ashley Acres Family Limited Partnership. Following the first public hearing, the Board directed staff to collect further information in order to clarify the impact the project could have on area stakeholders as rooting in the conditional use criteria. Subsequently, staff and the applicants participated in a meeting via teleconference on August 8, 2024.

The following section summarizes the proceedings on the meeting which included the presentation of questions for clarification engrained in the criteria of the Conditional Use Permit as referenced in Section 2.02.9 of the Woodbury County Zoning Ordinance.

Summary of Meeting with AUR Correctionville, LLC

Date & Time: August 8, 2024, at 1:16 PM

Attendees: JohnPaul Baric, Jeremy Lane, April Aseniero

Zoning Staff: Daniel Priestley, Dawn Norton

Meeting Overview:

1. Background:

The Board of Adjustment, in their August 5th meeting, authorized Priestley to further investigate the proposed data center. Priestley began by outlining the criteria required for a Conditional Use Permit (CUP). He noted that the current process differs from the previous CUP process for the data processing site on Calhoun Avenue due to its proximity to residential areas. Thus, the Board reviews and decides on permits on a case-by-case basis.

2. Questions for Clarification:

- **CRITERIA 1:** The conditional use requested is authorized as a conditional use in the zoning district within which the property is located and that any specific conditions or standards described as part of that authorization have been or will be satisfied (Woodbury County Zoning Ordinance, Sec. 2.02-9).
- **CRITERIA 2:** The proposed use and development will be in harmony with the general purpose and intent of this ordinance and the goals, objectives and standards of the general plan (Woodbury County Zoning Ordinance, Sec. 2.02-9).
- **CRITERIA 3:** The proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare (Woodbury County Zoning Ordinance, Sec. 2.02-9).

Please describe in detail the following:

▪ **Adjacent Property Impact:**

- What specific measures will be taken to ensure that the data processing center does not have a substantial or undue adverse effect on adjacent properties?
- How will you address potential issues related to noise, vibrations, electromagnetic interference or other disturbances?

- **Neighborhood Character:**
 - How will the data processing center align with the existing character and land use of the neighborhood?
 - Are there any architectural or aesthetic plans to ensure that the facility blends with the surrounding area?
 - What are the brand names, model numbers, and specifications of the proposed collective mining systems and servers that will be used?
 - What type of cooling systems will be used? (e.g. – air-cooled, water-cooled)?
 - Provide a count of how many collective mining systems and servers will be located on the premises.
 - Have you conducted a certified “noise impact assessment” of the existing noise sources and comparison of the predicted noise level generated by the proposed equipment at the proposed location? Please provide a copy.
 - What are the expected noise levels (in decibels) and environmental impacts of these cooling systems? How will they be designed to minimize noise?
 - What are the expected noise levels (in decibels) generated by proposed collective mining equipment and cooling systems at the property line and at adjacent properties? (Please provide decibel levels at various distances including up to 2,500 Feet – e.g. 100, 500, 1000, 1250, 2,500).
 - What specific noise mitigation measures will be implemented to minimize disruption to the neighborhood? (e.g. – soundproofing tiles, acoustic barriers, prefabricated noise dampening enclosures, noise insulation foam, trees, vegetation, etc.)
 - How often will these systems be upgraded or replaced?
 - What are the planned operational hours?
 - Will there be any restrictions on hours to minimize impact on the neighborhood?
- **Traffic Conditions:**
 - What is the projected increase in traffic volume due to the center’s operations?
 - How will you mitigate any negative impacts on local traffic conditions?
- **Parking:**
 - How many parking spaces will be provided for employees and visitors?
 - Will the parking plan accommodate peak hours and avoid overflow into residential areas?

- **Utility Facilities:**
 - What is the estimated energy demand of the mining center?
 - How will the increased energy consumption impact local utility infrastructure?
 - Will there be a need for upgrades to local power, water, or sewer systems?
 - Who will be responsible for covering the costs of any necessary upgrades?
 - Will the facility use backup power generators, and if so, what are their specifications?
 - How will the noise and emissions for backup generators be controlled?

- **Other factors affecting the public health, safety and general welfare:**
 - What environmental impact will the cooling systems have (e.g. – water usage, refrigerant leaks)?
 - How will the mining center address potential health impacts on nearby residents?
 - What safety measures will be implemented to prevent accidents or incidents?
 - How will the center ensure compliance with health and safety regulations?
 - What emergency response plans will be in place for potential incidents?
 - How will emergency services be notified and involved?
 - Is the proposed use or development, at the particular location necessary or desirable to provide a service or facility that is in the public interest or will contribute to the general welfare of the neighborhood or community?
 - What benefits will the data processing center provide the local community (e.g. – jobs, local business partnerships)?
 - How will the facility contribute to the local economy?

- **Long-Considerations:**
 - Are there plans for future expansion of the mining center?
 - How frequently will mining technology be upgraded?
 - How will upgrades affect noise, energy use, and overall impact?

- **Decommissioning:**
 - What is the expected life-cycle of the site?
 - How will electronic waste and other by-products be managed?

- What recycling or disposal practices will be followed?
 - What plans are in place for decommissioning the facility if it ceases operations?
 - How will the site be restored to minimize long-term impact? (If this is being completed via lease with the landowner, please share a redacted copy of the agreement.)
- **CRITERIA 4:** The proposed use and development will be located, designed, constructed and operated in such a manner that it will be compatible with the immediate neighborhood and will not interfere with the orderly use, development and improvement of surrounding property (Woodbury County Zoning Ordinance, Sec. 2.02-9).
- How does the location align with the existing land use and zoning regulations?
 - What potential impacts on adjacent properties have been assessed during site selection?
 - How will the applicants and property owners address any negative effects on nearby land uses?
 - How far is the proposed site from residential areas, and how does this distance mitigate potential conflicts?
 - Are there any specific measures to protect residential areas from noise or other disturbances?
 - Will the building materials help with noise reduction and energy efficiency?
 - What landscaping features will be used in helping the mitigate the noise and visual impact?
 - How will exterior lighting be designed to avoid light pollution and glare affecting nearby properties?
 - What is the projected timeline for construction, and how will it be managed to minimize disruption?
 - Are there plans to conduct construction activities during off-peak hours to reduce noise and traffic impact?
 - How will construction traffic be managed to avoid affecting local traffic patterns?
 - What routes will be used for construction vehicles, and how will they be coordinated?
 - What are the specifications for noise and vibration levels of the mining equipment?
 - How will these levels be measured and controlled?

- What types of insulation will be used to minimize noise and energy loss?
- How will insulation contribute to the overall compatibility of the facility with the neighborhood?
- What are the design specifications for the cooling systems, and how will they be integrated into the building?
- How will cooling systems be maintained to ensure efficiency and minimal impact?
- What fire safety systems and protocols will be implemented?
- How will the facility ensure that fire safety measures do not interfere with neighborhood safety?
- What security measures will be in place to protect the facility and surrounding area?
- How will security measures be designed to avoid negative impacts on the neighborhood?
- Are there plans for future expansion of the facility, and how will this be managed?
- What measures will be in place to ensure that future expansion does not adversely affect the neighborhood?
- How often will technology be upgraded, and how will these upgrades impact the facility's operations?
- What plans are in place to manage the impact of technology upgrades on the surrounding area?
- How will the facility be maintained to ensure it remains compatible with the neighborhood over time?
- What maintenance practices will be implemented to minimize long-term impact?
- What are the plans for decommissioning the facility if it ceases operations?
- How will the site be restored to ensure minimal impact on the neighborhood?
- **CRITERIA 5:** Essential public facilities and services will adequately serve the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).
 - Explain the steps you must take with the utility-company to place the system online?
- **CRITERIA 6:** The proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic or historic features of the subject property or adjacent properties (Woodbury County Zoning Ordinance, Sec. 2.02-9).

- Will there be any grading on the site? If so, what is the footprint of the area to be graded?
 - Do you have permits from the Iowa Department of Natural Resources (IDNR) for grading (e.g. – NPDES #2).
 - Do you have a Storm Water Pollution Prevention Plan (SWPPP) for runoff?
 - What are your plans for vegetation, trees, shrubs on the site?
- **OTHER CONSIDERATION 1:** The proposed use or development, at the particular location is necessary or desirable to provide a service or facility that is in the public interest or will contribute to the general welfare of the neighborhood or community (Woodbury County Zoning Ordinance, Sec. 2.02-9).
 - What benefits will the data processing center provide the local community (e.g. – jobs, local business partnerships)?
 - How will the facility contribute to the local economy?
- **OTHER CONSIDERATION 2:** All possible efforts, including building and site design, landscaping and screening have been undertaken to minimize any adverse effects of the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).
 - Provide your plan to minimize any adverse effects of the proposed data processing business. Within your plan, indicated how noise pollution will be mitigated.
- **DEVELOPMENT / SITE PLAN / NOISE:**
 - Please provide a development plan and revised site plan that includes mitigation measures as included with the above criteria/questions.
 - Provide a map drawn to scale, showing the subject property, all structures and other improvements, with the proposed conditional use identified per structure or improvement. Provide attachment. Provide a certified noise impact sound study as referenced above.

3. Next Steps:

- Priestley emphasized the need for specific and thorough responses to all questions, including details on the facility's impact on the area, building and equipment specifications, landscaping, noise mitigation, and how it integrates with the neighborhood.
- While a current data center has been permitted, Priestley noted that it is difficult to make comparisons because the closest neighbors are over 2,000 feet away.
- Baric mentioned that there have been no complaints about the existing facility.
- Baric questioned the development of the CUP criteria and why detailed information about the type and number of servers and engineering is required.
- Priestley clarified that such details are necessary for the building permit, but the BOA needs additional information on the facility's impact on the public.
- Priestley explained that the questions for the CUP criteria were developed by staff
- Since the application is generic, the Board had asked Priestley to request more specific information

- Baric inquired about conducting a sound study before the facility is built.
- Priestley stated that system specifications and a method for estimating decibel levels at various distances would be required.
- Baric indicated he would provide more information on noise.
- Baric asked for a definition of adjacent properties, and Priestley defined them as multiple abutting properties.
- Priestley reiterated the need for specific information to address concerns about the project and suggested refining the questions for more detail.
- Baric noted their commitment to using quieter hydro cooling fans, which produce approximately 59 decibels at 50 feet. He asked which regulations to follow for noise readings, expressing concern about negative perceptions of data centers. He also mentioned that this facility would be unique to their company, as they do not have any similar projects.
- They can only rely on the specifications provided by the manufacturer.
- Priestley outlined three options for the CUP application: 1) Approve outright, 2) Approve with conditions, or 3) Approve with conditions to be met before startup. Conditions could include sound barriers, fencing, mitigation methods, a sound analysis study, and a decommissioning plan.
- Baric mentioned that they currently operate five sites.
- Priestley encouraged them to consider the broader impact and provide more specifics for clarity, such as noise mitigation and expert studies. These details will help address questions at the next Board meeting.
- Baric asked how to integrate the facility into its surroundings, noting that it is near a substation where vegetation planting is restricted due to utility regulations.
- Priestley suggested providing supporting documentation from the utility company and considering fencing as an alternative. He advised submitting additional comments one week before the meeting to include them in the meeting packet.
- Baric noted that some confidential information should not be released to the public. Priestley indicated that such information could be redacted with explanations provided. Security information should also be explained if redacted or omitted.
- Priestley indicated that he would provide Baric with a list of questions for further review.

4. Meeting Adjourned: 2:26 PM

Applicant Responses and Referenced Materials:

On August 28, 2024, the applicant(s) offered their responses to the questions above with an opening statement about the data center. The applicant(s) made references to work to substantiate their claims with various sources that are listed and linked to below. The links are included here before the applicants' responses to highlight the essentiality of consulting these sources as the responses are reviewed. Additionally, the links may be accessed directly by either clicking on the or copying and pasting them into your internet browser's address bar.

Source 1:

Economic, Environmental and Social Impacts of Data Centers in the United States

<https://static1.squarespace.com/static/63a4849eab1c756a1d3e97b1/t/65037be19e1dbf4493d54c6e/1694727143662/>

Summary. This source provides an analysis of the impacts of data centers in the U.S., covering economic, environmental, and social aspects. It examines how data centers contribute to local economies, create jobs, and the environmental footprint associated with their operation, including energy

consumption and waste production. Social impacts include community effects and infrastructural demands.

Source 2:

Occupational Safety Health Administration: Occupational Noise Exposure

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.95>

Summary: This document outlines the Occupational Safety and Health Administration (OSHA) regulations for managing noise exposure in the workplace. It specifies permissible noise levels, required hearing conservation programs, and measures employers must take to protect workers from hearing damage due to excessive noise.

Source 3:

Center for Disease Control (CDC): National Institute for Occupational Safety and Health (NIOSH) – About Occupational Hearing Loss

<https://www.cdc.gov/niosh/noise/about/index.html>

Summary: This source provides information on occupational hearing loss, including causes, prevention, and the impact of noise on hearing. It offers guidelines for reducing noise exposure and protecting workers' hearing health.

Source 4:

Use of Propylene Glycol in Data Processing Operations

<https://drive.google.com/file/d/1TdLcbnYLvQcimi9Qq15WdgpU0WNuHB10/view>

Summary: This document discusses the use of propylene glycol in data centers, particularly in cooling systems. It covers the safety, handling, and environmental impact of this substance.

Source 5:

Fate, effects and potential environmental risks of ethylene glycol: A review

https://www.researchgate.net/publication/279958104_Fate_effects_and_potential_environmental_risks_of_ethylene_glycol_A_review

Summary: This review article assesses the environmental risks associated with ethylene glycol, a substance sometimes used in cooling systems. It examines how ethylene glycol behaves in the environment, its effects on ecosystems, and potential risks.

Source 6:

SOP Crisis Communication Plan

<https://miningstore.atlassian.net/wiki/external/MGQyMmM5NzEyMWNhNGUyYzljZjFjODcyZDQ3ODY0ZGM>

Summary: This document outlines the Standard Operating Procedures (SOP) for crisis communication. It details strategies and protocols for effectively communicating during a crisis to manage and mitigate its impact.

Source 7:

Make America Mine Again: How Donald Trump's Plan for U.S. Bitcoin Dominance Could Trigger a New Digital Gold Rush

<https://www.coindesk.com/opinion/2024/08/02/make-america-mine-again-how-donald-trumps-plan-for-us-bitcoin-dominance-could-trigger-a-new-digital-gold-rush/>

Summary: This article discusses former President Donald Trump's proposal to enhance U.S. dominance in Bitcoin mining and its potential to spur a new digital gold rush. It explores the economic and policy implications of such a plan.

Source 8:

Shovel Co. Excavating and Land Management: Excavation Bid – Union Site

<https://docs.google.com/document/d/17WAGSqsGXIDuTgXsBPoOowk49hfnWej3/edit>

Summary: This document is a bid proposal for excavation services at a union site. It includes details on the scope of work, costs, and terms for excavation and land management.

Source 9:

Commercial Lease with Ashley Acres Limited Partnership

https://drive.google.com/file/d/1U2dB7NPPbKXLdJ_0SuAyB5Oh5ptsQdl1/view

Summary: This lease agreement details the terms and conditions between a commercial tenant and Ashley Acres Limited Partnership. It includes lease duration, rental rates, and responsibilities of both parties.

Source 10:

Giga Energy builds power and cooling infrastructure.

<https://www.gigaenergy.com/>

Summary: This source details Giga Energy's efforts in building power and cooling infrastructure, likely focusing on data centers and their energy needs.

Source 11:

Storm Water Management NPDES Storm Water General Permit No. 2

Storm Water Discharge Associated with Construction Activities A Brief Guide To Developing Storm Water Pollution Prevention Plans And Best Management Practices: Summary Guidance, December 2022

[https://www.iowadnr.gov/Portals/idnr/uploads/water/npdes/GPs%201%20-%203/Summary%20Guidance%20GP2%20\(2022-12\).pdf](https://www.iowadnr.gov/Portals/idnr/uploads/water/npdes/GPs%201%20-%203/Summary%20Guidance%20GP2%20(2022-12).pdf)

Summary: This guide provides a summary of best practices and requirements for storm water management related to construction activities under NPDES General Permit No. 2.

Source 12:

Site Plan Link:

https://drive.google.com/file/d/1C5L3_vFCpvj06O-1FrvDwwnaBvWBz2oq/view

Summary: This link provides a site plan including layout and infrastructure details.

Concern: The applicant will need to clarify which site plan is the correct site plan. The linked site plan appears to be different than the one presented with the original application that is included in the packet. Questions remain as to whether the footprint of this site including the proposed structures meet the setbacks for the Agricultural Preservation (AP) Zoning District.

QUESTIONS FOR CLARIFICATION

Opening Statement:

The proposed data center project will significantly boost the Woodbury local economy, with impacts extending beyond the operation itself. With a job multiplier effect of 6.4, each mining job supports an additional 6.4 jobs in sectors such as transportation, construction, plant operations, electrical engineering, and cybersecurity.¹ This positions Bitcoin mining as a crucial driver for economic renewal in communities facing industrial decline, providing diverse opportunities for local workers.

The project will also bring substantial fiscal benefits to Woodbury County and Iowa, with an estimated contribution of 1% in sales tax to the county and 6% to the state over the next ten years. Furthermore, new rental housing, including a three-bedroom home, will be provided for two new employees, integrating them into the community and supporting the local real estate market. The additional payroll taxes support the local economy and bring high-paying IT jobs to the community.

Overall, this data center project is not just a technological initiative but a comprehensive economic development opportunity. It will generate jobs across various sectors, create significant tax revenue, and support sustained growth, making it a potential lifeline for communities in need of economic renewal.

CRITERIA 1: The conditional use requested is authorized as a conditional use in the zoning district within which the property is located and that any specific conditions or standards described as part of that authorization have been or will be satisfied (Woodbury County Zoning Ordinance, Sec. 2.02-9).

CRITERIA 2: The proposed use and development will be in harmony with the general purpose and intent of this ordinance and the goals, objectives and standards of the general plan (Woodbury County Zoning Ordinance, Sec. 2.02-9).

CRITERIA 3: The proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare (Woodbury County Zoning Ordinance, Sec. 2.02-9).

¹<https://static1.squarespace.com/static/63a4849eab1c756a1d3e97b1/t/65037be19e1dbf4493d54c6e/1694727143662/DCC-PwC+Impact+Study.pdf>

Please describe in detail the following:

Adjacent Property Impact:

- What specific measures will be taken to ensure that the data processing center does not have a substantial or undue adverse effect on adjacent properties?

We are upgrading and increasing our capital expenditures to cool our servers with a closed-loop system instead of direct air cooling. This will reduce the noise and vibration for all adjacent properties. The noise in this device, which is cooled with a traditional industrial air conditioning unit, emits sound and heat upwards towards the sky.

