



Not in my backyard: Socio-Political, Economic, and Spatial Dynamics of Grassroots Opposition to Data Center Infrastructure Expansion [DRAFT]

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How to read this report

Measured outcomes, allegations, proposals, projections, and policy intentions are deliberately distinguished. Quantitative project trackers are treated as informative but not as comprehensive government censuses. Corporate and advocacy sources are identified as such.

Executive Summary

Large data centers - especially campuses designed for artificial-intelligence workloads - are now a central infrastructure issue rather than a niche real-estate category. Their growth can bring substantial private investment, construction activity, and local tax revenue. It can also create unusually concentrated demands for electricity, transmission, industrial land, water, backup generation, and continuous mechanical cooling. The resulting conflicts are not adequately explained by the label "NIMBY" ... not in my back yard. They arise from the interaction of project scale, local conditions, cost allocation, and the perceived fairness of public decision-making.

The evidence supports the broad conclusion that community resistance has become more organized and consequential. A July 2026 Carbon Direct analysis identified 46 proposed AI data-center projects in 20 states that had been delayed, stalled, withdrawn, or canceled following opposition between January 2024 and May 2026, with announced investment totaling about \$170 billion. A separate Data Center Watch tracker reported 75 project disruptions valued at \$130 billion in the first quarter of 2026. These datasets use different definitions and should not be combined, but both indicate that local conflict can materially affect schedules and siting decisions (Carbon Direct, 2026; Data Center Watch, 2026).

National opinion is also unfavorable toward local siting. *Gallup reported in May 2026 that 71% of U.S. adults opposed construction of an AI data center in their area.* This does not mean that 71% oppose all data centers under all conditions; the question concerned local AI data centers and measured a general attitude rather than a response to a specific, mitigated proposal (Gallup, 2026).

The most credible recurring concerns are electricity-system impacts and ratepayer exposure; noise, including tonal and low-frequency components; water demand in water-constrained locations; land conversion and visual effects; emissions from backup or on-site generation; and procedural secrecy. None is universal. Data-center designs differ substantially, and site-level effects depend on technology, climate, setbacks, infrastructure, and enforceable operating conditions.

The report's principal recommendation is therefore process-oriented: large-load projects should disclose consequential information early, use independent and technically appropriate studies, allocate infrastructure costs transparently, and translate mitigation promises into enforceable conditions with ongoing monitoring. Community participation is most useful before land-use and utility commitments become difficult to change.

Finding	Best-supported conclusion	Important qualification
Electricity demand	Data centers used about 4.4% of U.S. electricity in 2023; LBNL projects a central estimate of 11.8% in 2030.	The 2030 range is wide: 9.5%-15.3%; regional impacts can differ sharply.
Project conflict	Multiple trackers document large numbers of delayed, stalled, withdrawn, or canceled projects.	Trackers use different inclusion rules; announced investment is not capital already spent.
Public opinion	Gallup found 71% opposition to a local AI data center.	The result does not establish opposition to every design or location.
Noise	Continuous mechanical systems can create audible, tonal, and low-frequency concerns.	Health claims require site measurements and should distinguish complaints from established causation.
Water	Some evaporatively cooled campuses can use large volumes of water.	Direct liquid cooling is not itself synonymous with high consumptive water use.
Fiscal effects	Data centers can generate substantial local revenue with limited school-enrollment demand.	Infrastructure, emergency-service, and incentive costs must be included in net-benefit analysis.
Heat reuse	Data-center heat recovery is technically proven in district-energy settings.	Economics depend on temperature, distance, nearby demand, contracts, and heat-pump energy.

Table 1. Core findings and the qualifications needed to interpret them accurately.

How data-center siting conflict develops

Opposition is usually produced by interacting project impacts, governance choices, and local context - not by a single cause.

