DG ENERGY & INFRASTRUCTURE

139 Eva Street Data Center

Community Impact & Highest-and-Best-Use Briefing

A combustion-free, behind-the-meter, adaptive-reuse facility designed to protect air quality, conserve water, and strengthen Saint Paul's grid, tax base, and district energy system.

PREPARED FOR

The City of Saint Paul — Office of the Commissioner

Riverview Industrial Park · West Side Flats

June 2026

Confidential · For municipal review

EXECUTIVE SUMMARY

Why this project is different

Conventional grid-tied, evaporatively-cooled data centers strain local infrastructure. This facility is engineered to do the opposite.

No combustion

Power is generated electrochemically by Bloom solid-oxide fuel cells — near-zero NOx, SOx & particulates.

Behind the meter

48.75 MW generated on-site. The facility is a net-positive grid asset, not a new load on Xcel's system.

167,000 SF reused

Adaptive reuse of an existing industrial building — no demolition, far lower embodied carbon.

0.03 L/kWh

Closed-loop Excool cooling uses ~98% less water than traditional evaporative data centers.

Heat recovery

Exhaust heat can feed District Energy St. Paul — displacing natural-gas combustion district-wide.

Highest tax value

Among the highest property-tax-per-acre uses available under the site's industrial zoning.

Project at a glance

Location	139 Eva Street, Saint Paul, MN 55107
Setting	Riverview Industrial Park · West Side Flats
Approach	Adaptive reuse of existing ~167,000 SF building
Site area	~10 acres
Power generation	Bloom Energy solid-oxide fuel cells (behind-the-meter)
Capacity	48.75 MW gross · 32.5 MW critical IT load
Configuration	3 modular power-block clusters @ 16.25 MW
Cooling	Excool direct-to-chip + fan wall, closed-loop
Efficiency	PUE 1.20 · WUE 0.03 L/kWh
Fuel delivery	Natural gas via Xcel Energy — June 2027
Time to first power	≤ 24 months

$662M

Total private capital investment in the Saint Paul facility

~$5.2M / yr

Estimated annual property tax to local taxing jurisdictions at stabilization

125% gen

On-site generation rated at 125% of peak load — up to 25% available for grid export, subject to Xcel acceptance

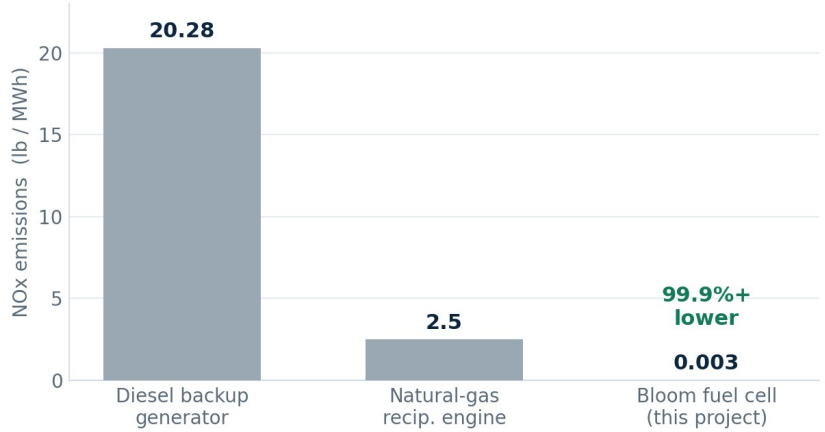
AIR QUALITY

Clean air by design — no combustion on site

The facility makes electricity through an **electrochemical reaction** in Bloom solid-oxide fuel cells — not by burning fuel. Eliminating combustion removes the source of smog-forming criteria pollutants.

- **Near-zero criteria pollutants.** NOx at 0.003 lb/MWh; SOx negligible — over 99.9% below combustion generation.
- **No diesel generator farm.** On-site fuel cells provide resilience, so there is no bank of diesel gensets requiring routine emissions-producing test runs.
- **Independently certified.** Bloom servers are certified by the California Air Resources Board as a Distributed Generation technology — a tier reserved for the cleanest generation.
- **Local health benefit.** Avoids the NOx, SOx and fine-particulate exposure linked to respiratory and cardiovascular harm.

