From: Egner, Therese

Sent: Thursday, November 6, 2025 9:58 AM

To: Kopinski, Sara

Subject: FW: Letter from Physicians Opposing the Proposed Karis Data Center

Attachments: Letter to the Naperville Planning and Zoning Commission.pdf

Follow Up Flag: Follow up Flag Status: Flagged

FYI- DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540 (630) 420-4179 | egnert@naperville.il.us

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From: Sujay Shah <

Sent: Thursday, November 6, 2025 9:11 AM **To:** Planning Planning@naperville.il.us>

Subject: Re: Letter from Physicians Opposing the Proposed Karis Data Center

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Dear Members of the Planning and Zoning Commission,

Thank you for your time and consideration at the meeting yesterday (11/5). It was abundantly clear that the community is absolutely united in our opposition to the proposed Karis data center.

I hope that all of you do take the opportunity to read the medical document that was passed out at the meeting yesterday and that was emailed (I have attached again to this email for reference). I would like to highlight that the 25 physicians that have contributed to this document are experts in their fields and span numerous specialties: oncology, cardiology, internal medicine, and many others. The health risks from the data center discussed yesterday at the community meeting are evidence-based and supported by strong data.

I was very disappointed to hear the petitioner in his speech state that the members of the public were "misinformed." This could not be further from the truth given the breadth of expertise and experience from physicians that spoke to the health risks and speaks to the petitioner's lack of understanding (or concern) of the true health impacts of this proposed data center. This should be very concerning to the commission.

I, along with the physicians in our community remain available and welcome the opportunity to answer any questions you may have.

Sincerely, Sujay Shah, M.D.

From: Sujay Shah <

Date: Wednesday, November 5, 2025 at 6:17 PM

To: planning@naperville.il.us <planning@naperville.il.us>

Subject: Letter from Physicians Opposing the Proposed Karis Data Center

Dear Members of the Planning and Zoning Commission,

My name is Sujay Shah and I am a physician in the Naper Commons neighborhood, which is directly adjacent to the proposed Karis Data Center. As a medical oncologist, I have significant concerns regarding the numerous health impacts on surrounding communities, especially for young children with this proposal. These concerns are also shared by a number of physicians. Please find attached a letter from 25 physicians in our community that outlines the health risks supported by objective data and references. We strongly urge the commission to reject the Karis data center proposal to ensure the health and safety of our children, our families, and our future.

Sincerely, Sujay Shah, M.D.

To the Naperville Planning and Zoning Commission

November 5th, 2025

Naperville Planning and Zoning Commission

400 S. Eagle Street

Naperville, IL 60540

Dear Members of the Planning and Zoning Commission,

Introduction: Community Concerns and Multiple Risks

We are writing as deeply concerned residents and physicians of Naperville to express our strong opposition to the proposed Karis data center. While this proposal is presented by the developer as a high-tech economic opportunity, it carries very real and well-documented public health risks that fall disproportionately on nearby neighborhoods including most critically, families with young children.

Although the developer has altered their original request to currently focus on Phase 1, the fundamental risks and concerns for surrounding communities (with many homes just hundreds of feet from the facility) remain significant. The possibility of future expansion poses an additional risk.

Locating a large heavy industrial data center immediately adjacent to residential neighborhoods brings multiple risks:

- Hazardous emissions, with the use of dozens of diesel generators, that can have substantial adverse health impacts.
- Increased noise pollution in particular, constant low frequency noise which has reportedly been associated with migraines and sleep disturbances for members of communities that neighbor data centers.
- Adverse upstream environmental impacts due to massive and constant energy requirements. This is especially concerning considering that approximately 80% of Naperville's energy comes from dirty coal plants, meaning the environmental impacts likely will extend beyond the immediate surrounding communities.
- Potential for further long-term industrial expansion which would exacerbate all the risks above even more.

Combined, these factors threaten the health, safety, and overall quality of life for the neighboring communities. As research and community experience have repeatedly shown, industrial developments of this scale are not compatible with the needs of neighborhoods

focused on raising families and protecting children. The multitude of risks above collectively should raise substantial concerns for the Planning and Zoning Commission.

As physicians residing in the neighboring Naper Commons community, we take this opportunity with supporting data to specifically focus on and further detail the significant adverse health impacts that can occur due to the proposed data center for surrounding communities, particularly for young children.

Diesel Exhaust: A Persistent Hazard for Cancer and Respiratory Diseases

Diesel exhaust is a complex mix of fine particulate matter (PM_{2.5}), ultrafine particles (<100nm), nitrogen oxides (NOx), and more than 40 toxic organic compounds (including benzene and formaldehyde). The World Health Organization has classified diesel exhaust as a Group 1 human carcinogen way back in 2012 – this is the same category as tobacco and asbestos (IARC 2012). U.S. public-health agencies note that diesel exhaust and PM_{2.5} cause adverse cardiopulmonary and carcinogenic risks even at low exposures; regulatory assessments therefore treat such emissions as posing measurable health risk even at ambient concentrations (U.S. Environmental Protection Agency [EPA], 2019). Essentially this means that every time humans are exposed to any amount of diesel emissions the risk of adverse health outcomes such as cancer goes up. The table below outlines the short-term and long-term health risks of exposure to toxic components from diesel exhaust:

Pollutant	Short-Term Effects	Long-Term Risks
NOx	Airway inflammation, asthma exacerbation	Chronic bronchitis, reduced lung growth in children
PM _{2*5} / Ultra Fine Particles	Irritation, headaches, sleep disturbance	Heart disease, cancer, developmental toxicity

Tier 4 Diesel Generators Still Emit Carcinogens and Should Not Be Placed Next to Neighborhoods

The developer has stated that they will utilize Tier 4 backup diesel generators, which utilize the most advanced emission control systems available on the market. However, this is not a sufficient mitigation when you have multiple surrounding neighborhoods with young children. It is important to remember that Tier 4 diesel generators do not eliminate $PM_{2.5}$ and NOx emissions and in fact with real world use during startup or idle/low load situations with short runs, there can be substantial short-term spikes of toxic emissions. This is due

to the fact that the emission control systems do not get a chance to operate at optimal efficiency (California Air Resources Board [ARB], 2010). This spike of toxic emissions for neighboring communities would be even more pronounced when there are many backup diesel generators that are being utilized (in this case a total of 24).

Moreover, Tier 4 emission controls do not effectively filter ultrafine particles (<100nm). In fact, peer-reviewed studies have shown that the after-treatment emission control systems can paradoxically produce large spikes in ultrafine particle number and promote formation of nitro-PAHs under real operating conditions (Heeb et al., 2008). Ultrafine particles are extremely dangerous because they are so small that as soon as one takes a breath these particles penetrate very deep inside the lungs where they sit permanently and can be directly absorbed into the blood stream and cause cardiovascular, respiratory, and genotoxic adverse effects (Kwon, Ryu, & Carlsten, 2020). This is acutely concerning for neighboring communities.

Naperville Already Has Very Poor Air Quality:

It is critical to recognize that Naperville already faces considerable air quality challenges, and any new source of diesel emissions must be evaluated in the context of this already existing elevated risk. According to the American Lung Association's 2025 "State of the Air" report, Naperville is part of a metropolitan region that ranks among the 15 worst in the entire United States for year-round particulate pollution with a grade of "F" (ALA 2025).

Illinois also already bears a disproportionate burden from diesel-related air pollution. The state ranks fifth in the nation for deaths per capita linked to fine particulate matter (PM_{2-5}) from diesel engine emissions. Although Illinois residents make up only 3.8% of the U.S. population, we account for an outsized 6.3% of asthma-related emergency department visits and 5.3% of heart attacks attributed to diesel pollution (Respiratory Health Association, 2022). These statistics make clear that Illinois communities are already overexposed to harmful diesel emissions. Even small additional releases such as those from monthly testing or backup operation of the proposed data center's 24 diesel generators would further burden an airshed that is already at risk and heighten health threats to surrounding neighborhoods.

Young Children Face Even Higher Risks Due to Developing Lungs

Young children are uniquely and severely vulnerable to air pollution and diesel emissions because their lungs and immune systems are not yet fully developed. From birth through adolescence, children's lungs continue to grow and form new alveoli—tiny air sacs responsible for oxygen exchange. According to the American Academy of Pediatrics (AAP),

this developmental process continues until about age 18, with the most rapid growth occurring during the first 8 years of life (Pediatrics, Vol. 123, 2009, "Health Effects of Air Pollution on Children").

The World Health Organization emphasizes that exposure to particulate matter and toxins during this critical period can reduce lung function, and increase lifetime susceptibility to respiratory illnesses (WHO, "Review of evidence on health aspects of air pollution," 2013). Children inhale more air per pound of body weight than adults and spend more time outdoors, meaning they can absorb proportionally higher quantities of airborne pollutants (Environmental Protection Agency, "Children's Health and Air Pollution," 2019), thereby increasing lifetime risk of respiratory disease including cancer.

This is further supported by multiple studies, including research from the Children's Health Study in Southern California, which demonstrated that exposure to diesel exhaust and fine particles (PM_{2.5}) during childhood can lead to permanent deficits in lung capacity and function (Gauderman et al., New England Journal of Medicine, 2004) that raises the risk of chronic asthma, bronchitis, and even lung cancer later in life.

The risks outlined above are not theoretical - a recent paper by researchers at UC Riverside and Caltech estimated that an increase in permits for backup diesel generators at data centers in Virginia since 2023 likely has led to 14,000 asthma cases and caused as much as \$300 million in health care costs (Han, Wu, Li, Wierman, & Ren, 2024). The adverse health impacts (and resultant public health economic impacts) over time in our community will far outweigh any initial investment or recurring revenue the developer has supposedly promised.

Contradiction to Naperville's Core Values

Naperville has built its reputation on being one of the best places in America to raise a family. In 2023, Money Magazine ranked Naperville #3 on its list of "Best Places to Live in America," citing the city's exceptional public schools, abundant green spaces, robust community resources and importantly, a strong commitment to public health (Money Magazine, 2023). The City's own 2021 Comprehensive Plan envisions Naperville as "a family-oriented community dedicated to providing a safe, healthy, and nurturing environment for children and residents." Introducing a large-scale, heavy industrial facility that utilizes dozens of diesel generators immediately next to neighborhoods with hundreds of young children directly contradicts these stated values and threatens the atmosphere that continues to attract families to our city.

Cumulative Effects and Urgent Appeal

The cumulative impact of the risks outlined above is clear. A heavy industrial facility does not belong next to neighborhoods. Allowing the Karis data center to operate in such close proximity to hundreds of families with young children would exacerbate existing health risks, can increase adverse health outcomes including asthma and cancer, and would not be aligned with Naperville's commitment to creating a safe and healthy environment for families—a vision supported by our community leaders and cherished by residents.

Allowing the Karis data center would also violate one of the critical standards for conditional use which states that any recommendation by the Planning and Zoning Commission and any decision by the City Council shall be predicated on evidence and findings that "the establishment, maintenance, or operation of the conditional use will not be detrimental to, or endanger the public health, safety, and general welfare" of surrounding communities.

We strongly urge the Planning and Zoning Commission to sincerely consider the overwhelming evidence and protect the health and safety of Naperville families, including most importantly our young children. Please reject the Karis data center proposal.

Thank you for your thoughtful attention to this matter.