- How will you address potential issues related to noise, vibrations, electromagnetic interference or other disturbances?

Our modular data center is designed to prevent any potential noise, vibrations, or electromagnetic interference disturbances. The infrastructure is placed on a solid concrete pad, eliminating any vibration risk. In terms of electromagnetic interference, no device within the center emits harmful interference; the only presence is standard Wi-Fi, which operates on regulated frequencies and is a common, harmless form of interference. While our center is designed to be as quiet as possible, we are prepared to implement noise mitigation strategies, such as installing sound barriers, should any noise concerns arise in the future. We are committed to ensuring our operations have minimal impact on the surrounding community.

Neighborhood Character:

- How will the data processing center align with the existing character and land use of the neighborhood?

The data processing center is designed to align with the neighborhood's existing character, primarily agricultural and residential. We've ensured that the center's footprint is minimal and visually unobtrusive, blending seamlessly with the surrounding environment and aligning with the substation beside it. The data processing center will have a similar style and height of fence as the substation. The data center will have no flood lights at night or intrusive lighting.

- Are there any architectural or aesthetic plans to ensure that the facility blends with the surrounding area?

We can consider planting small shrubs around the site. However, it's important to

ensure that any vegetation does not interfere with NIPCO’s easement or the installation of underground electrical connections. As long as these conditions are met, we do not foresee any issues with adding such landscaping elements to enhance the facility’s integration with its environment.

- What are the brand names, model numbers, and specifications of the proposed collective data processing systems and servers that will be used?
 - What type of cooling systems will be used? (e.g. – air-cooled, water-cooled)?
 - The type of cooling system that will be used is water-cooled. S21 pro hydro, Gigabox Hydro XL.
 - Provide a count of how many collective data processing systems and servers will be located on the premises.
 - There will be a total of 360 data processing systems and servers located on the premises, housed within three containers. Each container is designed to accommodate 120 machines.
 - Have you conducted a certified “noise impact assessment” of the existing noise sources and comparison of the predicted noise level generated by the proposed equipment at the proposed location? Please provide a copy.

Suction Acoustics					dB	90			
Suction Sound (A)					dB(A)	86			
Hz	63	125	250	500	1000	2000	4000	8000	
	81	83	86	82	82	77	74	69	
(A)	56	66	77	79	82	78	75	68	

Pressure Acoustics					dB	91			
Pressure Sound (A)					dB(A)	87			
Hz	63	125	250	500	1000	2000	4000	8000	
	82	83	86	84	83	78	73	69	
(A)	57	66	77	81	83	79	74	68	

dB: Represents the sound pressure level in decibels (dB) for suction acoustics.

dB(A): Represents the sound pressure level in A-weighted decibels (dB(A)), which adjusts the sound levels to match the human ear’s sensitivity to different frequencies.

This data was gathered from the sound frequencies of a fan running close to its maximum performance and measured at the closest distance to the fan. The analysis provides a detailed breakdown of the sound pressure levels across

different frequencies, both in raw decibels (dB) and A-weighted decibels (dB(A)), which adjust the sound levels to match the human ear's sensitivity.

1. Understanding Safe Sound Levels

According to both OSHA and NIOSH guidelines:

- Occupational Safety and Health Administration (OSHA) permits up to 90 dB for 8 hours, which is well above the highest level observed in your data².
- The National Institute for Occupational Safety and Health (NIOSH) recommends a more conservative exposure limit of 85 dB for 8 hours, also above the highest observed level³.

2. Interpreting the Data

Suction and Pressure Acoustics:

At each measured frequency (63, 125, 250, 500, 1000, 2000, 4000, 8000 Hz), the A-weighted sound levels are below 68 dB(A).

Since 68 dB(A) is significantly lower than 85 dB(A), this indicates a sound environment that is well within safe limits for human hearing for extended periods.

3. Safety Implications

68 dB(A) is considered safe for human hearing over an extended duration.

Prolonged exposure to noise levels below 85 dB(A) is generally not associated with a risk of hearing damage according to current occupational health guidelines.

4. Conclusion: Is the Data Safe?

Yes, the data is safe for human hearing. Given these sound levels, no additional precautions are needed for typical durations of exposure.

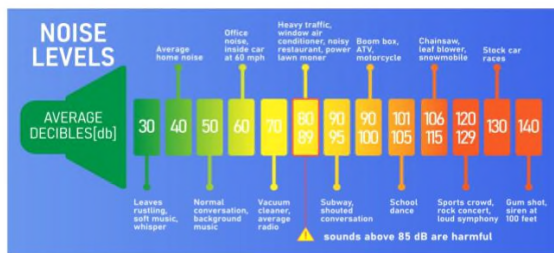
In summary, with the fan running near its maximum performance and the sound measured at the closest distance, the highest sound level at any frequency is 68 dB(A). These observed noise levels are well within safe limits for human hearing, even for extended exposure periods.

² <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.95>

³ <https://www.cdc.gov/niosh/noise/about/index.html>

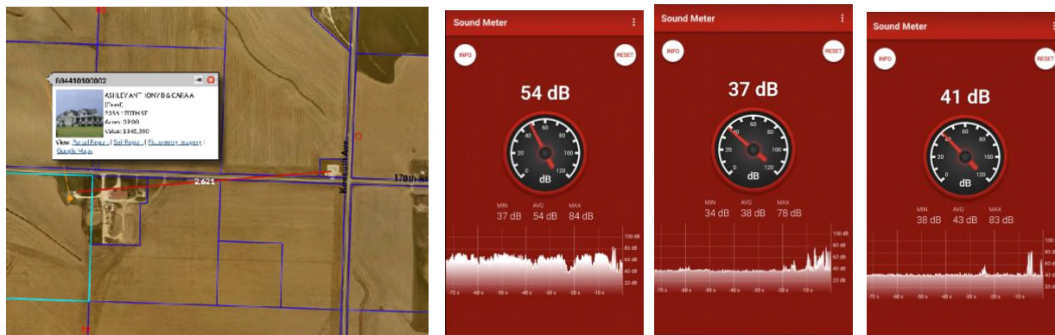
- What are the expected noise levels (in decibels) and environmental impacts of these cooling systems? How will they be designed to minimize noise?

Our data processing center utilizes a water-cooled system with integrated dry coolers. The design of dry coolers inherently makes less noise compared to other cooling systems, as they operate without the need for large, noisy fans typically associated with air-cooled systems. According to the manufacturer's data, the noise level of these dry coolers is approximately 72 dB when measured directly 1 meter from the source, which is comparable to the sound of a vacuum cleaner. At a distance of 15 meters, the noise level drops to around 59 dB, which is similar to a normal conversation or typical office noise. This design ensures that noise levels are kept within a range that is unlikely to disturb the surrounding environment, aligning with our commitment to minimizing environmental impact.



18 fan dry cooler - Hydro Test	
Distance (m)	Sound (dBA)
1	72.7
3	69
5	66.5
10	62.3
15	59.5

- What are the expected noise levels (in decibels) generated by proposed collective data processing equipment and cooling systems at the property line and at adjacent properties? (Please provide decibel levels at various distances including up to 2,500 Feet – e.g. 100, 500, 1000, 1250, 2,500).



The first set of photos shows the actual sound readings from one of our example sites using the same hydro-cooling system that we plan to install at the proposed site. The first photo, taken 500 feet away from the site, shows a sound level of 46 dB, while the second photo, taken 1,000 feet away, shows a sound level of 43 dB. The second set of photos presents the actual sound readings taken by the landowner in relation to the existing substation next to the proposed business site. The landowner, located approximately 2,600 feet away, recorded sound levels of 54 dB at the loudest around 3 PM and 37 dB at the quietest around 11 PM. Based on these actual data, we can conclude that the proposed site, with the new hydro cooling system, will be at least as quiet, if not more peaceful, than the existing substation and surrounding areas.

- What specific noise mitigation measures will be implemented to minimize disruption to the neighborhood? (e.g. – soundproofing tiles, acoustic barriers, prefabricated noise-dampening enclosures, noise insulation foam, trees, vegetation, etc.)

If any noise concerns arise, we are prepared to implement specific noise mitigation measures to minimize disruption to the neighborhood. Acoustic barriers can be installed on the fence between the road or house and the data center to absorb and block sound, effectively reducing noise levels. Additionally, round bales can be strategically placed along the perimeter to dampen sound further if the sound reaches a level inadequate for the day-to-day living of any surrounding land owner. These measures will ensure that any potential noise is contained and that the tranquility of the surrounding area is maintained.

- How often will these systems be upgraded or replaced?

The systems will operate for ten years or longer, and the servers will be upgraded every 4-6 years with new equipment of a similar style or model.

- What are the planned operational hours?

The planned operational hours for the data processing center are 24 hours a day. Staff will be on-site Monday through Friday from 8 AM to 5 PM to manage and oversee daily activities. Staff will be on call during an emergency when not at the facility and on the weekends.

- Will there be any restrictions on hours to minimize impact on the neighborhood?
Operational hours may be adjusted based on the utility's demand response. Normally, 15 minutes before the utility alerts the center to load shedding, operations are scaled down by turning off machines, resulting in reduced activity. Load shedding typically lasts an average of 5-6 hours, depending on grid capacity. The load-shedding schedule may also vary depending on weather conditions. These adjustments will help minimize the impact on the neighborhood during periods of high demand or grid strain.

Traffic Conditions:

- What is the projected increase in traffic volume due to the center's operations?

The projected increase in traffic volume due to the center's operations is minimal. We will deploy 1-2 full-time technicians on-site daily, resulting in 1-2 vehicles a day. There will be a slight increase in traffic for occasional deliveries, with an average of once or twice a week for the first six weeks of energization, and will decrease further once the site reaches full capacity. Overall, the impact on local traffic will be minimal.

- How will you mitigate any negative impacts on local traffic conditions?

We will Oil the road to mitigate the dust effects caused by vehicles around the facility.

Parking:

- How many parking spaces will be provided for employees and visitors?
 - The center is designed to have four parking slots for employees and visitors.
- Will the parking plan accommodate peak hours and avoid overflow into residential areas?
 - The center is designed to have four parking slots for employees and visitors. During peak hours, any additional vehicles can be accommodated by parking in vacant areas within the site, ensuring no overflow into residential areas. This plan is intended to meet the needs of our staff and visitors while maintaining harmony with the surrounding neighborhood.

Utility Facilities:

- What is the estimated energy demand of the data processing center?

The maximum energy demand of the center is 4MW.
- How will the increased energy consumption impact local utility infrastructure?

The increased energy consumption of the data processing center, with an estimated demand of 4MW, will be managed in close coordination with the local utility. We have worked with the utility to ensure that the infrastructure can accommodate this additional load without negatively impacting the local grid or other customers. The center is designed to operate efficiently within the existing capacity, and our participation in demand response programs will help mitigate any potential strain on the grid during peak times, ensuring a balanced and stable energy supply for the entire community.
- Will there be a need for upgrades to local power, water, or sewer systems?

There will be no need for upgrades to local water and sewer systems, as the infrastructure is designed to operate with a closed-loop water-cooled system, which significantly reduces water consumption. This design ensures that no massive amounts of water are needed for operations, thereby minimizing the impact on local resources. Any necessary upgrades to the power system will be coordinated with the utility provider to ensure seamless integration with the existing infrastructure.

- Who will be responsible for covering the costs of any necessary upgrades?
 - The data center will cover any costs associated with necessary upgrades.
- Will the facility use backup power generators, and if so, what are their specifications?
 - No, the facility will not use backup power generators.

- How will the noise and emissions for backup generators be controlled?

No, the facility will not use backup power generators.

Other factors affecting the public health, safety and general welfare

- What environmental impact will the cooling systems have (e.g. – water usage, refrigerant leaks)?
 - The infrastructure's cooling system will use a container designed as a single closed-loop water-cooled system constructed with galvanized steel, epoxy-coated aluminum fins, and stainless steel coolant tubes. This system utilizes a water-glycol mixture⁴, which is contained entirely within the closed loop, ensuring no direct discharge into the environment. Because the system is sealed, it prevents leaks and eliminates any risk of contaminating local water sources. Additionally, the water-glycol mixture is a stable and environmentally safe coolant⁵, further minimizing any potential environmental impact.

Refer to the study below, which shows EG's effects and potential environmental risks.

“The data collectively show that EG is not persistent in air, surface water, soil, or groundwater, is practically non-toxic to aquatic organisms and does not bioaccumulate in aquatic organisms. Potential long-term, quasi-steady state regional concentrations of EG estimated with a multi-media model for air, water, soil, and sediment were all less than predicted no effect concentrations (PNECs).”

- How will the data processing center address potential health impacts on nearby residents?
 - The facilities only emit noise and heat, which will both be reduced to a minimal level when they reach adjacent residential properties. In addition, the noise and heat will be emitted upwards, directionally away from any nearby walkers or residents.

⁴ [Propylene Glycol Data Processing Operations.pdf](#)

⁵ Source: Staples, C. A., Williams, J. B., Craig, G. R., & Roberts, K. M. (n.d.). Fate, effects, and potential environmental risks of ethylene glycol: A review. https://www.researchgate.net/publication/279958104_Fate_effects_and_potential_environmental_risks_of_ethylene_glycol_A_review

- What safety measures will be implemented to prevent accidents or incidents?
 - Code Red Procedures⁶ for acting in an emergency, Fire extinguishers placed around the facility, PPEs to be used during work with medium voltage electrical equipment. The facility will require general workspace, restroom or potable water to meet the purpose of Tenancy and meet OSHA and other regulatory requirements for employees safety and comfort. Such facility space will exist in temporary form on the Premises, and any such facilities shall be maintained by Tenant and removed at the end of the term.
 - The facility will pass a test with the state electrical inspector before any parts are energized.

- How will the center ensure compliance with health and safety regulations?
 - The center will ensure compliance with health and safety regulations through quarterly management inspections, including comprehensive site safety audits. These audits will focus on detecting leaks, identifying unnecessary debris, checking cable management to prevent incidents, and ensuring overall site cleanliness, including regular monitoring and removal of trash. This proactive approach will maintain a safe environment and ensure the facility consistently meets all health and safety standards.

- What emergency response plans will be in place for potential incidents?

The facility will have a comprehensive emergency response plan in place to address potential incidents. This plan includes a well-established Code Red Process, which has been in place since the company began operations at previous sites. This process has been proven effective in handling emergencies, both health-related and site-specific. The plan also includes a list of emergency contacts for immediate response and an on-call rotation to ensure that qualified personnel are always available to address any issues that may arise. This preparedness ensures the facility's and surrounding community's safety and security.

A 24/7 On-call monitoring system and schedule is in place for this facility and all operational facilities.

- How will emergency services be notified and involved?
 - The utility has emergency producers in place for disturbances at the substations. We have a camera system that can detect fire and motion and would alert the on-call schedule for technicians to arrive to address the issue promptly.
 - An emergency and non-emergency number will be posted on a plaque outside the

⁶ <https://miningstore.atlassian.net/wiki/external/MGQyMmM5NzEyMWNhNGUyYzljZjZjODcyZDQ3ODY0ZGM>

facility gate.

- Is the proposed use or development, at the particular location necessary or desirable to provide a service or facility that is in the public interest or will contribute to the general welfare of the neighborhood or community?

The utility provided us with a list of two electrical substations where excess capacity was available. From that list, we selected to work with the nearby landowner.

This facility is in the public interest for a multitude of reasons,

The impact extends far beyond the mining operations themselves, with a job multiplier effect of 6.4, meaning each mining job supports an additional 6.4 jobs in the broader economy. These opportunities span various sectors, including transportation, construction, plant operations, electrical engineering, and cybersecurity. As such, Bitcoin mining is not just a technological phenomenon but a potential lifeline for communities seeking economic renewal in the wake of industrial decline.

The Department of Energy estimates that data centers⁷, including cryptocurrency mining operations, could provide up to 2 gigawatts of demand response capacity by 2030. This strategy creates a win-win scenario: grid operators gain a powerful tool for network management, while miners receive economic benefits that could boost U.S. competitiveness in global Bitcoin production. Rather than aiming to increase both energy efficiency and mining output simultaneously, this approach fosters a symbiotic relationship between Bitcoin miners and the grid, potentially increasing America's share of global mining operations while strengthening our energy infrastructure. Reference -

- What benefits will the data processing center provide the local community (e.g. – jobs, local business partnerships)?

The center will create employment opportunities by hiring local technicians and contractors. Additionally, the center will forge partnerships with local businesses, sourcing services and supplies such as dumpsters, excavation, equipment, and other maintenance needs from nearby providers. These collaborations will not only support local businesses but also strengthen the community's economic fabric by keeping more resources and jobs within the area.

- How will the facility contribute to the local economy?

The facility will contribute to the local economy in several meaningful ways. It will generate tax revenue for the community and potentially lead to cheaper electric rates for residents and businesses. The facility will also create jobs, providing employment opportunities for local workers. Additionally, the site will attract investors, whose visits will boost the local economy through

⁷<https://www.coindesk.com/opinion/2024/08/02/make-america-mine-again-how-donald-trumps-plan-for-us-bitcoin-dominance-could-trigger-a-new-digital-gold-rush/>

spending on accommodations, food, and potential future investments in the area.

Long-Considerations:

- Are there plans for future expansion of the data processing center?
 - No. Both the utility and the data center have yet to make plans for future expansion.
- How frequently will data processing technology be upgraded?
 - The data processing technology has already been upgraded from air-cooled to hydro-cooled systems. As a result, there are no plans for further technology upgrades in the foreseeable future.
- How will upgrades affect noise, energy use, and overall impact?
 - No upgrade will be made to the infrastructure that affects the noise or energy usage.

Decommissioning:

- What is the expected life cycle of the site?
 - The expected life cycle of the site is ten years.
- How will electronic waste and other by-products be managed?

Electronic waste and other by-products from the site will be managed responsibly. All electronics will be classified as e-waste and disposed of through certified recycling programs. As per the Iowa Department of Natural Resources, electronic waste can undergo electronic recycling with standard processes, ensuring environmentally safe handling. The pods used on-site will either be sold for reuse or scrapped, depending on their condition, to ensure that materials are either repurposed or properly recycled. These measures will help minimize the environmental impact and promote sustainability throughout the site's life cycle.

- What recycling or disposal practices will be followed?

Our facility follows comprehensive recycling and disposal practices to ensure both environmental sustainability and regulatory compliance. For electronic waste, we partner with a specialized e-waste firm, JK's IT Decommissioning Services, which handles the secure, compliant, and environmentally responsible disposal of our electronic assets. Their services include data wiping, degaussing, hard-drive shredding, and recycling of IT peripherals, ensuring that harmful chemicals are managed safely. For all other non-electronic trash, we utilize dumpsters for proper waste disposal. Additionally, porta-potties are provided on-site to ensure sanitary conditions for all personnel.

