



# The High Cost of AI:

## How Data Centers are Reshaping Pennsylvania's Energy Landscape

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February 25, 2026

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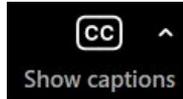
# Webinar Logistics

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**Submit questions** and comments via the Q&A panel



Automated **captions** are available



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**This webinar is being recorded.** We will email you a webinar recording within 48 hours. This webinar will be posted on CEG’s website at [www.cleanegroup.org/webinars](http://www.cleanegroup.org/webinars)

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Affordable, reliable, clean energy for all.



**Climate Resilience and  
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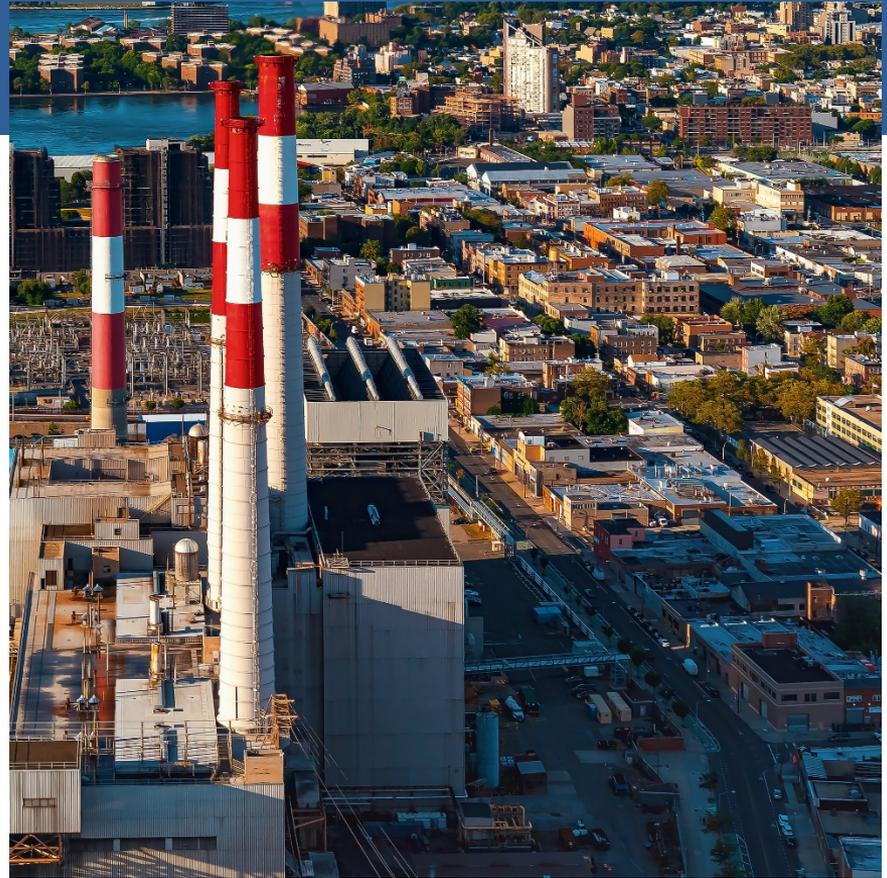
**Energy Storage and Flexible  
Demand**



**Fossil Fuel Replacement**

# Phase Out Peakers

Replacing peaker power plants with clean alternatives in environmental justice communities.



Ravenswood Generating Station in Queens, NY. Credit: Bigstock

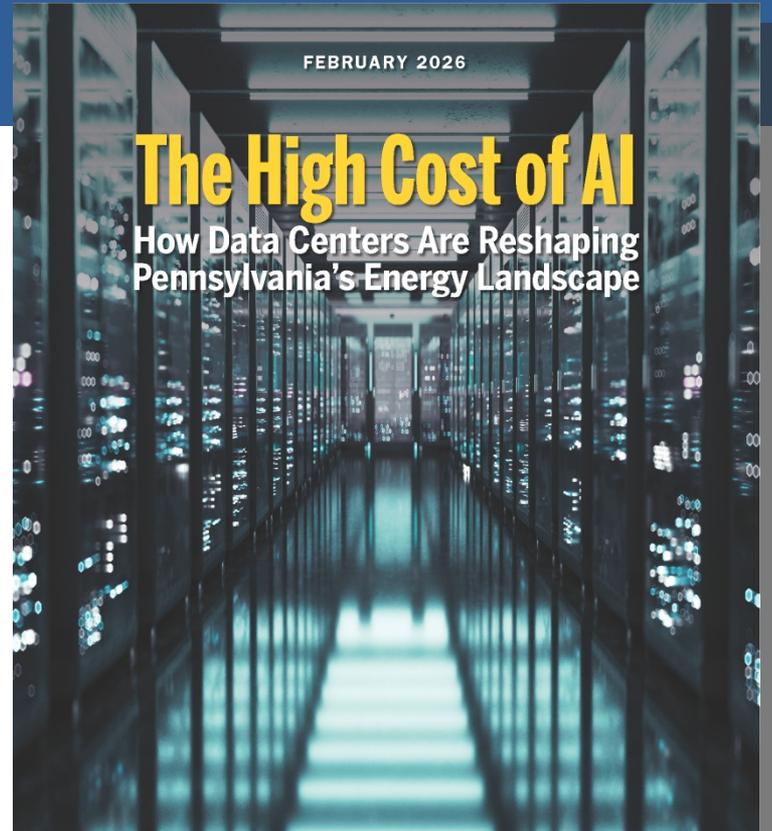
FEBRUARY 2026

## The High Cost of AI: How Data Centers are Reshaping Pennsylvania's Energy Landscape



Available at: [cleanegroup.org/PADataCenters](https://cleanegroup.org/PADataCenters)