Sincerely,	C(1,1,1/1)	okhar, MD ~
Physicians of Naper Commo	ns Juhail Kh	ber - I file
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References

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From: City of Naperville Citizen Support

Sent: Monday, November 3, 2025 7:50 AM

To: Pruneda, Rachel <

Subject: Citizen Question Submissions for Mayor/Council (GovQA Reference # W300724-

110325)

Citizen Support Center (GovQA) Mayor/Council Submission

You are receiving this email to alert you that a new Mayor/Council submission has been created and assigned to you.

,		
Contact Name:	Dr Agim Jusufi MD, MPH	
Customer Name:		
Email:	g	
Phone:	[Phone]	
Reference Number:	W300724-110325	
Create Date:	11/3/2025 7:49:11 AM	
Status:	New Request	
Request Type:	Question/Concern	
	Dr Agim Jusufi MD, MPH	
Description:		

Dear Mayor Wehrli and Members of the City Council,
I am writing as a physician (MD, MPH) and concerned resident
of Naperville to express grave concerns about the proposed
data center development at Naper Commons. As a public
health professional, I have reviewed similar projects in
Aurora, IL, and Virginia, where residents report significant
adverse impacts—issues we risk importing into our
community.

Key Public Health and Community Risks:

- 1. Diesel Generator Exhaust (Group 1 Carcinogen) The plan includes 24 backup diesel generators requiring monthly testing. Per the World Health Organization and International Agency for Research on Cancer (IARC), diesel exhaust is classified as a Group 1 carcinogen—the same category as tobacco smoke and asbestos. Prolonged exposure increases risks of lung cancer, asthma, and cardiovascular disease, especially in children and vulnerable populations.
- 2. Noise Pollution and Quality of Life Monthly multi-day generator testing will generate sustained industrial noise, disrupting sleep, concentration, and the peaceful enjoyment of Naper Commons Park and nearby homes. Chronic noise exposure is linked to hypertension, anxiety, and diminished cognitive development in children.
- 3. Energy Grid Strain and Property Values High-energy-demand facilities like this strain local infrastructure and may lead to unreliable power or higher utility costs. Adjacent industrial zoning could depress residential property values, limiting homeowners' ability to recoup investments.
- 4. Lack of School District Benefit The development reportedly generates tax revenue without supporting Naperville schools—an inequitable burden on families who rely on strong local education funding.

Request for Action:

I urge the Council to:

• Pause approval pending an independent Health Impact Assessment (HIA) and noise modeling study.

- Require zero-emission backup power (e.g., battery storage or fuel cells) if the project proceeds.
- Mandate real-time air quality monitoring and public reporting near residential areas.
- Engage affected homeowners in meaningful dialogue before final decisions.

Our children's health, our park's tranquility, and our neighborhood's future are not worth gambling on. I am available to discuss these concerns or provide peer-reviewed studies at your convenience.

Thank you for your leadership and commitment to Naperville's families.

Sincerely,

Agim Jusufi, MD, MPH Physician & Public Health Advocate Naperville Resident

Click the link below to review and/or respond to the submission.

From: Iwicki, Brad

Sent: Wednesday, November 5, 2025 11:00 AM

To: Kopinski, Sara

Subject: FW: Data Centers in Suburbs

Follow Up Flag: Follow up Flag Status: Flagged

POD - Data Center public comment

Brad Iwicki

Assistant Planner | Planning & Development – TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540

(630) 305-7021 | iwickib@naperville.il.us

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----Original Message-----

From:

Sent: Wednesday, November 5, 2025 10:56 AM To: Planning Planning@naperville.il.us

Subject: Data Centers in Suburbs

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I rarely feel the need to speak out because Naperville officials overall do a great job of managing the City, but here we are - a suburban City strongly considering a Data Center.

Yes, the developers state that there won't be the same electric and water issues that cities with Data Centers complain about - higher utility prices borne by the residents; and equally troubling, electrical brown-outs. Brown outs can be dangerous at worst and shorten the lives of electronics at best.

If Naperville officials truly believe the claims of the data center developer, that those issues won't happen at "this" Data Center, and goes through with the plan, then all revenue generated by this Data Center property should not go into a general fund, but instead should be directly and fully credited to every Naperville Resident's City utility bill. This is fair as it will off-set any future increased utility costs and electronic replacement costs caused by the very nature of the Data Center.

Hopefully the City will ultimately agree that Data Centers do not belong in the Suburbs. But if they do allow it then at least the residents receive restitution.

Best Regards, Kimberley Wuensch, Naperville Resident.

From: Egner, Therese

Sent: Thursday, November 6, 2025 8:34 AM

To: Kopinski, Sara

Subject: FW: 1960 Lucent Lane DEV-0057-2025

FYI- DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540 (630) 420-4179 | egnert@naperville.il.us

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From: Kally McConnell

Sent: Wednesday, November 5, 2025 6:38 PM **To:** Planning <Planning@naperville.il.us> **Subject:** 1960 Lucent Lane DEV-0057-2025

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Hello!

I can not make it to the meeting tonight to speak as I had hoped. Here are my prepared remarks:

My name is Kally McConnell. I am from the Park Addition of Naperville. I am concerned that we don't have enough of an enforceable guarantee to protect both the neighborhood and the nature preserves nearby from the environmental strain that can come from a project like this.

While I understand that promises have been made by Karis, my husband is in technology and has worked on projects such as these. They optimize to get projects like this done quickly so that they can start making money as soon as possible. They aren't optimizing for the health of the building's neighbors.

I don't feel confident in or understand how the promises made will be actually enforced.

I do understand that it is the role of government to protect the citizens from corporate interests. Corporations want to maximize profit. The data center business is booming and by the nature of capitalism, they are going to try to build these as quickly as possible without the future of the people who live nearby in mind; profits will be in mind.

I ask that Naperville, all of you, take care with this decision, set a precedent, and require that if we are building data centers in our town, that our residents and our forest preserves be protected with clean energy or something else that people smarter than me can come up with.

You, our government, are the only thing protecting our community from the potential negative outcomes of this decision.

Thank you so much for your time! Kally McConnell

--

Kally McConnell She/her

From: Egner, Therese

Sent: Thursday, November 6, 2025 8:33 AM

To: Kopinski, Sara

Subject: FW: Public hearing for DEV-0057-2025 Karis Critical Member, LLC

FYI- DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540

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----Original Message---From: Richard Stahler

Sent: Wednesday, November 5, 2025 4:48 PM To: Planning <Planning@naperville.il.us>

Subject: Public hearing for DEV-0057-2025 Karis Critical Member, LLC

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Having resided for 65 years next to the Nokia property beginning when it was Mr. Barkei's farm, we were approached by Bell Laboratory's representative to seek our approval of their purchase of the property with the declaration that Bell would not proceed with the purchase if any adjacent homeowner did not approve.

Surely there is still some essence of that same regard for others that outweighs profit and money as the overriding factor in one's actions.

I do not believe that datacenters should be built adjacent to our homes, please vote no.

Best regards,

Richard Stahler

From: Egner, Therese

Sent: Wednesday, November 5, 2025 4:33 PM

To: Kopinski, Sara

Subject: FW: Proposed data center opposition

FYI- DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540

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From: Kate <				
Sent: Wednesday, No	ovember 5, 2025 4:28 PM			
To: Planning <plannin< td=""><td>ng@naperville.il.us>;</td><td>Wilson, Nate</td><td>White,</td></plannin<>	ng@naperville.il.us>;	Wilson, Nate	White,	
Benny <	Syed, Ashfaq <	McBroom, Josh		
<	Jain, Supna	; Holzhauer, Ian		
Gibson, Mary	; Kelly, Patrick <			
Subject: Proposed data center opposition				
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Dear Planning and Zoning Committee and City Council members,

I oppose any data centers in Naperville. I urge the committee and city council to pause any votes on the proposed data center. I have serious concerns about how a data center will impact electricity and water usage. Our electric and water bills are currently outrageously high. The city is currently under stress with our energy needs and adding additional strain is not a wise choice.

An article from the Smithsonian reported on the impact data centers have on our environment and resources. The article states that data centers disrupt the electric grid infrastructure and increase greenhouse gas emissions. The cooling systems will put a strain on our water resources. From what I read, the land parcel is on an aquifer as well. The Alliance Great Lakes organization raises serious concerns for our finite water resource.

There is also the air and noise pollution to consider

I do not believe that our local and state governments are fully prepared for the long term impact data centers will have on our resources.

My hope is long term planning for residents will be a priority over a data center.

Thank you for reading.

Sincerely, Katherine Schleyer

Naperville, IL 60564

I

https://www.smithsonianmag.com/science-nature/with-ai-on-the-rise-what-will-be-the-environmental-impacts-of-data-centers-180987379/

https://greatlakes.org/2025/08/great-lakes-region-unprepared-for-increasing-water-use-demands/

From: Egner, Therese

Sent: Wednesday, November 5, 2025 4:33 PM

To: Kopinski, Sara

Subject: FW: KARIS DATA CENTER

FYI- DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540 (630) 420-4179 | egnert@naperville.il.us

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From: Jane Brueggemann <

Sent: Wednesday, November 5, 2025 4:14 PM **To:** Planning Planning@naperville.il.us

Subject: KARIS DATA CENTER

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Dear Naperville Planning and Zoning Committee:

Please do not approve the proposal for the Karis Critical Data Center. There are too many unanswered questions; and the results of environment and other community concerns will be felt for decades. No amount of "conditions" can fully mitigate the risks. Once built, the impacts of the data center will be permanent and irreversible. I urge the City of Naperville Planning

and Zoning Commission to deny this development in its entirety to protect the health, safety, and quality of life of its residents.

I know that the "NIMBY" acronym can applied to those in opposition. In this case, a dangerous unknown is proposed for our LITERAL BACK YARDS.

You may recall the horrible health effects experienced decades ago from the Naperville AMOCO chemical research facility. Several employees died of a rare brain cancer. AMOCO quietly settled with their families for untold millions, but couldn't bring those lives back. If a Planning and Zoning Commission had had the opportunity to prevent such tragedies, I hope that it would have.

Please take this opportunity to prevent would surely be unwanted results.

Thank you for consideration.

Jane Brueggemann

Naperville

From: Egner, Therese

Sent: Wednesday, November 5, 2025 4:32 PM

To: Kopinski, Sara

Subject: FW: KARIS CRITICAL DEV-0057-2025

FYI- DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540

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----Original Message-----

From: riki l kauffman

Sent: Wednesday, November 5, 2025 2:26 PM To: Planning <Planning@naperville.il.us> Subject: KARIS CRITICAL DEV-0057-2025

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Dear Planning and Zoning Commission Members,

My husband and I have been Naperville residents since 1951.

We are familiar with all of the changes that have occurred in our community, some good and some bad.

We ask that your decision be to not recommend the Karis Critical Data Center to the Naperville City Council.

We don't believe that the millions of dollars proposed by Karis Critical are comparable to their greed for our water and electricity. The damages caused by the operation of this center will contribute immensely to light, sound and air pollution against humans, wildlife and our planet.

Why do we want to destroy the quality of our environment by succumbing to the offerings of these billionaires. Is it worth it?

We don't think so.

Please say "No" to Karis Critical and protect all of us.

Thank you for reading this email.