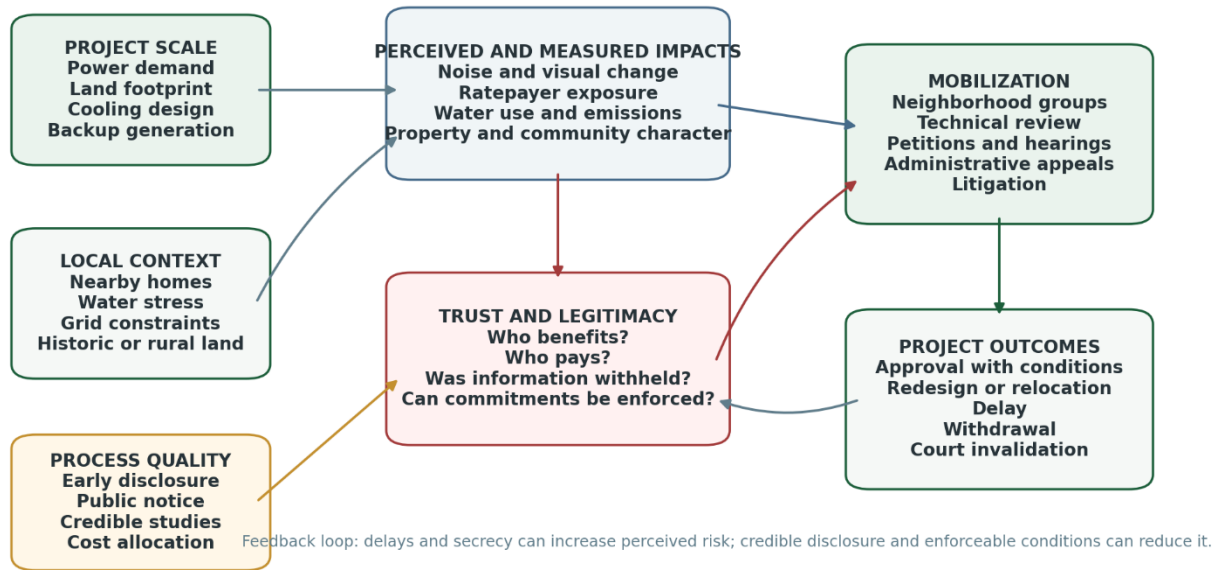


Figure 1. A systems view of data-center siting conflict. The pathway is multi-causal and includes feedback between trust, impact perception, and project outcomes.

1. Scope, Method, and Evidentiary Standard

This report evaluates the socio-political, economic, environmental, spatial, and procedural dynamics of opposition to large data-center projects in the United States, with selected international examples of waste-heat reuse. It is a synthesis, not a comprehensive census of every proposed facility or opposition group.

Evidence was prioritized in the following order: official court opinions, statutes, regulatory documents, and government studies; peer-reviewed and national-laboratory research; direct project or utility statements; reputable reporting; and, finally, advocacy or industry materials used to describe the positions of the organizations that produced them. Corporate performance claims are treated as self-reported unless independently verified.

- Measured: an observed operating result or official statistic.
- Projected: a modeled or announced future outcome that has not yet been fully demonstrated.
- Alleged or reported: a claim by residents, advocates, companies, or litigants that may remain disputed.

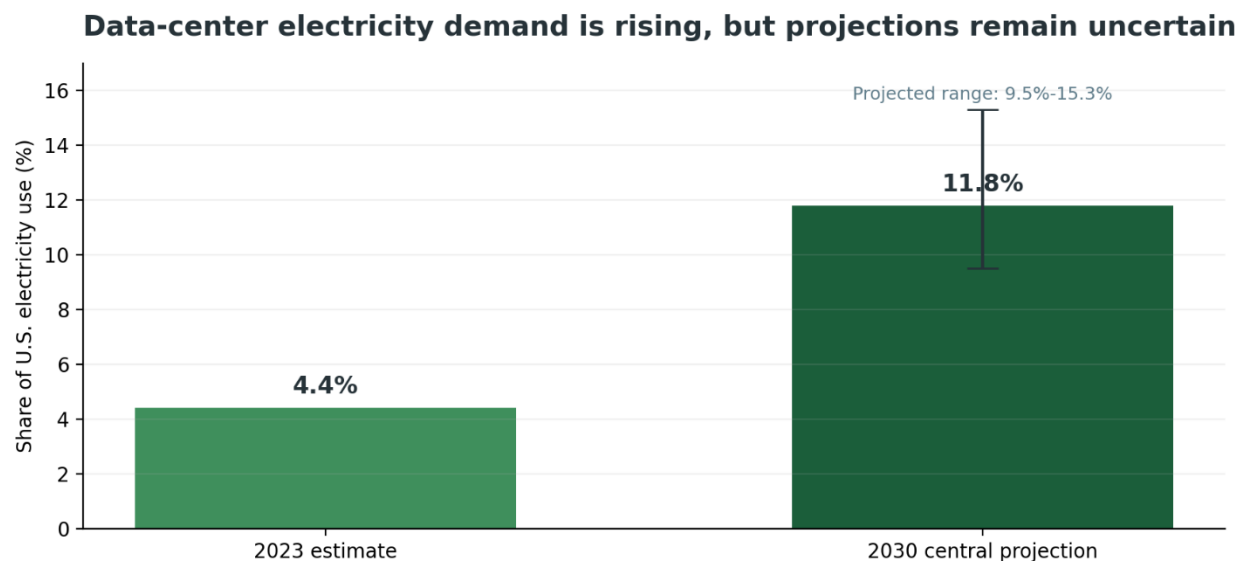
- Enacted: a law, ordinance, order, or court judgment that is in effect as of the research cutoff.
- Proposed: a bill, tariff, project condition, or policy objective that is not yet final.

