



Data Center Siting: A Technical & Community Guide

Does not include county updates as of May 2025

~2,050

Total Acres
Constellation Land

8

Data Center Buildings
Across 3 campuses

300 – 800 MW

Total Power Demand
300–500 MW range

\$1B+

Capital Investment
Estimated

ARCHITECTURE & SITING

ENVIRONMENTAL IMPACT

GRID & ENERGY

NOISE & SAFETY

ZONING & LAW

COMMUNITY BENEFIT AGREEMENTS

GREEN TECHNOLOGY

LESSONS LEARNED



Community Forum Co-Hosts

This community data center forum is co-hosted by two organizations united in ensuring Calvert County's voice is heard on data center siting decisions that will shape our community for generations.

Keep Calvert Country

A grassroots community organization advocating for responsible land use and environmental stewardship in Calvert County.

NAACP, Calvert County Branch

Ensuring equity, environmental justice, and community voice in decisions affecting all Calvert County residents regardless of background.

Presented by Ivonne Cameron, Senior Consultant , VerdAbility,

What Is Being Proposed in Calvert County?

AWS Hyperscale Data Center Campus — Calvert Technology Center

Amazon Web Services (AWS) has filed an official site plan for a hyperscale data center campus on approximately 2,050 acres of Constellation Energy land in Lusby, Maryland, adjacent to the Calvert Cliffs Nuclear Plant. This is one of the largest proposed data center developments on the East Coast.