- What plans are in place for decommissioning the facility if it ceases operations?\

SCOPE OF WORK FOR DECOMMISSIONING A MODULAR DATA CENTER SITE

Overview: This scope of work outlines the steps required to decommission a modular data center site.

The site includes various concrete pads and conduits that need to be dismantled, removed, and appropriately disposed of.

The detailed tasks are as follows:

1. Removal of Concrete Pads

- Large Concrete Pad:
 - o Dimensions: 300 feet long, 12 feet wide, and 14 inches deep.
 - o Equipment: A Backhoe will be used to break and remove the concrete.
 - o Disposal: Removed concrete should be transported to an appropriate recycling or disposal facility.
- Smaller Concrete Transformer Pads:
 - o Quantity: Three pads.
 - o Dimensions: Each pad measures 8 feet by 8 feet and 12 inches deep.
 - o Equipment: A Backhoe will be used for removal.
 - o Disposal: Removed concrete should be transported to an appropriate recycling or disposal facility.

2. Removal of Electrical Conduits

- Conduits Connecting Transformer Pads to the Large Pad:
 - o Specifications: Three sets of conduits, each 4 inches in diameter and approximately 15 feet long, buried 4 feet deep.
 - o Process: Excavate to expose the conduits, then remove them carefully to avoid damage.

- o Disposal: Conduits should be recycled according to local regulations.

3. Removal of Fiber Conduits

- Underground Fiber Conduits:

- o Specifications: Four conduits, each 1 inch in diameter, totaling 300 feet in length, buried 18 inches deep.

- o Process: Excavate along the length of the conduits to expose them, then remove them.

- o Disposal: Conduits should be recycled according to local regulations.

Final Site Condition

- Land Restoration: Ensure that after removal of the concrete pads and conduits, the site is left clean and free of debris.

- o The decommissioning bid for a larger facility is around **\$31,800⁸**

- How will the site be restored to minimize long-term impact? (If this is being completed via a lease with the landowner, please share a redacted copy of the agreement.)

- o A lease is attached and viewable at the below link.⁹

OPERATIONS AND OCCUPIED SPACE. Landlord recognizes the method of operation of the Data Processing business contemplated by Tennant utilizes decentralized structures to house computing equipment typically classified as unoccupied space. Landlord also recognizes Tenant will require general workspace, restroom or potable water to meet the purpose of Tenancy and meet OSHA and other regulatory requirements for employees safety and comfort. Such facility

⁸

<https://docs.google.com/document/d/17WAGSqsGXIDuTgXsBPoOowk49hfnWej3/edit?usp=sharing&oid=109997085641741883158&rtpof=true&sd=true>

⁹ https://drive.google.com/file/d/1U2dB7NPPbKXLdJ_0SuAyB5Oh5ptsQdl1/view?usp=sharing

POSSESSION. Tenant shall be entitled to possession upon commencement of rent payments. , but shall be given permission to enter upon the site for survey, vendor and other site development purposes. Tenant shall yield possession to Landlord on the last day of the Term, or Renewal Term of this Lease, unless otherwise agreed by both parties in writing. At the expiration of the Term, or Renewal Term, Tenant shall remove its goods and effects and peaceably yield up the Premises to Landlord in as good a condition as when delivered to Tenant.

CRITERIA 4: The proposed use and development will be located, designed, constructed and operated in such a manner that it will be compatible with the immediate neighborhood and will not interfere with the orderly use, development and improvement of surrounding property (Woodbury County Zoning Ordinance, Sec. 2.02-9).

- How does the location align with the existing land use and zoning regulations?
 - The data center will coexist and align similarly to the substation located beside it. This ensures that the data center fits seamlessly within the designated land use parameters and adheres to the local zoning requirements, maintaining consistency with the surrounding infrastructure.
- What potential impacts on adjacent properties have been assessed during site selection?

The data center, like the adjacent substation, has been carefully planned to minimize potential impacts on neighboring properties. Noise levels will be controlled to prevent disturbances by upgrading the cooling system, and the facility will visually blend with the surrounding area same as the substation.

- How will the applicants and property owners address any negative effects on nearby land uses?

An upgrade to the cooling system is already a noise-reduction measure. Adding a fence to create visual buffer will ensure that the facility's operations do not interfere with local agricultural activities. Additionally, regular communication with nearby residents and landowners will be maintained to address any concerns promptly, ensuring the facility integrates smoothly into the community.

- How far is the proposed site from residential areas, and how does this distance mitigate potential conflicts?



The proposed site is located 1,100 feet away from the nearest residential area. This significant distance, combined with the results of our noise assessment and the nature of our operations, ensures that there will be no potential conflicts with nearby residences. The distance effectively mitigates any impact on the residential community.

- Are there any specific measures to protect residential areas from noise or other disturbances?

While the site's design and distance from the nearest residential area ensure that noise and disturbances will not occur, we are prepared to implement additional mitigations, such as sound barriers, if necessary.

- Will the building materials help with noise reduction and energy efficiency?

The building materials will contribute to noise reduction and energy efficiency. The new container design inherently reduces noise, helping to eliminate any potential sound impact on the surrounding area. Additionally, the fence can be equipped with additional noise reduction measures if any noise concerns arise.

- What landscaping features will be used in helping the mitigate the noise and visual impact?
 - To help mitigate noise and visual impact, the site will incorporate several features if needed, including a fence with a sound barrier if necessary and strategic planting of shrubs or trees around the perimeter. The fence will serve as a physical barrier, while the greenery will provide additional sound dampening and create a visually appealing buffer that blends the facility with its surroundings.
- How will exterior lighting be designed to avoid light pollution and glare affecting nearby properties?

The exterior lighting at the data center is designed to avoid light pollution and glare affecting nearby properties. The facility will ensure that there is no direct or reflected glare visible from public streets, roads, or highways. Security lights will be motion-activated, ensuring they only turn on when needed, and the site will remain dark at night, with all lights turned off after operational hours. This approach minimizes any potential impact on the surrounding community while maintaining necessary security.

- What is the projected timeline for construction, and how will it be managed to minimize disruption?

The projected timeline for construction is 2-3 months, with the work primarily involving a slab-on-grade foundation. This approach allows for a quicker, more efficient construction process, minimizing disruption to the surrounding area.

- Are there plans to conduct construction activities during off-peak hours to reduce noise and traffic impact?
 - The construction will be divided into phases to reduce noise and traffic impact. This phased approach allows for more controlled and manageable activity on the site.
- How will construction traffic be managed to avoid affecting local traffic patterns?

We will schedule and coordinate deliveries and heavy vehicle movements during off-peak hours to minimize their impact. We will follow a detailed deployment schedule to ensure that construction phases are executed without overlaps.

- What routes will be used for construction vehicles, and how will they be coordinated?
 - Construction vehicles will primarily use the designated driveway for access to the site. To minimize disruption, we will implement a deployment schedule that coordinates the flow of construction vehicles, with the construction activities divided into phases. Vehicles will come off State Highway 20 and on to Kossuth Ave before entering the facility.

- What are the specifications for noise and vibration levels of the data processing equipment?

18 fan dry cooler - Hydro Test	
Distance (m)	Sound (dBA)
1	72.7
3	69
5	66.5
10	62.3
15	59.5

Produced by US BASED manufacturer GIGAENERGY^{10*}

Suction Acoustics				dB		90		
Suction Sound (A)				dB(A)		86		
Hz	63	125	250	500	1000	2000	4000	8000
	81	83	86	82	82	77	74	69
(A)	56	66	77	79	82	78	75	68

Pressure Acoustics				dB		91		
Pressure Sound (A)				dB(A)		87		
Hz	63	125	250	500	1000	2000	4000	8000
	82	83	86	84	83	78	73	69
(A)	57	66	77	81	83	79	74	68

Suction Acoustics

- dB: Represents the sound pressure level in decibels (dB) for suction acoustics.
- dB(A): Represents the sound pressure level in A-weighted decibels (dB(A)), which adjusts the sound levels to match the human ear's sensitivity to different frequencies.
- Frequencies (Hz): The data is measured at different frequencies, ranging from 63 Hz to 8000 Hz. Frequencies are listed in a row at the bottom (63, 125, 250, 500, 1000, 2000, 4000, 8000 Hz).
- Sound Levels: For each frequency, there are two measurements: the actual sound level in dB and the A-weighted sound level in dB(A). For example, at 63 Hz, the sound level is 81 dB and 56 dB(A), indicating the perceived loudness is lower when accounting for human ear sensitivity.

Pressure Acoustics

- dB: Represents the sound pressure level in decibels for pressure acoustics.
- dB(A): Represents the sound pressure level in A-weighted decibels for pressure acoustics.
- Sound Levels: Similarly, sound levels are listed for each frequency. For example, at 63 Hz, the sound level is 82 dB, and the A-weighted sound level is 57 dB(A).

Overall Sound Levels

- The values at the end of each section (90 dB, 86 dB(A) for suction; 91 dB, 87 dB(A) for pressure) represent the overall sound levels or the highest measured levels for suction and pressure acoustics, respectively directly at the device.

¹⁰ <https://www.gigaenergy.com/>

Summary

- The table provides a detailed frequency analysis of the sound produced by the equipment during suction and pressure conditions, measured in both raw decibels and A-weighted decibels. This information is crucial for understanding the noise characteristics and compliance with noise regulations.

- How will these levels be measured and controlled?

Noise levels will be measured and controlled through regular sound readings taken at key points around the facility. To prevent any possible increase in noise, we will conduct regular maintenance on the containers, ensuring that all components are functioning correctly and secure. Additionally, we will perform weekly check-ups on the machines to identify and address any issues contributing to elevated noise levels, ensuring that overall noise remains within acceptable limits.

- What types of insulation will be used to minimize noise and energy loss?
 - There will be no energy loss. Various strategies can be applied for noise mitigation, such as installing sound barriers when necessary. However, the project itself, which involves upgrading the cooling system to a more efficient design, already serves as a noise mitigation measure. This upgrade is specifically tailored to reduce noise levels, ensuring minimal disruption to the surrounding environment.
- How will insulation contribute to the overall compatibility of the facility with the neighborhood?
 - Insulation will contribute to the overall compatibility of the facility with the neighborhood by effectively managing and reducing noise levels. By incorporating soundproofing insulation and other noise-dampening measures, the facility will minimize sound emissions, thereby reducing any potential disturbances to nearby residents. Additionally, the upgraded cooling system, which includes advanced insulation techniques, will further help maintain a quieter operation.
- What are the design specifications for the cooling systems, and how will they be integrated into the building?
 - The cooling system of the data center features a robust cooling system designed for efficiency and reliability in bitcoin mining. Key components include:
 - Cooling Distribution Unit (CDU): N+1 redundant water pumps, auxiliary pump, buffer tanks, filtration, and sensors for monitoring flow, conductivity, pH, pressure, and temperature. Includes a 15" HMI display with Siemens PLC controls.

Dry Cooler: Galvanized steel structure with epoxy-coated aluminum fins, stainless steel coolant tubes, and ZIEHL-ABEGG 3.25kW fans. It operates at 10°C under normal conditions, 14°C for high performance, and is suitable for up to 40°C ambient temperatures.

Integration: Hidden piping sub-flooring, leak detection system, stainless steel manifolds, and hydro quick connect fittings for easy maintenance and efficient cooling distribution.

These features ensure the data center operates efficiently while maintaining optimal temperatures and reliability.

- How will cooling systems be maintained to ensure efficiency and minimal impact?
 - To maintain efficiency and minimize the impact of a hydro-cooling system, regular maintenance will focus on key areas: fluid management, pump and valve upkeep, temperature regulation, filter cleaning, and pressure monitoring. Efficient fluid management involves checking levels and quality to prevent contamination and maintain thermal conductivity. Pumps and valves will be inspected for leaks and wear, ensuring proper lubrication and replacement when necessary. Temperature sensors will be calibrated regularly to maintain optimal cooling and prevent overheating. Filters and strainers will be cleaned and replaced to prevent blockages, while pressure levels will be monitored to ensure efficient fluid flow. These practices ensure the hydro-cooling system operates efficiently, conserves energy, and minimizes environmental and neighborhood impact.

- What fire safety systems and protocols will be implemented?
 - The facility will implement several key systems and protocols to ensure fire safety. Fire extinguishers will be strategically placed throughout the facility and regularly inspected to ensure they are fully operational. Emergency procedures, including evacuation routes and fire response actions, will be clearly posted in visible locations. Staff will be trained in fire safety practices and emergency response, including properly using fire extinguishers and executing evacuation plans. Regular fire drills will ensure everyone is familiar with the procedures, enhancing preparedness and safety for all occupants.

- How will the facility ensure that fire safety measures do not interfere with neighborhood safety?
 - The facility will ensure that fire safety measures do not interfere with neighborhood safety by carefully designing and positioning all fire safety systems to contain and manage any incidents within the facility's boundaries. Fire extinguishers and emergency equipment will be placed to effectively address fires without affecting neighboring properties. Additionally, emergency procedures will be coordinated with local emergency services to ensure that responses are swift and contained, minimizing any impact on the surrounding community. Regular safety drills and staff training will focus on preventing fires from spreading beyond the facility, ensuring that all safety protocols enhance both facility and neighborhood safety without disruption.

- What security measures will be in place to protect the facility and surrounding area?

The facility will be secured with a comprehensive set of measures to protect both the site and the surrounding area. These measures include CCTV surveillance, a secure perimeter fence, and locked gates. All containers and doors will be locked, and the facility will be equipped with outside lighting to deter unauthorized access. Motion-detected cameras will trigger alarms that notify the security team during off hours, ensuring that any potential security breaches are promptly addressed. These combined efforts will ensure a safe and secure environment.

- How will security measures be designed to avoid negative impacts on the neighborhood?

The security measures at the facility are designed to ensure safety without causing any negative impacts on the neighborhood. Using CCTV, motion-detected cameras, and secure fencing enhances overall security, providing peace of mind to the facility and the surrounding community. Outside lighting will be strategically placed to enhance security while minimizing light pollution. These measures are intended to create a safer environment for everyone.

- Are there plans for future expansion of the facility, and how will this be managed?
 - No, there are no plans for future expansion of the facility.

- What measures will be in place to ensure that future expansion does not adversely affect the neighborhood?
 - Not applicable. There are no plans for future expansion of the facility.

- How often will technology be upgraded, and how will these upgrades impact the facility's operations?
 - There will be no planned technology upgrades in the future, as the initial design of the facility already incorporates the latest advancements and serves as an upgrade from our other existing facilities.

- What plans are in place to manage the impact of technology upgrades on the surrounding area?
 - Not applicable. There are no plans for future upgrades of the facility.

- How will the facility be maintained to ensure it remains compatible with the neighborhood over time?
 - The facility is designed to coexist seamlessly with the existing substation beside it, maintaining a similar appearance and operational footprint to minimize any impact on the surrounding community.

- What maintenance practices will be implemented to minimize long-term impact?
 - The facility will implement maintenance practices that minimize long-term impact by ensuring no toxic waste is generated and maintaining the site to high standards.. As the facility consists of different structures, routine maintenance will focus on preserving their condition, ensuring they coexist harmoniously with the existing substation and the surrounding neighborhood.

- What are the plans for decommissioning the facility if it ceases operations?
 - Decommissioning plans provided above.

- How will the site be restored to ensure minimal impact on the neighborhood?
 - Decommissioning plans provided above.

CRITERIA 5: Essential public facilities and services will adequately serve the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).

- Explain the steps you must take with the utility-company to place the system online?
 - An Electric Service Agreement will be executed with the Utility, addressing the parties' terms, conditions, and responsibilities.

CRITERIA 6: The proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic or historic features of the subject property or adjacent properties (Woodbury County Zoning Ordinance, Sec. 2.02-9).

- Will there be any grading on the site? If so, what is the footprint of the area to be graded?
 - Yes, there will be grading on the site. The footprint of the area to be graded is less than 1 acre.

- Do you have permits from the Iowa Department of Natural Resources (IDNR) for grading (e.g. – NPDES #2).

See below screenshot.¹¹

B. WHAT TYPE OF CONSTRUCTION ACTIVITY REQUIRES A STORM WATER DISCHARGE PERMIT?

Federal regulations require that storm water discharges from certain construction activities be covered under an NPDES permit. Construction activities which disturb the land, such as clearing, grading or excavation, except for disturbances of less than one acre of total land area which are not part of a larger common plan of development or sale, are required to be covered by an NPDES permit. In other words, if the overall project will cause a land disturbance of one or more acres, any storm water runoff from any portion of the project requires NPDES permit coverage. The NPDES permit, a federal waste water discharge permit, is required for storm water or snow melt runoff that drains from areas where construction activities occur. These requirements became effective on March 10, 2003.

- Do you have a Storm Water Pollution Prevention Plan (SWPPP) for runoff?
 - The site utilizes a ditch system for runoff, which is not connected to the main sewer lines.
- What are your plans for vegetation, trees, shrubs on the site?
 - The site will have a gravel surface; however, we will maintain the area around the site, and shrubs can be planted outside the fence but this is not advised due to the potential to affect underground conduit and electrical lines.

¹¹Source: Iowa Department of Natural Resources. (2022). Storm Water Management NPDES Storm Water General Permit No. 2: Storm Water Discharge Associated with Construction Activities. NPDES Section, 502 E. 9th Street, Des Moines, Iowa 50319-0034. [https://www.iowadnr.gov/Portals/idnr/uploads/water/npdes/GPs%201%20-%203/Summary%20Guidance%20GP2%20\(2022-12\).pdf](https://www.iowadnr.gov/Portals/idnr/uploads/water/npdes/GPs%201%20-%203/Summary%20Guidance%20GP2%20(2022-12).pdf)

OTHER CONSIDERATION 1: The proposed use or development, at the particular location is necessary or desirable to provide a service or facility that is in the public interest or will contribute to the general welfare of the neighborhood or community (Woodbury County Zoning Ordinance, Sec. 2.02-9).

- What benefits will the data processing center provide the local community (e.g. – jobs, local business partnerships)?

The data processing center will provide several significant benefits to the local community, including job opportunities, local business partnerships, and economic growth. The center will create jobs for local residents, prioritizing hiring employees from nearby areas. Two new employees will be hired and will live locally, contributing to the community's economic stability. A 3-bedroom rental house will be rented to support these employees, boosting the local rental market and providing additional income for property owners.

During the construction phase, the project will engage local suppliers and vendors, creating additional business opportunities and fostering partnerships with local companies. This approach will ensure that a substantial portion of the project's budget is invested back into the community, supporting local businesses and stimulating economic activity. A local electrical firm will be used to do hundreds of thousands of dollars of electrical work, a local plumbing group will be used to do hundreds of thousand of dollars of pipe connections, local quarries will be used to provide gravel and fill, Premier Portable Buildings of Des Moines is used as an office area,

Additionally, the data processing center will attract investors to the site, increasing investor visits to the area. These visits will further boost the county by increasing demand for local services such as lodging, dining, and transportation, further benefiting local businesses.