Limitations

Project trackers are valuable indicators of friction but do not use a single standardized methodology. Public-opinion polling measures attitudes, not engineering impacts. Water, noise, fiscal, and grid effects must be assessed at the facility and jurisdiction level. International heat-recovery projects may not transfer directly to U.S. suburban markets.

2. The Scale of Expansion - and the Scale of Conflict

Electricity demand is the clearest national indicator of the sector's changing physical footprint. The U.S. Department of Energy estimated that data centers consumed approximately 4.4% of national electricity in 2023. Lawrence Berkeley National Laboratory's 2025 update, released in 2026, projects that the share could reach 11.8% in 2030, with a range of 9.5% to 15.3% (U.S. Department of Energy, 2024; Lawrence Berkeley National Laboratory, 2026a).



Sources: U.S. Department of Energy (2024); Lawrence Berkeley National Laboratory (2026).

Figure 2. Estimated and projected U.S. data-center electricity share. The uncertainty range is as important as the central estimate.

The national percentages can obscure local concentration. A single hyperscale campus may enter a regional grid as one of its largest individual loads. Connection can require new substations, transmission upgrades, generation capacity, or special operating arrangements. Whether the associated costs are borne by the large-load customer or distributed more broadly depends on utility tariffs, regulatory decisions, minimum-load commitments, exit provisions, and the timing of infrastructure investments.

2.1 What the project-disruption numbers do - and do not - show

Carbon Direct reported that 46 proposed AI data-center projects in 20 states, representing approximately \$170 billion in announced investment, were delayed, stalled, withdrawn, or canceled following community opposition from January 2024 through May 2026. Data Center Watch separately reported 75 disruptions valued at \$130 billion in the first quarter of 2026. The categories are heterogeneous: a temporary delay is not equivalent to a permanent cancellation and announced capital value is not the same as money already committed. The two sources also use different project universes and should not be added together (Carbon Direct, 2026; Data Center Watch, 2026).

Metric	Verified value	Interpretation
Projects affected, Jan. 2024-May 2026	46 projects in 20 states; about \$170B announced investment	Carbon Direct analysis; includes delayed, stalled, withdrawn, and canceled outcomes.
Q1 2026 tracker	75 disruptions; about \$130B announced value	Data Center Watch methodology; not directly comparable to Carbon Direct.
Local public opinion	71% opposed a local AI data center	Gallup national survey published May 2026.
Loudoun fiscal dependence	About 38% of FY 2026 General Fund revenue attributed to data centers	Important local benefit, but not "nearly half of total property-tax revenue."

Table 2. Selected quantitative claims that can be supported, with the denominator and methodology made explicit.

2.2 Bipartisan concern, but not a single ideology

Opposition appears across political affiliations, but motivations do not divide neatly into conservative and progressive categories. Electricity bills, private-property concerns,

secrecy, farmland conversion, tax incentives, water, and neighborhood quality of life cross party lines. Environmental justice and decarbonization may be more prominent in some coalitions; local control and opposition to corporate subsidies may be more prominent in others. The evidence supports a description of cross-partisan concern, not a rigid ideological taxonomy.

3. Why Communities Organize

Grassroots mobilization usually occurs when residents perceive that a project's physical footprint and public obligations are larger than the information available to evaluate them. Opposition is intensified when technical uncertainty is combined with late disclosure, broad nondisclosure agreements, or approvals that appear to be moving faster than public review.

3.1 Noise and acoustic mismatch

Data centers operate continuously and can include chillers, air handlers, pumps, transformers, cooling towers, dry coolers, and periodic generator testing. Actual neighborhood exposure depends on equipment, layout, topography, weather, operating load, barriers, and distance. The important distinction is between a facility's interior occupational sound levels, near-field equipment measurements, and the sound experienced at a residential receptor.

A-weighting does not remove all sound below 500 hertz. It increasingly attenuates lower frequencies; OSHA's illustrative corrections are about -3 dB at 500 Hz, -9 dB at 250 Hz, -16 dB at 125 Hz, and -26 dB at 63 Hz. For facilities with tonal or low-frequency components, a credible assessment may therefore require A-weighted and C-weighted levels, octave or one-third-octave spectra, tonal penalties, indoor measurements, and evaluation under representative operating and weather conditions (OSHA, n.d.).

Environmental noise is associated with annoyance and sleep disturbance, and chronic exposure can contribute to cardiovascular risk. Resident reports of headaches, ear pain, nausea, or vibration should be documented and investigated, but they should not be treated as proven data-center-specific clinical effects without exposure and medical evidence (World Health Organization, 2024).

Chandler, Arizona, adopted a dedicated data-center noise ordinance in 2023 that requires baseline and recurring acoustic studies. Prince William County, Virginia, implemented steady-tonal-noise provisions in 2026 after disputes involving data-center sound. These examples show that generic industrial dBA limits may not be sufficient for all facilities, but they do not establish that every data center produces harmful low-frequency noise (City of Chandler, 2023; Prince William County, 2026).