~2,050 ac

Total Site Acreage across 3 independent campuses

8 Buildings

266,000–332,000 sq ft each | 2.464M sq ft total

300–800 MW

Power demand — equivalent to 200,000 to 800,000 homes

~100 / ~1,200

Permanent jobs / Construction jobs

\$1B+

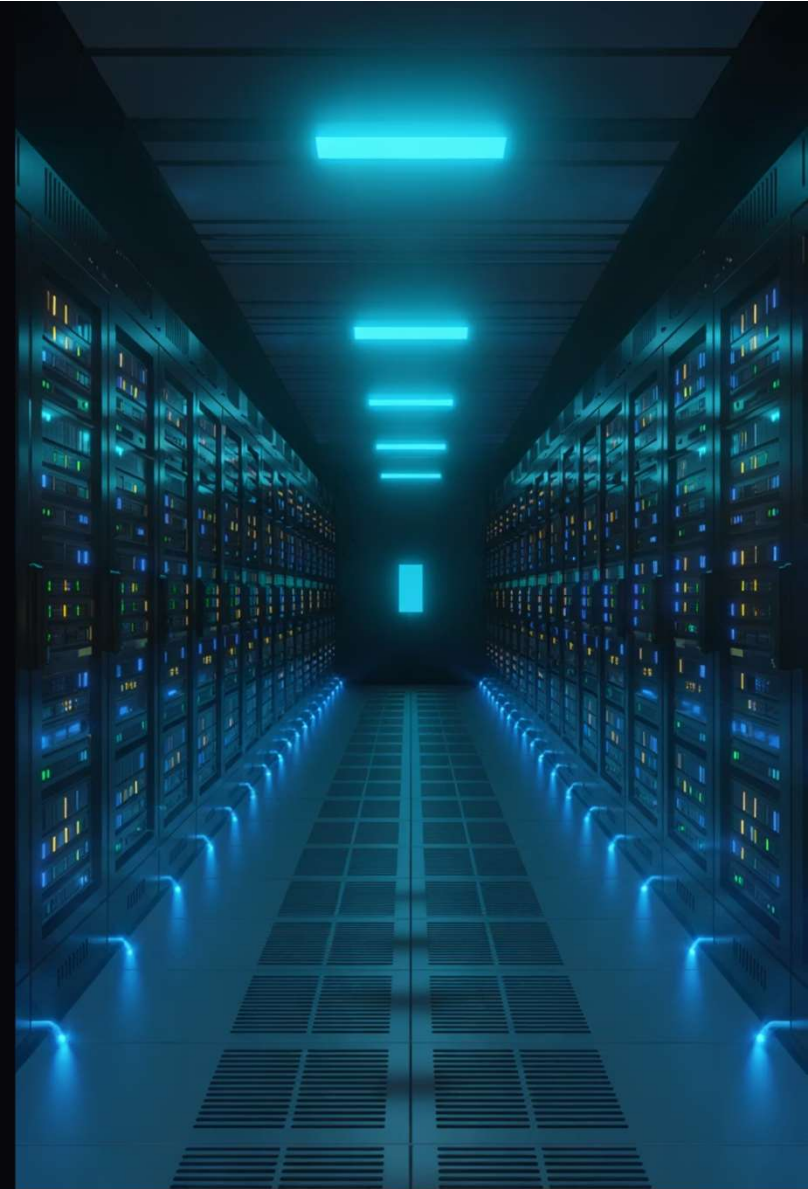
Estimated capital investment

Source: Calvert County Official Site Plan Filing, May 2026 / Langan Engineering / Kimley-Horn MPIA / Baltimore Banner Apr 2026

SECTION 01

Data Center Architecture

What comprises a hyperscale data center campus from the ground up



U.S. Data Center Landscape: Operating, Under Construction & Planned (2026)

5,375+

Operating U.S. Data Centers

1,556+

Planned or Under Construction

67%

Planned in Rural Areas

3x+

Construction Spending Since 2023

Top States Under Construction (Mar 2026)

State	Facilities
Texas	140
Virginia	136
Georgia	56
Ohio	51
Arizona	38
Maryland	12 ← Calvert County Proposed

Sources: Aterio, Pew Research Center, NREL, Statista, IEA, Feb–Mar 2026; Voronoi App, 2026

National Context for Calvert

- 5,375+ operating data with 1,556 more planned, a **3x surge in investment** since 2023 driven by AI workloads. centers
- **67% of new facilities target rural areas** such as Calvert County: peninsula location, nuclear plant proximity, and I-2 industrial land.
- IEA projects global data center energy consumption to reach **945 TWh by 2030** — up from 415 TWh in 2024.
- U.S. data center share of national electricity could rise from **4.4% to 12% by 2028**.
- Communities that **organized early**, like Loudoun County, VA — secured significantly stronger environmental and ratepayer protections.

Anatomy of a Hyperscale Data Center Campus

Understanding what AWS is actually proposing — 8 facilities across 3 campuses on approximately 2,050 acres in Lusby, Maryland.



Server Halls

266,000–332,000 sq ft each × 8 buildings = **2.464M sq ft total**.
AI workloads run 24/7 at 30–100 kW per rack, generating continuous heat loads.



Cooling Infrastructure

Industrial chillers, cooling towers, or air-cooled systems. AWS claims 96% air-cooled, 4% water. Each facility requires **4–5 industrial-grade cooling systems**.



Power Systems

Requires **300–800 MW total**. Multiple transmission feeds, substations, and UPS systems for Tier III/IV redundancy.



Backup Generation

Diesel or natural gas generators for N+1 redundancy. May run during grid maintenance **for several days**. A noise and air emissions source for surrounding areas.



Security Perimeter

Blast-rated fencing, guard booths, CCTV, and anti-vehicle barriers. Staffed 24/7. Creates a **visual industrial wall** around the entire site perimeter.