During operations local trash services and porttapotty companies will be contracted for monthly services. In addition snow removal services will be contracted during snow storms.

Local businesses will be able to run and operate servers in the facility and will have priority to contract service with us over out of state investors or customers.

- How will the facility contribute to the local economy?

The facility will contribute significantly to the local economy of Woodbury in several ways. One major contribution will be through the payment of sales tax. The facility will pay a 1% local option sales tax to Woodbury County and a 6% sales tax to the State of Iowa on applicable purchases and transactions. Over a ten-year period, these payments are estimated to generate hundreds of thousands of dollars of revenue for both the county and the state, directly supporting public services, infrastructure improvements, and community projects in Woodbury County.

In addition to sales tax contributions, the facility will also boost the local economy through payroll taxes. A portion of each dollar paid in wages to local employees will go towards payroll taxes, including county, state, and federal taxes. For example, a significant share of these payroll taxes will benefit Woodbur, providing additional funding for local government operations, schools, and essential community services.

Overall, the combined impact of sales tax and payroll taxes will strengthen Woodbury County's fiscal health, stimulate local economic activity, and support long-term community development initiatives.

OTHER CONSIDERATION 2: All possible efforts, including building and site design, landscaping and screening have been undertaken to minimize any adverse effects of the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).

- Provide your plan to minimize any adverse effects of the proposed data processing business. Within your plan, indicated how noise pollution will be mitigated.
 - To minimize any adverse effects of the proposed data processing business, we have developed a comprehensive plan addressing potential impacts such as noise pollution, visual disturbance, and environmental concerns.

Noise Pollution Mitigation: Noise pollution will be mitigated initially by upgrading the type of cooling system used at this site from an air-cooled to a hydro-cooled system, which is specifically designed to reduce noise levels. The hydro-cooled system will result in significantly less noise, comparable to the levels of a normal conversation or everyday activities, ensuring minimal impact on the surrounding area. If necessary, additional noise mitigation measures, such as sound barriers or noise-dampening materials, can be installed along the site's perimeter fence. However, based on the sound readings of the cooling system to be used on-site, we expect that the noise levels will be sufficiently low to coexist harmoniously with the surrounding environment same as the substation beside it.

Visual Impact Mitigation: To minimize visual impact, a fence will be installed around the facility that matches the existing fence of the nearby substation. This will help ensure that the facility blends seamlessly with the local landscape and does not disrupt the visual aesthetics of the area.

Environmental Impact Mitigation: The facility will not generate any toxic waste, ensuring that there is no environmental contamination from the site. The only byproduct from the data processing operation is heat, which has been carefully managed to prevent any adverse effects on the surrounding environment.

DEVELOPMENT / SITE PLAN / NOISE:

- Please provide a development plan and revised site plan that includes mitigation measures as included with the above criteria/questions.
[Attached in PDF](#)
- Provide a map drawn to scale, showing the subject property, all structures and other improvements, with the proposed conditional use identified per structure or improvement. Provide attachment.
[Attached in PDF](#) ¹²
- Provide a certified noise impact sound study as referenced above.
 - [Unable to provide as the facility is not built yet but noise readings were taken by the vendor.](#)

¹² https://drive.google.com/file/d/1C5L3_vFCpvj06O-1FrvDwwnaBvWBz2oq/view?usp=drive_link



COMMERCIAL LEASE

This Lease Agreement (this "Lease") is dated as of July 1, 2024, by and between **ASHLEY ACRES FAMILY LIMITED PARTNERSHIP** ("Landlord") and AUR Correctionville LLC ("Tenant").

The parties agree as follows:

PREMISES. Landlord, in consideration of the lease payments provided in this Lease, leases to Tenant exclusive use of an approximately 1.5-acre lot. (the "Premises") located at 3395 170th St, Correctionville, IA 51016. Plot of land outlined in Exhibit 1.

TERM. The one (1) year lease term will begin on July 26, 2024, and end on July 1, 2025 (the "Lease Term"). The Lease Term will automatically renew for successive one-year terms (the "Renewal Term"), for up to twenty (20) years unless terminated by Tenant. Tenant may cancel this lease by providing written notice of cancellation at least six (6) months prior to the date of the desired cancellation date. Tenant will remain responsible for rent payments (including Tenant's share of property taxes) during this six (6) month period. Tenant cannot cancel the Lease within the first three (3) years from the commencement date unless the zoning and interconnection is unable to occur.

USAGE. [REDACTED]
[REDACTED]
[REDACTED]. Any portion of the land that is not utilized by the Data Processing facility may be used by Landlord for agricultural purposes, including farming activities, provided such use does not interfere with the primary business operations. All agricultural activities must comply with relevant laws and regulations.

LEASE PAYMENTS. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. In addition to the stated rental amount, any property taxes incurred by the Landlord for improvements made by the Tenant shall be charged to the Tenant at the time they are assessed.

OPTION TO RENEW. Provided Tenant is not in default beyond the applicable cure period, in the performance of this Lease, Tenant shall have the option to renew the Lease each year, for up to twenty (20) additional years, with the renewal period beginning at the expiration of the Lease Term, or applicable Renewal Term. All terms and conditions of the Lease shall apply during the Renewal Term. Tenant shall notify Landlord in writing thirty days prior to lease termination of their decision whether or not to exercise the Option to Renew. Should Tenant fail to notify Landlord in writing prior to thirty days of their decision whether or not to exercise the Option to Renew, the Option to Renew shall automatically renew.

POSSESSION. Tenant shall be entitled to possession upon commencement of rent payments. , but shall be given permission to enter upon the site for survey, vendor and other site development purposes. Tenant shall yield possession to Landlord on the last day of the Term, or Renewal Term of this Lease, unless otherwise agreed by both parties in writing. At the expiration of the Term, or Renewal Term, Tenant shall remove its goods and effects and peaceably yield up the Premises to Landlord in as good a condition as when delivered to Tenant.

TENANT IMPROVEMENTS. Tenant shall have the right to conduct any construction or remodeling (at Tenant's expense) that may be required to use the Premises as specified above. Tenant may also construct such fixtures on the Premises (at Tenant's expense) that appropriately facilitate its use for such purposes.

ABANDONMENT OF EQUIPMENT Any equipment, property, or personal belongings left on the premises by the Tenant 30 days after the termination of the lease shall be considered abandoned. The Landlord shall have the right to dispose of such abandoned property at their discretion without any obligation to compensate the Tenant.

SIGNAGE. Tenant shall be entitled to install reasonable signage.

PROPERTY INSURANCE. Landlord and Tenant shall each maintain appropriate insurance for their respective interests in the Premises and property located on the Premises. Tenant is responsible for maintaining casualty insurance on its own property.

MAINTENANCE.

Landlord's obligations for maintenance shall include:

Farmland outside of fence line and in leasable area.

Tenant's obligations for maintenance shall include:

- Driveway and culvert design and installation
- Keeping the entire site clean, tidy and within local compliance
- The parking lot, driveways and sidewalks, including snow and ice removal
- Approved sewer, water pipes, and other matters related to plumbing as made by Tenant.
- The electrical wiring, infrastructure and changes installed or made by Tenant
- All other items of maintenance not specifically delegated to Landlord under this Lease.

UTILITIES AND SERVICES. Tenant shall be responsible for their own utilities.

TAXES. Taxes attributable to the Premises or the use of the Premises shall be allocated as follows:

REAL ESTATE TAXES. Landlord shall pay all real estate taxes and assessments for the Premises; however Tenant shall be charged for any assessments from Tenant improvements.

PERSONAL TAXES. Tenant shall pay all personal taxes and any other charges which may be levied against the Premises, and which are directly attributable to Tenant's use of the Premises, along with all sales and/or use taxes (if any) that may be due in connection with lease payments.

OPERATIONS AND OCCUPIED SPACE. Landlord recognizes the method of operation of the Data Processing business contemplated by Tennant utilizes decentralized structures to house computing equipment typically classified as unoccupied space. Landlord also recognizes Tenant will require general workspace, restroom or potable water to meet the purpose of Tenancy and meet OSHA and other regulatory requirements for employees safety and comfort. Such facility

space will exist in temporary form on the Premises, and any such facilities shall be maintained by Tenant and removed at the end of the term.

SUCCESSORS AND ASSIGNS. The provisions hereof shall extend to and be binding upon the respective successors, legal representatives and assigns of the parties, hereto, and shall be deemed and treated as covenants running with the Premises during the Term, but no change or division in the ownership of the Premises, or of the Rent payable hereunder, however accomplished, shall be binding upon Tenant for any purpose until Tenant has been furnished with a signed copy or instrument evidencing such change or division in ownership.

QUIET ENJOYMENT. Landlord hereby warrants that Landlord has the right to lease the Premises to Tenant and that the individual executing this lease is fully authorized to and legally capable of executing this Lease on behalf of the Landlord. Landlord covenants that Tenant shall, while Tenant is not in default of the terms of this Lease, peaceably and quietly hold and enjoy the Premises for the Term, without interference or hindrance from Landlord or persons claiming by or through Landlord.

DEFAULTS. Tenant shall be in default of this Lease if Tenant fails to fulfill any of its lease obligations. If Tenant fails to cure any financial obligation within 15 days (or any other obligation within 30 days) after written notice of such default is provided by Landlord to Tenant, Landlord may take possession of the Premises and contents without further notice (to the extent permitted by law), and without prejudicing Landlord's rights to damages. In the alternative, Landlord may elect to cure any default and the cost of such action shall be added to Tenant's financial obligations under this Lease.

In addition to the above, Tenant shall pay all costs, damages, and expenses (including reasonable attorney fees and expenses) suffered by the Landlord by reason of Tenant's defaults. All sums of money or charges required to be paid by Tenant under this Lease shall be additional rent, whether or not such sums or charges are designated as "additional rent". The rights provided by this paragraph are cumulative in nature and are in addition to any other rights afforded by law.

INTEREST AND LATE PAYMENTS. For each payment that is not paid within 10 days after its due date, Tenant shall pay a late fee equal to 1% of the required payment. Additionally, Tenant shall pay interest in the amount of 12% per annum for all unpaid amounts..

HOLDOVER. If Tenant maintains possession of the Premises for any period after the termination of this Lease ("**Holdover Period**"), Tenant shall pay to Landlord lease payment(s) during the Holdover Period at a rate 1.5 times the normal payment rate set forth in the Renewal Terms paragraph.

CUMULATIVE RIGHTS. The rights of the parties under this Lease are cumulative and shall not be construed as exclusive unless otherwise required by law.

NON-SUFFICIENT FUNDS. [REDACTED]

ACCESS BY LANDLORD TO PREMISES. Subject to Tenant 's consent (which shall not be unreasonably withheld), Landlord shall have the right to enter the Premises to make inspections, provide necessary services, or show the unit to prospective buyers, mortgagees, tenants or workers with at least 48 hours prior notice to tenant. However, Landlord does not assume any liability for the care or supervision of the Premises. As provided by law, in the case of an emergency, Landlord may enter the Premises without Tenant's consent.

INDEMNITY REGARDING USE OF PREMISES. To the extent permitted by law, Tenant agrees to indemnify, hold harmless, and defend Landlord from and against any and all losses, claims, liabilities, and expenses, including reasonable attorney fees, if any, which Landlord may suffer or incur in connection with Tenant's possession, use or misuse of the Premises, except Landlord's act or negligence.

SECURITY SYSTEM. Landlord will be responsible for adhering to all security policies put in place by Tenant.

COMPLIANCE WITH REGULATIONS. Tenant shall promptly comply with all laws, ordinances, requirements and regulations of the federal, State, county, municipal and other authorities, and the fire insurance underwriters. However, Tenant shall not by this provision be required to make alterations to the exterior of any existing building or alterations of a structural, utility or property access nature that will remain with the property.

MECHANICS LIENS. Neither the Tenant nor anyone claiming through the Tenant shall have the right to file mechanics liens or any other kind of lien on the Premises and the filing of this Lease constitutes notice that such liens are invalid. Further, Tenant agrees to (1) give actual advance notice to any contractors, subcontractors or suppliers of goods, labor, or services that such liens will not be valid, and (2) take whatever additional steps necessary in order to keep the premises free of all liens resulting from construction done by or for the Tenant.

DISPUTE RESOLUTION. The parties will attempt to resolve any dispute arising out of or relating to this Agreement through friendly negotiations amongst the parties. If the dispute cannot be resolved through friendly negotiations, the parties agree to submit the dispute to the court system for resolution, in the Iowa District Court for the County in which the Premises is located.

SUBORDINATION OF LEASE. This Lease is subordinate to any mortgage that now exists, or may be given later by Landlord, with respect to the Premises.

TERMINATION OF LEASE. [REDACTED]

[REDACTED] During the any term of the Agreement, Tenant shall have the option to terminate the remaining responsibility for rent due for the balance of the lease term by providing Landlord with written notice of not less than one hundred eight (180) days together with payment of an early termination fee equal to the next six (6) months' rent. Early termination of this lease shall not change Tenant's obligations under section "TENANT IMPROVEMENTS".

ASSIGNABILITY/SUBLETTING. Tenant may not assign or sublease any interest in the Premises, nor assign, mortgage, or pledge this Lease, to an unaffiliated third party without the prior written consent of the Landlord, which shall not be unreasonably withheld.

NOTICE. Notices under this Lease shall not be deemed valid unless given or served in writing and forwarded by mail, postage prepaid, addressed as follows:

LANDLORD:

[REDACTED]
[REDACTED]
[REDACTED]

TENANT:

[REDACTED]
[REDACTED]
[REDACTED]

Such addresses may be changed from time to time by any party by providing notice as set forth above. Notices mailed in accordance with the above provisions shall be deemed received on the third day after posting.

A notice or other communication under this agreement will be deemed to have been received if it is sent by email and the receiver acknowledges receiving the email, either directly or automatically by the settings in the email. Tenant and Landlord agree to directly acknowledge emails and inform the other via telephone of any unacknowledged emails, which shall then be directly acknowledged by the recipient via a reply email.

GOVERNING LAW. This Lease shall be construed in accordance with the laws of Iowa.

HAZARDOUS MATERIALS AND INDEMNIFICATION. The Tenant agrees not to use, generate, store, or dispose of any hazardous materials on, under, or about the Premises in violation of any applicable laws or regulations. The Tenant shall indemnify, defend, and hold harmless the Landlord from and against any and all claims, liabilities, penalties, fines, judgments, forfeitures, losses, costs, or expenses (including reasonable attorney's fees) arising from or related to the Tenant's use, storage, or disposal of hazardous materials.

ENTIRE AGREEMENT/AMENDMENT. This Lease Agreement contains the entire agreement of the parties and there are no other promises, conditions, understandings or other agreements, whether oral or written, relating to the subject matter of this Lease. This Lease may be modified or amended in writing, if the writing is signed by the party obligated under the amendment.

SEVERABILITY. If any portion of this Lease shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of this Lease is invalid or unenforceable, but that by limiting such provision, it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

WAIVER. The failure of either party to enforce any provisions of this Lease shall not be construed as a waiver or limitation of that party's right to subsequently enforce and compel strict compliance with every provision of this Lease.

BINDING EFFECT. The provisions of this Lease shall be binding upon and inure to the benefit of both parties and their respective legal representatives, successors and assigns.

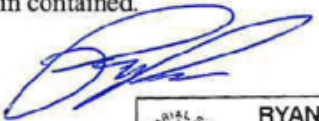
ZONING CONTINGENCY. This Lease is specifically contingent upon Tenant obtaining all required approvals (the "Approvals") from any local, regional, state or federal agency or authority having jurisdiction over the use, operation and construction by the Tenant of the Project. For the purposes of this Section, the Approvals shall include, without limitation, final and unappealable approvals and authorizations required for: (i) the construction and operation of the Project; (ii) all related Project permits; (iii) the Tenant to use the property for the Project; (iv) any re-zoning required by the County; (v) wetlands and steep slope permits required by the Planning Board (if any); (vi) County Site Plan review and approval; and (vii) all variances required by the Zoning Board of Appeals (if any). In the event that Tenant determines, in its sole reasonable discretion, that it will be unable to obtain the Approvals, or that it is not economically feasible to do so, Tenant shall be entitled to terminate this Lease on written notice to Landlord. Anything to the contrary herein notwithstanding, the interconnection to the electrical substation shall be conclusive evidence that Tenant's ability to terminate this Lease under the terms of this Section shall cease. This contingency lasts 90 days after lease signing and payments will begin if Tenant does not provide written approval to terminate lease.

IN WITNESS WHEREOF, the Landlord and the Tenant have executed this Memorandum of Lease as of the date of the Notary Signature:

LANDLORD:
ASHLEY ACRES FAMILY LIMITED PARTNERSHIP

Signature: 
STATE OF _____, COUNTY OF _____

On this 8th day of July, 2024, before me, a Notary Public in and for said county and state, personally appeared Anthony Asley, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes therein contained.