[www.cleanegroup.org](https://www.cleanegroup.org)



# WEBINAR SPEAKERS

*The High Cost of AI: How Data Centers are Reshaping Pennsylvania's Energy Landscape*



**Eva Morgan**  
Project Manager  
*Clean Energy Group*



**Jay Walker**  
Community Organizer  
*Clean Air Council*



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Health Advocacy Outreach  
Coordinator  
*Physicians for Social  
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Thank You



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FEBRUARY 2026

# The High Cost of AI

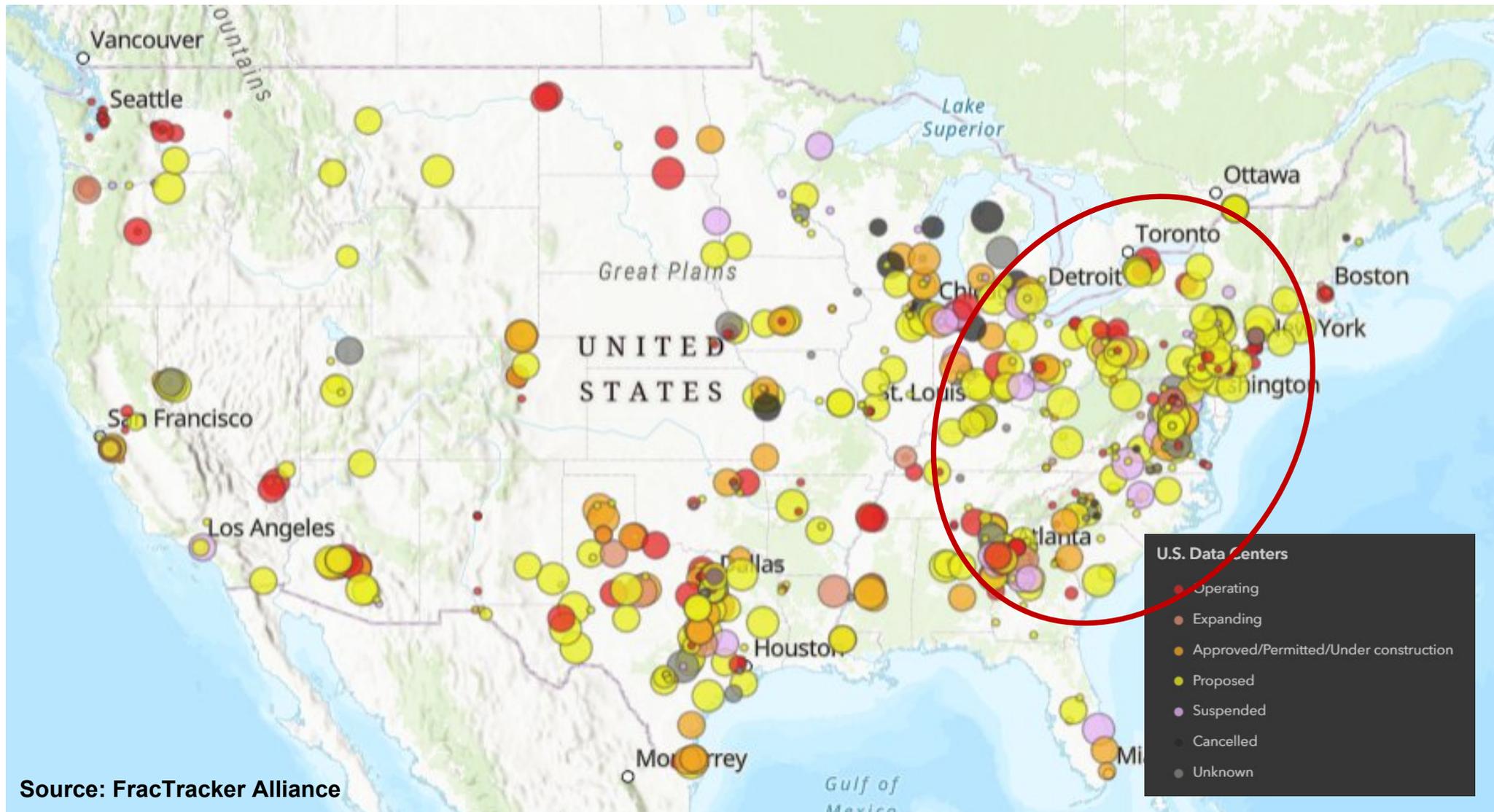
How Data Centers Are Reshaping Pennsylvania's Energy Landscape



# Background on Data Centers

- Facilities hosting computer servers, networking hardware, and cooling systems
- High energy demand
  - “hyperscale” data centers can use as much electricity as entire cities
- High water usage to cool the servers
- Development is exponentially increasing due to the proliferation of AI