Sincerely, Robert Koelling Riki Kauffman

From: Egner, Therese

Sent: Thursday, November 6, 2025 8:34 AM

To: Kopinski, Sara

Subject: FW: Letter from Physicians Opposing the Proposed Karis Data Center

Attachments: Letter to the Naperville Planning and Zoning Commission.pdf

FYI- DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group
City of Naperville | 400 S. Eagle St. Naperville, IL 60540

(630) 420-4179 | egnert@naperville.il.us

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From: Sujay Shah

Sent: Wednesday, November 5, 2025 6:17 PM **To:** Planning Planning@naperville.il.us

Subject: Letter from Physicians Opposing the Proposed Karis Data Center

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Dear Members of the Planning and Zoning Commission,

My name is Sujay Shah and I am a physician in the Naper Commons neighborhood, which is directly adjacent to the proposed Karis Data Center. As a medical oncologist, I have significant concerns regarding the numerous health impacts on surrounding communities, especially for young children with this proposal. These concerns are also shared by a number of physicians. Please find attached a letter from 25 physicians in our community that outlines the health risks supported by objective data and references. We strongly urge the commission to reject the Karis data center proposal to ensure the health and safety of our children, our families, and our future.

Sincerely, Sujay Shah, M.D.

To the Naperville Planning and Zoning Commission

November 5th, 2025

Naperville Planning and Zoning Commission

400 S. Eagle Street

Naperville, IL 60540

Dear Members of the Planning and Zoning Commission,

Introduction: Community Concerns and Multiple Risks

We are writing as deeply concerned residents and physicians of Naperville to express our strong opposition to the proposed Karis data center. While this proposal is presented by the developer as a high-tech economic opportunity, it carries very real and well-documented public health risks that fall disproportionately on nearby neighborhoods including most critically, families with young children.

Although the developer has altered their original request to currently focus on Phase 1, the fundamental risks and concerns for surrounding communities (with many homes just hundreds of feet from the facility) remain significant. The possibility of future expansion poses an additional risk.

Locating a large heavy industrial data center immediately adjacent to residential neighborhoods brings multiple risks:

- Hazardous emissions, with the use of dozens of diesel generators, that can have substantial adverse health impacts.
- Increased noise pollution in particular, constant low frequency noise which has reportedly been associated with migraines and sleep disturbances for members of communities that neighbor data centers.
- Adverse upstream environmental impacts due to massive and constant energy requirements. This is especially concerning considering that approximately 80% of Naperville's energy comes from dirty coal plants, meaning the environmental impacts likely will extend beyond the immediate surrounding communities.
- Potential for further long-term industrial expansion which would exacerbate all the risks above even more.

Combined, these factors threaten the health, safety, and overall quality of life for the neighboring communities. As research and community experience have repeatedly shown, industrial developments of this scale are not compatible with the needs of neighborhoods

focused on raising families and protecting children. The multitude of risks above collectively should raise substantial concerns for the Planning and Zoning Commission.

As physicians residing in the neighboring Naper Commons community, we take this opportunity with supporting data to specifically focus on and further detail the significant adverse health impacts that can occur due to the proposed data center for surrounding communities, particularly for young children.

Diesel Exhaust: A Persistent Hazard for Cancer and Respiratory Diseases

Diesel exhaust is a complex mix of fine particulate matter (PM_{2.5}), ultrafine particles (<100nm), nitrogen oxides (NOx), and more than 40 toxic organic compounds (including benzene and formaldehyde). The World Health Organization has classified diesel exhaust as a Group 1 human carcinogen way back in 2012 – this is the same category as tobacco and asbestos (IARC 2012). U.S. public-health agencies note that diesel exhaust and PM_{2.5} cause adverse cardiopulmonary and carcinogenic risks even at low exposures; regulatory assessments therefore treat such emissions as posing measurable health risk even at ambient concentrations (U.S. Environmental Protection Agency [EPA], 2019). Essentially this means that every time humans are exposed to any amount of diesel emissions the risk of adverse health outcomes such as cancer goes up. The table below outlines the short-term and long-term health risks of exposure to toxic components from diesel exhaust:

Pollutant	Short-Term Effects	Long-Term Risks
NOx	Airway inflammation, asthma exacerbation	Chronic bronchitis, reduced lung growth in children
PM _{2*5} / Ultra Fine Particles	Irritation, headaches, sleep disturbance	Heart disease, cancer, developmental toxicity

Tier 4 Diesel Generators Still Emit Carcinogens and Should Not Be Placed Next to Neighborhoods

The developer has stated that they will utilize Tier 4 backup diesel generators, which utilize the most advanced emission control systems available on the market. However, this is not a sufficient mitigation when you have multiple surrounding neighborhoods with young children. It is important to remember that Tier 4 diesel generators do not eliminate $PM_{2.5}$ and NOx emissions and in fact with real world use during startup or idle/low load situations with short runs, there can be substantial short-term spikes of toxic emissions. This is due

to the fact that the emission control systems do not get a chance to operate at optimal efficiency (California Air Resources Board [ARB], 2010). This spike of toxic emissions for neighboring communities would be even more pronounced when there are many backup diesel generators that are being utilized (in this case a total of 24).

Moreover, Tier 4 emission controls do not effectively filter ultrafine particles (<100nm). In fact, peer-reviewed studies have shown that the after-treatment emission control systems can paradoxically produce large spikes in ultrafine particle number and promote formation of nitro-PAHs under real operating conditions (Heeb et al., 2008). Ultrafine particles are extremely dangerous because they are so small that as soon as one takes a breath these particles penetrate very deep inside the lungs where they sit permanently and can be directly absorbed into the blood stream and cause cardiovascular, respiratory, and genotoxic adverse effects (Kwon, Ryu, & Carlsten, 2020). This is acutely concerning for neighboring communities.

Naperville Already Has Very Poor Air Quality:

It is critical to recognize that Naperville already faces considerable air quality challenges, and any new source of diesel emissions must be evaluated in the context of this already existing elevated risk. According to the American Lung Association's 2025 "State of the Air" report, Naperville is part of a metropolitan region that ranks among the 15 worst in the entire United States for year-round particulate pollution with a grade of "F" (ALA 2025).

Illinois also already bears a disproportionate burden from diesel-related air pollution. The state ranks fifth in the nation for deaths per capita linked to fine particulate matter (PM_{2-5}) from diesel engine emissions. Although Illinois residents make up only 3.8% of the U.S. population, we account for an outsized 6.3% of asthma-related emergency department visits and 5.3% of heart attacks attributed to diesel pollution (Respiratory Health Association, 2022). These statistics make clear that Illinois communities are already overexposed to harmful diesel emissions. Even small additional releases such as those from monthly testing or backup operation of the proposed data center's 24 diesel generators would further burden an airshed that is already at risk and heighten health threats to surrounding neighborhoods.

Young Children Face Even Higher Risks Due to Developing Lungs

Young children are uniquely and severely vulnerable to air pollution and diesel emissions because their lungs and immune systems are not yet fully developed. From birth through adolescence, children's lungs continue to grow and form new alveoli—tiny air sacs responsible for oxygen exchange. According to the American Academy of Pediatrics (AAP),

this developmental process continues until about age 18, with the most rapid growth occurring during the first 8 years of life (Pediatrics, Vol. 123, 2009, "Health Effects of Air Pollution on Children").

The World Health Organization emphasizes that exposure to particulate matter and toxins during this critical period can reduce lung function, and increase lifetime susceptibility to respiratory illnesses (WHO, "Review of evidence on health aspects of air pollution," 2013). Children inhale more air per pound of body weight than adults and spend more time outdoors, meaning they can absorb proportionally higher quantities of airborne pollutants (Environmental Protection Agency, "Children's Health and Air Pollution," 2019), thereby increasing lifetime risk of respiratory disease including cancer.

This is further supported by multiple studies, including research from the Children's Health Study in Southern California, which demonstrated that exposure to diesel exhaust and fine particles (PM_{2.5}) during childhood can lead to permanent deficits in lung capacity and function (Gauderman et al., New England Journal of Medicine, 2004) that raises the risk of chronic asthma, bronchitis, and even lung cancer later in life.

The risks outlined above are not theoretical - a recent paper by researchers at UC Riverside and Caltech estimated that an increase in permits for backup diesel generators at data centers in Virginia since 2023 likely has led to 14,000 asthma cases and caused as much as \$300 million in health care costs (Han, Wu, Li, Wierman, & Ren, 2024). The adverse health impacts (and resultant public health economic impacts) over time in our community will far outweigh any initial investment or recurring revenue the developer has supposedly promised.

Contradiction to Naperville's Core Values

Naperville has built its reputation on being one of the best places in America to raise a family. In 2023, Money Magazine ranked Naperville #3 on its list of "Best Places to Live in America," citing the city's exceptional public schools, abundant green spaces, robust community resources and importantly, a strong commitment to public health (Money Magazine, 2023). The City's own 2021 Comprehensive Plan envisions Naperville as "a family-oriented community dedicated to providing a safe, healthy, and nurturing environment for children and residents." Introducing a large-scale, heavy industrial facility that utilizes dozens of diesel generators immediately next to neighborhoods with hundreds of young children directly contradicts these stated values and threatens the atmosphere that continues to attract families to our city.

Cumulative Effects and Urgent Appeal

The cumulative impact of the risks outlined above is clear. A heavy industrial facility does not belong next to neighborhoods. Allowing the Karis data center to operate in such close proximity to hundreds of families with young children would exacerbate existing health risks, can increase adverse health outcomes including asthma and cancer, and would not be aligned with Naperville's commitment to creating a safe and healthy environment for families—a vision supported by our community leaders and cherished by residents.

Allowing the Karis data center would also violate one of the critical standards for conditional use which states that any recommendation by the Planning and Zoning Commission and any decision by the City Council shall be predicated on evidence and findings that "the establishment, maintenance, or operation of the conditional use will not be detrimental to, or endanger the public health, safety, and general welfare" of surrounding communities.

We strongly urge the Planning and Zoning Commission to sincerely consider the overwhelming evidence and protect the health and safety of Naperville families, including most importantly our young children. Please reject the Karis data center proposal.

Thank you for your thoughtful attention to this matter.

Sincerely,	C(1,1,1/1)	okhar, MD ~
Physicians of Naper Commo	ns Juhail Kh	ber - I file
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References

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From: City of Naperville Citizen Support

Sent: Thursday, November 6, 2025 2:23 PM

To: Kopinski, Sara

Subject: Citizen Question Submissions for Mayor/Council (GovQA Reference # W301190-110625)

Follow Up Flag: Follow up Flag Status: Flagged

Citizen Support Center (GovQA) Mayor/Council Submission

You are receiving this email to alert you that a new Mayor/Council submission has been created and assigned to you.

Contact Name:	Ashley Schlechte
Customer Name:	
Email:	
Phone:	[Phone]
Reference Number:	W301190-110625
Create Date:	11/6/2025 1:20:09 PM
Status:	Assigned
Request Type:	Question/Concern
	As a resident of Naperville, I am strongly opposed to the proposed Karis data center. The project poses serious environmental and community concerns, including high energy consumption, increased greenhouse gas emissions, excessive water use, and potential noise, traffic, and light

pollution that would disrupt our neighborhood.

While temporary construction jobs may be created, the long-term benefits to the community are **Description:** minimal, and the environmental and social costs could be substantial. I urge you to prioritize the we

being of residents, protect local resources, and reconsider approval of this project.

I am most concerned about utility prices climbing. Do you have absolute certainty that this will not impact our utility infrastructure? Karis' goal is to profit. Your goal should be to protect Naperville.

Building this data center is all gain for them, while we take on all the risk.

Click the link below to review and/or respond to the submission.



