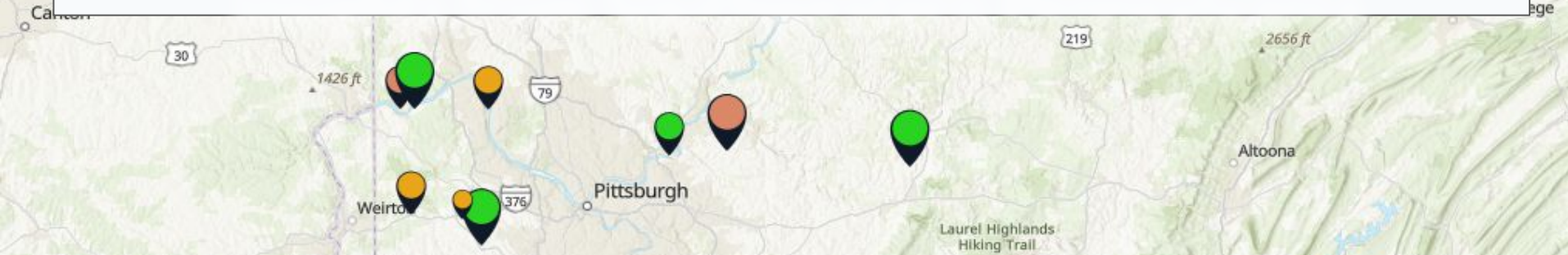


Tracking the Data Center Industry: Insights from Southwestern Pennsylvania



Weronika Przedworska, Data Center Research Intern

Jenna Hoover, Data Center Research Intern

Molly Mccloughlin, Data Center Research Intern

Mia Glover, Data Center Fellow

Katie Jones, Ohio River Valley Coordinator

September 15th, 2026

FracTracker's Mission

FracTracker Alliance maps, analyzes, and communicates the risks of oil, gas, and petrochemical development to advance just energy alternatives that protect public health, natural resources, and the climate.



Data Stewardship Sprints: Internship Project Overview

PURPOSE : Make information about proposed data centers more accessible to communities across Southwestern Pennsylvania.

4

INTERNS

Pittsburgh-based students
investigating 3-4 sites each

9

WEEKS

Dedicated summer research &
field investigation period

12

PROPOSALS

Data center proposals examined
across 6 counties

RESEARCH ACTIVITIES

- Attended municipal meetings and reviewed public records
- Coordinated with local grassroots groups and nonprofit organizations
- Filed Right-to-Know requests
- Reviewed permits and zoning ordinances
- Mapped proximity to sensitive communities and ecological concerns
- Spoke with residents about their concerns



Why is SW PA attractive to data center developers?

- Abundant fracked gas
- Incentives for brownfield remediation
- Abundant water resources
- Access to major fiber-optic routes



Homer City Redevelopment rendering of the completed Homer City Energy Campus



Construction at the Homer City site
Photo: Kyle Ferrar, FracTracker, April 2026



Proposed Data Centers in Southwestern Pennsylvania



Data Center Key

- 1 Starpointe Industrial Park Data Center
- 2 Homer City Energy Campus
- 3 Fort Cherry Data Center
- 4 Mawson Midland Data Center
- 5 Project Hummingbird
- 6 Upper Burrell Data Center
- 7 Champion Data Center Project
- 8 Project Phoenix
- 9 Zediker Station Data Center
- 10 Springdale Data Center
- 11 Switch Pitt Race Data Center
- 12 Aliquippa Data Center