# Data Centers in the U.S.

# PJM Interconnection

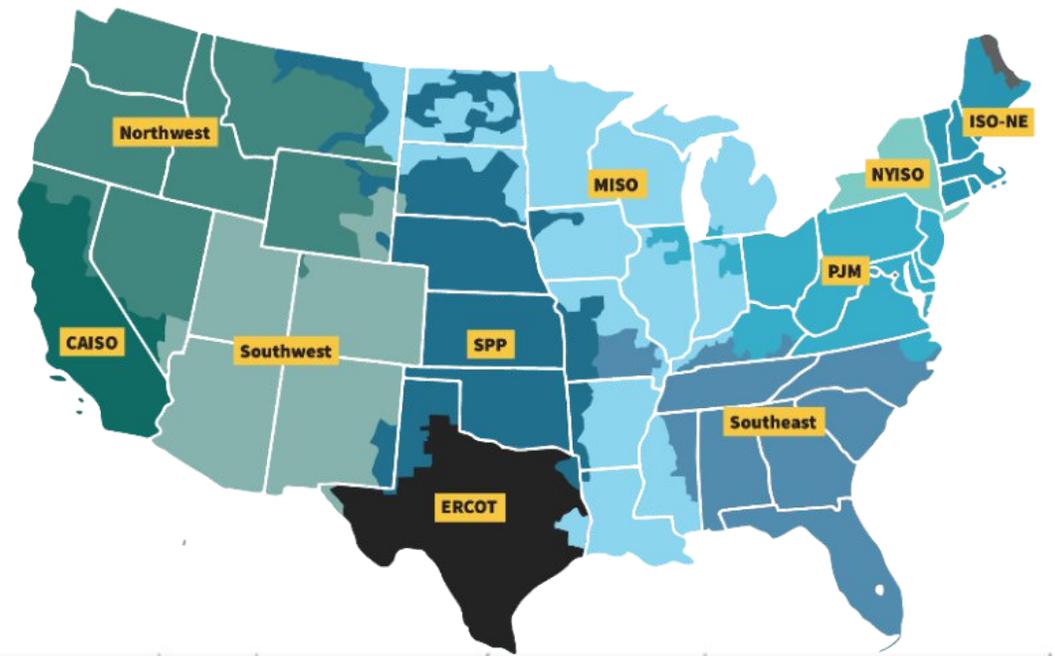
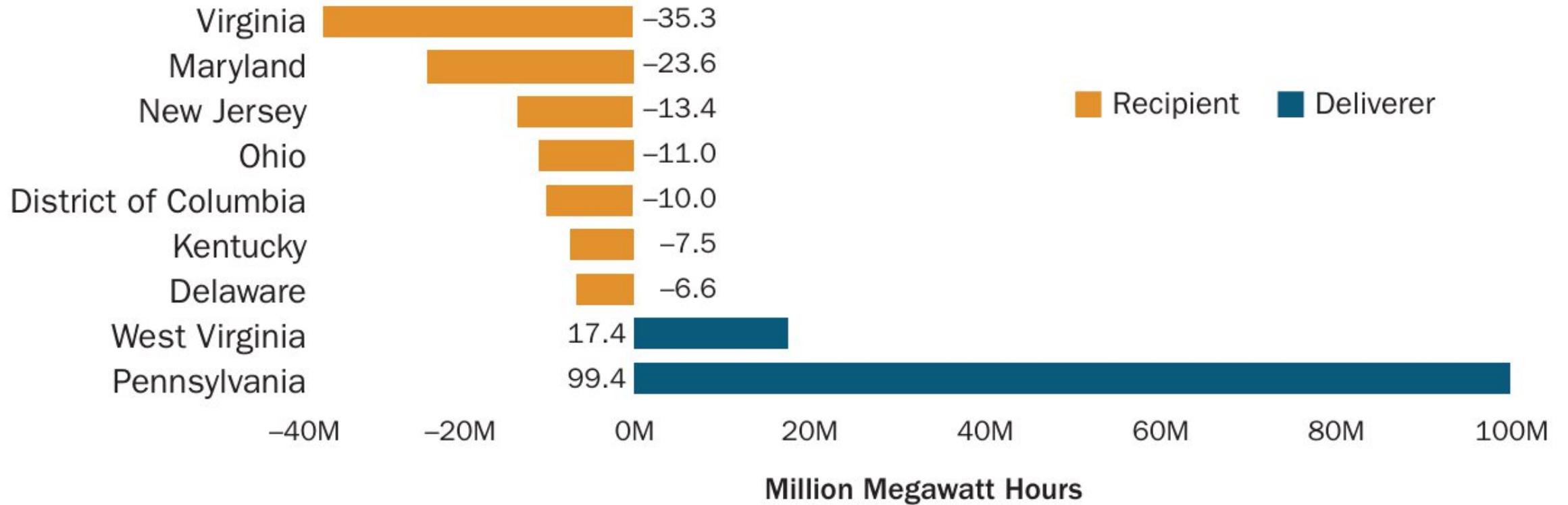
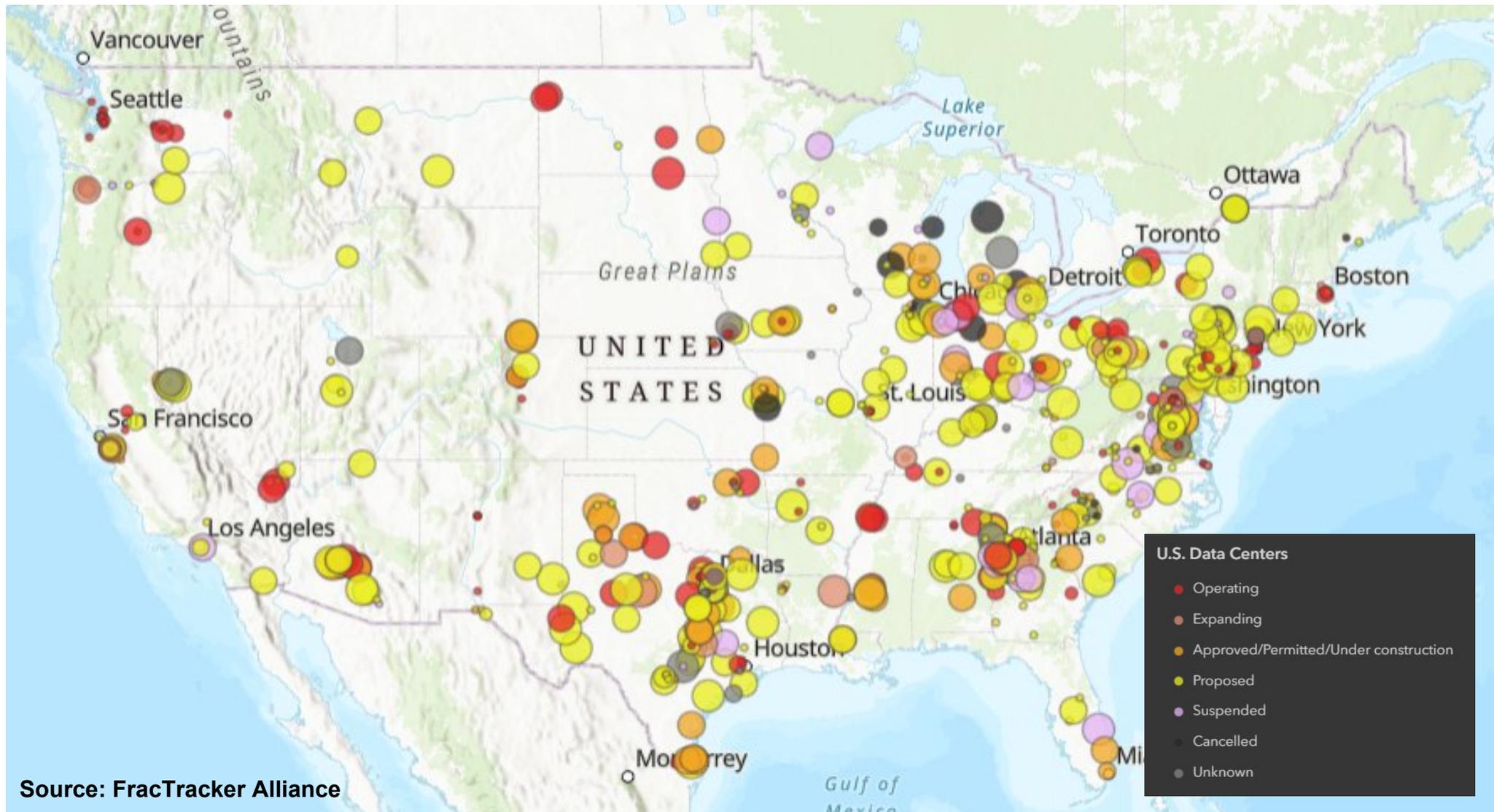