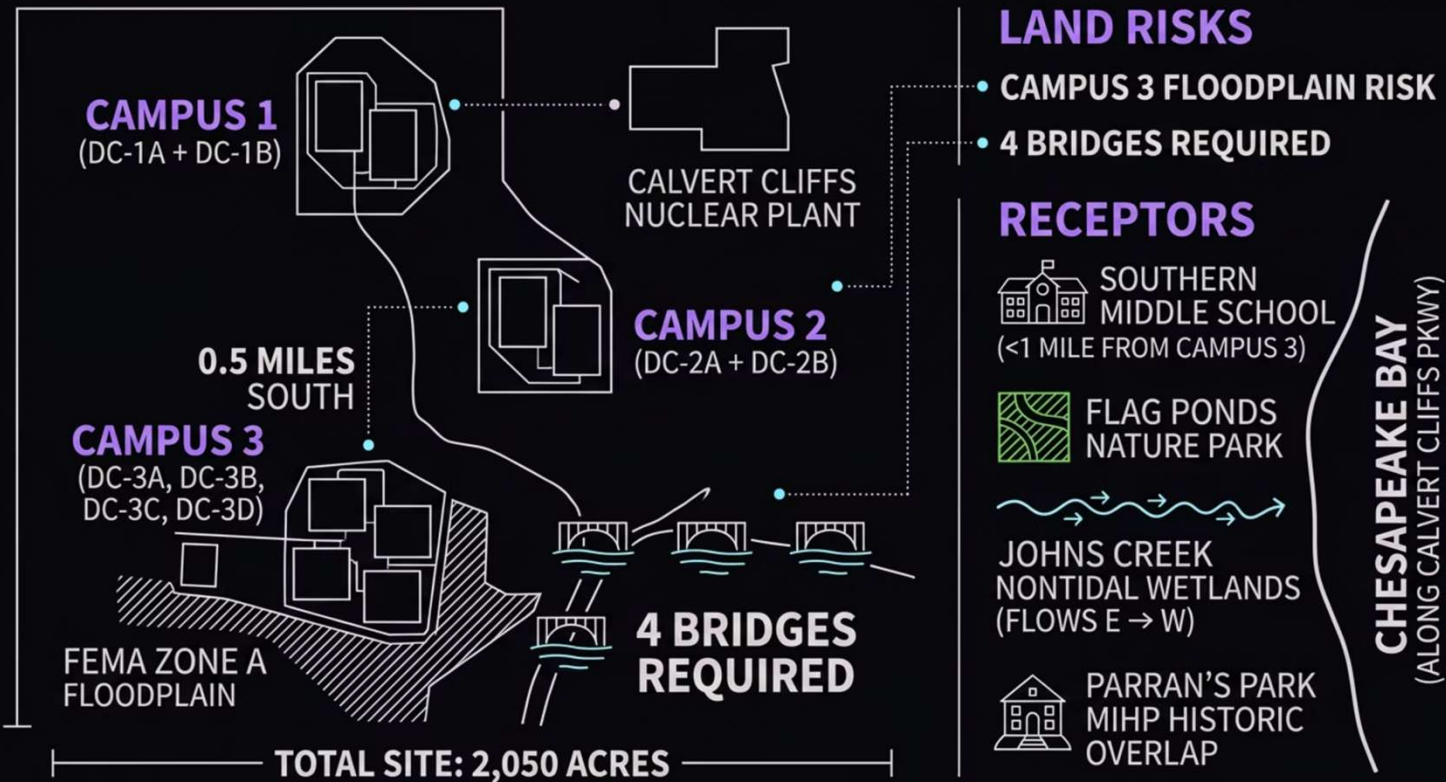


Network Infrastructure

Fiber conduit runs, junction boxes, and telecom facilities connecting to **multiple national internet exchange points** for ultra-low-latency connectivity.

Calvert Technology Center: Site Schematic

Based on official May 2026 site plan filing, Langan Engineering stormwater report, Kimley-Horn plans, and FEMA NFHL data. The site spans three campuses directly adjacent to Calvert Cliffs Nuclear Plant and sensitive ecological receptors.



⚠ Campus 3 (4 buildings) is partially within a FEMA Zone A floodplain requiring 4 bridge crossings over Johns Creek nontidal wetlands. Southern Middle School is under 1 mile away. Flag Ponds Nature Park is immediately adjacent.

Sources: Langan Engineering Apr 2026 / Kimley-Horn MPA / Baltimore Banner Apr 3, 2026 / SoMD Chronicle May 27, 2026 / FEMA NFHL / Army Corps/NRC 2011 / Maryland Historical Trust Apr 2026

Calvert Technology Center: Site Details & Documentation

Official filing: May 4, 2026 | Fees completed: May 26, 2026 | Concept Site Plan review now underway

Site Details

Project Name	Calvert Technology Center
Total Buildings	8 data center buildings
Total DC Area	~2.464 million sq ft
Building Size	266,000–332,000 sq ft each
Campuses	3 independently operated
Location	1650 Calvert Cliffs Pkwy, Lusby, MD 20657
Land Area	965 ac (N) + 1,085 ac (S) = ~2,050 ac
Zoning	I-2 Heavy Industrial (no rezoning required)

Environmental & Infrastructure Details

Power Demand	300–800 MW
Cooling	96% air / 4% water (AWS claim)
Watershed	St. Leonard Creek (Patuxent River)
Creek	Johns Creek (nontidal wetlands, E–W flow)
Bridges	3 buried arch + 1 additional (wetland crossings)
Stormwater	6 wet ponds + 5 bioretention areas
FEMA Risk	Southern parcel partially in Zone A floodplain



No rezoning required — the site is already zoned I-2 Heavy Industrial, meaning the review process may move faster than residents expect.