From: Egner, Therese

Sent: Thursday, November 6, 2025 3:38 PM

To: Kopinski, Sara

Subject: FW: Request to Deny Proposed Karis Data Center Case DEV-0057-2025

FYI - DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540

(630) 420-4179 | egnert@naperville.il.us

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From: Steve Jarvis		
Sent: Thursday, Novemb	per 6, 2025 3:32 PM	
To: Wehrli, Scott	Holzhauer, lan	Longenbaugh, Allison
	Syed, Ashfaq <	Wilson, Nate <
Gibson, Mary	Kelly, Patrick	McBroom, Josh
	White, Benny <	; Planning <planning@naperville.il.us></planning@naperville.il.us>
Subject: Request to Den	y Proposed Karis Data Center Case DEV-005	7-2025
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Dear Mayor Wherli and Members of the Naperville City Council,

As a lifelong resident of Naperville, I am writing to sincerely urge you to deny the proposed Karis Data Center (Case DEV-0057-2025) at Warrenville and Naperville Roads.

After growing up here and graduating from Naperville Central High School in 2002, I spent several years living throughout the Chicagoland area. In 2022, my family and I were fortunate enough to move back and build our home in Naper Commons, a new neighborhood that truly reflects what makes Naperville so special: safety, connection, and community. We came back because Naperville has always been one of the best places in the country to raise a family, and we believed that future development would continue to uphold that same promise.

Naper Commons is a vibrant, family-oriented community filled with residents who have invested deeply in Naperville's future. Many of our homes are valued at over \$700,000, and since moving in, we've already seen our home equity grow, reflecting both the city's reputation and the shared confidence we all have in this community. We chose to build here because we trusted that Naperville's thoughtful planning and leadership would protect our neighborhoods and maintain the quality of life that defines this city.

Our neighborhood is alive with families walking their dogs, children riding bikes and scooters, and parents gathering at the Naperville Park District's Naper Commons Park. It is safe, peaceful, and full of life, the very essence of what Naperville stands for.

The proposed data center, with its 24 diesel backup generators, would fundamentally alter that. It is not compatible with a residential neighborhood. As Dr. Sujay Shah shared during the November 5th Planning and Zoning Commission meeting, data centers pose serious health risks, including respiratory issues and potential long-term illnesses like cancer. I urge you to review his <u>testimony</u> at the 31 minute mark. No family should have to question whether the air their children breathe is safe.

My wife and I are raising our four-and-a-half-year-old son here. He loves playing outside, exploring nature, and spending time with friends at the nearby park. We chose Naperville so he could grow up in a

place known for clean air, safety, and strong community values. The idea that an industrial-scale facility
could sit next to our neighborhood threatens all of that, not just for our family, but for every family who
moved here with the same hopes.

Once a project like this is approved and built, its impact cannot be undone. The constant noise, diesel emissions, and bright lights will forever change the character and livability of our community.

I ask you to consider this from the perspective of the families you represent:

Would you want this built next to your home?

Would you feel comfortable with your children playing near 24 diesel generators?

Naperville has always been a city that listens to its residents, a city that values people and families first. I respectfully ask you to uphold those values and protect what makes our city so special. Please, deny this proposal, not out of opposition, but out of care and responsibility to the residents who have invested their hearts, homes, and futures here.

Thank you for taking your time to read my concern. If you have any comments or questions, please reach out.

Sincerely,

Steve Jarvis

Request for Redaction: Should this email be included in a **public agenda packet** or distributed externally, I respectfully ask that my **contact information** listed below be **redacted** to protect my privacy.

__

Kopinski, Sara

From: Egner, Therese

Sent: Thursday, November 6, 2025 3:42 PM

To: Kopinski, Sara

Subject: FW: DEV-0057-2025 Karis Critical Data Centers PZC File 25-1103C

FYI - DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540 (630) 420-4179 | egnert@naperville.il.us

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From: LM D

Sent: Thursday, November 6, 2025 3:40 PM **To:** Planning Planning apperville.il.us>

Subject: DEV-0057-2025 Karis Critical Data Centers PZC File 25-1103C

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Good afternoon,

As you proceed with your decision regarding the data center proposal, please do not dismiss the overwhelming unanimous opposition to this project.

If you are the sole advocate for the data center, who is paid immensely to promote it, how do you defend it? You start by saying that everyone else is misinformed. Please do not be fooled. If anything, be offended.

Many of those in opposition are Naperville's physicians, engineers, and attorneys, among other professionals. The speakers have collectively dedicated hundreds of hours to researching this **exact** data center using the petitioner's own materials, in addition to public records, with no financial incentive or motive to uncover anything other than the truth. Here are some of the uncontested facts:

- 1. Data centers emit a constant, audible operating sound. Hence, the sound study.
- 2. The data center will house diesel generators which are routinely operated for testing.
- 3. Diesel exhaust is classified as a Group 1 human carcinogen (the same class as asbestos) by the World Health Organization.
- 4. The proposed data center is within 700 feet of a new residential community Naper Commons.
- 5. The proposed lot was earmarked for future residential development within the city's master plan at the time the 200+ homes were purchased. The master plan still reflects future residential development for this lot.
- 6. Notice and "outreach" of the proposed data center was conducted after completion of the Naper Commons community in 2025.

Those are all facts. I ask you to draw your own conclusions.

Thank you for your thoughtful consideration.

Laurie Johnson Naperville Resident

Kopinski, Sara

From: Egner, Therese

Sent: Friday, November 7, 2025 8:11 AM

To: Kopinski, Sara

Subject: FW: No Data Center, I'm against any proposal

FYI - DEV-0057-2025

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540

(630) 420-4179 | egnert@naperville.il.us

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From: Natalie Ra	mos <		
	November 6, 2025 9:29 PM		
•	anning@naperville.il.us>; Wilson, Nate <	ehrli, Scott	
	White, Benny <	; Syed, Ashfaq <	McBroom,
Josh <	; Jain, Supna	; Holzhauer, Ian	
	Gibson, Mary <	; Kelly, Patrick <	
Subject: No Data	Center, I'm against any proposal		
_			
You don't ofter	n get email from <u>Lea</u>	ırn why this is important	

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Hello.

I'm a Naperville resident and I do not support a data center in our community. This would put a great danger to our environment and cause major pollution, which could cause cancer and a multitude of health and autoimmune diseases. My spouse works right by the proposed land and I would worry about his health and safety.

Please protect our community and the future for our children.

Thank you, Natalie Ramos

Kopinski, Sara

Description:

City of Naperville Citizen Support From: Monday, November 10, 2025 4:56 PM Sent: To: Kopinski, Sara Citizen Question Submissions for Mayor/Council (GovQA Reference # W300911-110425) Subject: Citizen Support Center (GovQA) Mayor/Council Submission You are receiving this email to alert you that a new Mayor/Council submission has been created and assigned to you. **Contact Name:** Kimberley Wuensch **Customer Name:** Kimberley Wuensch Email: Phone: [Phone] Reference Number: W300911-110425 **Create Date:** 11/4/2025 11:31:22 AM Status: Assigned Request Type: Feedback

Data Centers are not for Suburbs -

I rarely feel the need to speak out because Naperville overall does a great job of managing the City, but here we are - a suburban City strongly considering a Data Center.

Yes, the developers states that there won't be the same electric and water issues that cities with Data Centers complain about - higher utility prices borne by the residents, and equally troubling, electrical brown-outs.

Brown outs can be dangerous at worst and shorten the lives of electronics at best.

If Naperville truly believes the claims of the data center developer, that these issues won't happen at "this" data center, and goes through with the plan,

then all revenue generated by this property should not go into a general fund, but instead should be directly credited to every Napervillian's City utility bill.

This will off-set increased utility costs and appliance replacements caused by the very nature of the Data Center.

However, hopefully the City will ultimately agree that Data Centers do not belong in the Suburbs. But if they go through with it, then at least the residents receive restitution.

Respectfully, Kimberley Wuensch, Naperville Resident.

Click the link below to review and/or respond to the submission.

This is an auto-generated e-mail and has originated from an unmonitored email account. Please DO NOT REPLY.

Kopinski, Sara

From: Egner, Therese

Sent: Thursday, November 13, 2025 9:20 AM

To: Kopinski, Sara

Subject: FW: Public Input for the November 19 PZC Hearing for Karis Critical Data Centers (DEV-0057-2025)

FYI

Therese Egner

Community Planner | Planning & Development - TED Business Group City of Naperville | 400 S. Eagle St. Naperville, IL 60540 (630) 420-4179 | egnert@naperville.il.us

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From: Marilyn L Schwei	tzer		
Sent: Wednesday, Nove	ember 12, 2025 4:58 PM		
To: Planning < Planning	@naperville.il.us>		
Cc: Wehrli, Scott <	Holzhauer, la	n <	White, Benny
	Kelly, Patrick	Syed, Ashfaq	; McBroom,
Josh	; Wilson, Nate	; Gibson, Mary	<i>'</i>
	; Jain, Supna		
Subject: Public Input fo	r the November 19 PZC Hearing for	Karis Critical Data Centers (DEV-	0057-2025)

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Planning & Zoning Commissioners,

It seems as though the links I included in my October 29 written comments made it into the public comments for the November 5th meeting. They were:

• 2022 Land Use Plan:

https://www.naperville.il.us/contentassets/7fed1bf2ba19496fa9a037f019616748/2022-03-11-final-naperville-land-use-master-plan.pdf

• 2025 Naperville I-88 Corridor Strategy

https://naper.org/images/i88-study.pdf

Municipal Code Zoning Designations

https://library.municode.com/il/naperville/codes/code_of_ordinances?nodeId=TIT6ZORE

•2021 Fermilab Site Sustainability Plan

https://sustainability.fnal.gov/wp-content/uploads/2021/01/Fermilab-FY21-Site-Sustainability-Plan-posted.pdf

As one of the goals of both the 2022 Land Use Plan and the 2025 Naperville I-88 Corridor Strategy is to encourage more multifamily developments with on-site amenities in the I-88 Corridor, I do not understand why it would be considered at all appropriate to place one of the most intensive and conditional uses of ORI zoning in an area that since 2022 has been designated and proceeding to be developed as residential. Even if you were to ignore all the unknowns the impact on Naperville's power needs or the environmental controversy, one thing seems clear: people do not want to live so close to a data center. Recommending a data center at this location at this time seems to be sabotaging all recent planning. For example, consider these two statements from page 51 of the 2025 Naperville I-88 Corridor Strategy:

Collaborate with the City to identify next steps in creating a special zoning district (ideally incorporating recommendations from the Master Planning exercise) along I-88 that allows for a more dense, mixed-use, walkable, pedestrian- and transit-friendly environment, and the following zoning changes: reduced parking requirements; mixed-use development allowed; higher floor area ratios (FARs); and preservation of open space. Encourage City to consider the development of placemaking/design guidelines for new development, incorporating principles of "complete streets", along with the inclusion of green space and recreation areas.

With the goal of incorporating additional residential development as a complementary use along the Corridor, work on a strategy to designate specific residential growth areas along the Corridor and throughout Naperville. Determine specific recommendations for density/typology mix, integrating residential with commercial and light industrial uses, and preserving open space and existing amenities where possible.

If indeed more residential and new industries such as data centers are desirable along I-88, it would make far more sense for Naperville to place a Data Center in an area along the corridor all ready designated for more intense uses such as an Employment of Regional Center.