Figure 5: **Interstate Electricity Trade in PJM in 2024**





# Data Centers in the U.S.

**PJM and Pennsylvania  
are doubling down on  
fossil fuels to meet the  
projected energy  
demand.**

# Fossil Fuel Expansion in PJM

**PJM prioritizes fossil generation through fast tracking interconnection**

- Reliability Resource Initiative (2025):
  - 11.8 GW and 51 Projects
  - 69% gas capacity chosen
- Expedited Interconnection Track (2026):
  - 250MW, shovel ready projects
  - 10 selected per year



# Fossil Fuel Expansion in PJM

## Delayed retirements of fossil fuel plants

- Emergency orders from the Department of Energy to keep power plants from retiring
- Plants running past their air quality permits
- Keeping retiring power plants online will cost between \$3 and \$6 billion by 2029.
  - \$730 million in PJM
- 60% of plants slated to retire in 2025 have been kept running.



# Eddystone Generating

- Formerly coal, currently gas or oil
- Set to retire in May 2025
- DOE emergency order in May, August, and November to keep running
- Will cost \$70 million annually



# Fossil Fuel Expansion in PJM

Recommissioning plants that had already retired



# Homer Generating Station

- Coal fired plant retired 2023
- Turned into a new natural gas plant
- 4.5 GW, 7 gas turbines
- To power data centers on site



# Fossil Fuel Expansion in PJM

## Peaker conversion into baseload plants

- Peaker plants run very infrequently
- Most expensive and polluting electricity on the grid
- Peaker plants bought to be converted into baseload plants



**RGGI exit ends  
Pennsylvania's only major  
climate policy**

**NEW DATA: PA ranks 49th  
in U.S. for renewable  
energy growth**

# What about renewables?

Solar, wind, and batteries make up 96% of the generation in PJM's interconnection queue (the projects waiting in line to connect to the grid).

- 73 GW of solar, 10 GW of on-shore wind, 14 GW off-shore wind, 44 GW of batteries

Renewables could take advantage of “extra” capacity at existing points of interconnection, adding significant capacity to the grid in a short period of time.