SECTION 02

Environmental Impact

Water, wetlands, air quality, and the Chesapeake Bay — what the science tells us

Wetlands, Beavers & Critical Habitat: A Unique Threat

- ⊗ KEY FINDING: A 2011 Army Corps/NRC study determined these wetlands are of significant ecological concern. Previous developers declined to build here specifically because of these sensitivities.

Beaver Keystone Species

- Beavers are keystone species whose dams shape watershed hydrology
- Dams prevent flooding, filter water, and reduce erosion naturally
- Construction permanently destroys habitat with **no restoration pathway**

Army Corps Review Gap

- Data centers are NOT federally regulated under Section 404
- MDE permit may be approved **before** full environmental review
- Citizens can petition the Army Corps Baltimore District

Wetlands Ecological Function

- Filter pollutants and biocides before they reach the Chesapeake Bay
- Natural flood control absorbing storm surge affecting Lusby
- Critical nursery habitat for Bay fish, crab, and waterfowl

Adjacent Sensitive Receptors

- Southern Middle School is **under 1 mile north** of Campus 3
- Soccer fields and recreation areas fall within the noise footprint
- Flag Ponds Nature Park is immediately adjacent to the site

Water Use, Gray Water & Chesapeake Bay Threats

What AWS claims vs. what peer-reviewed science shows

What AWS Claims

96% of time: data centers are cooled by air only

4% of time: uses Constellation's existing Bay cooling water

"No new water required" reuses existing plant process water, returned under existing environmental requirements

Amazon has reduced water-based cooling dependence by ~40% in recent years

What the Science Shows

- A single hyperscale center uses **1–5 million gallons per day** even with air cooling on peak days. *(DOE / Lawrence Berkeley National Laboratory, 2024)*
- Chesapeake Bay already stressed; **dissolved oxygen near Constellation outfall is declining**. *(CBF 2025 State of the Bay Report)*
- Biocides and anti-scaling chemicals in cooling blowdown are **hazardous to Bay organisms**. *(EPA 40 CFR Part 125)*
- Thermal discharge raises Bay temperatures **beyond safe thresholds**. *(NOAA; EPA Thermal Discharge Standards)*
- U.S. data centers could consume water equal to **10 million Americans by 2030**. *(Li et al., Nature Sustainability, Nov 2025)*
- Data centers projected to consume **33% of Potomac basin water supply by 2050** if growth is unchecked. *(ICPRB, 2025)*



SECTION 03

Grid, Energy & Electric Bills

How data centers impact SMECO and BGE ratepayers and the PJM regional grid

Grid Architecture: 300–800 MW of New Load and the Engineering Reality

⚠ IMPORTANT: SMECO does not serve all of Calvert County. BGE (Baltimore Gas and Electric) also provides service to portions of Calvert County. Grid cost impacts and ratepayer protections must address both utilities.

300 – 800 MW

AWS Total Power Demand

500–800 MW range

\$16B

PJM Capacity Cost Jump

\$2B–\$16B range projected

Transmission Line Upgrades

- AWS committed to fund its own transmission upgrades — **get this in writing**
- PJM connection requires new high-voltage lines through Southern Maryland
- Power Purchase Agreement with Constellation — terms not yet public
- New substations required; locations not yet disclosed
- Ashburn lesson: transmission routes cut through school yards

SMECO & BGE Ratepayer Risk

- Both SMECO and BGE serve Calvert County residents
- Infrastructure costs shared across ratepayers under PJM framework
- Virginia: **\$4.3B in data center costs passed to ratepayers** in 2024
- Dominion proposed a 14% rate increase citing data center load
- Calvert must codify 100% of costs onto the developer in binding language

300,000 to 800,000

Equivalent Homes

Powered at peak demand

\$167

SMECO Avg. Monthly Bill

Up 18% in one year

Grid Reliability & Emergency Risk

- A >1,500 MW PJM outage event already caused cascading regional consequences
- A 300–800 MW hyperscale load creates a **single point of grid failure**
- The nuclear plant is already a security-sensitive load center
- A behind-the-meter nuclear connection bypasses standard PJM review
- No U.S. emergency plan covers nuclear plant and data center co-location

Lessons From Ashburn: What Loudoun County Learned Too Late

300+ data centers | 70% of world internet traffic | A cautionary benchmark for Calvert County

1

Electric Bills Skyrocketed

Dominion proposed a **14% residential rate increase** in 2026. Data centers drive most new demand but costs spread to all ratepayers across the region.