3.2 Electricity infrastructure and ratepayer equity

Large-load customers can accelerate investment in generation, substations, and transmission. The public-policy question is not simply whether infrastructure is needed, but who pays, who bears the risk if a customer reduces load or leaves, and whether upgrades also benefit the broader system. The White House Ratepayer Protection Pledge announced in March 2026 is a voluntary commitment focused primarily on power supply and delivery costs. It is not a universal binding law, and it does not by itself replace enforceable tariffs, interconnection agreements, or commission orders (The White House, 2026).

3.3 Water: high variability, poor comparability

Water use varies by climate, workload, heat-rejection system, water source, and accounting boundary. Some evaporatively cooled facilities consume large volumes, particularly during hot weather. Direct-to-chip liquid cooling, however, describes how heat is collected from processors; it does not determine whether the facility ultimately uses evaporative towers, dry coolers, hybrid systems, reclaimed water, or a closed loop. Claims that AI liquid cooling inherently requires millions of gallons per day are therefore misleading (Lawrence Berkeley National Laboratory, 2025).

A responsible application should disclose annual use, peak-day use, consumptive loss, discharge, drought operations, the source and quality of water, and whether potable water can be replaced by reclaimed or tertiary-treated water. Watershed and groundwater claims require site-specific hydrogeology and should be presented as concerns unless impacts have been measured.

3.4 Transparency, nondisclosure agreements, and procedural legitimacy

Developers sometimes use project-specific limited-liability companies, code names, and nondisclosure agreements during land assembly and negotiations. Confidentiality can protect land prices and proprietary information. Broad secrecy can also delay public understanding of the project's identity, utility demand, incentives, and public obligations. Investigations in several states have documented such practices, but the prevalence and scope vary by jurisdiction (Wisconsin Watch, 2026; AI Now Institute, 2026).

The evidence does not show that an NDA automatically causes opposition or litigation. It does show that secrecy can become a powerful trust issue once residents believe that consequential commitments were negotiated before meaningful participation. A defensible approach limits confidentiality to genuinely proprietary information and discloses the developer, site area, load range, water strategy, incentive package, required public infrastructure, and enforceable operating limits before final approval.

3.5 Environmental justice and on-site generation

Environmental-justice conflicts are especially acute when large campuses rely on combustion turbines or extensive generator arrays near communities already burdened by industrial pollution. The NAACP challenged permitting associated with xAI's South Memphis operations and filed an April 2026 action concerning 27 allegedly unpermitted turbines at a separate power site in Southaven, Mississippi. The two proceedings should be distinguished, and disputed permit and emissions claims should remain attributed to the complainants unless resolved by regulators or courts (NAACP, 2026a, 2026b).

Issue	Why it becomes contentious	More defensible response
Noise	Continuous mechanical equipment; tonal or low-frequency components	Source-specific modeling; octave-band and tonal limits; setbacks; enclosure; post-opening monitoring
Electricity	Grid upgrades, generation needs, reliability and cost allocation	Large-load tariffs; minimum bills; exit fees; customer-funded facilities; transparent regulator review
Water	Peak withdrawals, evaporative loss, drought exposure	Water balance; reclaimed water; dry or hybrid rejection; drought operating plan
Air emissions	Generator testing or behind-the-meter combustion	Permit clarity; best available controls; operating limits; public emissions reporting
Land and visual character	Large buildings, substations, transmission corridors, farmland conversion	Appropriate zoning; buffers; height and lighting standards; brownfield preference
Fiscal effects	Tax revenue and construction spending versus incentives and infrastructure costs	Net fiscal analysis; scenario testing; clawbacks; revenue-volatility planning
Process and trust	Late disclosure, unclear ownership, inadequate notice	Early disclosure; accessible studies; alternatives analysis; independent review

Table 3. Recurring siting issues and the controls most likely to convert general promises into verifiable commitments.

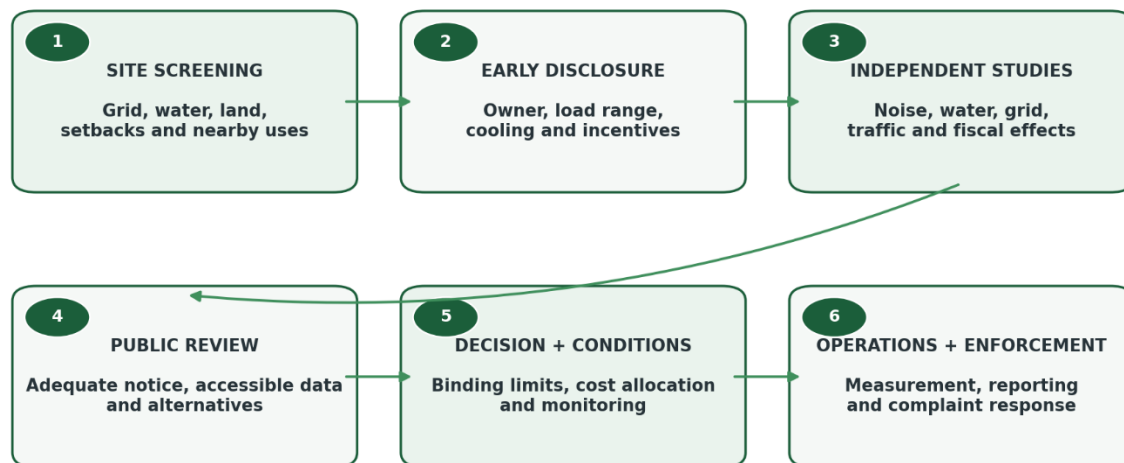
4. Governance: Fiscal Opportunity, Procedural Risk, and Local Accountability