Notary Public 



TENANT:
AUR CORRECTIONVILLE LLC

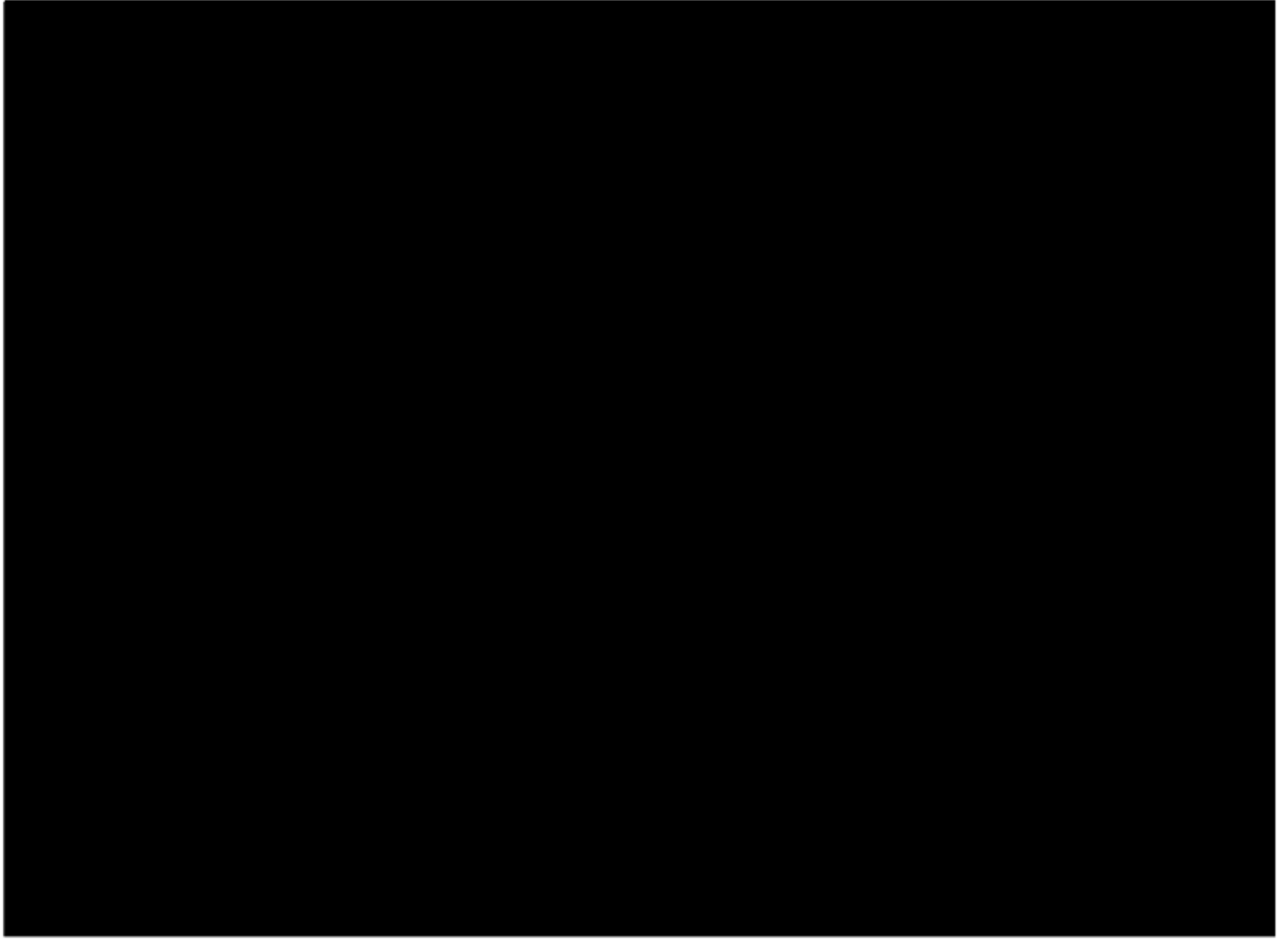
Signature: _____

STATE OF _____, COUNTY OF _____.

On this ____ day of ____, 2024, before me, a Notary Public in and for said county and state, personally appeared [Authorized Representative of AUR Correctionville Farm LLC, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes therein contained.

Notary Public

Exhibit 1



ZONING ORDINANCE CRITERIA FOR BOARD APPROVAL

Conditional Use Permits are determined by a review of the following criteria by the Zoning Commission (ZC) and Board of Adjustment (BOA). The ZC makes a recommendation to the BOA which will decide following a public hearing before the Board.

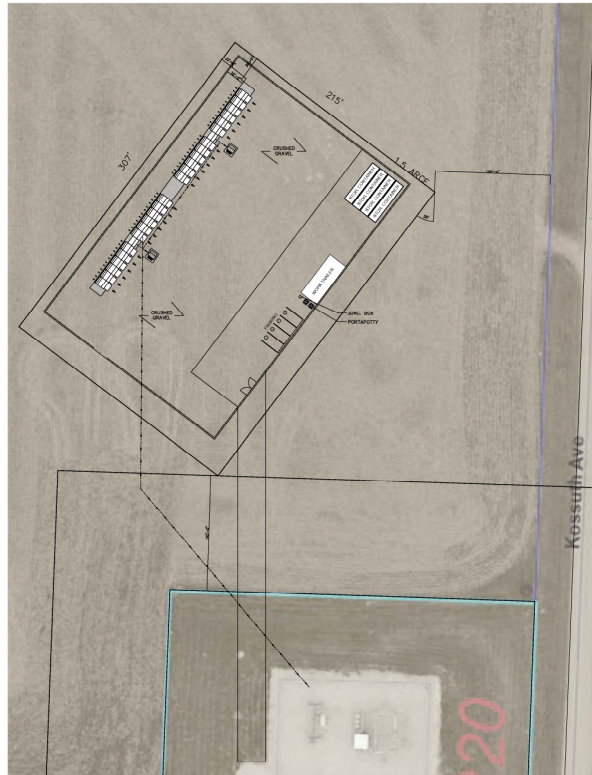
APPLICANT'S DESCRIPTION OF THE PROPOSED CONDITIONAL USE:

The proposed conditional use will be an Operation of Data Processing Business by placing a Demand Response Load Resource next to the Substation in conjunction with Local Electric utility to Support Grid Resiliency. The center would even the supply and demand of power and be located next to a substation under Woodbury Rural Electric Cooperative.

MAP DRAWN TO SCALE, SHOWING THE SUBJECT PROPERTY, ALL STRUCTURES AND OTHER IMPROVEMENTS, WITH THE PROPOSED CONDITIONAL USE IDENTIFIED PER STRUCTURE OF IMPROVEMENT, PROVIDED BY ATTACHMENT

The proposed plan for this project includes the following identified permanent structures and improvements:

- Two Transformers
- Two POD Strings
- Two Storage Containers
- One Work Area



ARCHITECTURAL SITE PLAN LEGEND

EXISTING	EXISTING IMPROVEMENTS
PROPOSED	PROPOSED IMPROVEMENTS
BOUNDARY	PROPERTY BOUNDARY
UTILITIES	UTILITY LOCATIONS
SETBACKS	SETBACKS
ADJACENT	ADJACENT PROPERTIES
ROADS	ROADS
WATER	WATER
SEWER	SEWER
RAILROADS	RAILROADS
TOPOGRAPHY	TOPOGRAPHY
VEGETATION	VEGETATION
OBSTACLES	OBSTACLES
UTILITIES	UTILITIES
ADJACENT	ADJACENT PROPERTIES
ROADS	ROADS
WATER	WATER
SEWER	SEWER
RAILROADS	RAILROADS
TOPOGRAPHY	TOPOGRAPHY
VEGETATION	VEGETATION
OBSTACLES	OBSTACLES

GENERAL NOTES

NOT FOR CONSTRUCTION

RECLAIMER
RECLAIMER ACCEPTS THE DATA "AS-IS".
RECLAIMER DOES NOT WARRANT THE DATA IS
ACCURATE, COMPLETE, OR FREE OF DEFECTS.
RECLAIMER SHALL NOT BE RESPONSIBLE FOR
ANY ERRORS OR OMISSIONS IN THE DATA.
RECLAIMER SHALL NOT BE RESPONSIBLE FOR
ANY DAMAGES, INCLUDING REASONABLE ATTORNEY'S
FEES, ARISING FROM THE USE OF THE DATA.
RECLAIMER SHALL NOT BE RESPONSIBLE FOR
ANY DAMAGES, INCLUDING REASONABLE ATTORNEY'S
FEES, ARISING FROM THE USE OF THE DATA.

Project Name:
MiningStore Iowa
Mining Facility
@Correctionville

Drawing Title:
Proposed Site Plan

Scale:
As Indicated

SK-101.00

STAFF ANALYSIS:

The applicant will need to clarify which site plan is the correct site plan. The linked site plan that was provided with the response to the additional questions on August 28, 2024 (https://drive.google.com/file/d/1C5L3_vFCpvj06O-1FrvDwwnaBvWBz2oq/view?pli=1) appears to be different than the one presented above and throughout this packet. Questions remain as to whether the footprint of this site including the proposed structures meet the setbacks for the Agricultural Preservation (AP) Zoning District.

CRITERIA 1: The conditional use requested is authorized as a conditional use in the zoning district within which the property is located and that any specific conditions or standards described as part of that authorization have been or will be satisfied (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

The property is currently zoned as agricultural. The applicant, with a lease from the landowner, has received permission to develop a Data Processing Business on the property. The proposed project will be constructed with slab on grades ensuring minimal disruption to the land and compliance with zoning requirements. Historically, a similar project have successfully utilized special use permit for the past year in Woodbury County, demonstrating their compatibility with agricultural zones.

STAFF ANALYSIS:

The Land Use Summary Table (Section 3.03.4) of the Woodbury County Zoning Ordinance does not reference data processing or this specific request by the applicant. However, this can be interpreted under Section 3.03.3 of the Woodbury County Zoning Ordinance as a comparable utility or comparable to the industrial use of research and development laboratories in the sense of business data analysis. Therefore, for the purposes of this request, data processing can be interpreted as a conditional use under section 3.03.3 in the Agricultural Preservation (AP) Zoning District.

CRITERIA 2: The proposed use and development will be in harmony with the general purpose and intent of this ordinance and the goals, objectives and standards of the general plan (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

The proposed demand response modular data center supports demand side response (DSR), which enhances electricity market efficiency, reduces costs, and improves supply security by utilizing alternative energy sources. The development will create local jobs, contributing to the community's economy and blending urban and rural benefits. Importantly, it will preserve environmental assets, ensuring no waste, runoff, or air pollution, thus maintaining the area's clean air, water, and land.

STAFF ANALYSIS:

This request can be construed to be compatible with the Economic Development Goals and Objectives of the Woodbury County Comprehensive Plan 2040 including "the encouragement of the diversification of Woodbury County's economy..." (p. 53)

CRITERIA 3: The proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

The proposed Data Processing Business will not have a substantial or undue adverse effect on adjacent property, neighborhood character, traffic conditions, parking, utility facilities, or public health and safety. Situated in an agricultural area with no nearby neighborhoods, the site is ideal for utilizing excess power from the adjacent substation, which benefits from competitive market rates. The slab-on-grade construction ensures minimal land disruption, preserving the integrity of the surrounding area. The business will employ 2 technicians who will park within the premises, ensuring no impact on local traffic. The site will be securely fenced, further mitigating any potential concerns. This project not only provides additional income for landowners but also benefits the community by efficiently utilizing excess energy from the utility and substation. On days of high energy demand, the site can contribute extra power back to the community, supporting local energy needs and enhancing overall resilience.

STAFF ANALYSIS:

Even though this location has separation distances from single-family dwellings, it will be essential for the applicants to minimize the amount of noise generated from the operations of this facility. The location of this site could discourage future development, however the nearest dwelling is around 1,100 FT north from the site. **See full staff analysis below.**

CRITERIA 4: The proposed use and development will be located, designed, constructed and operated in such a manner that it will be compatible with the immediate neighborhood and will not interfere with the orderly use, development and improvement of surrounding property (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

The proposed Data Processing Business will be located, designed, constructed, and operated in a manner that ensures compatibility with the immediate area and does not interfere with the orderly use, development, and improvement of surrounding property. Located in an agricultural area with no nearby neighborhoods, the business will use slab-on-grade construction, ensuring minimal disruption to the land and surrounding properties.

STAFF ANALYSIS:

Measures should be taken to reduce the amount of noise generated from the facility. **See full staff analysis below.**

CRITERIA 5: Essential public facilities and services will adequately serve the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

By employing local contractors and small businesses, including electricians, concrete workers, dirt work specialists, and builders, we ensure that the construction and ongoing operations are supported by the community. Each site will support two full-time technicians earning an average of \$26 per hour, who will also receive health care benefits and company-provided housing and utilities. Additionally, a support staff based in Hardin County will be hired to assist with site development and community relations. This project not only brings in local talent to help build a part of our future but also creates employment opportunities within the community. We plan to offer internships with local colleges to educate students in the technology field.

STAFF ANALYSIS:

This location was selected due to its proximity to Woodbury County REC's electrical substation. **See full staff analysis below.**

CRITERIA 6: The proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic or historic features of the subject property or adjacent properties (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

There will not be disruption to the land, neighborhood, or surrounding property. Although the land is currently zoned as agricultural (rural area with no neighborhood or historic features), it cannot be utilized to its fullest potential due to the substation's location. The location of the site is directly beside the substation, land that is not utilized in the farming culture. Mapping out the site will provide the future farmers with easier access to farming their own land. Healthy balance with traditional agriculture and other business enterprises. The Data Processing Business needs to be close to a substation to use the excess power, and the market has competitive rates. There will not be disruption to the land, neighborhood, or surrounding property.

STAFF ANALYSIS:

See full staff analysis below.

OTHER CONSIDERATION 1: The proposed use or development, at the particular location is necessary or desirable to provide a service or facility that is in the public interest or will contribute to the general welfare of the neighborhood or community (Woodbury County Zoning Ordinance, Sec. 2.02-9).

STAFF ANALYSIS:

Locating this business at this location could be construed as adding to the tax-base.

OTHER CONSIDRATION 2: All possible efforts, including building and site design, landscaping and screening have been undertaken to minimize any adverse effects of the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).

STAFF ANALYSIS:

See full staff analysis below.

STAFF ANALYSIS – REVISED AND EXPANDED – AUGUST 29, 2024

As staff noted in the original packets, the applicants and property owners should provide for the mitigation of any noise generated by the facility that could adversely impact neighboring properties as well as have adequate security and lighting including the use of security fencing. Thus, based on the information received and the requirements set forth in the Zoning and Subdivision Ordinance, the proposal could meet the appropriate criteria for approval.

Staff acknowledges that the information provided in this updated application has significantly increased since the previous meeting. The proposal now includes additional details that can be evaluated against the zoning ordinance’s criteria to determine if the site is suitable for a digital data processing (bitcoin) facility. During the August 5, 2024, Board of Adjustment meeting, there was insufficient information to assess compliance with the standards and other considerations of a conditional use permit.

The new data helps the public understand the data processing or bitcoin facility better, but some issues remain unclear. Specifically, the measures to mitigate neighborhood impacts are not fully detailed. Many responses included phrases like "if necessary," suggesting a non-committal trial-and-error approach. Although there has been progress in addressing noise impacts, specific calculations for the noise generated by the system at the proposed site are still missing. For example, can the applicants confirm that their equipment will not exceed a particular rating such as 50 dBA at nearby residences and/or their property lines?

The applicants referenced manufacturer data, but it’s unclear how this information translates to the noise levels from the specific system proposed in terms of the footprint on the site. Does the quantity of systems, number of servers, etc. ultimately impact the sound rating? How do we know the data presented exactly matches the complete systems being proposed? There’s a gap in understanding how each server or component contributes to the overall noise. The provided information remains generalized about the actual system’s footprint and contribution to the area dBA. Staff requests further explanation on these points for clarification.

At this point, the information provided so far is a step forward but still lacks the detailed clarity expected from a comprehensive development plan. Details such as brand names, model numbers, and system specifications are needed. Without specific manufacturer data that considers the model, quantity, and site footprint, there is insufficient information to make a determination. The Board of Adjustment could choose to approve a conditional use permit if the applicants meet all relevant standards and criteria. However, without specific conditions, it is unclear how placing a data processing (bitcoin) facility at the proposed location would impact the neighborhood. Public testimony from the applicants, neighbors, and other stakeholders will be crucial to determine if reasonable conditions can be applied to mitigate any potential issues. The following conditions are

offered as a guide to potentially address possible impacts. This list may be adjusted as necessary:

- **Noise Limits:** Equipment must not exceed 55 dBA during the day or 50 dBA at night at nearby residences, except during construction. Pre- and post-construction noise evaluations by certified professionals are required.
- **Noise Mitigation:** Use soundproofing and other noise-reducing measures.
- **Zoning Compliance:** The facility must comply with the bulk regulations for the Agricultural Preservation (AP) Zoning District.
- **Security:** Install and maintain a secure fence with a gate with appropriate warning signage.
- **Road and Drainage:** Adhere to Woodbury County's road use and drainage agreements, including obtaining necessary permits and repairing any damage.
- **Decommissioning Plan:** Submit an approved plan outlining the facility's lifespan, decommissioning procedures, site restoration, and cost estimates. Provide financial surety of 125% of the estimated decommissioning costs.
- **Site Restoration:** Remove all structures and equipment, decompact soil, and restore the site as specified. Agreements with landowners for leased properties may be necessary.
- **Financial Surety:** Maintain and update decommissioning funds every five years. Ensure funds are sufficient and adjusted as needed.
- **Abandonment:** Decommission the facility if abandoned, including notifying the Zoning Director and obtaining verification of decommissioning. Exceptions may apply under certain conditions.
- **Permit Applications:** A new Conditional Use Permit is required for new or replacement equipment.
- **Emergency Response:** Develop an Emergency Response Plan in coordination with local authorities.
- **Regulatory Compliance:** Adhere to all relevant regulations and inform the County of any changes in facility operators.
- **Permit Expiry:** The permit expires if construction does not commence within one year.



WOODBURY COUNTY COMMUNITY AND ECONOMIC DEVELOPMENT

Zoning Ordinance Section 2.02(9)

Page 1 of 6

CONDITIONAL USE PERMIT APPLICATION

Owner Information:		Applicant Information:	
Owner	ASHLEY ACRES FAMILY LIMITED PARTNERSHIP	Applicant	AUR CORRECTIONVILLE LLC
Address	3356 170th St. Correctionville, IA 51016	Address	15988 230th St. Grundy Center, IA 50638
Phone	(712) 898-7902	Phone	877-467-7780

We, the undersigned, hereby apply to the Woodbury County Board of Adjustment for permission to:
 To place a demand response load resource next to the substation in conjunction with local electric utility to support grid resiliency.

Property Information:

Property Address or Address Range N/A

Quarter/Quarter _____ Sec 03 Twshp/Range 88-44

Parcel ID # 884403400009 GIS # _____ Total Acres 1.5

Current Use _____ Proposed Use Operation of Data Processing Business

Current Zoning Agricultural

The filing of this application is required to be accompanied with all items and information required pursuant to section 2.02(9)(C)(2) through (C)(4) of Woodbury County's zoning ordinances (see attached pages of this application for a list of those items and information).

A formal pre-application meeting is recommended prior to submitting this application.

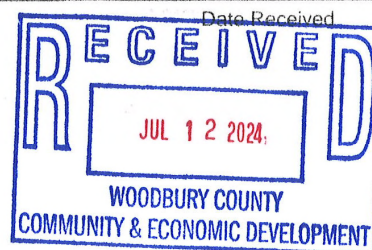
Pre-app mtg. date June 28, 2024 Staff present Daniel Priestley

The undersigned is/are the owners(s) of the described property on this application, located in the unincorporated area of Woodbury County, Iowa, assuring that the information provided herein is true and correct. I hereby give my consent for the Woodbury County Community and Economic Development staff, Zoning Commission and Board of Adjustment members to conduct site visits and photograph the subject property.

This Conditional Use Permit Application is subject to and shall be required, as a condition of final approval, to comply with all applicable Woodbury County ordinances, policies, requirements and standards that are in effect at the time of final approval.

Owner [Signature] Applicant John Paul Baric
 JOHNPAUL BARIC
 Date 7/8/2024 Date July 08, 2024

Fee: \$300* Case #: 6997
 Check #: cc ending 6294
 Receipt #: _____



PER SECTION 2.02(9)(C)(2 (d) PROVIDE A SPECIFIC DESCRIPTION OF THE PROPOSED CONDITIONAL USE: (Tab at the end of each line to continue)

The proposed conditional use will be an Operation of Data Processing Business by placing a Demand Response Load Resource next to the Substation in conjunction with Local Electric utility to Support Grid Resiliency. The center would even the supply and demand of power and be located next to a substation under Woodbury Rural Electric Cooperative.