HOMER CITY ENERGY CAMPUS

3,200 Acres

Former Homer City
Generating Station

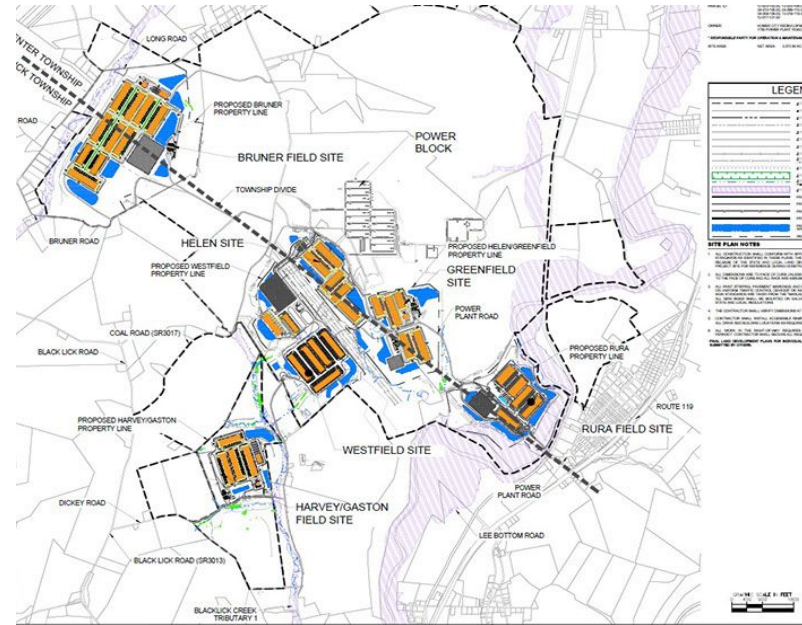
4.5 GW

Behind the meter power
capacity

Status

Power plant under
construction

- **Apr 2, 2025:** Redevelopment Announced
- **July 2025:** First Open House
- **Sept 17, 2025:** DEP Air Permit Hearing
- **Nov 2025:** Concerned Residents of Western PA (CROW) formed
- **Nov 18, 2025:** Final Air Quality Plan Approval
- **Dec 17, 2025:** EHB Appeal Filed by Clean Air Council, PennFuture, and Sierra Club
- **Jan 2026:** Youth-Led Constitutional Appeal Filed by Our Children's Trust
- **April 2026:** Construction Begins
- **May 12, 2026:** DEP Pipeline Hearing
- **June 18, 2026:** Pipeline Permit Issued
- **Aug 10, 2026:** Outfall 027 NPDES Public Comment Deadline
- **September 2026:** Amazon submits formal proposal for data center



Developer Site Schematic

Source: Indiana County Office of Planning & Development



HOMER CITY ENERGY CAMPUS

Development Details

- Developer: Homer City Redevelopment financially backed by Knighthouse Capital Management
- Contractors: Kiewit Power Constructors Co
- Seven GE Vernova gas turbines
- Power plant projects 10,000+ construction jobs and ~1,000 permanent positions; AWS anticipates 1,500 to 2,000 new full-time jobs at full build out
- Power plant will use closed-cycle recirculating system, not closed-loop; AWS would use existing water-withdrawal rights and treatment facilities while returning cooling water to power plant for reuse
- Subdivision and Land Development Ordinance (SALDO)
 - Power plant Block Phase 1 and 2 applications (grading, general construction) were unanimously approved by the County Planning Commission under the existing ordinance
 - County is drafting new data-center-specific provisions, decisions expected Nov 18th
- Amazon's application describes a 22 acre 36-data-center campus across six phases, currently tabled by planning commission until experts can review the application

HOMER CITY ENERGY CAMPUS

On April 1, 2026, FracTracker visited the site and documented the construction and partial demolition of the former coal plant

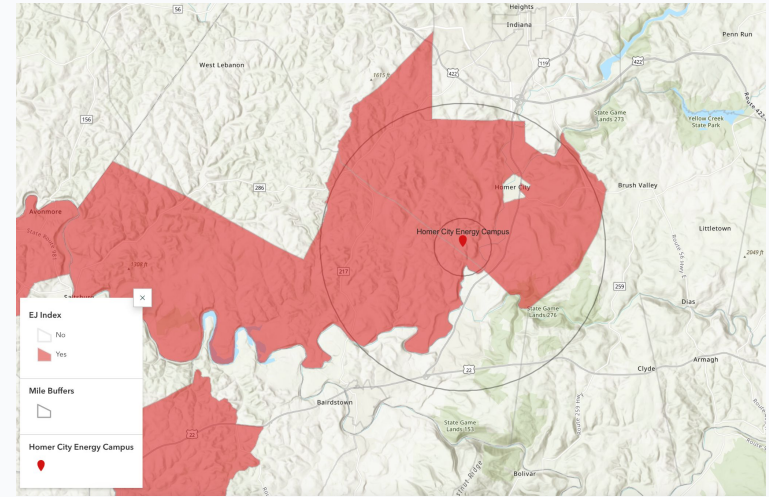


Source: Kyle Ferrar, FracTracker Alliance.

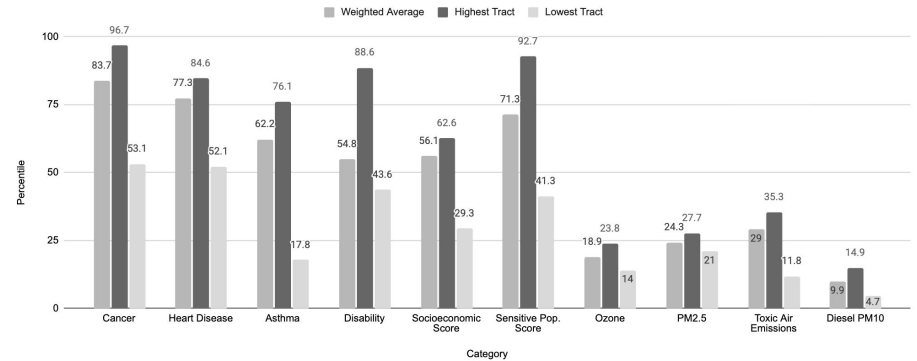
HOMER CITY ENERGY CAMPUS

Community Demographics

- Site formally designated an environmental justice area
- When the coal plant was in operation, the area was ranked 6th in the nation for sulfur dioxide emissions
- In the seven census tracts within 5 miles:
 - Cancer prevalence averages in the top 20% of communities nationally
 - Heart disease averages in the top 30% of communities nationally
- Generally older skewed population



Homer City 5-Mile Buffer - PennEnviroScreen Indicator Averages



Source: PA DEP PennEnviroScreen.