NITROGEN OXIDE (NOx) EMISSIONS



CARB-CERTIFIED CLEAN GENERATION

Same air-quality rationale that exempts Bloom fuel cells from permitting in California's strictest air districts.

PROVEN TECHNOLOGY

The Bloom Energy fuel cell

The facility's power comes from Bloom Energy solid-oxide fuel cells (SOFC) — a commercially mature platform with a long operating record, not a pilot technology.

1.5+ GW
Bloom fuel cells deployed worldwide

14+ yrs
In commercial operation · 1,000+ installations

~65% eff.
Electrical efficiency vs. ~33–35% for grid power

400+ MW
Already dedicated to powering data centers

- **Electrochemical, not combustion.** Power is generated by a chemical reaction rather than burning fuel — the basis for its near-zero local air emissions.
- **AlwaysOn resilience.** The fleet rode through 505 grid outages in 2024, with 160+ microgrids deployed — the same reliability hospitals rely on.
- **Modular and scalable.** The project is assembled from the same standardized building-block units, sized cluster by cluster.
- **Independently certified.** CARB-certified Distributed Generation and UL-listed equipment.

TRACK RECORD

Already running in active communities

We do not yet have an open DG facility to tour — but the same Bloom technology already runs inside hospitals, on university campuses and in urban data centers, woven into active communities.

HEALTHCARE

- **Stamford Health, CT**
  2 MW + 700 kW at two active hospitals
- **Sutter Health, CA**
  clean power at a new medical center
- **Kaiser Permanente**
  multiple California facilities
- **COVID-19 field hospitals**
  rapid, clean backup power

DATA CENTERS

- **Equinix**
  100+ MW across ~20 colocation sites
- **400+ MW**
  of the Bloom fleet powering data centers
- **Closest analog**
  to the use proposed here

CAMPUSES & ENTERPRISE

- **Caltech**
  university campus power
- **Google · Walmart · AT&T**
  corporate operations
- **Home Depot · Coca-Cola**
  retail & manufacturing

Publicly reported Bloom Energy installations. The healthcare and campus sites listed operate fuel cells in occupied, community-serving settings.

COEXISTENCE

Built to belong in an active community

The old model isolates data centers on remote campuses, walled off from the people nearby. This project is built on the opposite premise — **an active, in-city neighbor that gives back to the community around it.**

THE ISOLATED MODEL

- Remote exurban mega-campus
- Walled off from the neighborhood
- Large new load on the public grid
- Evaporative cooling draws heavily on water
- Diesel / combustion backup on site
- Waste heat vented to the air

THE DG COMMUNITY-INTEGRATED MODEL

- In-city, inside an existing building
- Clean, combustion-free local air
- Self-supplied — frees grid capacity
- Closed-loop cooling, minimal water
- Shares heat with District Energy St. Paul
- Strengthens local fiber, jobs & tax base

SUSTAINABILITY

Reusing a 167,000 SF building, not replacing it

The greenest building is the one that already exists. By adapting the existing structure rather than demolishing and rebuilding, the project avoids the largest one-time carbon cost of new construction and keeps an underused industrial asset productive.

167,000 SF

Existing building space reused instead of newly built

~20% lower

Reduction in physical build capex from adaptive reuse vs. greenfield

Zero demo

No teardown — avoids demolition waste to landfill

Embodied carbon avoided

Reusing the shell, foundation and structure avoids the concrete- and steel-intensive emissions that dominate a new building's footprint.

Faster, lower-impact delivery

Building inside an existing envelope shortens construction, reducing years of site disturbance, truck traffic and dust for neighbors.

Productive use of industrial land

Returns a large, underutilized parcel in the industrial corridor to active, high-value employment use.