PER SECTION 2.02(9) (C)(2)(e) PROVIDE A MAP DRAWN TO SCALE, SHOWING THE SUBJECT PROPERTY, ALL STRUCTURES AND OTHER IMPROVEMENTS, WITH THE PROPOSED CONDITIONAL USE IDENTIFIED PER STRUCTURE OR IMPROVEMENT . PROVIDE BY ATTACHMENT.

PER SECTION 2.02(9) (C)(2)(e) PROVIDE A STATEMENT IN RESPONSE TO EACH OF SIX BELOW CRITEREA AND STANDARDS FOR APPROVAL OF CONDITIONAL USES AS LISTED IN SECTION 2.02(9)F OF THE ORDINANCES. (Tab at the end of each line to continue)

- (a) Provide a statement to why you feel the conditional use requested is authorized as a conditional use in the zoning district within which the property is located and that any specific conditions or standards described as part of that authorization have been or will be satisfied.

The property is currently zoned as agricultural. The applicant, with a lease from the landowner, has received permission to develop a Data Processing Business on the property. The proposed project will be constructed with slab on grades ensuring minimal disruption to the land and compliance with zoning requirements. Historically, a similar project have successfully utilized special use permit for the past year in Woodbury County, demonstrating their compatibility with agricultural zones.

- (b) Provide a statement to why the proposed use and development will be in harmony with the general purpose and intent of this ordinance and the goals, objectives and standards of the general plan. (Tab at the end of each line to continue)

The proposed demand response modular data center supports demand side response (DSR), which enhances electricity market efficiency, reduces costs, and improves supply security by utilizing alternative energy sources. The development will create local jobs, contributing to the community's economy and blending urban and rural benefits. Importantly, it will preserve environmental assets, ensuring no waste, runoff, or air pollution, thus maintaining the area's clean air, water, and land.

- (c) Provide a statement to why the proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare. (Tab at the end of each line to continue)

The proposed Data Processing Business will not have a substantial or undue adverse effect on adjacent property, neighborhood character, traffic conditions, parking, utility facilities, or public health and safety. Situated in an agricultural area with no nearby neighborhoods, the site is ideal for utilizing excess power from the adjacent substation, which benefits from competitive market rates. The slab-on-grade construction ensures minimal land disruption, preserving the integrity of the surrounding area. The business will employ 2 technicians who will park within the premises, ensuring no impact on local traffic. The site will be securely fenced, further mitigating any potential concerns. This project not only provides additional income for landowners but also benefits the community by efficiently utilizing excess energy from the utility and substation. On days of high energy demand, the site can contribute extra power back to the community, supporting local energy needs and enhancing overall resilience.

- (d) Provide a statement to why the proposed use and development will be located, designed, constructed and operated in such a manner that it will be compatible with the immediate neighborhood and will not interfere with the orderly use, development and improvement of surrounding property. (Tab at the end of each line to continue)

The proposed Data Processing Business will be located, designed, constructed, and operated in a manner that ensures compatibility with the immediate area and does not interfere with the orderly use, development, and improvement of surrounding property. Located in an agricultural area with no nearby neighborhoods, the business will use slab-on-grade construction, ensuring minimal disruption to the land and surrounding properties.

(e) Provide a statement to why essential public facilities and services will adequately serve the proposed use or development. (Tab at the end of each line to continue)

By employing local contractors and small businesses, including electricians, concrete workers, dirt work specialists, and builders, we ensure that the construction and ongoing operations are supported by the community. Each site will support two full-time technicians earning an average of \$26 per hour, who will also receive health care benefits and company-provided housing and utilities. Additionally, a support staff based in Hardin County will be hired to assist with site development and community relations. This project not only brings in local talent to help build a part of our future but also creates employment opportunities within the community. We plan to offer internships with local colleges to educate students in the technology field.

(f) Provide a statement to why the proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic or historic features of the subject property or adjacent properties. (Tab at the end of each line to continue)

There will not be disruption to the land, neighborhood, or surrounding property. Although the land is currently zoned as agricultural (rural area with no neighborhood or historic features), it cannot be utilized to its fullest potential due to the substation's location. The location of the site is directly beside the substation, land that is not utilized in the farming culture. Mapping out the site will provide the future farmers with easier access to farming their own land. Healthy balance with traditional agriculture and other business enterprises. The Data Processing Business needs to be close to a substation to use the excess power, and the market has competitive rates. There will not be disruption to the land, neighborhood, or surrounding property.

Sioux City Journal
AFFIDAVIT OF PUBLICATION

Sioux City Journal
2802 Castles Gate Drive
Sioux City 51106
(712) 293-4250

State of Pennsylvania, County of Lancaster, ss:

Casey Allen, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Sioux City Journal, printed and published by Journal Communications, in Sioux City in Woodbury County and issued daily and Sunday and that this affidavit is Page 1 of 1 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Jul. 20, 2024

NOTICE ID: YHRFWb4vSYNvrsYQU2vz
PUBLISHER ID: COL-IA-500615
NOTICE NAME: BOA_Data_Process_CUP
Publication Fee: \$33.76

Casey Allen

(Signed) _____

VERIFICATION

State of Pennsylvania
County of Lancaster

Commonwealth of Pennsylvania - Notary Seal
Nicole Burkholder, Notary Public
Lancaster County
My commission expires March 30, 2027
Commission Number 1342120

Subscribed in my presence and sworn to before me on this: 07/23/2024

Nicole Burkholder

Notary Public
Notarized remotely online using communication technology via Proof.

**NOTICE OF PUBLIC HEARING
BEFORE THE WOODBURY
COUNTY BOARD OF
ADJUSTMENT REGARDING A
DATA PROCESSING BUSINESS**

The Woodbury County Board of Adjustment will hold a public hearing on the following item hereafter described in detail on August 5, 2024 at 6:00 PM or as soon thereafter as the matter may be considered. Said hearing will be held in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, Iowa. Copies of said item may now be examined at the office of the Woodbury County Community and Economic Development, on the 6th Floor of said courthouse by any interested persons. All persons who wish to be heard in respect to the matter should appear at the aforesaid hearing in person or call: 712-454-1133 and enter the Conference ID: 742 346 123# during the meeting to listen or comment. However, it is recommended to attend in person as there is the possibility for technical difficulties with phone and computer systems.

Item One (1)

Pursuant to Section 335 of the Code of Iowa, the Woodbury County Board of Adjustment will hold a public hearing to consider the Conditional Use Permit application by 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.
COL-IA-500615

Sioux City Journal
AFFIDAVIT OF PUBLICATION

Sioux City Journal
 2802 Castles Gate Drive
 Sioux City 51106
 (712) 293-4250

State of Texas, County of Bexar, ss:

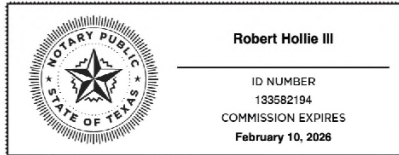
Hayden Lipsky, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Sioux City Journal, printed and published by Journal Communications, in Sioux City in Woodbury County and issued daily and Sunday and that this affidavit is Page 1 of 1 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
 Aug. 20, 2024

NOTICE ID: LTM5EACM1n4AzFTccae9
PUBLISHER ID: COL-IA-500723
NOTICE NAME: BoA_CUP_Data_Processing_Center_9-4-24
Publication Fee: \$39.72

(Signed) Hayden Lipsky

VERIFICATION
 State of Texas
 County of Bexar



Subscribed in my presence and sworn to before me on this: 08/21/2024

[Signature]
 Notary Public

Electronically signed and notarized online using the Proof platform.

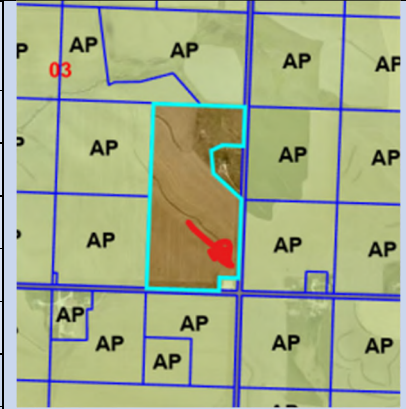
NOTICE OF PUBLIC HEARING BEFORE A SPECIAL MEETING OF THE WOODBURY COUNTY BOARD OF ADJUSTMENT REGARDING A DATA PROCESSING BUSINESS

The Woodbury County Board of Adjustment will hold a public hearing on the following item hereafter described in detail on September 4, 2024 at 6:00 PM or as soon thereafter as the matter may be considered. Said hearing will be held in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, Iowa. Copies of said item may now be examined at the office of the Woodbury County Community and Economic Development, on the 6th Floor of said courthouse by any interested persons. All persons who wish to be heard in respect to the matter should appear at the aforesaid hearing in person or call: 712-454-1133 and enter the Conference ID: 729 498 353# during the meeting to listen or comment. However, 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, 6th Floor, Woodbury County Courthouse, 620 Douglas St., Sioux City, IA 51101; Emails should be sent to Daniel Priestley at: dpriestley@woodbury-countyiowa.gov. Only signed comments will be considered and should be received no later than 10:00 AM on September 4, 2024.

Item One (1)
 Pursuant to Section 335 of the Code of Iowa, the Woodbury County Board of Adjustment will hold a public hearing to consider the Conditional Use Permit application by 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 #684403400009 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, 15986 230th St., Grundy Center, IA 50638.
 COL-IA-500723

PROPERTY OWNER(S) NOTIFICATION

Total Property Owners within 500 FT via Certified Abstractor's Listing:	5
Notification Letter Date:	July 18, 2024; August 16, 2024
Public Hearing Board:	Board of Adjustment
Public Hearing Date:	August 5, 2024; September 4, 2024
Phone Inquiries:	1
Written Inquiries:	1
The names of the property owners are listed below.	
When more comments are received after the printing of this packet, they will be provided at the meeting.	



PROPERTY OWNER(S)	MAILING ADDRESS				COMMENTS
Brian & Jo Ann Sadler Joint Revocable Living Trust	3448 160th St.	Correctionville	IA	51016-8113	See written comments included below (8/23/24). Phone inquiry from Jo Ann Sadler (7/25/24). Offered concerns about the notification process including the timeframe the letter was received before the Zoning Commission review. The Commissioners should factor in public comments as part of their recommendation.
Bruce B. & Shelly Dawn Sadler	3417 170th St.	Correctionville	IA	51016-8116	No comments
Ashley Acres Family Limited Partnership	3356 170th St.	Correctionville	IA	51016-8115	No comments
Northwest Iowa Power Cooperative	PO Box 240	Le Mars	IA	51031	No comments
Kendall & Lisa Ashley	1665 Kossuth Ave. Letter mailed to PO Box 216, Merville, IA 51039-0216	Correctionville	IA	51016	No comments

Jo Ann Sadler

3448 160th St.
Correctionville, Iowa 51016

August 23, 2024

Dan Priestley

Woodbury County Planning & Zoning
620 Douglas Street, Sixth Floor
Sioux City, Iowa 51101

Dear Mr. Priestley,

I am writing to voice my opposition to the proposed Bitcoin mining facility in Wolf Creek Township.

As noted in the packet provided to the Board of Adjustment, **“the Land Use Summary Table (Section 3.03.4) of the Woodbury County Zoning Ordinance does not reference data processing or this specific request by the applicant”**. The summary goes on to say “that it can be interpreted under section 3.03 of the Woodbury County Zoning Ordinance as a **comparable utility use or comparable to the industrial use of research and development laboratories** in the sense of data analysis”. This facility is a bitcoin mining operation and it is not research development and therefore is not an allowed use listed in the Land Use Summary and **should not be allowed to be considered for a conditional use permit**.

There are many problems with Bitcoin mining including the constant noise. Researchers have seen that prolonged exposure to noise can lead to high blood pressure, sleep loss, migraines, chest pains, and vertigo. The nearest home is around 1000 ft from the proposed site and there are cattle much closer. There are many homes within the one mile distance to this proposed site. An article in Popular Mechanics magazines reports that residents living up to a mile away can hear the constant noise and it is worse at night and in the winter. The Stanton, Nebraska Bitcoin mine is loud and affecting the health of the nearby residents.

Bitcoin mines also use a huge amount of energy. The Grundy County Bitcoin mine uses as much power as 95 percent of Grundy County. The average home uses 11,000 kilowatt-hours of electricity per year and the Grundy County Bitcoin mine uses 54 million kilowatt-hours a year, equivalent to 4,900 houses. Globally, Bitcoin mining consumes more electricity than the entire country of Norway.

Fossil fuels generate about 60 percent of the electricity in the United States and are the primary cause of global climate change. We are all aware of the extreme weather events we continually see such as flooding, hail storms, ice storms, tornadoes, and either too much or too little rain. Home insurance rates are rapidly rising because of all the claims caused by these never ending weather events. Therefore, the extreme use of energy by Bitcoin mines are contributing to extreme weather events and in turn our high insurance rates.

In conclusion, Bitcoin mines are bad for the environment, our health and our pocketbook. Please deny this conditional use permit.

Sincerely,

Jo Ann Sadler

STAKEHOLDER COMMENTS

911 COMMUNICATIONS CENTER:	No comments.
FIBERCOMM:	No comments.
IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR):	No comments.
IOWA DEPARTMENT OF TRANSPORTATION (IDOT):	No comments.
LOESS HILLS NATIONAL SCENIC BYWAY:	No comments.
LOESS HILLS PROGRAM:	No comments.
LOGLINES:	No comments.
LUMEN:	No comments.
MAGELLAN PIPELINE:	No comments.
MIDAMERICAN ENERGY COMPANY (Electrical Division):	I have reviewed the attached conditional use permit for MEC electric and we have, no conflicts. – Casey Meinen, 7/5/24.
MIDAMERICAN ENERGY COMPANY (Gas Division):	No comments.
NATURAL RESOURCES CONSERVATION SERVICES (NRCS):	No comments.
NORTHERN NATURAL GAS:	No comments.
NORTHWEST IOWA POWER COOPERATIVE (NIPCO):	Have reviewed this zoning request. NIPCO has no issues with this request. – Jeff Zettel, 7/15/24.
NUSTAR PIPELINE:	No comments.
SIOUXLAND DISTRICT HEALTH DEPARTMENT:	No comments.
WIATEL:	No comments.
WOODBURY COUNTY ASSESSOR:	No comments.
WOODBURY COUNTY CONSERVATION:	No comments.
WOODBURY COUNTY EMERGENCY MANAGEMENT:	No comments.
WOODBURY COUNTY EMERGENCY SERVICES:	No comments.
WOODBURY COUNTY ENGINEER:	I have no issues with this proposed land use at this location. The change would appear to be consistent with the location of the existing facility already in place. – Mark Nahra, 7/17/24.
WOODBURY COUNTY RECORDER:	No comments. – Diane Swoboda Peterson, 7/3/24.
WOODBURY COUNTY RURAL ELECTRIC COOPERATIVE (REC):	No comments.
WOODBURY COUNTY SOIL AND WATER CONSERVATION DISTRICT:	The WCSWCD has no comments regarding this application. – Neil Stockfleth, 7/3/24.
WOODBURY COUNTY TREASURER:	The Treasurer's office has no comments. – Tina Bertrand, 7/5/24.

Woodbury County, IA / Sioux City

Summary

Parcel ID 884403400009
Alternate ID
Property Address N/A
Sec/Twp/Rng 3-88-44
Brief WOLF CREEK TOWNSHIP E 1/2 OF SE 1/4 OF 3-88-44 (EX TCT IN SE COR OF E 1/2 OF SE 1/4 BEING 300 FT BY 200 FT) AND (EX AN IRREG TCT DESCRIBED AS COM AT NE COR OF E 1/2 OF SE 1/4 THNC S 552.99 FT TO POB; THNC S 773.97 FT, THNC NW 582.29 FT, THNC NW 314.91 FT, THNC
Tax Description (Note: Not to be used on legal documents)
Deed Book/Page [\(6/16/2023\)](#)
Gross Acres 70.62
Net Acres 70.62
Zoning [EMPTY] - [EMPTY]
District 0056 WOLF CREEK/WD-C
School District WOODBURY CENTRAL
Neighborhood N/A

Owner

Deed Holder
[ASHLEY ACRES FAMILY LIMITED PARTNERSHIP](#)
[3356 170TH ST](#)
 CORRCTIONVILLE IA 51016-8115
Contract Holder
Mailing Address
 ASHLEY ACRES FAMILY LIMITED PARTNERSHIP
 3356 170TH ST
 CORRCTIONVILLE IA 51016-8115

Land

Lot Area 70.62 Acres ;3,076,207 SF

Agricultural Buildings

Plot #	Type	Description	Width	Length	Year Built	Building Count
	Barn - Pole		18	72	2006	1

Valuation

	2024	2023
Classification	Agriculture	Agriculture
+ Assessed Land Value	\$151,370	\$129,660
+ Assessed Building Value	\$3,040	\$0
+ Assessed Dwelling Value	\$0	\$0
= Gross Assessed Value	\$154,410	\$129,660
- Exempt Value	\$0	\$0
= Net Assessed Value	\$154,410	\$129,660

Sioux City Special Assessments and Fees

[Click here to view special assessment information for this parcel.](#)

Woodbury County Tax Credit Applications

Apply for Homestead, Military or Business Property Tax Credits

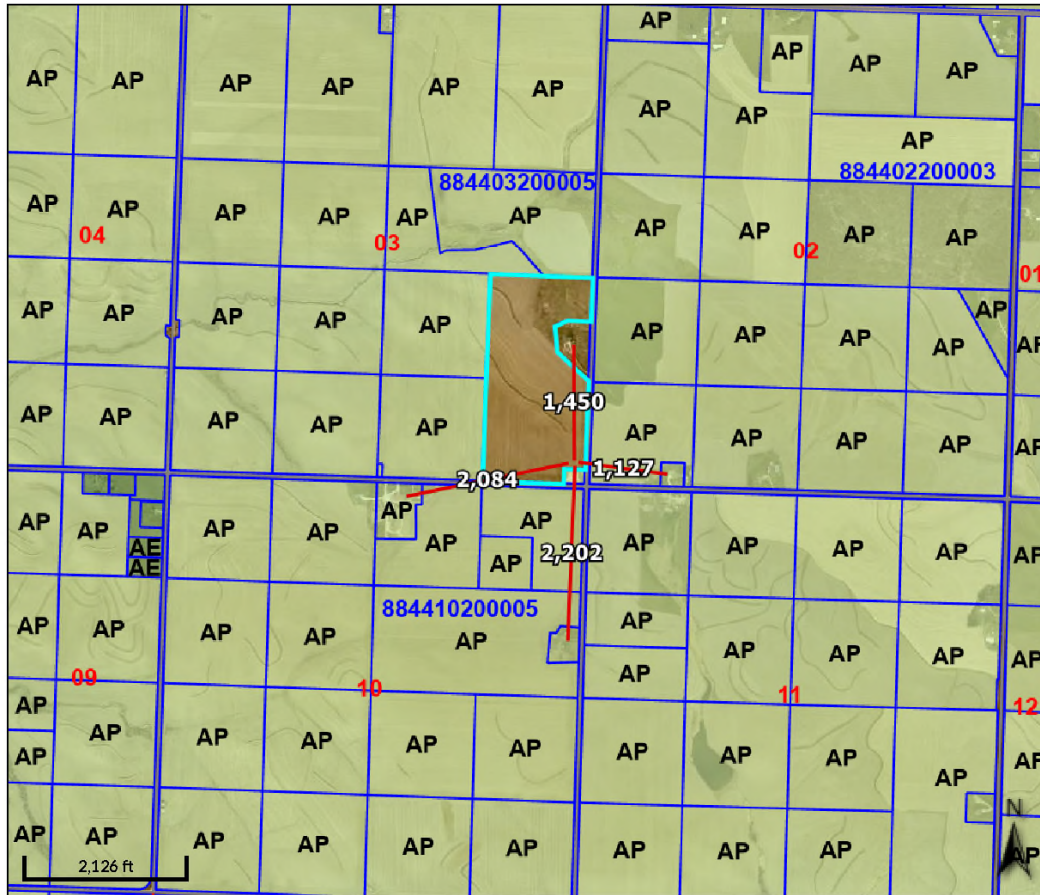
No data available for the following modules: Residential Dwellings, Commercial Buildings, Yard Extras, Sales, Permits, Sioux City Tax Credit Applications, Sioux City Board of Review Petition, Photos, Sketches.