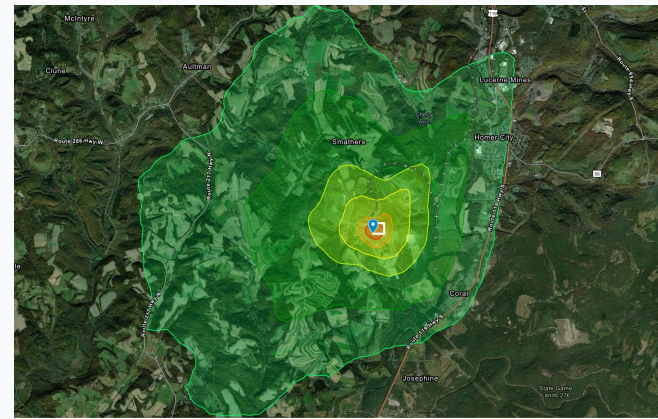
HOMER CITY ENERGY CAMPUS

Air Quality Impacts (power plant)

- Final Air Permit Plan Approval authorized 17.5 million tons CO₂e/year
- High emissions of PM 2.5, NO_x, CO, VOCs, ammonia, and formaldehyde expected

Water Quality Impacts (power plant)

- Two areas along Two Lick Creek sit on a FEMA regulatory floodway
- Blacklick Creek discharge through Outfall 027
 - Trout Stocking Fishery associated with recreation trails already impaired from historic acid mine drainage
 - Up to 6.84 million gallons per day of discharge at temperatures as high as 110°F
 - Antimony discharge would exceed stream-protection threshold by 2x
 - Three drinking-water parameters would exceed Public Water Supply criteria: TDS (5.6x), sulfate (4.8x), chloride (2.2x)



Environmental Health Project's Pollution Dispersion Model.

Source: www.environmentalhealthproject.org



Source: NPDES Amendment Application - Outfall 027 Modification, PA0005037 A-2, pg 127

HOMER CITY ENERGY CAMPUS

Pipeline

- 5.8 miles, 30-inch steel
- Runs from a metering/regulation interconnect in Burrell Township to the plant in Center Township
- Crosses 5 roads and 3 townships
- 0.4 miles of overhead power line
- Would connect to two interstate supply routes: Texas Eastern (TETCO) and Eastern Gas Transmission and Storage (EGTS)
- \$5 million grant from the Commonwealth of Pennsylvania to design and construct the pipeline
- Much of the waterways crossed by the pipeline corridor already fail water quality standards due to siltation and metals



Pipeline route, watershed boundary, and nearby private water wells within the 500-ft construction buffer.
Source: PA Groundwater Information System, EPA My Waterway.

HOMER CITY ENERGY CAMPUS

Community Response

- CROW (Concerned Residents of Western PA) formed Nov 2025 out of Clean Air Council coalition calls
 - Weekly Sunday meetings at the Indiana Theater
 - Work spans outreach, meeting with officials, publicizing comment deadlines, and public testimony
 - No Data Center Rally 9/12
- High public engagement in the development process
 - 654-person capacity crowd at the July 2025 open house with overflow in the lobby
 - 571 public comments opposing the air permit
 - 100+ people attended the pipeline hearing, 25 commenters



Source: Concerned Residents of Western PA.

SPRINGDALE DATA CENTER: Overview

- Proposed hyperscale data center at the site of the former Cheswick Generating Station at 151 Porter Street, Springdale Borough, PA
- Total of 7.2 acres of land, 652,500 feet of which are planned to be used for the facility
- Allegheny DC Property Co., also operating as Dynamo DC, is the developer
 - Data center development company specializing in “environmentally remediated brownfield sites”
- Land was purchased in November 2025; conditional use application granted by Springdale Borough in December 2025; currently waiting for county-level approvals
- Significant local pushback
 - Lack of updated Borough regulations to address data center zoning



Developer's renderings of completed site.
Source: <https://www.springdaledatacenter.com/>



SPRINGDALE DATA CENTER: Details

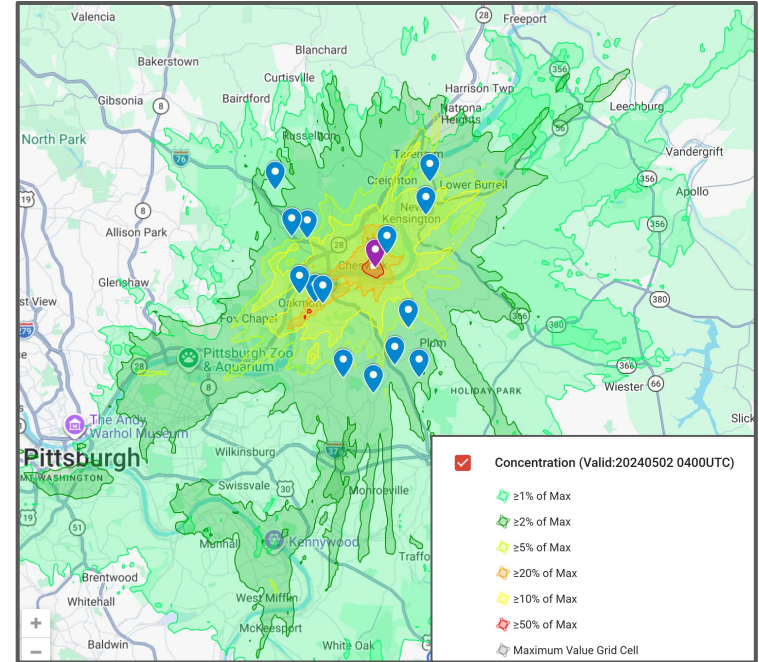
- Cooling: Closed loop, which means that cooling will not require a continuous intake of water. Details are unknown at this time.
- Power: Up to 330 MW projected energy demand
- Backup power: Diesel generators, two yards of 62 generators each (124 total)
 - Previous plans to use battery cells as backups overturned due to concerns about insufficiently equipped fire department
- Setup: Chillers on rooftop, generators in generator yards
 - Original design had these elements reversed