Local governments face a genuine tradeoff. Data centers can create very high taxable value per acre and generally add few schoolchildren. They can also require large utility investments, road access, specialized fire and emergency planning, and long-term fiscal exposure if incentives or infrastructure commitments are poorly structured.

Loudoun County's FY 2026 budget attributed approximately 38% of General Fund revenue to data centers. That is a major fiscal contribution, but it is not accurately described as nearly half of all property-tax revenue. The denominator matters. Gross revenue should also be evaluated alongside tax policy, incentive arrangements, infrastructure obligations, emergency services, and the risk of concentrated dependence on one industry (Loudoun County, 2026; Virginia JLARC, 2024).

A defensible large-load project process

Move information, alternatives, and enforceable commitments ahead of irreversible land-use and utility decisions.



Process principle: the later the disclosure, the more likely public review becomes a dispute over trust rather than a comparison of alternatives.

Figure 3. A staged process that moves information, alternatives, and enforceable conditions ahead of irreversible commitments.

4.1 The Prince William Digital Gateway

The Prince William Digital Gateway is a useful case because it separates political opposition from the legal basis on which approvals were invalidated. The broader comprehensive-plan area encompassed roughly 2,133 acres. The three project-specific rezonings later voided by the courts covered approximately 1,760 acres and permitted

about 22.2 million square feet. Advocacy and planning materials also described larger maximum-build-out scenarios, including dozens of buildings, multiple substations, and extremely high potential power demand. Those estimates should be labeled as scenarios rather than settled operating specifications.

The Board of County Supervisors approved the rezonings on December 13, 2023, after an approximately 27-hour hearing. On August 7, 2025, the Circuit Court voided the rezonings for defects in legally required public notice and access to the proposed ordinances. The Virginia Court of Appeals unanimously affirmed on March 31, 2026. Prince William County and Compass ended further appeals in April, and QTS withdrew its remaining petition on July 2, 2026 (Court of Appeals of Virginia, 2026; Reuters, 2026; WTOP, 2026).

Prince William Digital Gateway: legal and project timeline



Legal takeaway: organized opponents were essential plaintiffs, but the controlling defect was the county's failure to satisfy public-notice requirements.

Figure 4. The Digital Gateway chronology. The court's decision turned on procedural notice defects, while organized opponents supplied the plaintiffs and sustained the challenge.

Element	More precise description
Planning area	Approximately 2,133 acres in the broader Digital Gateway comprehensive-plan area.
Litigated rezonings	Approximately 1,760 acres across three project-specific rezonings.
Approved floor area	Approximately 22.2 million square feet in the challenged rezonings.
Legal holding	Rezonings void from the outset because required public notice and related procedural requirements were not satisfied.
Causal interpretation	Community plaintiffs were essential, but the legal defect was created by the county process; project abandonment also reflected developer and political decisions.

Table 4. Digital Gateway facts that should not be collapsed into a single maximum-build-out narrative.

5. State and Local Policy Responses

Policy responses are expanding, but the mechanisms differ. A moratorium, a permit pause, a voter-enacted ban, a tax change, a utility tariff, and a zoning ordinance are not interchangeable. Each operates at a different level of government and affects a different part of the project lifecycle.

Mechanism	What it does	Why precision matters
New York permit pause	One-year pause on specified discretionary state environmental permits for new hyperscale projects while a generic environmental review and utility proceeding are developed.	State executive and regulatory process; not a blanket ban on all project activity.
Monterey Park voter ban	Voters approved a permanent citywide prohibition on new data centers in June 2026.	Municipal land-use prohibition enacted by ballot.
Federal Ratepayer Protection Pledge	Voluntary commitment aimed at assigning power-supply and delivery costs to large technology customers.	Not a statute; enforceability depends on tariffs, contracts, and regulatory orders.
Virginia tax policy	Legislators debated ending the sales-and-use-tax exemption; the 2026 outcome retained the exemption while adopting a temporary electricity-consumption tax.	Shows the need to distinguish proposals from enacted policy.
Local acoustic ordinances	Chandler and Prince William adopted data-center-specific or tonal-noise controls.	Targets operations rather than banning the land use.