The maps and data available for access at this website are provided "as is" without warranty or any representation of accuracy, timeliness, or completeness. There are no warranties, expressed or implied, as to the appropriate use of the maps and data or the fitness for a particular purpose. The maps and associated data at this website do not represent a survey. No liability is assumed for the accuracy of the data delineated on any map, either expressed or implied.

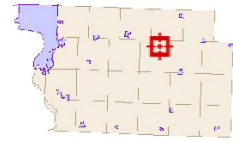
[User Privacy Policy](#) | [GDPR Privacy Notice](#)
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Contact Us

Developed by

Overview



Legend

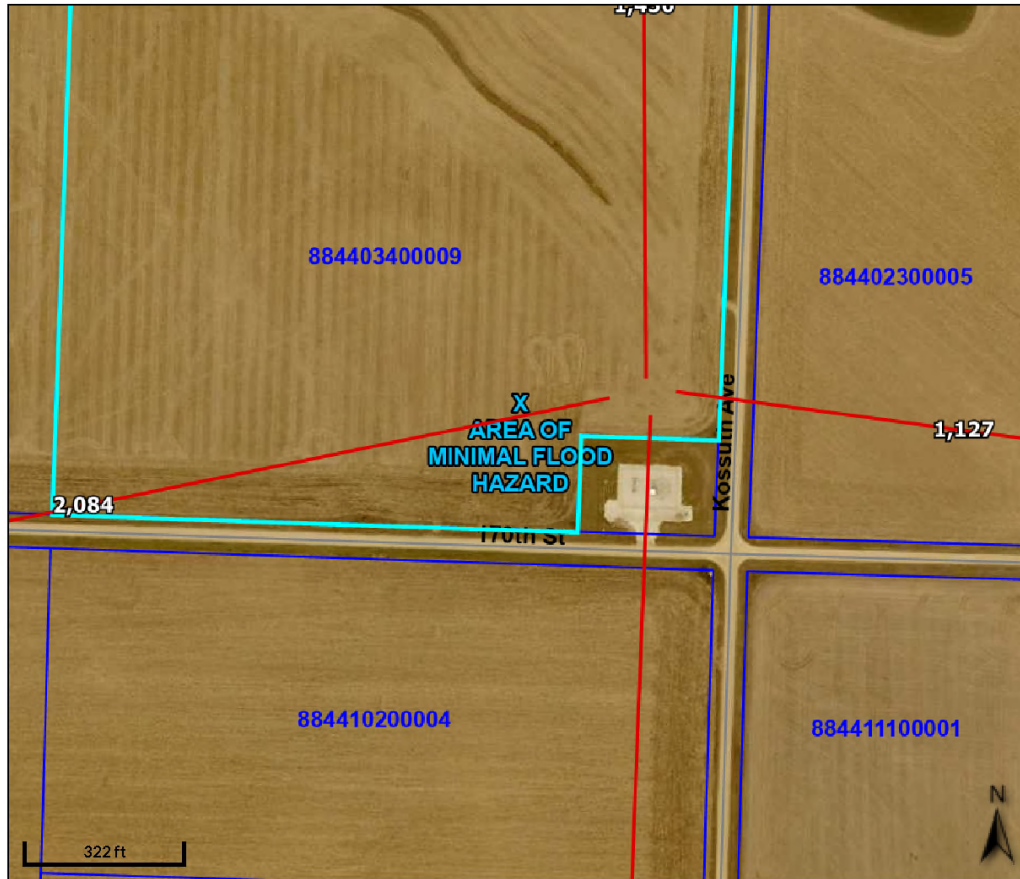
- Roads
- ▭ Corp Boundaries
- ▭ Townships
- ▭ Sections
- ▭ Parcels
- County Zoning**
- AE
- AP
- GC
- GC-PD
- GI
- LI
- LI-PD
- SR
- WR

Parcel ID	884403400009	Alternate ID	n/a	Owner Address	ASHLEY ACRES FAMILY LIMITED PARTNERSHIP
Sec/Twp/Rng	03-88-44	Class	A		3356 170TH ST
Property Address		Acreeage	70.62		CORRCTIONVILLE, IA 51016-8115
District	0056				
Brief Tax Description	WOLF CREEK TOWNSHIP E 1/2 OF SE 1/4 OF 3-88-44 (EX TCT IN SE COR OF E 1/2 OF SE 1/4 BEING 300 FT BY 200 FT) AND (EX AN IRREG TCT DESCRIBED AS COM AT NE COR OF E 1/2 OF SE 1/4 THNC S 552.99 FT TO POB; THNC S 773.97 FT, THNC NW 582.29 FT, THNC NW 314.91 FT, THNC				
	<i>(Note: Not to be used on legal documents)</i>				

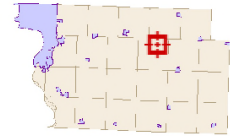
Date created: 7/2/2024
 Last Data Uploaded: 7/2/2024 12:19:36 AM

Developed by  **Schneider**
 GEOSPATIAL

SPECIAL FLOOD HAZARD AREA (SFHA) MAP



Overview



Legend

- Roads
- ▭ Corp Boundaries
- ▭ Townships
- ▭ Parcels
- FEMA Flood Map (Preliminary)**
- ▭ A.
- ▭ AE.
- ▭ AE, FLOODWAY
- ▭ AH.
- ▭ AO.
- ▭ X, 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- ▭ X, AREA WITH REDUCED FLOOD RISK DUE TO LEVEE

Parcel ID	884403400009	Alternate ID	n/a	Owner Address	ASHLEY ACRES FAMILY LIMITED PARTNERSHIP
Sec/Twp/Rng	03-88-44	Class	A		3356 170TH ST
Property Address		Acreage	70.62		CORRCTIONVILLE, IA 51016-8115
District	0056				
Brief Tax Description	WOLF CREEK TOWNSHIP E 1/2 OF SE 1/4 OF 3-88-44 (EX TCT IN SE COR OF E 1/2 OF SE 1/4 BEING 300 FT BY 200 FT) AND (EX AN IRREG TCT DESCRIBED AS COM AT NE COR OF E 1/2 OF SE 1/4 THNC S 552.99 FT TO POB; THNC S 773.97 FT, THNC NW 582.29 FT, THNC NW 314.91 FT, THNC				
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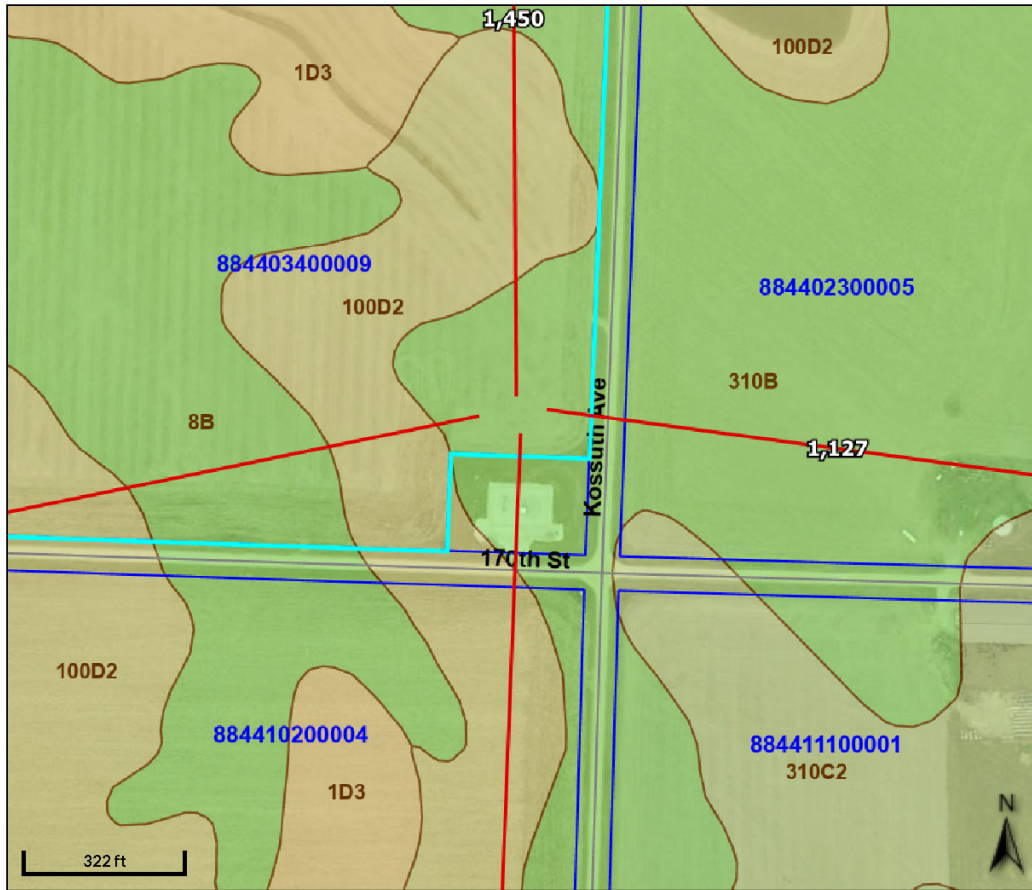
Date created: 7/2/2024
 Last Data Uploaded: 7/2/2024 12:19:36 AM

Developed by Schneider
 GEOSPATIAL

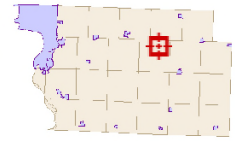
ELEVATION MAP



BeaconTM Woodbury County, IA / Sioux City



Overview



Legend

- Roads
- Soils**
- 0.000000 - 5.000000
- 5.000001 - 20.000000
- 20.000001 - 30.000000
- 30.000001 - 40.000000
- 40.000001 - 50.000000
- 50.000001 - 60.000000
- 60.000001 - 70.000000
- 70.000001 - 80.000000
- 80.000001 - 90.000000
- 90.000001 - 100.000000
- Corp Boundaries
- Townships
- Parcels

Parcel ID	884403400009	Alternate ID	n/a	Owner Address	ASHLEY ACRES FAMILY LIMITED PARTNERSHIP
Sec/Twp/Rng	03-88-44	Class	A		3356 170TH ST
Property Address		Acreage	70.62		CORRCTIONVILLE, IA 51016-8115
District	0056				
Brief Tax Description	WOLF CREEK TOWNSHIP E 1/2 OF SE 1/4 OF 3-88-44 (EX TCT IN SE COR OF E 1/2 OF SE 1/4 BEING 300 FT BY 200 FT) AND (EX AN IRREG TCT DESCRIBED AS COM AT NE COR OF E 1/2 OF SE 1/4 THNC S 552.99 FT TO POB; THNC S 773.97 FT, THNC NW 582.29 FT, THNC NW 314.91 FT, THNC				
	<i>(Note: Not to be used on legal documents)</i>				

Date created: 7/2/2024
 Last Data Uploaded: 7/2/2024 12:19:36 AM

Developed by Schneider
 GEOSPATIAL

SOIL REPORT(S)

Currently, no soil report is on file for this parcel on the Beacon Assessor's site. Based on the mapping, the property is composed of the following soils:

Iowa Corn Suitability Rating CSR2 (IA)

Map unit symbol	Map unit name	Rating	Acres in
100D2	Monona silty clay loam, 9 to 14 percent slopes, eroded	60	
310B	Galva silty clay loam, 2 to 5 percent slopes	95	

Excerpt from Natural Resources Conservation Services (NRCS)

Source: https://websoilsurvey.sc.egov.usda.gov/WssProduct/m0xjoogypt4nmiiixblsnsc/m0xjoogypt4nmiiixblsnsc/20240702_11171611628_56_Iowa_Corn_Suitability_Rating_CSR2_IA.pdf

WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) REQUEST FORM

Date: 8/16/2024

Weekly Agenda Date: 8/27/2024

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Supervisors J. Taylor/M. Nelson

WORDING FOR AGENDA ITEM:

Direction for Planning and Zoning Director to Work with Planning and Zoning, the Board of Adjustment Commission, and Legal Counsel in Order to Make a Recommendation Contemplating Decommissioning Requirements as a Part of a New Ordinance Regarding Carbon Pipelines

ACTION REQUIRED:

Approve Ordinance

Approve Resolution

Approve Motion

Public Hearing

Other: Informational

Attachments

EXECUTIVE SUMMARY:

When something as powerful as eminent domain is used and emplacement of a new carbon pipeline is completed, a key question must be asked: after these new technologies have reaped the benefit of federal tax credits and the subsidiary energy used, what is to become of the land? This something that we have engaged in dozens of times regarding the alternative energies of wind and solar. Woodbury County adopted at our urging an energy resolution and has urged officials to look at new technologies that do not degrade farmland for future generations, respect private property rights, and leave the land in the spirit of stewardship better than we found out.

If the Summit plan to expand carbon pipeline through 300 miles that were abandoned by Navigator's CO2 pipeline maintains IUB commission approval by approvals in South and North Dakota and survives any lawsuit (if parties so file), then it is incumbent upon us to ask a key question: what decommissioning will be required to leave the land as outside companies found it?

While publicly elected officials to include seven other Iowa counties have appropriately focused mainly on setback distances and the use of eminent domain, this approach has an integral and reasonable, "If...then..." measure to protect our land for future generations.

BACKGROUND:

Decommissioning refers to the process of taking a line out of service safely and permanently. We are currently exploring changes to decommissioning with wind energy. Why? Because federal policy can dramatically change the viability of alternative energies. We realize the "shelf life" of such technologies may vacillate with financial viability. Afterwards with solar, wind, and carbon pipeline, there is a dramatic effect on the land with in the amount of concrete, pipe, metal over thousands of acres of land. Last 100 years from now Iowa becomes a spotted terrain of a patchwork not just of corn and soybeans but of once lucrative abandoned energy projects, we must demand a fair process to restore the land to how it was found, a key principle of who we are as a people.

Decommissioning can include leaving piping in place or removal, disconnecting the line from systems and segmenting where necessary, cleaning the line, addressing stability and soil/slope disturbance, contracting or obligating the monitoring responsibility of the decommissioned line. A key consideration in the decommissioning process is to minimize disturbance to farmlands, roadways, wetlands, green spaces, livestock operations, and residences. This would also entail the responsibility for looking after the line by maintaining protection from corrosion, right of way monitoring and maintenance, signage and contact info, maintaining profile and survey information for "call before dig" areas. In some cases a bond or other financial obligation is required as part of a decommissioning process.

The hoped for agenda item asks the Planning and Zoning Director to work collaboratively with P&Z, the BoA, our county attorney's office, and even outside legal counsel that we have already engaged in order to make sure that this process is well-detailed, legal, reasonable, and fair.

While setbacks for safety and eminent domain for private property rights have understandably and in many ways (rightly) dominated the debate, we want to move the discussion to a process wherein we are asked as a county, "If we are to build pipeline through hundreds of miles of farmland, near neighborhoods, under right of way and roads, what do you all require us to do in order to make things right for future generations?" Should a carbon pipeline be implemented, our answer to that will not only be to the major corporations who seek to use the land but will be realized by our children and Iowans for generations to come.

INFORMATION AND DISCUSSION ITEM ABOUT THE BOARD OF SUPERVISORS' CONSIDERATION OF CHANGES TO THE COMMERCIAL WIND ENERGY CONVERSION SYSTEMS (C-WECS) (INFORMATION / DISCUSSION ITEM)

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.

Background:

On Wednesday, April 17, 2024, a townhall meeting hosted by the Woodbury County Board of Supervisors and the Lawton City Council members was held in Lawton, IA that covered a range of subjects including the regulations of commercial wind energy conversion systems (C-WECS) in unincorporated Woodbury County. Several members of the public expressed concerns about safety, long-term agreements, and property values (Woodbury "Lawton," 2024).

Lawton Town Hall (Video) – Part 1 (April 17, 2024):

<https://www.youtube.com/watch?v=vYObe3e8hJk>

Lawton Town Hall (Video) – Part 2 (April 17, 2024):

<https://www.youtube.com/watch?v=V-WPdTjx6S8>

Subsequently, a petition with over 160 signatures was received into the record on August 6, 2024, asking the Board of Supervisors to revisit the regulations contained within Ordinance #56: An Ordinance Regulating Commercial Wind Energy Conversion Systems in Unincorporated Woodbury County and as amended via Ordinance #67 and Ordinance #72. The petition states the following:

We the people of Woodbury County demand the county's commercial wind ordinance be relevant based on information readily available. We believe new information makes our current ordinance no longer relevant and needs to be updated. We, the undersigned would like to see, at a minimum, the following issues addressed: ½ mile or at least 4.5x tower height (TH) whichever is greater from a non-participating property line, 2.5x TH from a participating residence, 3 miles from a town, county park, and airports, 40 decibels max for sound, complete removal of all concrete, metal, and wires for decommissioning, and mandatory bolstering of county roads and infrastructure prior to any construction. (Woodbury "Petition," 2024)

Petition Available for Download:

https://www.woodburycountyiowa.gov/files/meeting_assets/citizens_concerns_2024-08-06_64181.pdf

WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) REQUEST FORM

Date: 08/09/2024

Weekly Agenda Date: 08/13/2024

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Supervisor Nelson & Bittinger

WORDING FOR AGENDA ITEM:

Direct County Staff To Review Wind Energy Conversion Systems (WECS) Ordinance

ACTION REQUIRED:

Approve Ordinance

Approve Resolution

Approve Motion

Public Hearing

Other: Informational

Attachments

EXECUTIVE SUMMARY:

The rural residents of Woodbury County have petitioned the Board of Supervisors to review the setbacks, decommissioning requirements and permitting for WECS in Woodbury County.