Again,

- A place type of Medium Density Residential, means uses compatible with R2 and R3 zoning.
 Conditional uses for R2 and R3 zoning do not include Data Centers as either permitted or a
 conditional use. Data Centers are only permitted as a conditional use in the two most
 intensive zoning designations: Office, Research, and Light Industrial (ORI) and Industrial (I).
 Conditional use for a Data center is in conflict with the adopted comprehensive master plan.
- This parcel, along with Naper Commons and the remaining Nokia property, is the only area along the I-88 Corridor in the 2022 Land Use Plan with the future designated Land Use of Medium Density Residential. The rest of the I-88 Corridor that was studied was designated either as a Regional Center or Employment Center. Approving a Data Center in what has been proceeding to become residential will make it more difficult to include residential components along the I-88 Corridor. It will sow community, business owner, and developer mistrust. It is highly likely to diminish and impair property values in the neighborhood and potential residential property values anywhere else in the I-88 corridor.
- Approving Phase I of the Data Center with no thought of what would be appropriate for the remaining space is poor planning.
- Naperville is struggling planning for our future power needs. We do not need the unknowns of this
 data center or other data centers to complicate the risk at least at this time. The electrical usage
 for Phase I is like concentrating half of the entire 2011 electrical usage at Fermilab into a single
 building on roughly 20 acres and only 1/4 mile from residences. If Phase II were to be built it would
 be similar to concentrating all of the 2011 electrical usage at Fermilab in only 2 buildings, on
 roughly 40 acres, and only about 300 ft from residences.

This Data Center should not be recommended or approved.

Thank you for your consideration.

Marilyn L. Schweitzer Naperville/IL

Marilyn L. Schweitzer

Analysis of the "THE POTENTIAL FISCAL IMPACTS OF THE PROPOSED KARIS CRITICAL DATA CENTER DEVELOPMENT IN NAPERVILLE Report by: Gruen Gruen + Associates July 2025"

By: James Butt - 11/3/2025

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Summary

Karis Critical, LLC "petitioner" commissioned and submitted to the Naperville Planning Commission a report "THE POTENTIAL FISCAL IMPACTS OF THE PROPOSED KARIS CRITICAL DATA CENTER DEVELOPMENT IN NAPERVILLE" - Dated July 2025 from GRUEN GRUEN + ASSOCIATES to show potential fiscal impacts of the proposed colocation data center. This review is to highlight structural issues with energy usage estimates provided by Karis Critical to Guen Gruen + Associates in the report and the resultant exaggerated tax impact for Naperville and how homes provide a higher and more stable overall tax income.

The initial submittals from Karis Critical specified two colocation data center buildings but after review by the City of Naperville it was determined that Naperville's power infrastructure could only support one of the two buildings and the Karis Critical reduced the development to a single data center building.

This paper has been peer reviewed by a licensed CPA, a licensed industrial electrical contractor, and by various technologists with decades of data center experience.

Key Takeaways

- The document the petitioner has submitted and presented is now incorrect as it has a base assumption that the original proposal for two buildings is being proposed, it is unclear of the reason the petitioner has not updated this report for accurate number.
- Petitioners power use estimates provided to Gruen Gruen + Associates are not realistic
 in comparison to documented industry standards and result in elevated utility tax
 revenue projections. Realistic electricity use based on documented industry standards
 show utility taxes are much closer to \$339k per year vs the \$622k to \$1.519m per year
 range their report suggests.
- The petitioner does not have any track record of building and operating colocation data centers, the phased construction of the first building is indication that they and or their lender is concerned with their ability to acquire customers to allow the facility to be profitable as two construction phases on the same building will incur additional costs.
- Power use will increase as they add customers, yet the petitioner contracting new
 customers is not guaranteed. The report assumes that data center is full and does not
 account for customers being added over time where the petitioners own phased build
 out approach indicates they are unsure how quickly they will find customers.
- The petitioners customer retention is not guaranteed as technology evolves and the
 potential for a crash of the data center market from an Al Bubble Burst making it a less
 stable tax income source than homes.
- The "megaproject" Illinois House Bill 4058 and State Senat Bill SB1514 proposed puts 78% of the petitioners proposed property tax revenue at risk capping the property taxes at \$281,000 as opposed to the proposed \$634,848 if both Phase 1A and Phase 1B are completed.
- Homes would generate over \$999k in more tax revenue than the proposed datacenter and approximately \$3m more if the lot where the Nokia building was used for homes.
- Naper Commons and Danada Woods Property taxes are likely to be reduced if the facility is constructed based on the impact of the development of the data center.
- Karis is asking the city of Naperville to approve a speculative development with the
 prospect of tax dollars from electricity that may never be used as utility tax is directly
 related to their sales performance and could be at risk from AI bubble bursting and ability
 to successfully run data center operations.
- Overall tax revenue could be as low as \$326k and as high as \$974k less than half of what Karis has estimated.

					ı	ndustry Star	dard	s Based	
	Karis	Low	Kar	ris High	Estir	nated Low	Estimated High		
Annual City Electric Tax Revenue	\$ (622,956	\$	1,529,073	\$	45,306	\$	339,720	
Property Tax Revenue	\$ (634,848	\$	634,848	\$	281,053	\$	634,848	
Total	\$ 1,	257,804	\$	2,163,921	\$	326,359	\$	974,567	

Inaccuracies based on single building being constructed

Page 1: Table 1: Column "Phase 2" should be removed as this is the second building

Page 1: Table 1: Column "Total" is incorrect as it has value for the second building for Phase 2

Page 1: Table 1: Column "Total" - Electrical Utility Tax should have \$934,434 to \$1,529,073

Page 1: Table 1: Column "Total" - Property Tax should have \$45,000

Page 1: Statements After Table 1: All dollar amounts minimum double reality based on one versus two buildings and overstated based on facility maximums vs real world data center load. See section: "Real World Data Center Power Utilization"

Page 2: "School District 203 is estimated to receive the largest share of annual property tax revenue at over \$998,000. The Naperville Park District is estimated to receive approximately \$60,000 in annual property tax revenue." - All dollar amounts minimum double reality based on one versus two buildings - School District D203 Phase 1A - \$146,404 and Phase 1AB \$488,014.40 - The Naperville Park District Phase 1A \$20,565.37 and Phase 1AB \$29,379.11 Page 3: Table 3: Columns Phase 2 should be removed, and Total is incorrect as it includes Phase 2

Page 1: Table 1: It is important to note that Phase 1B will not exist initially and may take the petitioner years to fill the data center for Phase 1A. It cannot be assumed that Phase 1B Revenues will ever exist.

Page 1: Table 1: All Electric Utility Tax Revenues are overstated based on facility maximums vs real world data center load. See section below: "Real World Data Center Power Utilization" Page 3: Table 3: Row "Annual Electric Expenditures" are using very inflated values that no industry data support. See sections below "Real World Data Center Power Utilization" due to this row "Annual City Electric Tax Revenue" values are inflated. It is estimated based on actual published industry data that "Annual Electric Expenditures" - Phase 1A - between \$8,287,660.80 and \$12,459,116.74 and "Annual City Electric Tax Revenue" between \$414,383.04 and \$622,955.84. And Phase 1B Revenue between \$4,143,830.40 and \$6,229,558.37 with taxes between \$207,191.52 and \$311,477.92. The Total Column using 1A+1B should have Revenue \$12,431,491.20 and \$18,688,675.10 and utility taxes between \$621,574.56 and \$934,433.76. Page 3: Statements under Table 3 have incorrect numbers based on the inaccuracies of base energy use data.

Page 4: Table A-1 - Data is incorrect as the data is for two data center buildings.

Correct Data:

		Phase 1A - 1		
		Building	Phase 1B - 1 Building	Total Phase 1A/1B
City of Naperville Library	\$0.1745	\$12,658	\$5,425	\$18,083
City of Naperville	\$0.4246	\$30,801	\$13,200	\$44,001
College of DuPage 502	\$0.1794	\$13,014	\$5,577	\$18,591
County of DuPage	\$0.1361	\$9,873	\$4,231	\$14,104
DuPage Airport Authority	\$0.0122	\$885	\$379	\$1,264
Forest Preserve District	\$0.1310	\$9,503	\$4,073	\$13,576
Lisle Township	\$0.0376	\$2,728	\$1,169	\$3,896
Lisle Township Mental Health	\$0.0161	\$1,168	\$501	\$1,668
Lisle Township Road	\$0.0219	\$1,589	\$681	\$2,269
Naperville Park District	\$0.2835	\$20,565	\$8,814	\$29,379
Unit School District 203	\$4.7092	\$341,610	\$146,404	\$488,014
Totals		\$444,393	\$190.454	\$634.848
		ų,ess	4200,.0.	400.,01

Page 4 Statement: "School District 203 is estimated to receive the largest share of annual property tax revenue at over \$998,000. Naperville is estimated to receive approximately \$90,000 in annual property tax revenue. The Naperville Park District is estimated to receive approximately \$60,000 in annual property tax revenue." is incorrect - School District will receive \$488k, Naperville \$44k, and Park District \$29k.

Page 5 Table 1B: Facility Capacity based on both buildings should be Phase 1A 24k and Phase 1B 12k and the Total 36k

Real World Data Center Power Utilization

Overview of data center power systems

Data Centers offering colocation services are in the business of selling space, cooling, internet, and power for servers. Ultimately there is a well-defined formula for pricing data center space based on power. Data center services are primarily sold as individual locking racks in shared space or individual racks contained within private caged spaces. Rack pricing is directly related to the power available at each rack. Most colocation customers pay a contracted fixed amount that includes space and power and pay the same amount monthly if they use the power or not. It is not as common for customers to pay based on metered power offered by some colocation providers and when available contract terms specify maximum power amounts available to the customer. Each rack generally has primary and backup power distribution units that are served by independent uninterrupted power supplies (UPS), Transfer Switches, and generators providing fully redundant power. Generally, enterprise level servers and IT equipment that would be mounted in the racks are equipped with multiple power supplies allowing primary and backup power to be used to ensure that all components are redundant to avoid failure. However, in the event the customer actively uses available power in the rack exceeding the primary or backup power circuits they will not have power redundancy and may cause a circuit breaker to trip and will experience a failure during maintenance and power outages. It is common that customers perform detailed planning and analysis to ensure that they are not overloading circuits based on the power needs of a server, power distribution unit, or individual rack. Typically, customer power distribution units in each rack are electronically metered and able to be monitored and audited to ensure safe utilization thresholds are maintained.

One of the primary ways that customers estimate power is the nameplate rating of individual servers and other IT equipment to ensure there is adequate spare power if systems were to use power up to the nameplate rating. To be compliant with National Electrical Code requirement NEC 210.20(A): This section states that the overcurrent device must be rated for at least 125% of the continuous load plus 100% of the noncontinuous load. UL (Underwriters Laboratories) and IEC (International Electrotechnical Commission) have a similar requirement UL/IEC 60950-1 (Information Technology Equipment - Safety) Annex NAE stating, "The attachment plug configuration shall be one that is rated not less than 125 percent of the current rating of the equipment". This applies to all components within the data center and every component in the electrical system will have at least a 25% buffer from the maximum power available. Rack data center power distribution units typically have a "derated load" ensuring a safety factor is built into the unit so customers are unable to overload circuits. As an example, a power distribution unit may connect to a 208v 50 AMP (10.4 kw) circuit, but the unit is only rated for 208v 37.5 AMP (7.8kw) of usable power to maintain a safety margin. The data center bases their power needs on the circuit size not the derated load of the power distribution unit.

Server Power

Servers in practice do not use anywhere near their nameplate rated power during normal operation, however the customer and the data center provider must build capacity based on the nameplates. Nameplate ratings on servers reflect the full power needs of a server if it had all expansion slots in use, all the hard disk slots populated, and was running at 100% CPU utilization 100% of the time. In the same way that power is estimated for each server, the servers themselves have power and safety buffers that make it almost impossible to ever see nameplate rated power usage. Scenarios even approaching 100% power utilization generally only happen in extreme cases such as very high sustained load in an environment where cooling is inadequate to cool a server, so the servers' internal fans run at full speed. This would reflect a worst-case scenario where data center cooling was not functioning properly and a workload on the server was operating significantly outside of optimum conditions.