Aerial view of proposed site, 2024. Source: Dynamo DC Land Use Application.

SPRINGDALE DATA CENTER: Environmental Concerns

- Sound pollution
 - Causes: diesel generators, rooftop chillers
 - Site plans show maximum of 56 A-weighted decibels (dBa) during normal operations and routine maintenance, and up to 66 dBa during a power outage.
- Air pollution
 - Parts of Springdale are already plagued by above-average asthma and cancer rates due to its industrial history
 - Environmental Health Project dispersion mapping shows that significant levels of particulates over 50% above established federal safe levels would directly impact parts of Springdale Borough and Cheswick
- Parts of Springdale are designated as Environmental Justice Areas



Environmental Health Project's Short Term Pollution Dispersion Model from the Proposed Springdale Data Center.

Source: www.environmentalhealthproject.org

SPRINGDALE DATA CENTER: Community Response

- Residents of Springdale have consistently been involved in public protests against the data center, with crowd sizes ranging from a few dozen to a hundred
 - Partnerships with ProtectPT, Sierra Club, Breathe Project, Climate Reality
- Significant backlash during granting of conditional use permit
- Save Allegheny Valley Environment (SAVE) is a grassroots organization founded by and composed of Springdale residents
 - Meet weekly, Wednesdays 7-8:30 PM at From Italy restaurants to discuss strategies and updates
- Current focus is to gather speakers for public comment during the SALDO hearing



Source: Weronika Przedworska

SPRINGDALE DATA CENTER: Timeline

10/2025

Conditional Use Permit Filed

Public hearing heard; community concerns noted.

12/2025

Conditional Use permit granted

Springdale Borough passes permit 5-2

06/2026

SALDO submitted to ACED

Significant differences from conditional use permit

11/2025

Land officially purchased by developers

Charah Environmental Redevelopment Group, sells site to Allegheny DC Property Co. LLC for \$14.3 million.

03/2026

SAVE officially formed

Group had been meeting for months prior

09/2026

ACED SALDO hearing

Exact details about where and when to be determined

UPPER BURRELL KEYSTONE CONNECT

1,395

Acres

500,000

Square Feet

Up to 3 GW

Max capacity at full build

2031

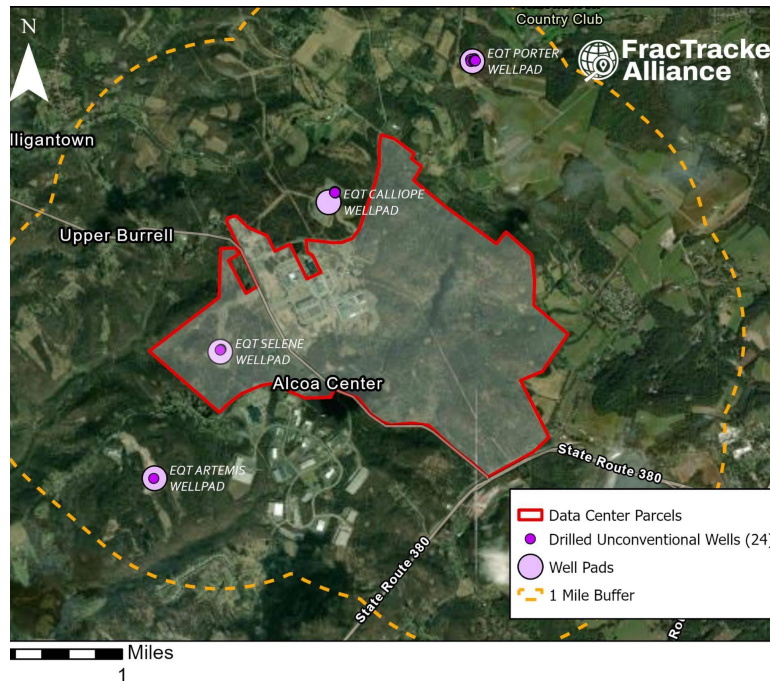
Final phase completion

Project status

TECfusions is developing a data center at the former Alcoa research facility in Westmoreland County. The data center is operational at low capacity as of August 2026. The project received \$2 million in state grant funding.

Power generation

The proposal includes behind-the-meter fracked-gas electricity generation with nine backup generators. The first phase aims to provide 336 MW of power. Six on site fracked-gas well pads could support up to 3 GW if the proposed 20-year development plan advances.



