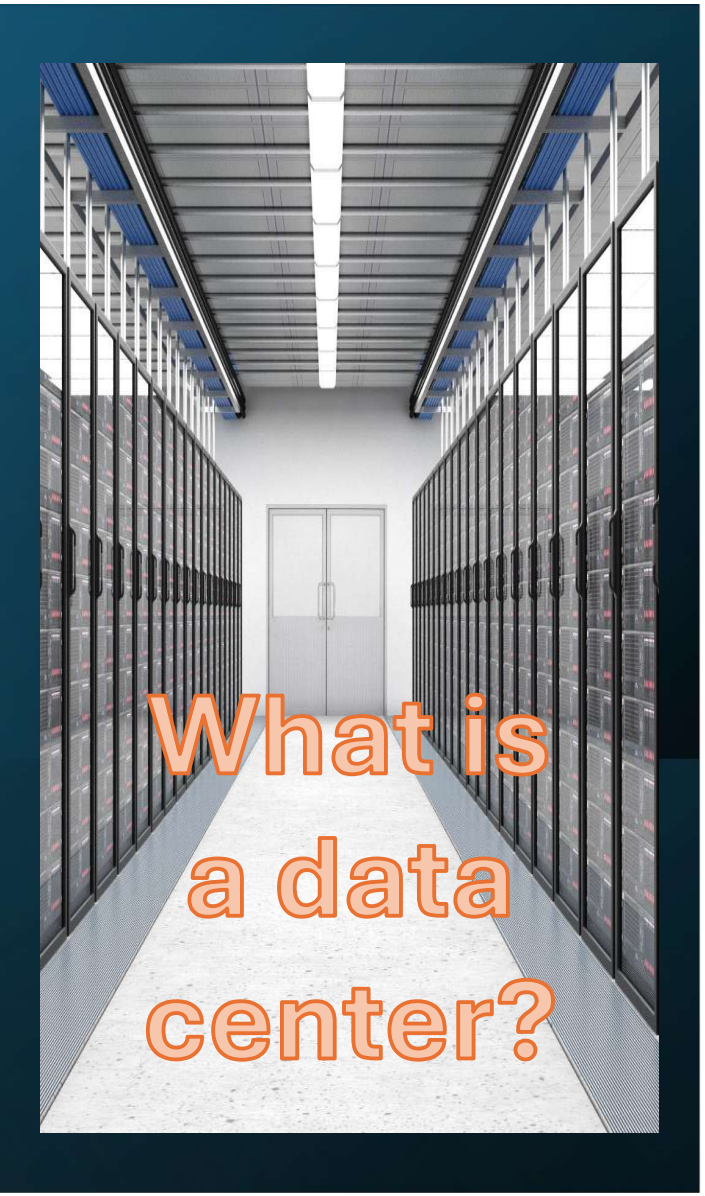
Warehouses and Data Centers – 2 forms of intensive large-scale developments

Clean Air Board of Central PA

https://cleanairboard.com

Growth of warehouses in southcentral PA

- We know a lot about warehouse expansion
- More than 170 million square feet of warehouse space has been built in Pennsylvania along two major interstates [I-78 and I-81] since 2014, double the office space in the entire city of San Francisco.



A data center is a physical room, building or facility that houses IT infrastructure for building, running and delivering applications and services. It also stores and manages the data associated with those applications and services.

Data centers started out as privately owned, tightly controlled on-premises facilities housing traditional IT infrastructure for the exclusive use of one company. Recently, they've evolved into remote facilities or networks of facilities owned by cloud service providers (CSPs). These CSP data centers house virtualized IT infrastructure for the shared use of multiple companies and customers. Source: IBM

Pennsylvania is home to a growing number of data centers, with 88 facilities operated by 38 different providers, making it a key plBMyer in the data center market. Source: Baxtel

PennLive reports $26 billion investment in data centers in central PA

Pennsylvania Data Center Partners and PowerHouse Data Centers are planning to build three hyperscale data center campuses on a nearly 700-acre site in Middlesex Township, Cumberland County, near Carlisle.

PennLive, July 15, 2025

What does this mean?

What do these large-scale developments have in common?

- Large scale buildings
- Large tracts of land
- Perimeter security fencing
- Higher paying jobs
- Low impact on school population
- Increase in tax base for municipality
- Low demand for municipal services
- Potentially lower pollution impacts

Requirements for warehouses

Large tracts of relatively cheap land

Proximity to interstate highways

Proximity to markets

Requirements for Data Centers

- Large tracts of relatively cheap land
- Access to low-cost electricity to power computers
- Access to water for cooling
- High-speed network connectivity

Potential Problems with Warehouses

- Traffic congestion
- Air pollution from emissions from trucks and traffic.
- Light and noise pollution
- Lower quality of life for neighbors

Potential Problems from Data Centers

- Vast consumer of electric power from the grid
- Consumption of water from local sources
- Noise and vibration from 24/7 operations
- Uncontrolled emissions from emergency backup generators

Unanswered questions

What is the cost to the community for hosting warehouse or data center?

How much water will data centers need for cooling? What are the stormwater impacts from development of large tracts of land?

Is Pennsylvania geographically attractive for warehouse and data centers? Do we want to incentivize these land uses?

What could a local community request?

- Environmental Impact Study to accompany each land use application
- Tariff on large load electric customers; cap on residential rates
- Setbacks from existing residential areas
- Noise and traffic buffers
- Limitations on consumptive water use
- State of the air pollution and noise control on backup generators

Recent news

Rise in electricity rates due to growth demand (mainly data centers)

Various conferences and summits around the state on data centers

At least a dozen bills in the General Assembly addressing AI and data centers

FOMO among legislators and developers, resulting in fast-track proposals