Table 5. Selected 2026 policy responses and the legal distinction among them.

5.1 What effective regulation should accomplish

1. Define the regulated class using measurable thresholds such as requested load, building area, cooling design, or on-site generation - not only the label "AI."
2. Require early disclosure of utility demand, water strategy, ownership, incentives, and public infrastructure obligations.
3. Use technical standards suited to the source: tonal and octave-band acoustics, peak and annual water balances, and enforceable emissions limits.
4. Assign grid and water costs through transparent tariffs and contracts that protect other customers if the project is delayed, downsized, or abandoned.
5. Provide monitoring, public reporting, complaint investigation, and penalties after operations begin.

6. Industry Responses and the Conditions for Community Alignment

Some developers are adopting more transparent engagement, acoustic controls, reclaimed-water strategies, community-benefit agreements, and large-load cost commitments. The available evidence does not support a claim that the entire industry has abandoned confidential land acquisition or that one standard package is now common. The more accurate conclusion is that prolonged disputes have increased the value of early risk reduction.

6.1 Engineering mitigation

- Control noise at the source through quieter equipment selection, enclosures, silencers, vibration isolation, and building orientation.
- Model and verify receptor-level performance under realistic load and weather conditions, including tonal and low-frequency metrics where appropriate.
- Use liquid cooling to reduce some server-fan and chiller loads when technically suitable, while recognizing that pumps and a final heat-rejection or reuse system are still required.
- Reduce potable-water exposure through dry or hybrid heat rejection, reclaimed water, water-quality management, and enforceable drought plans.
- Limit generator testing and on-site combustion through permit conditions, operating-hour limits, emissions controls, and public reporting.

6.2 Governance and community-benefit commitments

A community-benefit agreement can be useful, but it should not substitute for environmental compliance or sound land-use planning. Potential provisions include local construction and training commitments, funding for fire and emergency capacity, broadband or education investments, reclaimed-water infrastructure, public acoustic monitoring, and enforceable utility-cost protections. The agreement should identify who can enforce each provision, how performance is measured, and what happens if the project is transferred to another owner.

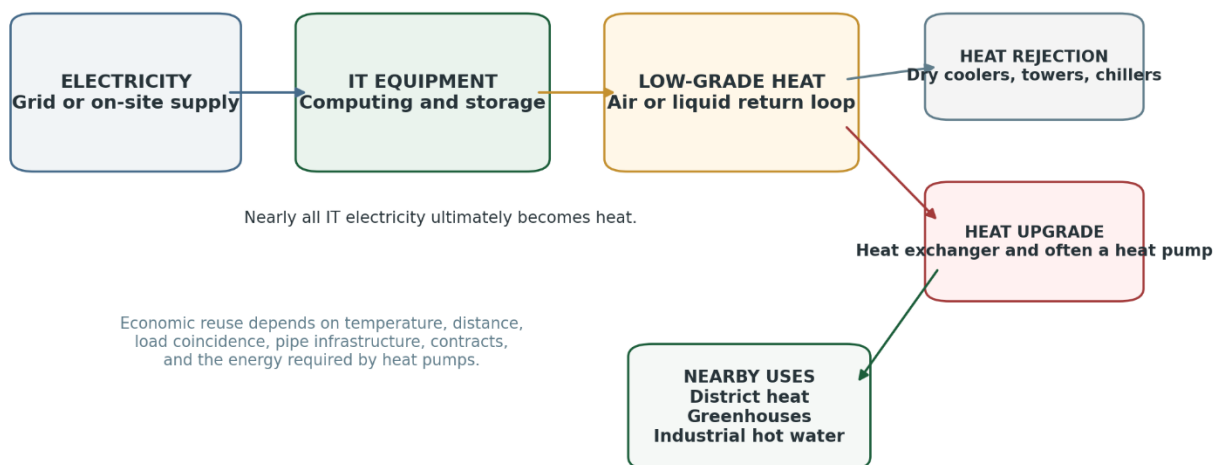
A practical test

A commitment is meaningful only when it has a defined metric, responsible party, deadline, public reporting method, enforcement mechanism, and remedy for nonperformance.

7. Waste-Heat Reuse and Industrial Symbiosis

Nearly all electricity consumed by IT equipment ultimately becomes heat. The technical question is not whether heat exists, but whether it can be captured at a useful temperature, upgraded efficiently, delivered to a nearby load, and sold under a durable contract. The earlier claim that only 30% to 40% of facility energy becomes rejected heat is physically misleading and has been removed.

Data-center heat: generation, rejection, and potential reuse



Important distinction: total heat generation is high; the share that is technically and economically useful is site-specific.

Figure 5. Data-center heat pathways. Total heat generation and economically recoverable heat are different quantities.