BACKGROUND:

Rural residents have presented new blade-throw information, referenced other counties updated WECS ordinances, and have provided new safety concerns per safety data sheets of WECS.

FINANCIAL IMPACT:

N/A

IF THERE IS A CONTRACT INVOLVED IN THE AGENDA ITEM, HAS THE CONTRACT BEEN SUBMITTED AT LEAST ONE WEEK PRIOR AND ANSWERED WITH A REVIEW BY THE COUNTY ATTORNEY'S OFFICE?

Yes No

RECOMMENDATION:

Direct county staff to review the current WECS ordinance in light of the newly presented information.

ACTION REQUIRED / PROPOSED MOTION:

Motion to direct county staff to study & review for potential changes to the WECS ordinance.

Approved by Board of Supervisors April 5, 2016.

WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) REQUEST FORM

Date: 6/27/24 Weekly Agenda Date: 7/2/24

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Supervisor Keith Radig

WORDING FOR AGENDA ITEM:

Motion to direct the Zoning Commission to look at the zoning of nuclear energy.

ACTION REQUIRED:

Approve Ordinance

Approve Resolution

Approve Motion

Public Hearing

Other: Informational

Attachments

EXECUTIVE SUMMARY:

This directs the Zoning Commission to look at the zoning of nuclear energy as a potential energy option in Woodbury County.

BACKGROUND:

The Zoning Commission shall explore the zoning potential of nuclear energy as a potential option.

FINANCIAL IMPACT:

0

IF THERE IS A CONTRACT INVOLVED IN THE AGENDA ITEM, HAS THE CONTRACT BEEN SUBMITTED AT LEAST ONE WEEK PRIOR AND ANSWERED WITH A REVIEW BY THE COUNTY ATTORNEY'S OFFICE?

Yes No

RECOMMENDATION:

Approve the motion.

ACTION REQUIRED / PROPOSED MOTION:

Motion to direct the Zoning Commission to look at the zoning of nuclear energy.

Approved by Board of Supervisors April 5, 2016.

DISCUSSION AND PLANNING PROCESS FOR NUCLEAR ENERGY TO BE CONSIDERED FOR ADDITION TO WOODBURY COUNTY ZONING ORDINANCE (INFORMATION / DISCUSSION ITEM) 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 information item is for a discussion on how to proceed with future work sessions and public hearings.

Initial Information about Nuclear

The following is provided for initial informational purposes. The goal is to examine both standard nuclear power plants and small modular reactors as potential energy opportunities in the unincorporated areas in Woodbury County.

Nuclear Power Plant –

- A nuclear power plant is a thermal power station that harnesses energy from nuclear fuel fission. Here's how it works: the heat released during fission boils water, producing steam. This steam drives a turbine connected to a generator, ultimately producing electricity.

Small Modular Reactors (SMR) –

- Type of advanced nuclear reactor designed to be smaller in size and capacity compared to traditional nuclear reactors.
- Characteristics:
 - o Small Size. SMRs have a power capacity of up to 30 MW per unit, which is about one-third of the capacity of conventional nuclear reactors.
 - o Modular Construction. These reactors are designed to be factory-assembled and transported to the site for installation.
 - o Flexibility. SMRs can be deployed in single or multiple modules, making them suitable for a variety of application, including industrial use and remote areas with limited grid capacity.
 - o Safety. Many SMR designs incorporate passive safety features, which rely on natural physical processes rather than active controls to ensure safety.

Articles Links:

- *Nuclear Power Plan Licensing Process*
 - o <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/licensing-process-fs.html>
- *Office of Nuclear Material Safety and Safeguards*
 - o <https://scp.nrc.gov/>
- *Governing Legislation*
 - o www.nrc.gov/about-nrc/governing-laws.html
- *Fact Sheet: Biden-Harris Administration Announces New Steps to Bolster Domestic Nuclear Industry and Advance America's Clean Energy Future*
 - o <https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/29/fact-sheet-biden-harris-administration-announces-new-steps-to-bolster-domestic-nuclear-industry-and-advance-americas-clean-energy-future/>
- *Without a plant currently operating in Iowa, does nuclear energy have a future in the state?*
 - o <https://www.weareiowa.com/article/tech/science/climate-change/nuclear-energy-in-iowa-future-developments-midamerican/524-aaed2ac4-7c3b-406a-a84b-c6e356b181ee>
- *Newly Signed Bill Will Boost Nuclear Reactor Deployment in the United States*
 - o <https://www.energy.gov/ne/articles/newly-signed-bill-will-boost-nuclear-reactor-deployment-united-states#:~:text=President%20Biden%20signed%20the%20Fire,t%20seen%20since%20the%201970s.>
- *What is a Nuclear Microreactor?*
 - o <https://www.energy.gov/ne/articles/what-nuclear-microreactor>
- *Micro-reactor Pilot Program*
 - o <https://www.eielson.af.mil/microreactor/>
- *Project PELE Mobile Nuclear Reactor*
 - o https://www.cto.mil/pele_eis/
- *NRC Dockets Construction Permit Application for TerraPower's Sodium Reactor*
 - o <https://www.energy.gov/ne/articles/nrc-dockets-construction-permit-application-terrapowers-sodium-reactor>
- *What is High-Assay Low-Enriched Uranium (HALEU)?*
 - o <https://www.energy.gov/ne/articles/what-high-assay-low-enriched-uranium-haleu>
- *4 Crucial Steps the Biden-Harris Administration is Taking to Secure a Nuclear Fuel Supply Chain*
 - o <https://www.energy.gov/ne/articles/4-crucial-steps-biden-harris-administration-taking-secure-nuclear-fuel-supply-chain>
- *New DOE and NRC Agreement Will Lead to Faster Deployment and Licensing of U.S. Nuclear Technologies*
 - o <https://www.energy.gov/ne/articles/new-doe-and-nrc-agreement-will-lead-faster-deployment-and-licensing-us-nuclear>
- *What are Small Modular Reactors (SMRs)?*
 - o <https://www.iaea.org/newscenter/news/what-are-small-modular-reactors-smrs>
- *Small modular reactors*
 - o <https://www.iaea.org/topics/small-modular-reactors>

Nuclear Energy Discussion

Nuclear energy power plants including their establishment is primarily governed by the United States Nuclear Regulatory Commission (NRC). The NRC has a significant amount of control over the permitting and operation of such plants. Companies who wish to get involved in nuclear must directly work with the NRC through the process of obtaining an “Early site permit (ESP).” An example of this process can be found at the following NRC website:

<https://www.nrc.gov/reactors/new-reactors/large-lwr/esp/north-anna.html>

This website illustrates the process for the North Anna Site that was submitted by Dominion Nuclear North Anna, LLC. It includes application information, a review schedule, a safety evaluation report, a final environmental impact statement, the North Anna Early Site Permit, and contacts. There is also a “combined license process” which includes construction and operation approvals. The applicants must provide detailed plans for the plant’s design, construction, and operation as well as safety measures. It is the duty of the NRC to thoroughly review the submissions. The following website includes a list of combined license applications for new reactors: <https://www.nrc.gov/reactors/new-reactors/large-lwr/col.html>

An example of a combined license can be found at this link for the North Anna, Unit 3 site: <https://www.nrc.gov/reactors/new-reactors/large-lwr/col/north-anna.html>. The application materials include: referenced documents; application information; review schedule; safety evaluations; early site permit; final supplemental environmental impact statement; combined licenses; related application information; and contacts. In the combined license process, the application is reviewed and includes a public participation process, safety and environmental reviews and compliance with the National Environmental Policy Act (NEPA). The NRC also is involved in design certification, construction and operation, and post-license oversight.

It appears at this time that the permitting process for nuclear power plants including modular is a multi-governmental complex process largely governed by the NRC. The Iowa legislature appears to have considered two study bills (House Study Bill 555 and Senate Study Bill 3075) which would designate modular nuclear as an alternative energy production facility in Iowa. For more information, there is a January 25, 2024 article written by Wally Taylor entitled “Iowa Utilities bill includes a good idea – and a lost cause”

<https://www.bleedingheartland.com/2024/01/25/iowa-utilities-board-bill-includes-a-good-idea-and-a-lost-cause/>

Role of the County

Presently, under Section 3.03.3 of the Zoning Ordinance, nuclear energy generation could be administratively interpreted as a utility use that is eligible for conditional use permit consideration by the Zoning Commission and Board of Adjustment in the General Industrial (GI) Zoning District. However, as the same section reads “the table in subsection 3.03.4 may be updated pursuant to the procedure outlined in Section 2.03 from time to time to reflect legislative acceptance or rejection of the interpretations of the zoning director.” (p. 31).

As nuclear and modular nuclear technological systems are evolving, Woodbury County is in a position to legislatively address the county's nuclear policy for clarification. At this time, in terms of county zoning the question is, do the citizens of Woodbury County view nuclear as a viable alternative energy option for the future? If so, are there areas within the county that would be most appropriate for nuclear power generation? Depending on the input from the public stakeholders and the industry, the Woodbury County Zoning Ordinance could potentially be updated to clearly clarify the permitting of future nuclear projects.

Based on the regulations as presented by the NRC and the State of Iowa including the Iowa Utilities Board, the county could choose to add "Nuclear Energy Generation" as a land use in Section 3.03.4 (Land Use Summary Table of Allowed Uses...) under the "Utilities" category as either a "Conditional Use" or a "Principal Allowed Use" in the General Industrial (GI) Zoning District in the Woodbury County Zoning Ordinance. Regardless of either a conditional use or a principal allowed use, the applicants must go through a rigorous permitting process through other levels of government.

It is apparent that nuclear energy is significant, complex, and consequential. As directed by the Board of Supervisors, the work of the Zoning Commission is to examine nuclear energy as an option for zoning. Hence, a Zoning Commission public hearing process can be employed to seek public comments and consider potential recommendations including possibly legislatively adding "nuclear energy generation" formally as an option to the Zoning Ordinance's land use summary table.

Stakeholder Comments:

On July 26, 2024, a letter was sent to over 120 Woodbury County stakeholders ranging from state, city, county and township officials, utilities, and other stakeholder organizations. They were requested to offer their initial thoughts about nuclear energy. As of August 22, 2024, a total of five (5) comments have been received for the record. The letter is available on the subsequent page followed by the comments.



WOODBURY COUNTY COMMUNITY & ECONOMIC DEVELOPMENT

620 Douglas St. - Sixth Floor - Sioux City, IA 51101 - Phone: 712.279.6609 - Fax: 712.279.6530 - Web: woodburycountyia.gov
Daniel J. Priestley, MPA - Zoning Coordinator - dpriestley@woodburycountyia.gov
Dawn Norton - Senior Clerk - dnorton@woodburycountyia.gov

July 26, 2024

Dear Woodbury County Stakeholder(s):

The Woodbury County Zoning Commission has been tasked to explore the addition of nuclear energy including modular nuclear facilities as a potential land use to the Woodbury County Zoning Ordinance.

Currently, we are requesting your insights, perspective, and input on this matter. Your participation will play a crucial role in shaping the future zoning regulations pertaining to the potential siting of nuclear energy plants in our community. Specifically, we are seeking your comments and recommendations regarding the following aspects:

Appropriate Locations / Zoning District Designation(s):

- Where do you believe nuclear energy facilities, including modular nuclear reactors, could be appropriately sited within the unincorporated areas of Woodbury County?
- Which zoning districts do you think would be most suitable for accommodating nuclear energy facilities (General Industrial, Agricultural Preservation, etc.)? See map included.
- Are there any specific considerations or criteria we should prioritize in these areas?

Impact Assessment:

- What potential impacts (economic, environmental, social) do you foresee with the introduction of nuclear energy facilities in our community?

Regulatory Framework:

- Are there any specific regulatory frameworks or best practices from other jurisdictions that you believe we should consider when updating our zoning ordinance to include nuclear energy?

Your perspective is highly valued in helping us make informed decisions that reflect the interests and concerns of all Woodbury County stakeholders involved. We aim to ensure that any changes to our zoning ordinance are comprehensive, inclusive, and aligned with both community needs and regulatory standards.

Please provide your initial feedback by **August 23, 2024 before 10:00 AM**. You can send your response to dpriestley@woodburycountyia.gov, Woodbury County Planning and Zoning, 620 Douglas St., Sixth Floor, Sioux City, IA 51101 or call 712-279-6609 to discuss this matter further.

The Woodbury County Zoning Commission is in the introductory stage of this process. There will be an information / discussion agenda item at the next public meeting on **Monday, August 26 at 5:00 PM** at the Woodbury County Courthouse, 620 Douglas Street, Sioux City, IA, basement meeting area. Subsequently, public hearings and work sessions will be scheduled and announced at a future date.

Thank you in advance for your time and contribution to this important investigation. We look forward to hearing from you.

Respectfully and sincerely,

Daniel J. Priestley, MPA
Zoning Coordinator

Enclosure: Woodbury County Zoning Map

From: Wendi Hess
Sent: Wednesday, August 7, 2024 9:22 AM
To: Daniel Priestley
Subject: RE: Comments Requested Nuclear Energy in Woodbury County, Iowa

Follow Up Flag: Follow up
Flag Status: Flagged

Dan: In regards to the 911 Dispatch Center- having this type of facility in our response area would potentially create a need for additional training for our staff members along with participating in regular exercises and training related to potential emergencies at the facility. For us that would become a budgetary item needing to add training funds to our annual budget for overtime, etc related to the additional training activity that would be necessary. I am not sure if there are any specific certifications that would be required by our staff.

Thanks,
Wendi

Wendi Hess
Communications Center Director/Accreditation Manager
Woodbury County Communications
PO Box 447
Sioux City, IA 51102
Office: 712-279-6268
whess@sioux-city.org

Aug 6 2024
Woodbury Co. Planning & Zoning
I would like to say NO
to Any Nuclear facilities in
Woodbury County. Nuclear Waste
And Malfunctions can be Catastrophic

Thank You

Jerry Holder
105 D Street
Sergeant Bluff IA 51054



From: Bob Scott
Sent: Monday, July 29, 2024 9:44 AM
To: Daniel Priestley
Subject: RE: Comments Requested Nuclear Energy in Woodbury County, Iowa

I am all four a nuke plant in the area south of town. I am also for wind energy and solar farms. The construction of a nuclear plant would be a boon to our local economy. Nuclear plants are so highly regulated that we should not have to do much locally.

From: Mark Nahra
Sent: Friday, July 26, 2024 4:11 PM
To: Daniel Priestley
Subject: RE: Comments Requested Nuclear Energy in Woodbury County, Iowa

Follow Up Flag: Follow up
Flag Status: Flagged

Dan,

I gave this some thought, but reserve the opportunity to add to these comments at a later date. See my preliminary thoughts in **red**.

Mark J. Nahra, P.E.
Woodbury County Engineer
759 E. Frontage Road
Merville, IA 51039
Phone: 712-873-3215 or 712-279-6484
Fax: 712-873-3235
Email: mnahra@woodburycountyiowa.gov

From: Daniel Priestley <dpriestley@woodburycountyiowa.gov>
Sent: Friday, July 26, 2024 10:16 AM
To: Daniel Priestley <dpriestley@woodburycountyiowa.gov>
Subject: Comments Requested Nuclear Energy in Woodbury County, Iowa
Importance: High

Dear Woodbury County Stakeholder(s):

The Woodbury County Zoning Commission has been tasked to explore the addition of nuclear energy including modular nuclear technology as a potential land use to the Woodbury County Zoning Ordinance.

Currently, we are requesting your insights, perspective, and input on this matter. Your participation will play a crucial role in shaping the future zoning regulations pertaining to the potential siting of nuclear energy plants in our community. Specifically, we are seeking your comments and recommendations regarding the following aspects:

Appropriate Locations / Zoning District Designation(s):

- Where do you believe nuclear energy facilities, including modular nuclear reactors, could be appropriately sited within the unincorporated areas of Woodbury County? **I think the General industrial zoning areas are the best for these facilities with the exception of allowing such a facility to be located within a city's two mile jurisdictional area. Communities desiring to control their own power generation should be able to expand into the rural area from their current boundaries to their two mile jurisdictional limits. When we lived in Tipton, IA, we lived in a community with its own electric generation capacity. I don't feel the county ordinance should interfere with communities' efforts to be energy self-sufficient.**

- Which zoning districts do you think would be most suitable for accommodating nuclear energy facilities (General Industrial, Agricultural Preservation, etc.)? See map included. **General industrial plus portions of districts bordering cities as noted above.**
- Are there any specific considerations or criteria we should prioritize in these areas? **On site security should be a priority to prevent sabotage to nuclear generation plants. I am not sure what this looks like as I sit here today, but feel it should be noted as a consideration in developing site selection standards. Additional concerns may include items like standoff from existing/future housing, distances from water or wastewater treatment facilities, land drainage characteristics, offsets from highways and public properties.**

Impact Assessment:

- What potential impacts (economic, environmental, social) do you foresee with the introduction of nuclear energy facilities in our community? **Less costly, clean energy for county residents and our city dwellers. I don't see a downside to allowing nuclear to develop within the county. I think public perception of the safety of such plants will be a huge issue for entities seeking to develop nuclear power generation.**

Regulatory Framework:

- Are there any specific regulatory frameworks or best practices from other jurisdictions that you believe we should consider when updating our zoning ordinance to include nuclear energy? **Depending upon the size of the reactor and its construction needs, the county should require a Road agreement to assure restoration of county roads damaged by nuclear plant construction. The road agreement for wind generation can, and should be utilized, for nuclear plant construction to assure taxpayers aren't left holding the bag for energy plant construction.**

From: Meinen, Casey (MidAmerican) <Casey.Meinen@midamerican.com>
Sent: Friday, July 26, 2024 10:33 AM
To: Daniel Priestley
Subject: RE: [INTERNET] Comments Requested Nuclear Energy in Woodbury County, Iowa

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.**

Daniel,

I have forwarded this to company Management for their input.

Have a great weekend.

Casey Meinen
Lead, Electric Distribution Engineering
Casey.meinen@midamerican.com

Phone (712-233-4831)
 **MIDAMERICAN**
 ENERGY COMPANY.