# What is the cost of AI use, data centers, and fossil fuel expansion?

## Monetary

- In 2024, 91% of new renewable projects were cheaper than their gas alternatives
- In 2024, utilities in PJM passed on \$4.3 billion dollars in data center transmission costs to ratepayers

## Health and Climate

- Data center demand will add 24 million to 44 million metric tons of CO<sub>2</sub> to the atmosphere by the end of the decade





# Data Centers in PA

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**How data centers are creating an energy affordability problem**

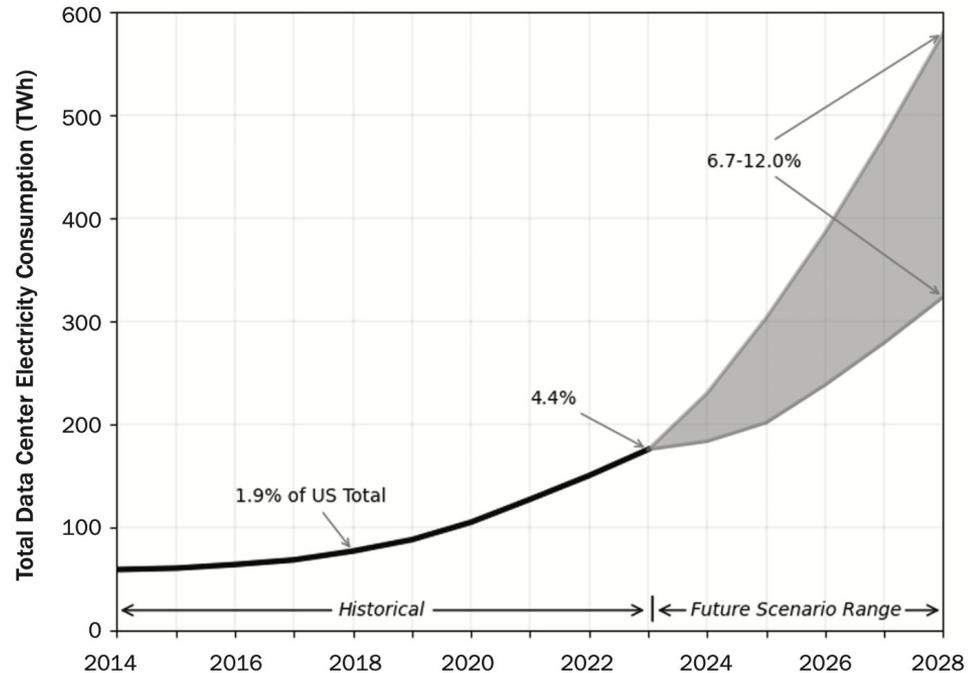
**Josephine Gingerich**

Health Advocacy Outreach Coordinator

# The Overestimation Problem

“The Homer City Generating Station redevelopment project is reporting a capital cost of \$2,222 per kilowatt (kW), making it one of the most expensive power plants in the country.”

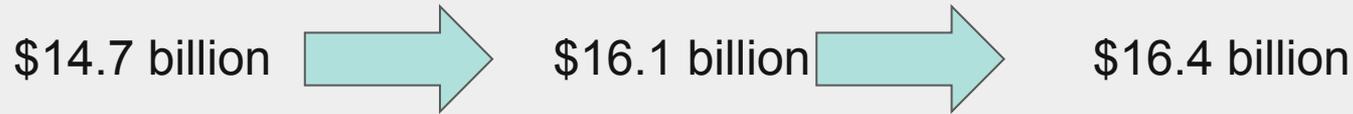
Figure 6: Total US Data Center Electricity Use From 2014 Through 2028.



US data center annual energy use remained stable between 2014 and 2016, and grew dramatically between 2017 and 2023. Predictions for future growth show that data centers could represent between 6.7 and 12 percent of all US energy use by 2028.

Source: Lawrence Berkeley National Laboratory.

## PJM's BRA has been skyrocketing



While several factors could influence these dramatic numbers, an independent market monitor found **data center load growth** to be the primary reason

PJM Auction Procures 134,479 MW of Generation Resources," PJM, December 18, 2025, [www.pjm.com/-/media/DotCom/about-pjm/newsroom/2025-releases/20251217-pjm-auction-procures-134479-mw-of-generation-resources.pdf](http://www.pjm.com/-/media/DotCom/about-pjm/newsroom/2025-releases/20251217-pjm-auction-procures-134479-mw-of-generation-resources.pdf).

Analysis of the 2025/2026 RPM Base Residual Auction - Part G—Revised," Monitoring Analytics, 2025, [https://www.monitoringanalytics.com/reports/reports/2025/IMM\\_Analysis\\_of\\_the\\_20252026\\_RPM\\_Base\\_Residual\\_Auction\\_Part\\_G\\_20250603\\_Revised.pdf](https://www.monitoringanalytics.com/reports/reports/2025/IMM_Analysis_of_the_20252026_RPM_Base_Residual_Auction_Part_G_20250603_Revised.pdf).

- Even with this record numbers PJM doesn't have the capacity to meet the reserve margin meaning risk of blackouts in extreme weather or generator failure
- PJM's monitor has filed a complaint with Federal Energy Regulatory Commission (FERC) saying PJM **should stop connecting new large data center loads** until it has reliable capacity.

PJM Interconnection.

69 "Complaint of Independent Market Monitor for PJM v. PJM Interconnection, L.L.C. under EL26-30," FERC, November 2025, [https://elibrary.ferc.gov/eLibrary/filelist?accession\\_number=20251125-5275&optimized=false&sid=53de8368-82a1-4e72-a2c3-b9a3fbc0073c](https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20251125-5275&optimized=false&sid=53de8368-82a1-4e72-a2c3-b9a3fbc0073c).

