THE TOWN OF LYSANDER

Lysander Data Center Advisory Committee Meeting

August 28th 2026

Waste Water Recommendations

Waste Water Mitigation and Handling Recommendations

- We reiterate the need for closed loop cooling systems
- The Planning Board must require a full environmental review for projects of this size or nature
- Require that Industrial Users disclose any toxic chemicals used in their cooling systems and industrial processes during the environmental review process
- Require that Waste Water is treated and managed by WEP and the NY State DEC per their guidelines, with no direct release to the environment

Waste Water Mitigation and Handling Recommendations

- Require a public facing dashboard displaying current values and trends of potential waste water pollutants including the items listed in our 8/21/26 committee meeting
  - This requirement may be limited to industrial users who produce more than XXX gallons of wastewater in any given day, and those whose waste water contains PFAs above the ambient level already existing in the environment
- Require the Proper Recycling or Disposal of used Chemicals, including coolants, per WEP, DEC, and EPA guidelines

Electricity Concerns

Electricity Concerns from the spreadsheet

- Electricity overall priority: 2.4
  - Electricity Usage/Brown Outs/Capacity 2.8
  - Battery Storage 1.8
  - Nuclear Power generation onsite 2.1
  - Generator Usage 2.4
  - also covered in other areas
  - Who pays for Infrastructure upgrades? 3.0

Background:

- We already recommend that any water infrastructure upgrades for the project be paid for by the developer
- The planning board typically requires developers to pay for any required infrastructure additions
- The town does not manage or maintain the electric grid or electricity prices in any way
- The town has an existing moratorium on Battery Energy Storage Systems (BESS)
- The town is actively working on updating its BESS ordinance

Background:

- The town can designate that any on-site or “behind the meter” electrical power generation over a specific threshold (say 5 Meagwatts) is a separate, prohibited land use
- The town can explicitly limit on-site electrical power generation to emergency battery storage and generators meant solely for temporary use during blackouts
- The town can mandate security perimeters for high voltage generation or specialized fuel systems
- The town may be able to restrict high voltage transmission switchyards within the zone
- Existing town code (320-51) "There shall be no activities which emit radioactivity dangerous to health or adversely affecting the operation of any equipment."

Town vs Others Responsibilities

- New York Independent System Operator (NYISO) operates New York's high-voltage electric grid, runs competitive wholesale electricity markets, and plans for the state's future power needs
- New York Power Authority and companies like Constellation Energy own and operate the actual power generation plants
- National Grid owns the wires and delivers power to the end users, they do not generate the power
- The Public Service Commission (PSC) sets delivery charges, Service Classifications, and demand caps
- NYISO sets the supply charges

Town vs Others Responsibilities

- The town has no say in power delivery or rates
- The DEC has the authority to regulate generator air emissions, fuel types, and fuel storage
- The town can regulate the use of generators, including size, operating hours (outside of emergencies), setbacks, noise, etc. through code
- While the DEC regulates generator emissions, the town can influence generator types and pollution through the Planning Board SEQRA process

NYISO Revisions to Large Load Interconnection Process

Large Load Interconnection Process Revision Proposal

- NYISO is proposing changes to the interconnection process in response to the unprecedented pace and scale of large load development across New York State
- To address these challenges, the NYISO is considering the reforms below:
  - Develop criteria to define and categorize “large loads,” including *differentiated treatment for data centers* and similar computational load facilities (e.g., cryptocurrency mining);
  - Consider additional requirements for certain facilities, such as impact-based cost recovery, *customer-supplied generation or storage*, curtailment or flexibility obligations, long-term contracts, tariff revisions, or other mechanisms to protect reliability;
  - Examine planning, modeling, and queue-management improvements (particularly regarding speculative load) to enhance transparency, forecasting accuracy, and interconnection efficiency;
  - Assess clear and equitable impact-based risk- and cost-sharing arrangements for necessary grid upgrades; and
  - Identify system and customer benefits, including *opportunities for rate reductions* and beneficial reuse of waste heat through coordination with thermal-energy-network initiatives.

Usage, Brown Outs, Capacity

Electricity Usage and Capacity

- The local utility and NYISO are legally responsible for maintaining grid reliability. They approve the user's connection through the Interconnection Queue, ensuring the grid has adequate capacity.
- This approval is based on the peak load required by the user
- Once approved, the industrial user is allowed to use the full capacity they’re approved for.
- In theory, a user would never be approved to use more power than system capacity allows
- Consumers may be protected from price increases due to large scale user demand through the use of peak-load pricing

Brownouts

- A brownout is an intentional or unintentional drop in voltage in an electrical power supply system.
- Brownouts can damage the motors used by commercial users as well as the motors used in residential appliances
- Often, what looks like a brownout caused by a large user is actually a deliberate, controlled voltage reduction engineered by the local utility or NYISO to keep the grid stable
- If the local utility and NYISO approved a user's connection through the Interconnection Queue but mathematically miscalculated the grid's capacity, the responsibility rests with them

On-Site Power

On-Site Backup Power and Generation

- Generator
  - Diesel
  - Natural Gas
- Battery Energy Storage System (BESS)
- Nuclear, or Small Modular Reactor (SMR)

Background:

- There are two separate major power transmission lines crossing at the site
- The second transmission line may mitigate the need for additional back up power, but that is unlikely
- There is a large Natural Gas main running beneath the proposed data center site
- NRC guidelines for population density would prevent a large scale nuclear reactor at this site based on the combined population of Lysander, Van Buren, Salina, and Clay

Generators

- Diesel Generator
  - PROs
    - Higher energy density per gallon, more fuel efficient
    - Lower upfront equipment costs
    - Last longer under heavy use, fewer ignition parts
  - CONs
    - Require Liquid fossil fuel stored in on-site tanks
    - Stored fuel needs stabilizers
    - Higher fuel costs
    - Produce more greenhouse gasses, soot, and carbon emissions
    - Are louder when running

Generators

- Natural Gas Generators
  - PROs
    - Connects to municipal pipeline, no on-site fuel storage
    - Lower fuel costs
    - Quieter
    - Burns more cleanly, far fewer carbon emissions
    - May be less expensive in the long term
  - CONs
    - Lower energy density, less efficient
    - Upfront equipment costs are typically higher
    - Requires regular maintenance of ignition components

Next Steps

Next Steps

- Continue today's discussion on electricity usage and on-site generation
- Begin talking about electricity recommendations
  - What did we miss?
  - What needs clarification?

Thank You