UPPER BURRELL KEYSTONE CONNECT

Timeline

- **December 2024:** TECFusions acquired a 1,395-acre former Alcoa/Arconic research center site.
- **January 2026:** TECFusions confirmed AI cloud company TensorWave as its first tenant.
- **May 5, 2026:** Re-scheduled public hearing and town hall took place at the Penn State New Kensington Theater.
- **May 15, 2026:** Upper Burrell Township enacted a 180-day moratorium on new data center developments to draft a comprehensive regulatory ordinance. Existing work inside the main building by TECFusions was grandfathered in.
- **June 2026:** Local community workshops and ongoing discussions regarding noise, generator limits, and zoning restrictions were held.
- **August 25, 2026:** Protect PT and residents file land use appeal.
- **August 27, 2026:** TECfusions announces the data center is live and has been delivering GPU capacity for AI since June 2026.



Alcoa Research Facility. Source: Google Earth.



UPPER BURRELL KEYSTONE CONNECT

Environmental Concerns

Water Usage:

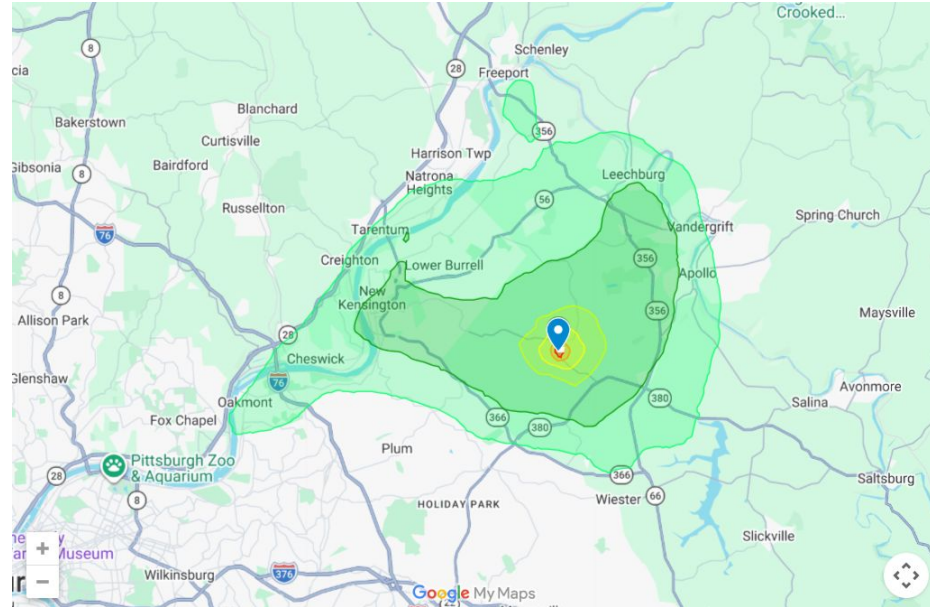
The water cooling is planned as a closed-loop system using primarily glycol. Ethylene glycol is toxic to wildlife, and when it's leaked into storm drains or surface waters it can rapidly deplete dissolved oxygen and suffocate aquatic life.

Air Impact:

The largest environmental concern is air quality impacts associated with gas-fired generation. The particulate matter that will be released in the air is a concern for the surrounding area.

Permitting Status

- Air Quality: Pending
- State Water Pollution Control: Issued
- NPDES Permit: Issued
- Storage Tanks Permit: Issued



Environmental Health Project's Pollution Dispersion Model.

Source: www.environmentalhealthproject.org



UPPER BURRELL KEYSTONE CONNECT

Community Response

180 day curative amendment is in place that ends in early November. A draft ordinance addressing data centers is under review.

Main Community Concerns:

- Noise monitoring
- Property value changes
- Water use / consumption
- Grid stress from power generation
- Regulatory oversight and not feeling heard

The community already deals with noise disruption from fracking and does not want a repeat scenario with data centers. ProtectPT hosts workshops to raise awareness and take action.

Protect PT and local residents filed a land use appeal against the township and its board of supervisors on Aug. 25 in Westmoreland County, arguing that TECfusions did not go through the proper local zoning approval process.



Image from ProtectPT community workshop meeting. Source: Jenna Hoover.

The next Upper Burrell Planning Commission Meeting is tonight at 7pm, where they will discuss the updated proposed Data Center Ordinance



PROJECT PHOENIX

Site & status

The proposal would develop 3 data center buildings located on the former Bruce Mansfield coal power plant. The site would take up 710 acres and the buildings would total over 820,000 sq ft. Permits are under review. Shippingport has partially approved it.

Developer & power plan

Aligned Data Centers is the project's developer. Plans describe 2 GW of behind-the-meter solid oxide fuel cell power generation. The facilities will utilize a closed-loop water cooling system.