Server Utilization

Servers do not typically run at 100% CPU utilization, as performance issues start to happen over 80% utilization. Even 2028 projected AI Training workloads are projected to have a maximum of 80% utilization and AI training is typically not something that happens continuously, it is something that happens at pre-defined intervals and most other AI workloads are used to perform inference where the AI uses the trained data. The inference workloads have a much lower 40% CPU utilization. While this has changed rapidly in the last few years one of the most cited sources of data has been the United States Department of Energy Lawrence Berkely National Laboratory Report "2024 United States Data Center Energy Usage Report" - See reference 1. In contrast to AI the report indicates that current colocation CPU Utilizations are less than 25% in 2024 and expected to only be 35% in 2027.

The proposed data center will operate as a colocation facility with a diverse range of clients and workloads. Some of these workloads will include AI training tasks, which generally have higher power utilization, on average, than non-AI workloads. However, even clients with servers running AI training workloads will also host many other applications with significantly lower power demands. Moreover, AI training workloads are not typically active around the clock; they often remain idle between training sessions. For most enterprise AI applications, continuous training is unnecessary; training is usually performed only when substantial changes occur in the data or when the model itself is significantly modified.

You will see in the below graph from the "2024 United States Data Center Energy Usage Report" that outside of Al workloads that server workloads will be less than 50% capacity on average. Even a server at 100% workload does not mean the server will be at 100% nameplate capacity but typically 75% of nameplate capacity.

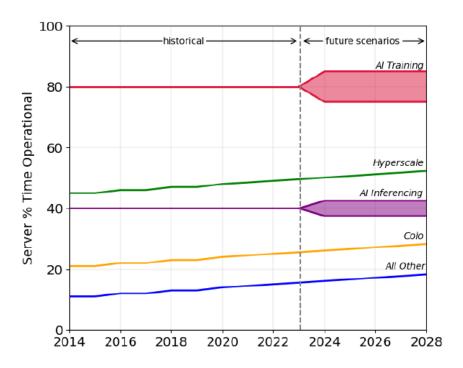


Figure 3.6. Operational time of servers given data center type.

Other workloads tend to have varied usage patterns based on users using the applications where daytime usage is much higher than nighttime usage. While workloads for streaming services like Netflix are far busier at night than they are during the day based on their usage and enterprise banking and retail workloads will be busier during the day than night.

Data Center Customers Size for Growth

Data center customers must plan for peak usage and plan for increased usage over time. Most data center customers are going to plan 3+ years in advance when negotiating with a data center provider and contract for available power and space they may or may not initially need to support business growth. This means that they will buy capacity that will sit unused, this is especially common for the largest data center customers that are utilizing private cage space as they need to size their cages and racks to ensure that they will meet their long-term needs. However, smaller customers may utilize individual racks and may have spare racks or spare space and power in racks to meet their future needs. This can be looked at like a growing family as typically you are buying a home for the future requirements of more children.

Data center providers must reserve sufficient power capacity to support the combined maximum potential usage of all their customers. It is common for customers to project 30–50% growth over a three-year period. For example, a customer might contract 10 racks of space, with each rack rated between 8 kW and 200 kW. They may initially populate only 5 of those racks, leaving the remaining 5 available for future expansion—resulting in 40 kW to 1,000 kW of power

capacity being allocated but not actually used. The capacity is sold - but power is not consumed, and as such, the data center incurs no utility costs or taxes on it. When customer contracts expire and tenants vacate, there may be periods during which significant portions of rack space and power capacity remain idle until new customers are secured.

How Data Centers Are Constructed

There are clear reasons why the petitioner's facility is being proposed in the manner it is, and it is consistent for colocation facilities. Data Center providers typically build a large shell that has partially built out infrastructure inside. As they contract customers, they build our internal sections or data halls within the shell of the building and add infrastructure components such as cooling, power, and generators over time as the add customers. This also allows the data center to extend capital outlay over time as opposed to building power and cooling systems that will not be used until new customers come. If the data center is slow at signing up customers, then they will slowly build out the data center halls and slow to use additional power. In the petitioner's case they have spread the actual building construction into two phases likely due to phased capital outlay of their lender based on customer contracts. Power consumption and tax revenues will ramp up over time and are not at all guaranteed. This is an indication that they and their lender understand that there is some speculative nature to the project and that clients will come slowly over a longer period of time otherwise they would build phase 1A and phase 1B at the same time as it is more cost effective in the long term.

Power Usage Effectiveness (PUE)

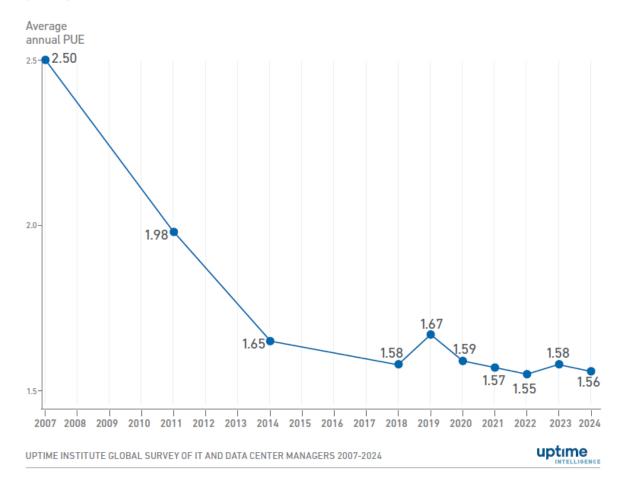
The Uptime Institute defines PUE (Power Usage Effectiveness) in their 2024 Annual report (see reference 2) as:

"Data center operators calculate PUE as a proxy for facility efficiency and a component of sustainability progress. PUE estimates the energy efficiency of a facility and helps track its change over time with a simple calculation: total facility power divided by power consumption of IT equipment. PUE was first defined by The Green Grid in 2007 and has since become the standard metric for facility energy efficiency." PUE is calculated as (Total Facility Energy / IT Equipment Energy).

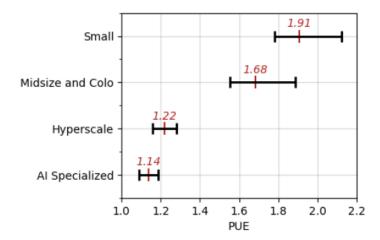
In the petitioner's fiscal impact report, it is stated on Page 5 Table 1B: Annualized PUE value of 1.23. The 1.23 value goes against industry averages and is likely unachievable based on published data without adiabatic "evaporative water based" cooling or water based. The overall value is likely to be closer to 1.56 based on industry averages.

Industry average PUE holds steady

What is the average annual PUE for the largest data center your organization owns / operates? (n=526)



Similarly, in the "2024 United States Data Center Energy Usage Report" show that colocation facilities have a higher PUE range than HyperScalers such as Amazon, Microsoft, and Google. HyperScalers and Dedicated AI data centers have some advantages to colocation data centers as they have the ability build a very purpose build data center that is not used for customer colocation and control exactly what server equipment is used and can achieve much higher densities and efficiencies. They are also able to fill data center racks fully as they need to add capacity. Where colocation data centers will have varied types and sizes of servers and will have large numbers of empty and partially filled racks as they will leave growth expansion space throughout their racks.



The submitted PUE value not matching industry standards overall has little impact other than they will see higher actual power usage in relation to customer power usage. However it does show that there may be some misunderstanding of industry averages for colocation data centers.

Utilization vs Load Factor

Data center utilization is the actual measurement of (electrical capacity vs used capacity) while Load Factor is how consistently a system is running at its capacity, a higher Load Factor is better, indicating consistent usage. Calculated as (Average Load / Peak Load used).

Load Factors for data centers are typically high because average load vs peak load is consistent across all customers and all workloads, but this is different from overall utilization based on overall capacity.

In the petitioner's report on Page 5 Table 1B: In terms of their calculation labeled as Utilization Factor/Load Factor the values represented are a Utilization Load based on how they are used. Load factors of 0.55, 0.70, and 0.90 are not practical numbers. No industry data supports a whole colocation data center achieving utilization levels of 0.55 and 0.70 really should have

been the hypothetical high number with 0.9 being impossible based on all the discussed constraints.

Although their calculations are based on two buildings, the data shows a total power utilization of 79.7 MW compared to 72 MW. Applying the same methodology to the proposed Phase 1A/1B "High" consumption figures yields 39.8 MW, not 36 MW as stated. This suggests that the 36 MW figure refers *only* to customer power usage, with additional building, HVAC, and environmental loads to be added on top of that—meaning the total load would be:

36 MW (customer power) + building/HVAC loads = total power utilization.

The petitioners Base and High Utilization Factor/Load Factor numbers are higher than any published data I can find for a colocation facility. It is not reality that you would have a datacenter that is at 100% nameplate capacity, and all servers operate at 90% of their capacities. This very well could lead to catastrophic over-current situations if they lost cooling capacity within the data center as systems would increase their fan speed to stay cooler and overall systems efficiencies would drop due to elevated temperatures and further increase power consumption over the limits of over-current protection devices.

Realistic Customer Load Calculation

The below formulas are calculations for individual customers within the data center. All customers contracted power values would be added together until the maximum 36 MW of available customer power for the facility.

Individual new colocation customer of a data center power "need" calculation:

Example Nameplate IT Load: 50 kW (kilowatts)

+
Projected Growth (50%): 50 kW increase over 5 years

=
Total Future IT Load: 100 kW (kilowatts)

X
Safety Margin (to meet NEC and other Requirements) 1.25

=
Customer Contracted Power 125.5 kW (kilowatts)

Customers must contract and pay monthly for 125.5 kW (kilowatts) of power from data center whether they use all the power or not and data center must reserve capacity plus facility power including customer equipment cooling/lights and other facility uses to cover if that power is used.

Actual new customer data center use year one:

Example Nameplate IT Load: 50 kW (kilowatts)

X

Actual Server Utilization (Utilization Factor): 0.40

=

Actual Utilization: (50 kW times 0.40) = 20 kW (kilowatts)

X

Efficiency Factor: Target PUE of 1.56 (facility power equipment cooling/lights/other)

=

Actual Power Used by Datacenter: 31.2 kW (kilowatts)

Difference between contracted and actual power usage:

(125.5 kW – 31.2 kW) = 94.3 kW, or approximately **76% less than the contracted amount**. Data centers typically bill customers based on their **committed power capacity**, rather than actual usage. As a result, it is often advantageous for the data center when customers consume less power than contracted, since the provider receives payment for capacity that is reserved but not utilized.

Given that all tax revenues will be based on actual power consumption, and not capacity planning requirements, the below calculations are *critical* in producing accurate projections.

Data Center Power Use Calculation

Karis Critical Provided Power Calculation Table B-1 (Low)

Assumes customers will not reserve capacity for growth and will have a Utilization Factor higher than industry averages for collocation.