2

Transmission Through School Yards

165-foot-tall 500 kV power poles proposed through Rock Ridge High School and Rosa Lee Carter Elementary. Over 1,000 written objections were filed.

3

Diesel Generator Pollution

Generators ran **4–5 days** during one maintenance event. No adequate air quality controls exist. Email complaints flooded officials during each event.

4

Noise: A 24/7 Industrial Hum

One-third of Virginia data centers sit **within 200 feet of residential zones**. Residents report stress, sleep disorders, and declining property values.

5

Permitted Buildings, No Power

Companies hold permitted buildings they **cannot power**. Dominion placed a moratorium on new data center connections in Loudoun County in 2022.

6

Calvert: Moratorium Defeated

BOCC voted to **defeat the moratorium** on April 7, 2026. Text amendments are now the primary tool remaining. Attend every BOCC meeting.

SECTION 04

Noise, Safety & Setback Standards

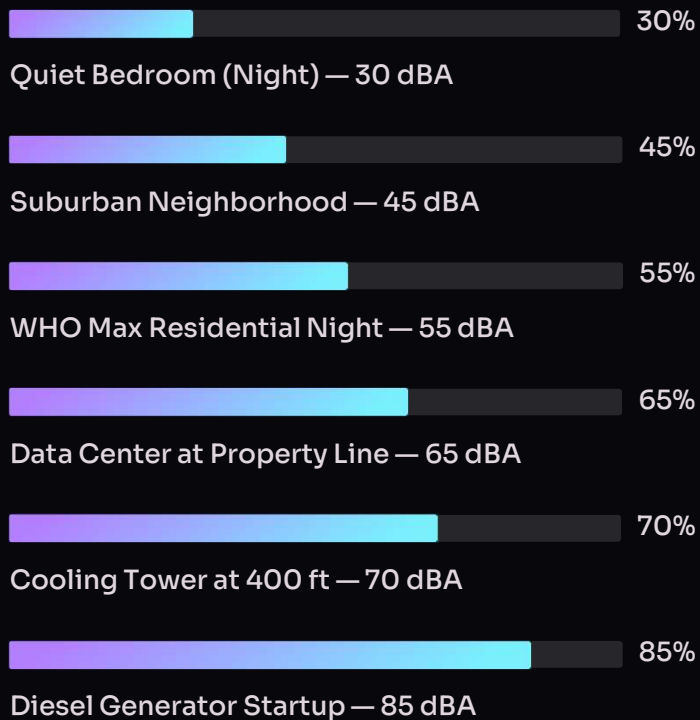
Industry standards, scientific evidence, and what Calvert's ordinance must require



Noise: The Science of Industrial Hum & Required Setbacks

Data center noise is a permanent, 24/7 low-frequency industrial presence that current ordinances were not designed to address.

Noise Level Comparison (dBA)



Sources: WHO / EPA / EESI 2026 / ISO 9613-2 / Calvert County § Z-18-11F (March 1, 2025)

Calvert County Recommendation

- **>1,500 ft setback** from all schools, parks, and recreation areas
- ISO 9613-2 pre-construction noise modeling required
- **45 dBA nighttime maximum** at residential property lines
- **55 dBA daytime maximum** at residential property lines
- Real-time noise monitoring with public data access
- Data center noise ordinances must specifically address 24/7 low-frequency industrial sound

⚠ Why >1,500 ft? Southern Middle School is under 1 mile from Campus 3. Soccer fields fall within the 300–800 MW noise footprint. Current Calvert ordinance at 400 ft was written for standard industrial uses and not a hyperscale data center running 24/7 adjacent to a nuclear facility.