ELECTRIC GRID

We strengthen the grid — we don't burden it

Because power is generated on-site behind the meter, the facility does not draw its load from the public electric grid. **It is designed as a true microgrid that can export surplus power and provide stabilization services to Xcel Energy.**

~0 MW drawn

Net new demand placed on the public electric grid at full load

+25% capable

Surplus the site can make available to the grid — pending Xcel acceptance

FROM LOAD TO ASSET — WHAT THE FACILITY GIVES BACK

- **Frees grid capacity for the community.** Self-supply leaves existing substation and transmission headroom available for homes and businesses.
- **Defers costly utility upgrades.** Where Xcel elects to accept it, exportable capacity can help defer new peaker plants and transmission build-out.
- **Sub-second grid stabilization.** Bloom inverters deliver synthetic inertia, fast frequency response and voltage support.
- **No interconnection queue strain.** Behind-the-meter siting sidesteps the multi-year load-interconnection backlog.

Net effect: a large new economic use that adds **no new burden** to residents' electric service.

The 25% grid-support capability is built in — activation is subject to Xcel Energy electing to accept it.

NOISE

A quieter neighbor than typical data centers

A DGE&I site eliminates the loudest sound sources found at typical data centers — combustion turbines and routinely-tested diesel generators. **Cooling equipment is then engineered to meet Saint Paul's property-line limits.**

SOURCES WE REMOVE

- **No combustion turbines or engines.** Gas-fired plants run 80–110+ dBA; fuel cells have no such moving combustion machinery.
- **No diesel generator test runs.** Conventional sites idle large diesel banks regularly; our fuel-cell resilience removes that recurring noise.

HOW WE MANAGE COOLING NOISE

- **Licensed acoustic study first.** Site-specific modeling against Saint Paul's ordinance precedes any permitting commitment.
- **Engineered mitigation.** Setbacks, enclosures, barriers, silencers and night-time variable-speed operation bring property-line levels into compliance.

TYPICAL MUNICIPAL PROPERTY-LINE LIMITS (verified per Saint Paul ordinance during permitting)

Zoning context	Typical day limit	Typical night limit	Comparable sound
Light industrial (this corridor)	65–75 dBA	60–70 dBA	Business office
Commercial / mixed-use	60–70 dBA	55–65 dBA	Normal conversation
Residential	50–55 dBA	45–50 dBA	Quiet suburb at night

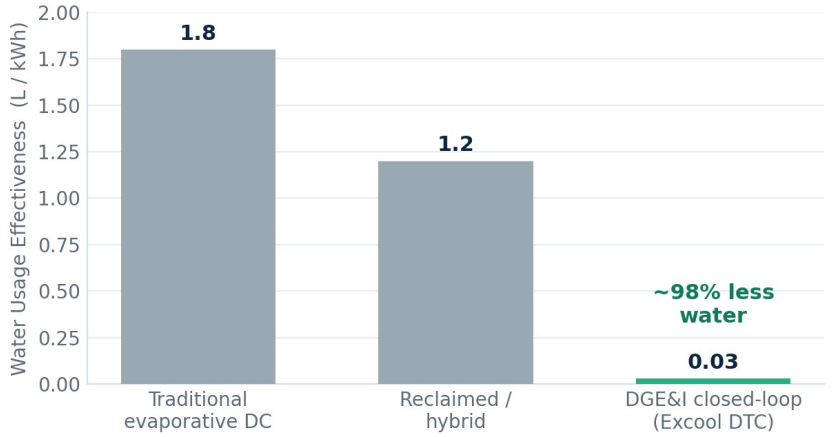
WATER USAGE

Closed-loop cooling — a fraction of the water

Most data centers evaporate large volumes of water for cooling. This facility uses an **Excool direct-to-chip and fan-wall system on a closed loop**, achieving a Water Usage Effectiveness of just 0.03 L/kWh.