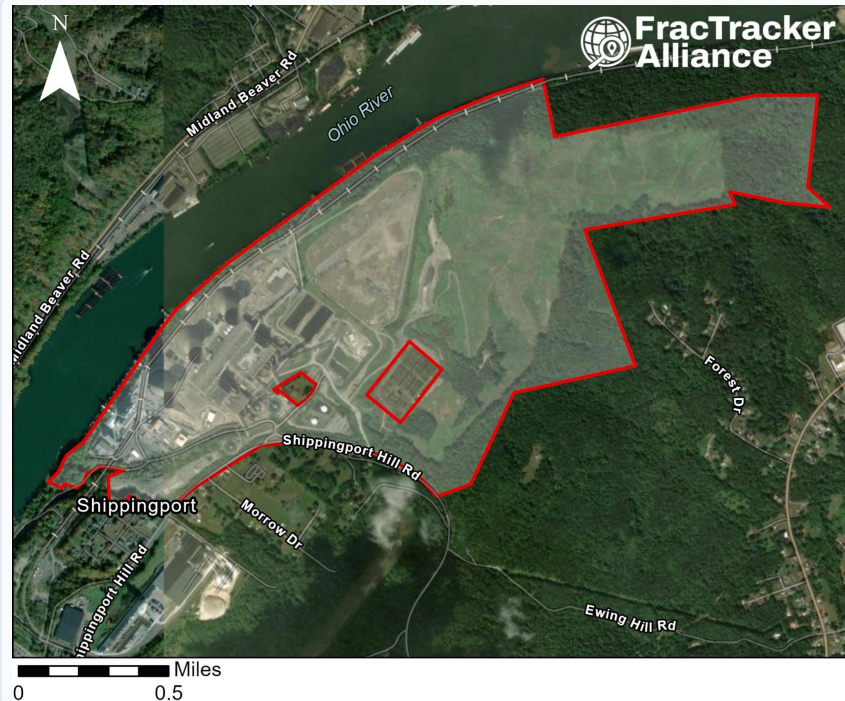
Environmental concerns

Fuel cells, while not combusting fracked gas, still rely on it and have associated risks and upstream drilling/pipeline activity. Calls exist for cumulative air-quality review across Beaver County projects.

Aligned plans to permanently impact 9,162 linear feet of watercourse including Haden Run and Squirrel Run, as well as floodplains and wetlands.

Community & public process

Strong community push back was seen at the public meeting held by the PA DEP on August 18th. Groups like Beaver County Marcellus Awareness Community (BCMAC) and Environmental Health Project have expressed concerns over the development, and many local people are wary of a data center coming into their community.



PROJECT PHOENIX: WHO IS INVOLVED & TIMELINE

Who is involved

Frontier Group of Companies

Owner and redeveloper of the former Bruce Mansfield site and Shippingport Industrial Park.

Shippingport Industrial Park LLC

Frontier-affiliated landowner that transferred project parcels to Aligned.

Aligned Data Centers

Developer and operator of the Project Phoenix data center campus.

Aligned's ownership consortium

The AI Infrastructure Partnership, MGX, and BlackRock's Global Infrastructure Partners acquired Aligned in July 2026.

National Fuel Gas

Reportedly developing separate natural-gas infrastructure to serve the campus's dedicated power system.

Potential technology companies

County emails identified Oracle as a prospective participant in LERTA discussions. Reports have connected Meta to the campus, but neither company has publicly confirmed a tenancy.

Development timeline

2019-2022

Bruce Mansfield closed in 2019. Frontier acquired the retired plant property in 2022.

October-November 2025

County records first referenced data center development. Aligned subsequently submitted its land-development plan.

January-March 2026

Shippingport approved Phase I mass grading, conditional use, and requested variances.

April-July 2026

State and local agencies reviewed air, sewage, stormwater, and land-development applications. Aligned purchased project parcels in July.

August 2026

DEP reviewed solid-oxide fuel-cell technology and participated in a community meeting with Aligned and Bloom Energy.

September 10, 2026

Aligned held a groundbreaking for the proposed 2 GW campus.