Setback Standards: Calvert vs. Leading Jurisdictions

❏ Current Calvert County Law (§ Z-18-11F, Effective March 1, 2025): 200 ft from all property lines | 400 ft from any residential structure | No school-specific setback | No ordinance noise limit

Jurisdiction	Setback Standard	Noise Standard
Fairfax County, VA	200 ft buildings / 300 ft generators	Noise monitoring required
East Manchester, PA	>500 ft minimum from all property lines	Pre-construction assessment required
Sierra Club Recommendation	>500 ft from all sensitive receptors	Schools, homes, parks included
Albemarle County, VA	Property-line based	60 dBA day / 55 dBA night maximum
Calvert County (Current § Z-18-11F)	200 ft property / 400 ft residential	No ordinance noise limit

⊗ Calvert Recommendation: >1,500 ft from all schools, parks, and recreation areas | 45 dBA night / 55 dBA day at residential lines + mandatory ISO 9613-2 pre-construction modeling

Sources: WHO | EPA | EESI 2026 | ISO 9613-2 | Calvert County § Z-18-11F (March 1, 2025) | calvertcountymd.gov/DataCenters

Emergency Preparedness: A Critical Factor

Calvert County is a peninsula with limited road egress. Nuclear co-location emergency plans have **never been co-designed** in the United States.

Nuclear Co-Location Risk

- Calvert Cliffs 10-mile EPZ covers most of the county
- Data center introduces **1,000+ construction workers** inside the EPZ
- Additional civilian population creates unmodeled evacuation burden
- NRC has not publicly reviewed co-location security implications

Diesel Generator Emergencies

- Multiple simultaneous generator failures create a regional air quality emergency
- Cooling system chemical storage requires full hazmat response
- Traditional fire suppression systems use PFAS — a Bay contamination risk
- Calvert fire and EMS has **no current hyperscale data center incident training**

Plans That Should Be Required

- Updated Calvert Emergency Management Plan incorporating data center population
- Publicly available hazardous materials inventory and tested emergency plan
- **PFAS-free fire suppression** as a permit condition, no exceptions
- Annual joint emergency drill covering data center *and* nuclear co-location

SECTION 05

Community Benefit Agreements

What they are, how they work, and why Calvert County needs one before any permit is issued



Community Benefit Agreements: What They Are & Why They Matter

A legally binding contract between a data center developer and the community, negotiated and signed **BEFORE a permit is approved**. CBAs guarantee specific, enforceable benefits in exchange for community support. They are a powerful tool for residents to shape how data centers impact their community.



Electricity Rate Cap

Developer funds **100% of grid upgrades**. SMECO and BGE ratepayers must not bear data center infrastructure costs — binding language, not a promise.



Water Protection Fund

Mandatory escrow for **Chesapeake Bay restoration** if any gray water or runoff violations occur. Triggered automatically, not at county discretion.



Local Hiring Minimums

30% Calvert County residents for construction; **50% for permanent positions**. Enforceable with annual payroll verification.



Tree Canopy Replacement

1.5:1 ratio with native species only. No out-of-county offsets permitted. Land clearing must be meaningfully offset within Calvert County.



Citizen Oversight Committee

Citizen-led board with MDE data access and **authority to pause operations** for violations. Independent, not developer-appointed members.



Community Investment Fund

Legally binding portion of tax revenue dedicated to **schools, parks, and infrastructure**, not discretionary goodwill subject to developer discretion.

Source: Brookings Institution, Columbia Law Sabin Center, Good Jobs First, World Resources Institute, Cameron/VerdAbility 2026

Community Benefit Agreements: Successful Examples Across the U.S.

These real-world examples demonstrate that CBAs work and communities which secured them early achieved the strongest protections.

Lancaster, PA

WATER, NOISE & \$20M FUND

Multi-campus CBA committed to water-use caps, noise and emissions controls, and \$20M in community benefits. A **nationally cited model** for balancing development with community protection.

San Jose, CA

ENFORCEABLE ENERGY TIMELINES

City-utility agreement tying data center energy improvements to **enforceable delivery timelines**. City may exit the agreement if timelines are not met.

West Des Moines, IA

100% RENEWABLE + \$2B TAX REVENUE

Microsoft agreement for facilities running entirely on renewable energy, generating over **\$2B in tax revenues**. Green requirements and economic returns are not mutually exclusive.

Northern Indiana

\$15B INVESTMENT + 1,100 JOBS

Amazon's \$15B investment included a formal commitment to create 1,100 new positions and support infrastructure improvements as part of the **binding agreement**.