Air-cooled systems often produce relatively low-grade heat. Heat exchangers and heat pumps may be needed to raise water to district-heating supply temperatures, commonly around 60 C to 80 C in the cited systems. Water at these temperatures is hot water, not "superheated" water. Direct liquid cooling can improve the temperature and concentration of recoverable heat, but project economics still depend on distance, pipe costs, operating hours, backup supply, and the heat-pump electricity requirement.

Project	Supported statement	Qualification
Odense, Denmark - Meta / Fjernvarme Fyn	Designed to recover about 100,000 MWh annually; Meta described this as enough for about 6,900 homes.	Corporate project report; use as a reported design/operating target, not a universal conversion factor.
Espoo and Kirkkonummi, Finland - Microsoft / Fortum	At full integration, expected to cover about 40% of annual district-heating demand for roughly 250,000 users.	Phased project; distinguish current operation from full-build projection.
Høje-Taastrup, Denmark - Microsoft / VEKS	Designed to provide heat equivalent to about 6,000 homes.	The source does not establish sub-market retail rates for households.
Tallaght, Ireland - AWS / Codema	Operational district-heating scheme serves public buildings and the TU Dublin campus; Codema reports substantial emissions savings.	The exact 92% figure in the earlier draft was not retained without a direct operating report.
Hamina, Finland - Google	Projected to cover about 80% of annual demand in the local district-heating network.	The denominator is the local network, not all heat used throughout the municipality.

Table 6. European heat-recovery cases, with projected and operating claims clearly separated.

7.1 Why transfer to the United States is difficult

- Most U.S. suburban data-center markets lack district-heating networks and dense, year-round thermal loads.
- Economic distance is site-specific; a fixed one-to-three-mile rule is not defensible without network and load analysis.
- Heat demand is seasonal, while data centers produce heat continuously. Summer value may be limited unless there are industrial, absorption-cooling, agricultural, or storage uses.
- Long-term heat contracts must survive hardware refreshes, ownership changes, and changes in computing load.
- Heat-pump electricity and backup heating must be included in carbon and economic calculations.

8. A More Defensible Decision Framework

The evidence does not support either unrestricted expansion or categorical opposition to every data center. It supports a project-specific framework that asks whether the facility is appropriate for the site, whether public costs are allocated fairly, and whether operating commitments can be independently verified.

Decision question	Minimum evidence expected
Need and alternatives	What service or capacity is proposed? Could a smaller, phased, brownfield, or lower-impact design meet the objective?
Site suitability	Are setbacks, transmission routes, water availability, emergency access, and nearby sensitive uses compatible with the scale?
Utility cost allocation	Who pays for generation, transmission, substations, water, and stranded assets if the project changes?
Environmental performance	What are the modeled and enforceable limits for noise, water, emissions, lighting, and heat rejection?
Fiscal net benefit	What remains after incentives, infrastructure, public services, volatility, and decommissioning risk?
Process legitimacy	Was meaningful information available before the decisive vote? Were alternatives and cumulative effects considered?

Decision question	Minimum evidence expected
Operations and accountability	Who measures performance, publishes results, investigates complaints, and enforces remedies?

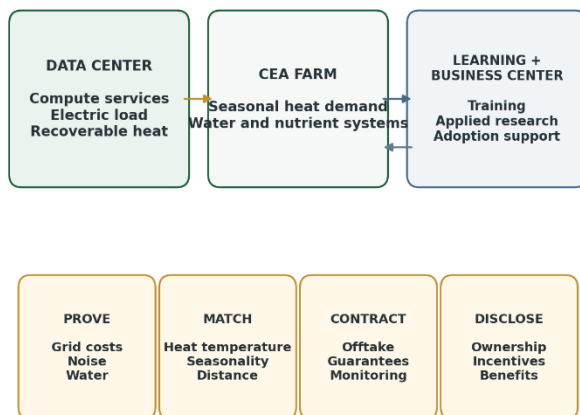
Table 7. A decision framework centered on evidence, enforceability, and alternatives rather than slogans.

9. Implications for Community-Aligned Campus Concepts

The original working paper appended promotional material for a co-located data center, controlled-environment farm, and research or learning center. This revised report does not treat those promotional claims as established findings. It treats co-location as a design hypothesis that may create value under the right conditions and should be tested through independent feasibility work.

Community-aligned campus concept: potential loops and required proof points

A co-location concept can create opportunities, but each loop requires engineering, economic, and contractual validation.



This is a design hypothesis, not a proven business case. Summer heat value, agricultural economics, utility integration, and environmental performance require site-specific feasibility studies.

Figure 6. A cautious co-location model. The loops are opportunities to test, not benefits that can be assumed.

9.1 What can be supported

- Data-center heat can be recovered, and controlled-environment agriculture can use heat during periods when greenhouse or process heating is needed.
- A learning center can create visible local value through training, demonstrations, research partnerships, and practical support for local businesses.
- Shared planning can improve land use, water treatment, emergency infrastructure, and public access compared with an isolated industrial campus.