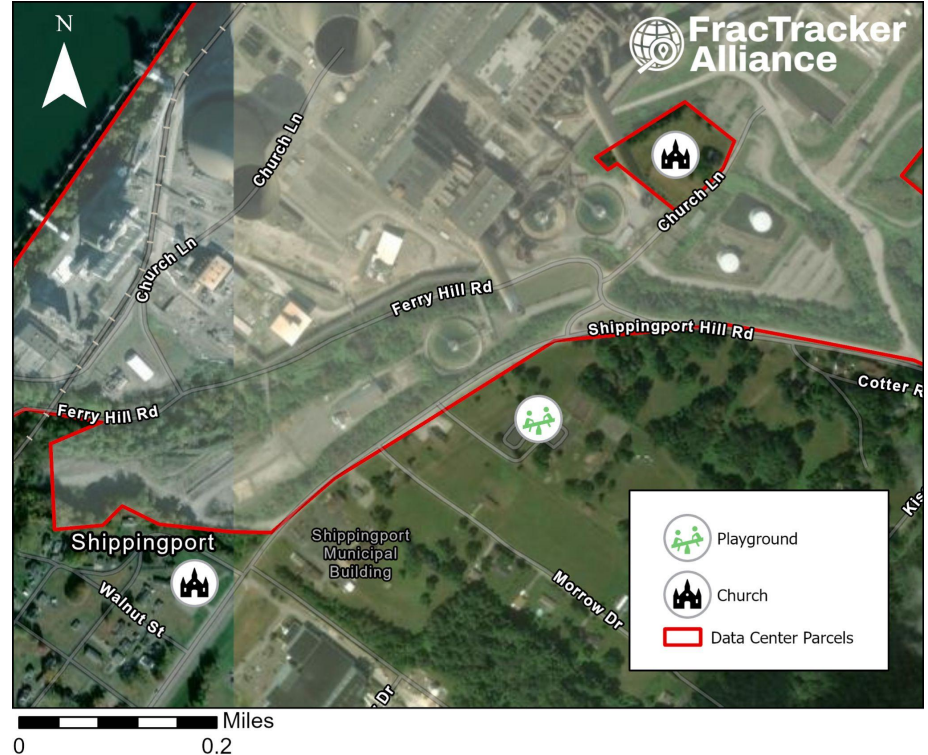
PROJECT PHOENIX

Community impacts

The proposed Project Phoenix site is in very close proximity to two churches, a playground, and the Shippingport Community Building. Within five miles of the site are the Shell Ethane Cracker Plant, the Beaver Nuclear Plant, and an operating data center in Midland run by Big Digital Energy.

Shippingport Ordinance 240

Shippingport Borough Council passed Ordinance 240 on March 4, 2025. This ordinance made data centers in Shippingport Conditional Use and placed several limits and procedures on them regarding lighting, noise, power usage, etc. Aligned asked for 7 variances on these restrictions and eventually received all of them.



OTHER TRACKED DATA CENTER PROPOSALS:

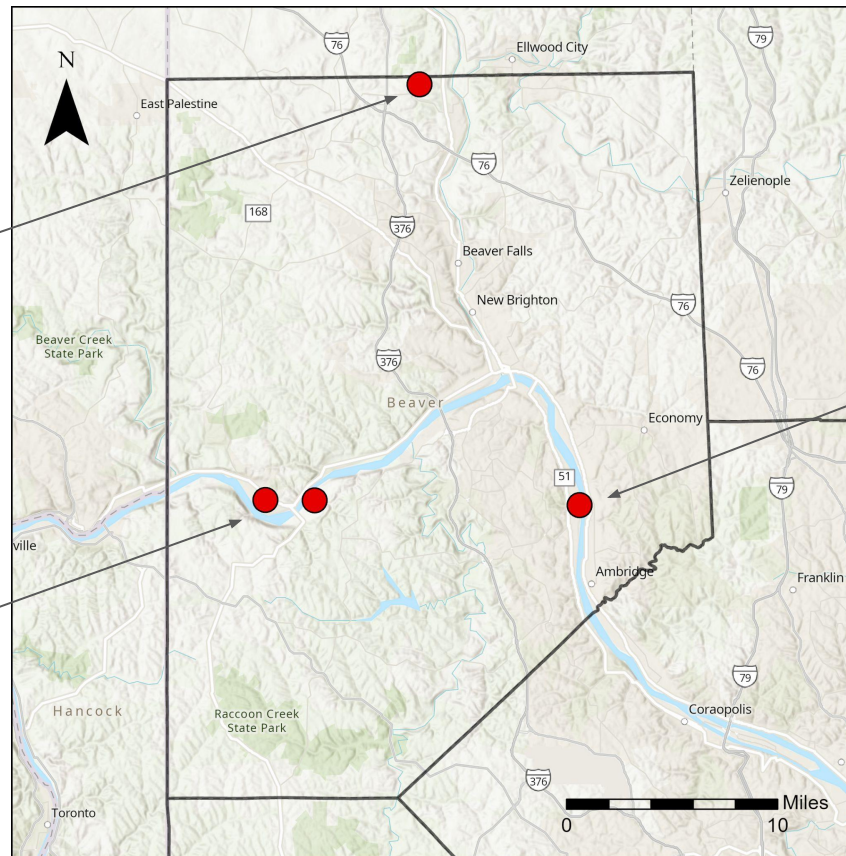
Beaver County

Switch Pitt Race Data Center

Switch bought the Pittsburgh International Race Complex in Big Beaver Borough for \$50 million in March 2026. The data center proposal features a 3 building, 382-acre campus. Community push back has been fierce, including the formation of 3RMPS and a petition that drew over 700 signatures.

Big Digital Energy Midland

An operating crypto mine turned data center owned Big Digital Energy (formerly Mawson Infrastructure Group). Sited on a former J&L Steel site in Midland, the site has at least 120 MW of capacity, potentially expanding to 144 MW.



Aliquippa Data Center

Five9s Digital is marketing the former J&L Steel brownfield as an 86-acre campus with two on-site 248 MW behind-the-meter gas plants. The proposal currently exists only in the slide deck.