Cleveland, OH

TIERED CBA SYSTEM

CBAs in use since 2013. Standard agreements cover projects under \$20M; **expanded CBAs cover larger investments** with hiring targets and apprenticeship requirements.

Loudoun County, VA

ELIMINATED BY-RIGHT DEVELOPMENT

Board of Supervisors voted in March 2025 to eliminate by-right data center development, requiring specific approvals. Supervisor Turner: **"CBAs must require workforce development."**

Sources: Brookings Institution (Jan 2026), GovTech (Jan 2026), Tech Policy Press, Good Jobs First, WRI (2025)

Calvert County's CBA: Required Before Any Permit Is Issued

⊗ A CBA should be executed BEFORE Planning Commission review begins. Legally binding. Publicly recorded. Non-negotiable.

⚡ Energy & Grid

- Cap electricity rate increases for SMECO and BGE ratepayers
- Developer funds 100% of grid, substation, and transmission infrastructure
- Execute a Large Load Agreement indemnifying ratepayers from cost shift

💧 Water Protection

- Mandatory escrow for Chesapeake Bay restoration
- Closed-loop cooling required , hard requirement, not preference
- All blowdown treated to MDE potable standards before any discharge

👤 Local Hiring

- 30% Calvert County residents for construction jobs
- 50% residents for permanent positions, enforceable
- Annual reporting with verified payroll data submitted to the county

🌿 Environment

- On-site renewable energy, minimum 25% of peak load
- PFAS-free fire suppression , no exceptions
- Real-time public environmental monitoring with data access

🏠 Community Investment

- Annual contribution to County Environmental Restoration Fund
- School facility investment fund, legally binding
- Tree canopy replacement at 1.5:1 ratio with native species only

🔍 Oversight & Decommissioning

- Citizen Environmental Oversight Committee with enforcement authority
- Annual public reporting: PUE, water use, emissions, noise, and hiring
- Mandatory decommissioning plan with bonded financial guarantee

Source: Cameron/VerdAbility 2026; PennFuture Model Ordinance 2025; Brookings Institution Jan 2026



SECTION 06

Green Data Center Technology

Proven global technologies and how AWS can apply them in Calvert County

Green Data Center Technology: Environmental Challenges & Solutions

The VerdAbility White Paper (2026) identifies 10 principal environmental challenges and for each, proven, commercially deployable solutions exist today.

01

Energy Consumption & Carbon Emissions

Solution: 100% renewable PPAs; on-site solar + battery storage

02

Freshwater Consumption for Cooling

Solution: Direct liquid cooling (DLC); immersion cooling systems

03

Gray Water Generation & Discharge

Solution: Closed-loop water systems; zero-discharge blowdown treatment

04

Electronic Waste

Solution: Extended producer responsibility; 3–5 yr hardware lifecycle management

05

Land Use & Habitat Disruption

Solution: Brownfield site prioritization; environmental impact assessment at siting

06

Air Quality from Diesel Generators

Solution: Hydrogen fuel cells; battery energy storage systems (BESS)

07

Noise Pollution & Community Disruption

Solution: >1,500 ft setbacks; ISO 9613-2 pre-construction modeling

08

Refrigerant Emissions (HFC)

Solution: Transition to low-GWP refrigerants; advanced heat exchangers

09

Water Infrastructure Strain

Solution: WUE minimization; water recycling programs; closed-loop systems

10

Light Pollution

Solution: Shielded exterior lighting; motion-activated systems; dark-sky compliance

Source: Cameron/VerdAbility White Paper 2026 / IEA 2025 / DOE / EPA / Global E-Waste Monitor 2024 / NOAA

Green Data Center Technology: Global Reference Grid

These technologies are not theoretical — they are verified deployments from 2025–2026 that AWS and Calvert County can incorporate by contract.