70 Phil Besuner, "The New Reality of Power Generation: A

## Supply

**\$525.37**

Usage from Dec 17 - Jan 20

**\$227.71**

## Delivery

**PPL Electric Utilities**  
1-800-342-5775

**Effective Date**  
10/16/25

**PPL Electric Utilities**

### PPL Electric Utilities Price to Compare

**\$0.12953**

Use this price when comparing supplier offers.

Usage Charges  
**\$753.08**

Consider making a monthly pledge to **Operation HELP** to assist those in need to heat their homes.

**WANT TO SAVE?**

Reduce heating costs by sealing air leaks with caulk, spray foam or weatherstripping.

SHOP FOR ELECTRICITY

## January

Electricity Usage (kWh)	Avg. Temperature	Avg. Daily Cost	
<b>-11%</b>	<b>+2°</b>	<b>+76%</b>	
	<b>29°</b> <b>31°</b>	<b>\$12.62</b> <b>\$22.15</b>	
2025 <b>2026</b>	2025 <b>2026</b>	2025 <b>2026</b>	



Jan 14 2026 | [Bill Help](#) [Customer Service](#) | 42 comments

Winter bills straining your budget? We have resources to help.

Check out our [Seasonal Savings Solutions](#)

The post-holiday blues have just set in, and the winter bills are already piling up. The holiday season — with all its joy and happiness — can be expensive. We feel it, too.

But if you're receiving higher-than-usual utility bills, we have some explanations, as well as

I'm trying to get enough scrap to pay my bills right now to live I lost my job and don't have enough money

This bill is ridiculous and outrageous. Please take me off your service and put me back on PPL regular. I pay \$100 dollars a month and now you are charging me \$600 to \$800 dollars a

Well, i dont know, what to do, my bill every month is high and hihgest, so my last bill 485.00 and this month 730, my salary is no good for those pays, please do something for me bcause i dont know if i can pay the next month.

My bill is higher than it has even been since living in the same house for 16 years. Why are price increasing so much? You need to do something to mask your costs more reasonable.

My February bill was \$706.00 and my December was \$399.00. I cannot afford Seven Hundred Dollar a month Bills. The only thing I found was someone

**Pay for it now, pay for it later**

THE CAPITOL

## Data center tax break created to boost economy, add jobs in Pa. could cost state billions in revenue

by Kate Huangpu and Stephen Caruso of Spotlight PA | Feb. 19, 2026



COMMONWEALTH MEDIA SERVICES

HARRISBURG — As data centers spread and draw backlash across the state, new figures are emerging about their potential long-term costs. The Shapiro administration's latest budget estimates show Pennsylvania could lose out on about \$2 billion in revenue by mid-2031 due to a tax break that some lawmakers want to repeal.

Data center developers and their supporters say the sales tax exemption strongly incentivizes building the facilities in Pennsylvania, which they argue will generate billions of dollars in economic activity and tax revenue.

FracTracker, (2025, September 9). The \$760 billion lie about “free market” energy. FracTracker Alliance. <https://www.frackracker.org/2025/03/fossil-fuel-subsidies-free-market-myth/>

IRENA (2025), Renewable power generation costs in 2024, International Renewable Energy Agency, Abu Dhabi.

<https://www.spotlightpa.org/news/2026/02/data-centers-pennsylvania-tax-break-sales-exemption-capitol/>

- New fossil fuel projects are **expensive**
  - The fossil fuel industry benefits from an estimated \$760 billion **annually** through subsidies, tax breaks, and unpriced externalities
  - 91% of renewable projects are cheaper than fossil fuel alternatives
- **Transmission upgrades** for data centers will increase energy bills
  - \$4.3 billion in 2024 was paid by ratepayers for data center customers
  - \$500 million alone was in Pennsylvania
- Data centers cost the state **millions** of dollars every year in tax breaks.
  - Pennsylvania gives data centers an exemption for their equipment

## Gas and diesel “back-up” turbines add pollutants into the air for grid-based data centers

The massive supercomputer (called “Colossus”) built in Memphis by Elon Musk to power his company xAI has been accused of being one of the biggest polluters in the area. At the same time that thousands of fliers touting the company’s low emissions were delivered by xAI to historically Black communities, environmental groups were monitoring the company’s pollution levels, **finding that xAI is using 35 portable methane gas turbines** to help run Colossus. These turbines are being operated without either permits or public oversight and are known to be enormous emitters of toxic pollutants.

[https://www.theguardian.com/technology/2025/apr/24/elon-musk-xai-memphis?utm\\_term=680b68dcf67998fd6b5db91ebdb7906e&utm\\_campaign=USMorningBriefing&utm\\_source=esp&utm\\_medium=Email&CMP=usbriefing\\_email](https://www.theguardian.com/technology/2025/apr/24/elon-musk-xai-memphis?utm_term=680b68dcf67998fd6b5db91ebdb7906e&utm_campaign=USMorningBriefing&utm_source=esp&utm_medium=Email&CMP=usbriefing_email)

<https://www.commercialappeal.com/story/money/business/2025/02/13/xai-gas-turbines-at-memphis-supercomputer/78540969007/>

### BUSINESS

## Elon Musk's xAI wants to use gas turbines long-term at Memphis site, documents show



**Neil Strebig**

Memphis Commercial Appeal

Updated Feb. 13, 2025, 8:49 p.m. CT



**Musk says Grok 3, rival to OpenAI's ChatGPT, to launch in weeks**

Elon Musk says human intelligence will be dwarfed by machines as he talks AI chatbots in Dubai. "We're really in the final stages of polishing Grok 3. Probably it gets released in about a week or two, so pretty soon."