9.2 What still requires proof

- Summer heat value: warm-weather agricultural facilities may need cooling rather than heat, so annual thermal balance must be modeled hour by hour.
- Temperature and distance: the heat source, heat pump, piping, and agricultural process must be matched technically and economically.
- Water and nutrient integration: claims of circularity require water-quality, food-safety, and regulatory analysis.
- AI-service affordability: local compute pricing must be compared with cloud, colocation, and managed-service alternatives using actual workload and support costs.
- Community benefit: training, local hiring, environmental protections, and access commitments should be specific, funded, measurable, and enforceable.

10. Conclusion

Data-center conflict is no longer an episodic public-relations problem. It is a structural governance issue created by the speed, scale, and concentration of digital infrastructure. The strongest evidence shows that electricity demand is rising quickly; community opposition is geographically widespread and capable of changing project outcomes; and generic industrial rules often fail to address the combination of large utility loads, continuous mechanical systems, and long-term public commitments.

The evidence also shows why simple narratives fail. Not every facility uses large quantities of water. Not every noise complaint establishes a clinical health effect. Not every delayed project was permanently defeated. Not every confidentiality agreement causes opposition.

And not every heat-recovery project is an operating success. Credible analysis must distinguish measured effects from allegations, projections from outcomes, and general risks from site-specific findings.

The durable path forward is neither secrecy nor blanket rejection. It is early disclosure, technically appropriate standards, transparent cost allocation, independent review, enforceable conditions, and a genuine examination of alternatives. Developers that adopt those practices can reduce delay and improve public legitimacy. Governments that adopt them can make decisions that are more legally defensible and more equitable.

Communities gain the ability to judge a project by evidence rather than by promises or fear.

Next Steps – Get GreenPlex to help...

As part of its community/technology integration offerings, GreenPlex provides independently authored and reviewed studies on energy and heat balance, water, acoustic design, grid interconnection and tariffs, agricultural economics, fiscal impact, and community-benefit governance. Our reports and research can help Board of Supervisors, Planning Commission, City Council and other public/private organizations orchestrate initiatives where community, technology, and CEA farming interests must be balanced.

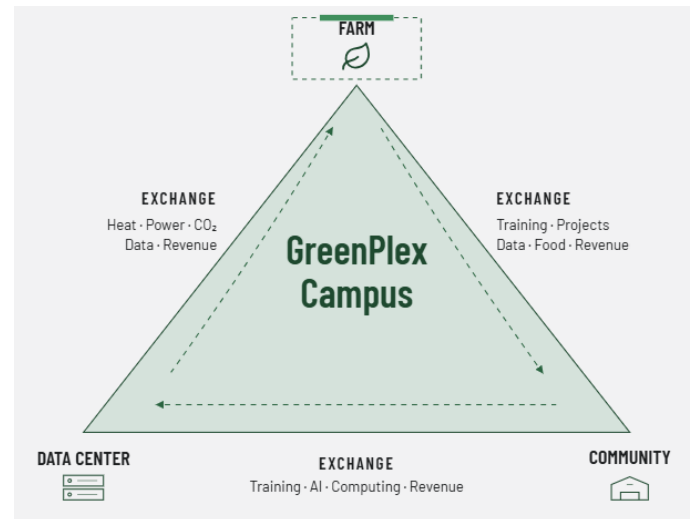
[Learn about GreenPlex... \(next page\)](#)



Greenplex

GreenPlex is physical/virtual campus infrastructure that allows data services, agriculture and human discovery to power each other in a synergistic architecture.

A GreenPlex™ campus includes a high-performance data center, a controlled-environment farm, and a research / learning center — three centers of excellence rarely seen side by side, built as one system in which each leg makes the others feasible & profitable.



GreenPlex & Local Communities - GreenPlex gives back!

For communities

Inclusion in the AI era

A real stake in the AI economy, built right in the community.

Training & workforce development

Hands-on programs at the research & learning center.

AI literacy for everyone

K-12, universities and residents.

A solidly viable environment plan for the campus

Protect the air, water, landscape within and around the campus.

For businesses

Affordable AI services

Local compute and inference without hyperscaler pricing.

Tokens priced for Main Street

No big-tech budget required to put AI to work.

Practical adoption support

Help applying AI to real, everyday operations.

A hub for innovation, maker spaces, robotics workshops, etc.

Give local businesses the knowledge and computing resources they need to move ahead.

Get in touch!

John O. May, CEO and Founder, jmay@greenplex.ai

[GreenPlex.ai](https://greenplex.ai), LLC — a data-center / agriculture / community co-location campus.

[Knowledge-ReEngineering.com](https://knowledge-reengineering.com)—the technology / patent holder behind GreenPlex.

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