Customer Contracted Capacity (KW/Kilowatts) 36,000 (72k kw / 2 for single building)

X

365 Days

Χ

24 Hours

=

Nameplate Critical IT 315,360,000 KWH/Yr (Kilowatt Hours per Year)

X

Annualize PUE 1.23

X

Utilization Factor= 0.55

=

Total Annual 213,341,040 KWH (Kilowatt Hours)

X

Effective Power Rate (\$/KWH) \$0.0876

=

City Utility Revenue \$18,688,675.10

Χ

City 5% Utility Tax

=

City Tax Revenue = \$934,433.76

Reality Power Calculation

Customer sets aside 50% of power for growth and Industry average colocation utilization factor of 0.40

Customer Capacity (KW/Kilowatts) 36,000 (72k kw / 2 for single building)

X
365 Days

X
24 Hours

=
Nameplate Critical IT 315,360,000 KWH/Yr (Kilowatt Hours per Year)

X
Reserved for Customer Growth 50%

=
Contracted Customer Power - 473,040,000 KWH/Yr (Kilowatt Hours per Year)

X
Utilization Factor/Load Factor 0.55

=
Actual Customer Power Utilization 189,216,000 KWH/Yr (Kilowatt Hours per Year)

X
Annualize PUE (Facility/Cooling/Lights/Other) 1.23

=
Total Annual KWH/Yr 77,578,560 KWH/Yr (Kilowatt Hours per Year)

X
Effective Power Rate (\$/KWH) \$0.0876

=
City Utility Revenue \$6,795,881.86

X
City 5% Utility Tax

=
City Tax Revenue = \$339,794.09

Realistic Power and Taxes - Phase 1A

The below data table represents derived values from the petitioners "Potential Fiscal Impact" report due to the petitioner only supplying a table representing 2 data center buildings. The second, third, and fourth columns use identical formulas with a down adjusted capacity to match the reduction from two buildings to one. The 2nd column labeled "reality" represents a normalized industry Utilization Factor/ Load Factor of 40% based on "2024 United States Data Center Energy Usage Report" projections. See Reference 1. Reality represents a significant difference in utility tax revenue per year and that is assuming that the facility 100% filled to contracted Nameplate capacity based on the overall facility power capacity. The overall power usage is likely to be much less based on client growth reserved capacity and the assumption that data center has fully committed power by customers for the full year and is likely representative of year 3 of operations as customer acquisition will happen over time.

		Only 1A Build	ding		
	Based or	n Industry	Based	on Karis Submited N	lumbers
	Reality 50%	Reality No	Low	Base	High
	Customer Growth	Customer Growth			
	Year One				
Customer Capacity (kw)					
	24,000	24,000	24,000	24,000	24,000
Days/Yr	365	365	365	365	365
Hours/Day	24	24	24	24	24
Nameplate Critical IT KWH/Yr	210,240,000	210,240,000	210,240,000	210,240,000	210,240,000
Reserved for Customer Growth	50%	0%	0%	0%	0%
Contracted Customer Power	315,360,000	210,240,000	210,240,000	210,240,000	210,240,000
Utilization Factor	0.40	0.40	0.55	0.70	0.90
Actual CustomerKWH/Yr	42,048,000	84,096,000	115,632,000	147,168,000	189,216,000
Annualized PUE	1.23	1.23	1.23	1.23	1.23
Facility (Cooling/Lights/Other)	9,671,040	19,342,080	26,595,360	33,848,640	43,519,680
Total Annual KWH	51,719,040	103,438,080	142,227,360	181,016,640	232,735,680
Actual (KW)	5,904	11,808	16,236	20,664	26,568
Effective Power Rate (\$/kwh)	\$0.0876	\$0.0876	\$0.0876	\$0.0876	\$0.0876
City Utility Revenue	\$ 4,530,587.90	\$ 9,061,175.81	\$ 12,459,116.74	\$ 15,857,057.66	\$ 20,387,645.57
City 5% Utility Tax	\$ 226,529.40	\$ 453,058.79	\$ 622,955.84	\$ 792,852.88	\$ 1,019,382.28

Realistic Power and Taxes Phase 1A and 1B

Reality based on "2024 United States Data Center Energy Usage Report" projections. See Reference 1. The Karis submitted data below in columns Low, Base, and High assumes that data center has fully committed power by customers for the full year and Low or Base may be representative of year 3 of operations if Karis achieves very high levels of sales success as customer acquisition will happen over time.

The combined Phase 1A and Phase 1B capacity below is still far below the utility tax estimates that the developer has submitted.

\dagger				1A + 1B Bui	lding		
+		Based o	n Inc			Naris Submited N	lumbers
Ť		Reality 50%		Reality No	Low	Base	High
		Customer		Customer			
		Growth Year		Growth			
		One					
T	Customer Capacity						
((kw)	36,000		36,000	36,000	36,000	36,000
Ι	Days/Yr	365		365	365	365	365
Ι	Hours/Day	24		24	24	24	24
- 1	Nameplate Critical IT KWH/Yr	315,360,000		315,360,000	315,360,000	315,360,000	315,360,000
	Reserved for Customer Growth	50%		0%	0%	0%	0%
	Contracted Customer Power	473,040,000		315,360,000	315,360,000	315,360,000	315,360,000
I	Utilization Factor	0.40		0.40	0.55	0.70	0.90
- 1	Actual CustomerKWH/Yr	189,216,000		126,144,000	173,448,000	220,752,000	283,824,000
1	Annualized PUE	1.23		1.23	1.23	1.23	1.23
- 1	Facility (Cooling/Lights/Other)	43,519,680		29,013,120	39,893,040	50,772,960	65,279,520
	Total Annual KWH	77,578,560		155,157,120	213,341,040	271,524,960	349,103,520
\mathbf{I}	Actual (KW)	8,856		17,712	24,354	30,996	39,852
- 1	Effective Power Rate \$/kwh)	\$0.0876		\$0.0876	\$0.0876	\$0.0876	\$0.0876
I	City Utility Revenue	\$ 6,795,881.86	\$	13,591,763.71	\$ 18,688,675.10	\$23,785,586.50	\$30,581,468.35
_	City 5% Utility Tax	\$ 339,794.09	\$	679,588.19	\$ 934,433.76	\$ 1,189,279.32	\$ 1,529,073.42
- 1	Estimated Facility Revenue	65,700,000		42,398,400	58,297,800	74,197,200	95,396,400

It is acknowledged that petitioner may have proforma estimations of customer energy utilizations. While unlikely, the petitioner may achieve their "low" submitted numbers with the correct mix of customers within the data center after several years of operation but would be outside of "2024 United States Data Center Energy Usage Report" projections. See Reference 1.

The petitioner is asking the City of Naperville to engage in speculation regarding potential tax revenue based on the data center market and their own ability to succeed within it. This approach is *far* more uncertain than residential development, where there is a well-established record of homes being built and sold in the area. In contrast, the "field of dreams" notion—if you build it, they will come—is not guaranteed in this case, and even if successful, may take far longer to realize than the petitioner is claiming and will be far closer to the Low estimates Karis proposed.

Proforma Power Utilization and Utility Tax Revenue Overtime

The Karis submitted data assumes that data center has fully committed power by customers for full years and does not represent the initial years of operation where the data center will add customers over time. The submission shows data that while overstated based on customer power use may be more likely after year 3 of operations as customer acquisition will happen over time.

Attached are more representative 3-year proformas based on real world customer colocation new customer acquisition and real-world power utilization information based on methods outlined in "Real World Data Center Power Utilization" section of this analysis.

Year 1 Performa

		Ye	ear 1 - Phase 1	A ONLY 24MW M	lax Customer	Capacity - Re	eality 50% Cus	stomer Growth	Year One - B	ased on Indus	try		Yearly Totals
	5%	7%	10%	13%	15%	17%	20%	23%	25%	30%	35%	40%	
% of Facility Customer Contracted													
Contracted Customer Capacity	1,200	1,680	2,400	3,120	3,600	4,080	4,800	5,520	6,000	7,200	8,400	9,600	
Days/Yr	30	30	30	30	30	30	30	30	30	30	30	30	
Hours/Day	24	24	24	24	24	24	24	24	24	24	24	24	
Nameplate Critical IT KWH/Month	876,000	1,226,400	1,752,000	2,277,600	2,628,000	2,978,400	3,504,000	4,029,600	4,380,000	5,256,000	6,132,000	7,008,000	
Reserved for Customer Growth	509	6 50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	
Monthly PUE	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	
Utilization Factor	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
Total Monthly KWH	215,496	301,694	430,992	560,290	646,488	732,686	861,984	991,282	1,077,480	1,292,976	1,508,472	1,723,968	10,343,808
Actual (KW)	25	34	49	64	74	84	98	113	123	148	172	197	
Effective Rate (\$/kwh)	\$0.0	9 \$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	
Utility Revenue	\$ 18,877	\$ 26,428	\$ 37,755	\$ 49,081	\$ 56,632	\$ 64,183	\$ 75,510	\$ 86,836	\$ 94,387	\$ 113,265	\$ 132,142	\$ 151,020	\$ 906,118
5% Utility Tax	\$ 944	\$ 1,321	\$ 1,888	\$ 2,454	\$ 2,832	\$ 3,209	\$ 3,775	\$ 4,342	\$ 4,719	\$ 5,663	\$ 6,607	\$ 7,551	\$ 45,306
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	

Year 2 Performa

			Yea	r 2 - Phase 1/	4 + 2B 36MW	Max Custome	er Capacity - F	Reality 50% C	ustomer Grow	th Year One - I	Based on Indu	stry		Yearly Totals
	35%		40%	45%	55%	60%	65%	70%	75%	80%	85%	90%	100%	
% of Facility Customer Contracted														
Contracted Customer Capacity	12	600	14,400	16,200	19,800	21,600	23,400	25,200	27,000	28,800	30,600	32,400	36,000	
Days/Yr		30	30	30	30	30	30	30	30	30	30	30	30	
Hours/Day		24	24	24	24	24	24	24	24	24	24	24	24	
Nameplate Critical IT KWH/Month	9,198,	000	10,512,000	11,826,000	14,454,000	15,768,000	17,082,000	18,396,000	19,710,000	21,024,000	22,338,000	23,652,000	26,280,000	
Reserved for Customer Growth		50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	
Monthly PUE		.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	
Utilization Factor	(.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
Total Monthly KWH	2,262,	708	2,585,952	2,909,196	3,555,684	3,878,928	4,202,172	4,525,416	4,848,660	5,171,904	5,495,148	5,818,392	6,464,880	51,719,040
Actual (KW)		258	295	332	406	443	480	517	553	590	627	664	738	
Effective Rate (\$/kwh)	\$	0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	
Utility Revenue	\$ 198,	213	\$ 226,529	\$ 254,846	\$ 311,478	\$ 339,794	\$ 368,110	\$ 396,426	\$ 424,743	\$ 453,059	\$ 481,375	\$ 509,691	\$ 566,323	\$ 4,530,588
5% Utility Tax	\$ 9,	911	\$ 11,326	\$ 12,742	\$ 15,574	\$ 16,990	\$ 18,406	\$ 19,821	\$ 21,237	\$ 22,653	\$ 24,069	\$ 25,485	\$ 28,316	\$ 226,529
	Month 13		Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	

Year 3 Performa

			Y	ear 3 - Phase 1	1A vs 1B - Rea	ality 50% Cust	tomer Growth	Year One - Ba	sed on Indust	ry			Yearly Totals
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
% of Facility Customer Contracted													
Contracted Customer Capacity	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	
Days/Yr	30	30	30	30	30	30	30	30	30	30	30	30	
Hours/Day	24	24	24	24	24	24	24	24	24	24	24	24	
Nameplate Critical IT KWH/Month	26,274,240	26,274,240	26,274,240	26,274,240	26,274,240	26,274,240	26,274,240	26,274,240	26,274,240	26,274,240	26,274,240	26,274,240	
Reserved for Customer Growth	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	
Monthly PUE	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	
Utilization Factor	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
Total Monthly KWH	6,463,463	6,463,463	6,463,463	6,463,463	6,463,463	6,463,463	6,463,463	6,463,463	6,463,463	6,463,463	6,463,463	6,463,463	77,561,556
Actual (KW)	738	738	738	738	738	738	738	738	738	738	738	738	
Effective Rate (\$/kwh)	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	
Utility Revenue	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 566,199	\$ 6,794,392
5% Utility Tax	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 28,310	\$ 339,720
	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	

Power and Utility Tax Yearly Summary

	Year 1	Year 2	Year 3	Total 3 Years	Year 4	Year 5	Year 6	Total 6 Years
Actual Power Used KWH	10,343,808	51,719,040	77,561,556	139,624,404	77,561,556	77,561,556	77,561,556	372,309,074
Utility Revenue	\$ 906,118	\$ 4,530,588	\$ 6,794,392	\$ 12,231,098	\$ 6,794,392	\$ 6,794,392	\$ 6,794,392	\$ 32,614,275
5% Utility Tax	\$ 45,306	\$ 226,529	\$ 339,720	\$ 611,555	\$ 339,720	\$ 339,720	\$ 339,720	\$ 1,630,714

Data Center Industry Tax Revenue Stability Concerns

Proposed Illinois "Megaproject" tax break

Proposed Illinois House Bill 4058 and State Senat Bill SB1514 proposes that development projects larger then \$100m will have their property taxes frozen for 23 to 40 years at predevelopment levels. This bill is reported to be supported by the Illinois Senate, Illinois House, and the Governor.