“By 2028, data centers could contribute to roughly 600,000 asthma cases a year nationwide, and 1,300 premature deaths from the condition.”

<https://centerforhealthjournalism.org/our-work/insights/health-divide-ai-data-center-boom-will-harm-health-communities-can-least-afford>

# Regulatory & Legislative Solutions

- Early exit fees
- Load ramping schedules to ensure infrastructure adequacy
- Utility tracking of all costs to serve commercial data center customers
- Prioritize renewable generation

Senator Katie Muth has drafted a bill for a three-year statewide moratorium on new data center development

# **Local Solutions (my favorite!)**

## Project Hazelnut data center denied approval by Hazle Twp. supervisors



A standing room-only crowd during looks on during the Hazle Twp. Supervisors meeting on Friday, Nov. 14, 2025. (John Haeger / Staff Photographer)



By **MARTIN REPETTO** | [mrepetto@standardspeaker.com](mailto:mrepetto@standardspeaker.com)  
 PUBLISHED: November 18, 2025 at 4:03 PM EST

Getting your Trinity Audio player ready...

**HAZLE TWP.** — Supervisors held a special meeting Nov. 14 where they voted 3-0 to deny land development approval for a new data center which has sparked concerns among Hazle Twp. residents.

Residents packed the Hazle Twp. Commons' meeting room to make their case against Northpoint Development's Project Hazelnut, after many of them had already attended a previous meeting Nov. 10 on that exact agenda item. It was at the end of that meeting that the supervisors decided to officially table that matter for Friday, giving themselves more time to consider the matter and interested parties a second opportunity to make their case

## Project Hazelnut data center denied approval by Hazle Twp. supervisors

HOLLY TAFT SCIENCE NOV 14, 2025 11:43 AM

### The Data Center Resistance Has Arrived

A new report finds that local opposition to data centers skyrocketed in the second quarter of this year.



A standing room



By  
PUT

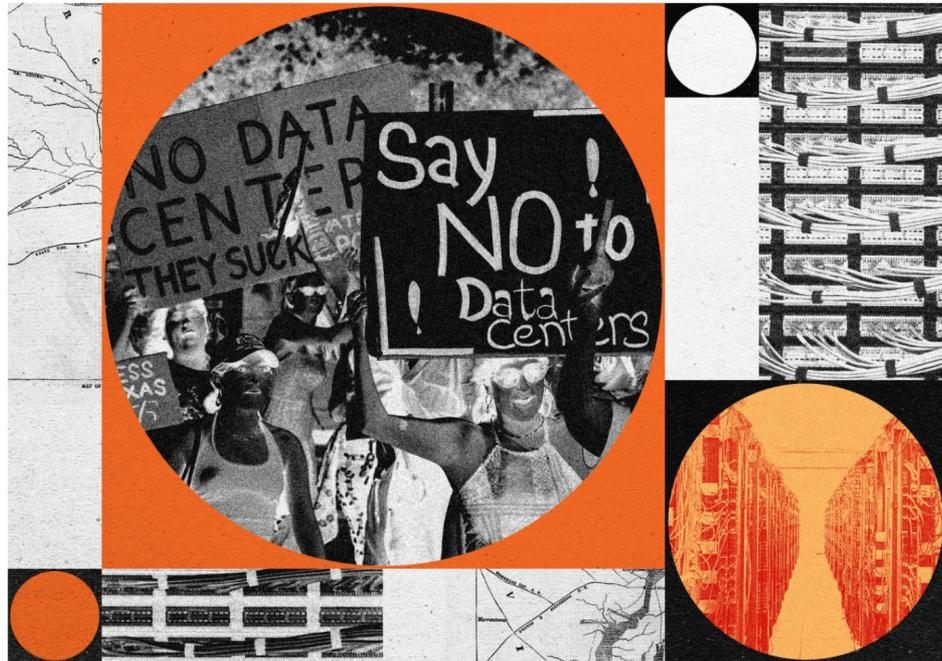


PHOTO-ILLUSTRATION: WIRED STAFF; GETTY IMAGES

The supervisors decided to similarly state that matter for Friday, giving members of more time to consider the matter and interested parties a second opportunity to make their case.

# \$64 billion of data center projects have been blocked or delayed amid local opposition



PHOTO-ILLUSTRATION: WIRED STAFF; GETTY IMAGES

Project Hurdled, data center denied approval by state supervisors

ived

nd quarter of this year.



the supervisors decided to withdraw their objections for Friday, giving interested parties more time to consider the matter and interested parties a second opportunity to make their case

# **NO DATA CENTER**



**LEARN MORE AT [PSRPA.ORG/DATACENTER](https://psrpa.org/datacenter)**

# Homer City Data Center Campus

- 4.4 GW of data centers
- 3200 acre data center campus
- Powered by newly built gas fired power plant
- Could emit up to 910 tons of ammonia
- 17.5 million tons of GHG a year



# Major push to use gas

- Largest gas fired power plant in the country
- \$15 billion gas purchase deal with EQT
- Latest in a long search to find uses for gas to drive price up
  - Shell cracker plant, gas into plastic
  - Liquefied Natural Gas, export gas
- Data centers promoted alongside fossil fuels

PITTSBURGH BUSINESS TIMES

LOWEST PRICE OF THE YEAR  
FLASH SALE

Energy

## EQT details \$15B gas supply deals for AI-powered plants, negotiations ongoing

✉ f in X E ↻ 🎁 Gift this Article



# Transparency issues

- Revolving door with government
- Decisions happening in back rooms
- NDAs signed
- Zero information about data centers
- Unclear where water will come from
- Sketchy job numbers, direct and indirect
- Unclear what the tax impacts actually will be, sales tax break, LERTA
- Nothing to hold people accountable

## Commissioner Gorman resigning to join Homer City Redevelopment LLC

By PATRICK CLOONAN [pcloonan@indianagazette.net](mailto:pcloonan@indianagazette.net) Sep 25, 2024 Updated Sep 25, 2024



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00:00

00:41



Indiana County Commissioner Robin A. Gorman announced Wednesday morning that she will resign effective Nov. 8 to assume a new position as vice president of Homer City Redevelopment LLC, which is working to convert the old Homer City Generation LLC power plant grounds into a new purpose that would include electric generation.