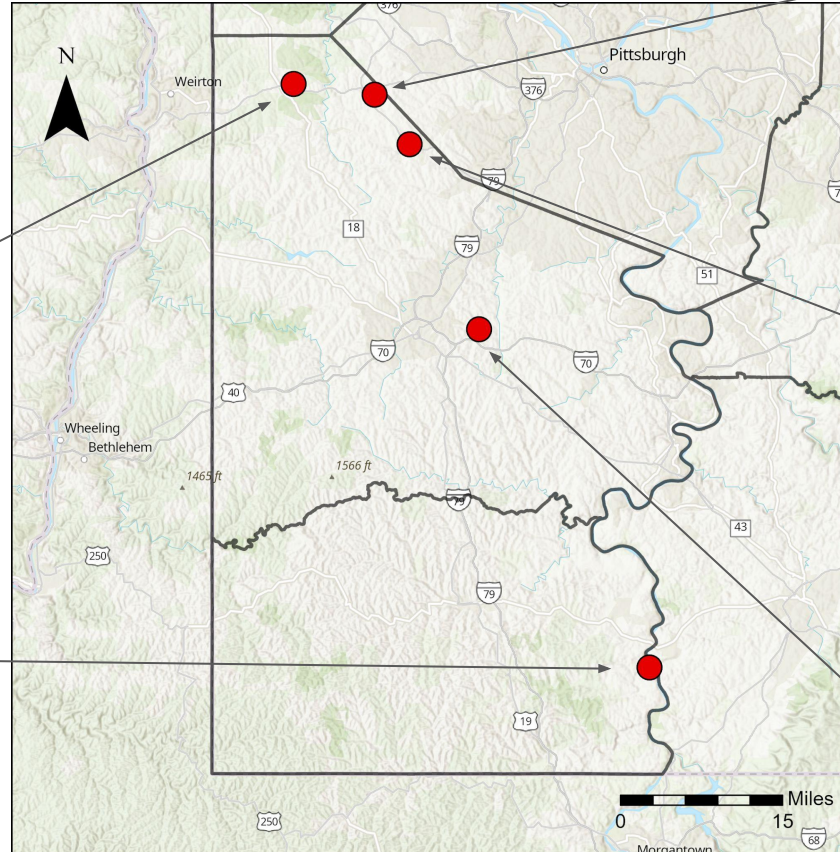
OTHER TRACKED DATA CENTER PROPOSALS: Washington and Greene Counties

Starpointe Industrial Park

Prime Data Centers has applied for conditional use approval for a data center in Hanover Township. It would feature 7 buildings across 800 acres and be powered by 450 MW of behind-the-meter gas drawn from the adjacent Revolution Pipeline System. The proposal has drawn sustained opposition and the group Protect Burgettstown has formed in response.

Project Hummingbird

International Electric Power has proposed a 910 MW data center campus on 1,400 acres of the former Robena Mine site in Monongahela Township. It would be powered by behind-the-meter gas. No tenant has been identified, and only Phase 1 (site reclamation) has been approved.



Champion Data Center

A 1,039-acre brownfield in McDonald was advertised as a data center site on LinkedIn by Next Generation Land Company. The post describes GWs of behind-the-meter "carbon-negative power" capabilities.

Fort Cherry Development District

A 875-acre campus in Robinson Township developed by Imperial Land Corporation with Liberty Energy and Range Resources. It advertises behind-the-meter gas power capabilities with an initial capacity of 25 MW, scalable to 1 GW. Three "pad-ready" sites are complete. The project secured \$7.7 million in PA SITES funding.

Zediker Station Data Center

CNX Resources and JLL are advertising 1,400 acres in South Strabane Township as a "carbon-neutral" data center site that will utilize remediated coal-mine methane with a capacity of 500-700 MW.



REGIONAL SUMMARY

Industrial brownfield siting

Nearly every tracked proposal is sited on an industrial brownfield with existing industrial zoning or access to transmission lines, substations, pipelines, railways, or water access. Redevelopment often does not erase pollution, but instead builds on top of it, furthering a pattern of treating these areas as sacrifice zones.

Environmental justice siting

Three-fourths of the 12 tracked proposals are in state-designated environmental justice areas, where residents already face disproportionate pollution and health burdens.

Unclear economic benefits

Available projections emphasize temporary construction work, but permanent job estimates are much smaller. Despite this, public subsidies already support several projects.

Cumulative air-quality concerns

On-site generation, backup generators, and indirect emissions from increased fracking and power plant operation stand to create a notable decrease in regional air quality, especially where multiple projects are clustered together in Beaver and Washington counties.

Fracked gas utilization

Nine proposals include behind-the-meter electricity generation that will utilize fracked gas. If all the proposals were built to their highest estimated capacities, over 12 GW of new fracked gas-based electricity generation would be added to the region, not counting the three land advertisements.

Limited control & lack of transparency

Many Pennsylvania municipalities do not define data centers in their zoning codes. Additionally, variances, grandfathering, limited disclosures, and difficult record access has constrained informed public review and made local control difficult.



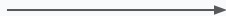
CONCLUSIONS

- Across projects, we saw similar patterns, including behind-the-meter power generation reliant on fracked gas, siting on brownfields in environmental justice areas, and a lack of transparency about crucial project details.
- We focused on Homer City Energy Campus, Springdale's Dynamo Data Center, Upper Burrell's Keystone Connect Data Center, and Project Phoenix in Beaver County.
- Three of our data centers (Aliquippa, Champion, and Zediker Station) are only land advertisements at this point, and details and final approvals for many sites are still pending.
- Local people are pushing back hard against these data centers with a ferocity rarely seen before.
- **Importantly, residents should have a say about what goes into their communities. Sharing our region with twelve or more data centers is not inevitable.**



QUESTIONS?

**Check out our
U.S. Data
Centers Tracker**



All project details will be published in a blog post soon!