For this development the current undeveloped property tax of \$281,000 will continue after the development as opposed to the \$1,298,733 proposed property tax resulting in a 78% reduction. See:

- "Brian Costin: Gov. JB Pritzker appointees' plan shifts a mega property tax burden onto you" The Center Square 10/24/2025 (see reference 11)
- "Critics warn Illinois' 'megaproject' tax breaks shift costs to taxpayers" Chicago Tribune 10/7/2025 (see reference 12)

The effect of the Megaproject tax break would affect the tax revenue as follows:

			If Megaproject
			HB4058/SB1514
		Total Phase 1A/1B	Equalized Assessed
City of Naperville Library	\$0.1745	\$18,083	\$8,006
City of Naperville	\$0.4246	\$44,001	\$19,480
College of DuPage 502	\$0.1794	\$18,591	\$8,231
County of DuPage	\$0.1361	\$14,104	\$6,244
DuPage Airport Authority	\$0.0122	\$1,264	\$560
Forest Preserve District	\$0.1310	\$13,576	\$6,010
Lisle Township	\$0.0376	\$3,896	\$1,725
Lisle Township Mental Health	\$0.0161	\$1,668	\$739
Lisle Township Road	\$0.0219	\$2,269	\$1,005
Naperville Park District	\$0.2835	\$29,379	\$13,006
Unit School District 203	\$4.7092	\$488,014	\$216,048
Totals		\$634,848	\$281,053

Illinois Biometric Information Privacy Act (BIPA)

There are a number of factors that leave Illinois based data center colocation providers at a disadvantage, primarily the Illinois Biometric Information and Privacy Act (BIPA).

""(BIPA) is causing a pause in the state of Illinois by cloud providers and those with AI investment," says Dan Diorio, vice president of state policy for the Data Center Coalition, a trade group that represents data center operators including Amazon, Google, Meta, Microsoft, Cyrus One, Digital Realty, Equinix, Prologis and T5. "We have developments that are a bit stalled."

Data center developers say some of the biggest projects are bypassing Illinois for Indiana, Wisconsin, Iowa and Michigan." - "How Illinois' privacy law is costing Chicago billions in datacenter deals" - Crain's Chicago Business - 9/23/2025

"The pipeline in Chicago also is showing signs of weakness." - "How Illinois' privacy law is costing Chicago billions in data-center deals" - Crain's Chicago Business - 9/23/2025

"Nearly 80% of new development projects nationally are pre-leased," Cvengros says. "When you look at what's coming to market in Chicago in 2026, you have several projects that are not pre-leased." - "How Illinois' privacy law is costing Chicago billions in data-center deals" - Crain's Chicago Business - 9/23/2025

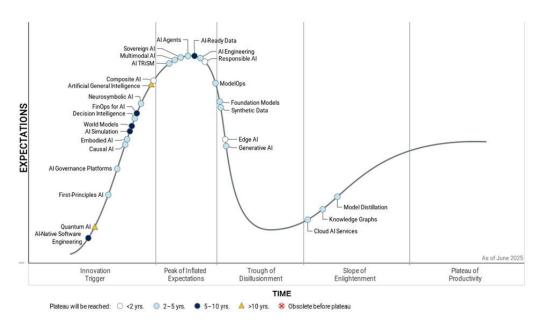
"JLL's data only includes co-location data centers, or those that rent space to multiple tenants, not the projects that so-called hyperscale users, such as Amazon, Google, Microsoft and Meta, are building themselves. Those are the projects most prized by developers, labor unions and local governments." - "How Illinois' privacy law is costing Chicago billions in data-center deals" - Crain's Chicago Business - 9/23/2025

Al Bubble

The "Al Bubble" is a legitimate concern that large quantities of data center capacity are being built out that may never get used as companies find that investments in Al are not paying off or choose to use a hyperscaler like Amazon, Google, Meta, or Microsoft to provide Al services instead of building their own Al infrastructure in a colocation data center. This is the trend that I have observed with my large enterprise customers.

"A small group of companies is securing most of the major deals. News about multibillion-dollar investments from familiar companies such as OpenAI, Nvidia, CoreWeave, Microsoft, Google, and a few others is reported almost daily. Should the bold promises of AI fall short, the dependence among these major AI players could trigger a devastating chain reaction, causing a widespread collapse similar to the 2008 Great Financial Crisis." As cited in a Yale Insights article "This Is How the AI Bubble Bursts" See reference: 5.

Gartner a respected technology research and advisory firm, says we are currently in the "Trough of Disillusionment" See Reference: 6. The is typically the point in where a technology starts to operationalize at scale.



Gartner.

As enterprises have rushed to pursue AI due to many reasons, they have started to pursue third party AI service providers for their AI infrastructure such as Amazon AWS, Google, and Microsoft that all have their own very large hyperscale data centers that are far larger than what is being proposed. The overall cost of AI chips and supporting infrastructure and limited availability of qualified AI engineers is causing most enterprises to look for third party AI providers.

"Developing AI solutions requires expertise in machine learning, data science, and software engineering—skills that are in high demand but short supply, with roles growing 74% annually. This talent crunch makes it difficult for companies to recruit and retain the professionals needed to build robust AI systems. More than half of businesses in the UK (51%) acknowledge that they don't have the right mix of skilled AI talent in-house to bring their strategies to life." See Reference 9: "The Evolution of Build Vs Buy - In Artificial Intelligence"

Other organizations that are offering AI as a service require very large hyperscale sized data center campuses such as the xAI Grok Colossus Gigawatt data center. See Reference 8: "Elon Musk xAI Importing Power Plant for New Data Center". One of the largest names in AI; OpenAI has contracted with Amazon AWS to use its hyperscale data centers instead of building out additional AI infrastructure. See Reference 10: "Tech OpenAI signs \$38 billion compute deal with Amazon, partnering with cloud leader for first time"

While opportunities still exist for colocation providers such as the proposed Karis Data Center, these facilities are more likely to serve as replacements for older-generation data centers, accommodating customers seeking modern infrastructure with higher power density. Moreover, it is highly unlikely that this proposed facility, or any mixed-use colocation facility, will ever be fully occupied by Al-specific workloads or hyperscaler workloads that can have higher load and utilization.

Data Center vs. Homes

For Naperville, a new residential development with a density similar to Naper Commons, approximately 150 homes on 40 acres, would generate more than twice the property tax revenue of the proposed project and likely produce utility tax revenue comparable to that of the data center, based on more realistic power consumption. Moreover, this estimate does not account for the additional economic benefit residents provide by spending locally: contributing sales tax revenue through shopping, dining, and other commerce, whereas data center services are not subject to sales tax.

			If Megaproject HB4058/SB1514		
		Total Phase 1A/1B	Equalized Assessed	150 Homes	Nokia Lot 175 Home
City of Naperville Library	\$0.1745	\$18,083	\$8,006	\$52,350	\$61,075
City of Naperville	\$0.4246	\$44,001	\$19,480	\$127,380	\$148,610
College of DuPage 502	\$0.1794	\$18,591	\$8,231	\$53,820	\$62,790
County of DuPage	\$0.1361	\$14,104	\$6,244	\$40,830	\$47,635
DuPage Airport Authority	\$0.0122	\$1,264	\$560	\$3,660	\$4,270
Forest Preserve District	\$0.1310	\$13,576	\$6,010	\$39,300	\$45,850
Lisle Township	\$0.0376	\$3,896	\$1,725	\$11,280	\$13,160
Lisle Township Mental Health	\$0.0161	\$1,668	\$739	\$4,830	\$5,635
Lisle Township Road	\$0.0219	\$2,269	\$1,005	\$6,570	\$7,665
Naperville Park District	\$0.2835	\$29,379	\$13,006	\$85,050	\$99,225
Unit School District 203	\$4.7092	\$488,014	\$216,048	\$1,412,760	\$1,648,220
Totals		\$634,848	\$281,053	\$1,837,830	\$2,144,135

Naperville has approximately 54,286 households that generate a total of \$49.5 million in annual sales tax revenue. This equates to roughly \$911 in sales tax per household per year, meaning a 150-home neighborhood would contribute about \$136,000 annually in local Naperville sales tax revenue.

Tax Comparison

	Full Phase 1A/2B		If Megaproject HB4058/SB1514		150 Homes		Homes v. Data Center		Homes v. Data Center If Megaproject	
Property Tax	\$	634,848	\$	281,053	\$	1,837,830	\$	1,202,982	\$	1,556,777
Utility Tax	\$	339,794	\$	339,794			\$	(339,794)	\$	(339,794)
Sales Tax					\$	136,650	\$	136,650	\$	136,650
Total Tax Revenue	\$	974,642	\$	620,847	\$	1,974,480	\$	999,838	\$	1,353,633

Homes on Nokia Building Lot

If the datacenter is built, it all but guarantees that the adjacent and aging Nokia property will be unusable for any residential projects, due to its proximity to said datacenter. *In contrast*, if the datacenter is NOT built, it allows the possibility of an additional 325 new homes, using a density like that of the current Naper Commons development. The potential tax revenue generated by 325 new homes is illustrated below:

	Full P	hase 1A/2B	egaproject 058/SB1514	Full 32	5 Homes	Hor Cer		Cent	es v. Data er If project
Property Tax	\$	634,848	\$ 281,053	\$	3,981,965	\$	3,347,117	\$	3,700,912
Utility Tax	\$	339,794	\$ 339,794			\$	(339,794)	\$	(339,794)
Sales Tax				\$	296,075	\$	296,075	\$	296,075
Total Tax Revenue	\$	974,642	\$ 620,847	\$	4,278,040	\$	3,303,398	\$	3,657,193

Ultimately, residential development has greater potential for tax revenue than the proposed single building data center.

Risk of Data Center vs. Homes

Homes represent a far more stable and diversified source of tax revenue for the city. Relying on a single large entity as a primary revenue source exposes Naperville to significant financial risk should that entity's performance decline. In contrast, residential developments distribute the tax base across many homeowners, reducing dependency on any one source. Homes would insulate the city from fluctuations in the data center market, or potential downturns in the fledgling AI industry that could result in abrupt declines in tax revenue from the data center provider and risks of the AI bubble popping and tax revenue suddenly going away.

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