## CROW claims a 'covert meeting' was held regarding Homer City traffic plans

By PATRICK CLOONAN [pcloonan@indianagazette.net](mailto:pcloonan@indianagazette.net) Feb 19, 2026 Updated Feb 19, 2026



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05:23



New shots are being fired in the controversy over Homer City Redevelopment LLC's plan for a 3,200-acre Homer City Energy Campus.

# Initial organizing

- Educating residents
- Worked through existing networks
- Multiple in person presentations to different groups of people
- Main early message was “It’s not a done deal, it’s not too late”
- Helped us find a group of supporters, gave hope

The Penn

Student groups lead campus conversation on technology's environmental impact

ELLIE RANDISI  
News Editor

:tnfc@iup.edu

@ThePennIUP Oct 16, 2025 0



# Early advocacy

- DEP hosted hearing for air quality plan approval
- CAC helped to organize people to testify
- 90% of the testifiers spoke in opposition
- Testimony supported by permit analysis of CAC attorneys and engineers
- Residents opposed were able to find each other and connect
- First time anything negative published

Most KCAC speakers tell DEP they don't like the Homer City air quality plan

By PATRICK CLOONAN [pcloonan@indianagazette.net](mailto:pcloonan@indianagazette.net) Sep 18, 2025 Updated Sep 20, 2025

2 of 4



As Ruth Thomas of the First Unitarian Universalist Church awaited her chance to talk, clipboard in her arms, Travis Hipp stood at the microphone addressing state Department of Environmental Protection officials Wednesday.

PATRICK CLOONAN/Gazette

# Technical support for residents

- CAC along with other groups appeals Air Quality Plan Approval
- Community members meet biweekly with engineers and attorneys
- Residents have been actively participating in DEP comment periods, calling for hearings

The screenshot shows a news article on the TribLive website. At the top, there is a navigation bar with the TribLive logo and a 'Get Verified' button. The main headline reads: 'DEP gives preliminary nod to Homer City plant, but environmental group sounds alarm regarding pollution'. Below the headline, the author is identified as 'JOE NAPSHA' with a 'TRIBLIVE' tag, and the date is 'MON, SEP 15, 2025 • 06:10 PM'. The article is part of a collection from the 'Indiana Gazette'. A 'NEXT UP' section features a thumbnail for an article titled 'Salary board takes a lengthy look at how budgets may be seen...'. Below this, a 'FEATURED' section highlights an article: 'Environmental advocates, Pa. youths appeal permit for Homer City Energy Campus'. The byline for this featured article is 'By FREY HEIDE Fheide@indianagazette.net' with a date of 'Dec 18, 2025 Updated Dec 18, 2025'.

≡ **TRIBLIVE** Get Verified

## DEP gives preliminary nod to Homer City plant, but environmental group sounds alarm regarding pollution

JOE NAPSHA TRIBLIVE  
MON, SEP 15, 2025 • 06:10 PM

Indiana Gazette

← **NEXT UP** Salary board takes a lengthy look at how budgets may be seen...

**FEATURED**

### Environmental advocates, Pa. youths appeal permit for Homer City Energy Campus

By FREY HEIDE Fheide@indianagazette.net Dec 18, 2025 Updated Dec 18, 2025

# Community group forms

- Concerned Residents of Western Pennsylvania (CROW)
- Explicitly opposed to both gas power plant and data centers
- Weekly in person meetings
- Focused on being a voice of opposition
- Educating residents, lobbying electeds, watchdogging



# CROW hosts big event

- CROW plans a panel and town hall about development
- 200 people attend
- Worry about tensions rising between supporters and opponents of project
- Learned that many people were opposed
- Newspaper coverage breaking dominant narrative

TRIB|LIVE

WEDNESDAY, FEBRUARY 25, 2026

## WESTMORELAND

### Opponents of Homer City power plant and data center air concerns at community gathering

Developers of the 4.5-gigawatt power plant were not invited and declined to comment

Indiana Gazette

24°

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• Feb 2, 2026 Updated Feb 2, 2026

Featured

#### 'CROWs' offer alternative perspective on proposed power plant, data center

• [By FREY HEIDE Fheide@indianagazette.net](mailto:FREY.HEIDE@indianagazette.net)

Are potential economic benefits of a new natural gas power plant and possible data center worth environmental decline, health complications and increased utility costs?

That was the question posed by Concerned Residents of Western PA, an advocacy organization based in Indiana County, in a community gathering Sunday afternoon at the Indiana Theater.

In short, it's up to the community to decide.

Panelists pulled from environmental advocacy organizations offered what they described as "a different perspective" on the project touted by Homer City Redevelopment LLC, the corporation behind the project, as an economic boost to Center Township and its surrounding area.