- **~98% less water** than traditional evaporative data-center cooling.
- **No strain on municipal supply.** Negligible draw on Saint Paul's drinking-water system and sewer capacity.
- **Drought-resilient.** A closed loop is unaffected by seasonal water restrictions.
- **Heat goes to use, not to a cooling tower.** Captured heat becomes an asset for district energy (see next page) rather than being evaporated away.

WATER USE PER UNIT OF COMPUTE



Lower is better. WUE = litres of water per kWh of IT energy.

HEAT RECAPTURE

Turning exhaust heat into district energy

District Energy St. Paul — the largest hot-water district heating system in the U.S. — today relies on natural-gas combustion for roughly half its heat. **Our recovered exhaust heat can feed that loop, letting Ever-Green generate heat without burning fuel.**

DATA CENTER

Excool DTC loop captures server exhaust heat

HEAT EXCHANGE

Clean thermal hand-off to the district interconnect

DISTRICT ENERGY

Hot-water loop serving 200+ Saint Paul buildings

WHY THE NET CARBON BENEFIT OUTWEIGHS THE FUEL WE USE

We are candid that the facility runs on natural gas. But its fuel cells already emit far less CO_2 than coal or grid gas plants (818 vs. 960–2,310 lb/MWh) and near-zero criteria pollutants. **When our recovered heat displaces combustion at the district plant, a second tranche of fuel-burning is avoided — so the same gas does double duty (electricity + heat), and the community's total emissions fall.**

HIGHEST & BEST USE

The strongest tax value the zoning allows

Per acre, a data center is among the highest-value uses permitted under the site's industrial zoning — generating substantial tax revenue while demanding very little in municipal services.

Allowed use	Tax value to City (per acre)	Municipal service demand	Jobs & capital intensity	Net fiscal impact
Data center (this project)	**Highest**	Very low	Very high capital / modest staffing	**Strongly positive**
Light industrial / warehouse	Low–moderate	Moderate	Moderate	Modest
Mixed-use commercial	Moderate	Moderate–high	Moderate	Neutral–positive
Residential	Low per acre	High (schools, services)	Low	Often net cost

~$5.2M / yr

Estimated annual property tax at stabilization

$662M

Private investment placed on local tax rolls

Minimal service draw

No students, low traffic, low public-safety demand — revenue far exceeds service cost.

CONNECTIVITY & ACCESS

Connectivity that benefits the community

Siting compute inside Saint Paul — rather than in a remote exurban campus — places high-capacity fiber and low-latency processing near the businesses, institutions and residents who rely on it.

Carrier-grade fiber

Investment in fiber routes serving the site strengthens digital infrastructure across the surrounding industrial corridor.

Low latency for local users

Compute physically close to the metro means faster response for nearby business, healthcare, education and public services.

Edge capacity for local institutions

Supports latency-sensitive AI, research and real-time data needs for regional organizations — without long round-trips to distant data centers.

Digital resilience

An always-on, islanding-capable facility adds local capacity and reliability to the region’s digital backbone.

OUR COMMITMENT

What we commit to the community

Clean local air

Combustion-free fuel-cell generation with CARB-certified near-zero criteria pollutants.

No new grid burden

Behind-the-meter supply that frees capacity and can export surplus to support reliability.

Responsible noise management

A licensed acoustic study and engineered mitigation to meet Saint Paul's property-line limits before permitting.

Water stewardship

Closed-loop cooling at 0.03 L/kWh — negligible draw on municipal water and sewer.

Shared heat resource

Partnership with Ever-Green / District Energy to put recovered heat to work and cut district-wide combustion.

Lasting tax base

A $662M private investment delivering high tax value on previously underused industrial land.

A NEW MODEL FOR RESPONSIBLE INFRASTRUCTURE

Clean air. A stronger grid. Shared heat. Lasting value.

We welcome the City's questions and a continued, transparent dialogue as the 139 Eva Street project advances through zoning and permitting.

DG Energy & Infrastructure
Matt Dahlhauser, Founder & CEO
Landlord representation: Cushman & Wakefield

139 Eva Street · Saint Paul, MN 55107