Full Immersion Cooling (PUE 1.06)

Servers submerged in non-conductive fluid. 8x fewer failures. **Zero water evaporation.** (Microsoft Project Natick)



Direct-to-Chip Liquid Cooling

PUE 1.09 globally. DeepMind AI reduced cooling energy **40%**. 20–30% cooling energy reduction. (AWS Global, 2025)



100% Renewable + Grid Matching

Apple: entirely wind, solar, and hydro-powered. Google: 24/7 carbon-free matching. **AWS: 100% matched since 2023.**



Waste Heat Recovery

Server waste heat heats **10% of Stockholm's homes**. Equinix: excess heat piped to district network serving >1,500 homes. (Stockholm Data Parks / Equinix NL)



Hydrogen Fuel Cell Backup

Deployed at AI data centers nationwide in 2025. **Eliminates diesel emissions.** Transitioning from natural gas to green hydrogen. (Oracle + Bloom Energy)



Gray Water Recycling (40–70%)

Arizona and California require proof of water circularity before permitting. **Meta: 100% recycled water** for cooling. (Meta Mesa, AZ)

Source: Cameron/VerdAbility White Paper 2026 / IEA 2025 / DOE / Data Centre Magazine Mar 2026

Green Technology: What AWS Can Commit to in Calvert County

✓ AWS Global Sustainability Commitments (2026): 100% renewable energy matched globally since 2023 | Water positive by 2030 (WUE: 0.25 L/kWh) | Net-zero carbon by 2040 (The Climate Pledge) | Liquid cooling cuts mechanical energy by up to 46% | Renewable diesel backup generators (up to 90% GHG reduction)

Require Liquid Cooling

PERMIT CONDITION

AWS has deployed liquid cooling cutting mechanical energy by **46%**. Calvert must codify this as a mandatory requirement — no evaporative open-loop cooling systems permitted.

On-Site Solar + Battery Storage

MIN. 25% PEAK LOAD

AWS has procurement scale and IRA tax credit access to deploy significant on-site renewable generation. Exowatt-style **thermal battery storage** is commercially available now.

Gray Water Closed Loop

ZERO DISCHARGE

AWS committed globally to water positive by 2030. Calvert is surrounded by the Chesapeake Bay. **Closed-loop cooling with zero discharge** to Johns Creek must be non-negotiable.

PFAS-Free Fire Suppression

BINDING REQUIREMENT

Traditional data center fire suppression uses PFAS (forever chemicals). Johns Creek flows to the Chesapeake Bay. AWS must certify **PFAS-free alternatives** as a permit condition.

Waste Heat Recovery Study

BEFORE APPROVAL

Southern Middle School and Calvert County Public Schools could benefit from recovered waste heat. AWS could fund an **independent feasibility study** as part of the CBA.

AI-Optimized Operations

REAL-TIME MONITORING

AWS uses DeepMind-style AI for operational optimization. Calvert must require real-time public reporting: **PUE, water use, noise levels, emissions, and local hiring data.**

Sources: AWS Sustainability (aws.amazon.com/sustainability) | Data Centre Magazine Mar 2026 | Cameron/VerdAbility White Paper 2026

SECTION 07

Zoning, Law & Proposed Ordinances

Existing law, proposed amendments, Maryland legislation, and tools to protect Calvert County



Calvert County Zoning Framework: Where We Stand Today

§ Z-18-11F Effective March 1, 2025 | Text Amendments Updated May 5, 2026

Current Ordinance (§ Z-18-11F)

- Data centers allowed only in **Heavy Industrial (I-2)** and Light Industrial/Mixed Use (I-1) districts
- Setback, design, and noise mitigation requirements apply under § Z-18-11F
- Public meeting required in the district **before Planning Commission review**
- Agricultural preservation priority; rural land protected from data center use
- Only 2 I-2 zoned areas qualify: **Constellation Calvert Cliffs + Natelli 'Off-Site A'** near Cove Point
- **No rezoning required** for AWS at Constellation site , already Heavy Industrial-zoned in 2025

✓ Included in Proposed Amendments (Jan 2026, Updated May 5, 2026)

- CLOSED-LOOP COOLING — no open evaporative cooling allowed
- BAN on groundwater well drilling for any cooling purpose
- ALL INFRASTRUCTURE COSTS paid by developer
- TIER 4 GENERATOR standard, EPA Final certification required
- NOISE STUDY pre- and post-construction required
- May 5, 2026: Amendments apply through construction start date

⚠ Missing From Amendments

- >1,500 ft setback from schools, parks, soccer fields
- Independent Environmental Monitor funded by developer
- Community Benefit Agreement required before approval
- Mandatory decommissioning plan with bonded guarantee

Maryland Legislation & Proposed Amendments for Consideration

State and local legal tools — enacted, pending, and what Calvert County can pursue. The Maryland General Assembly is the key venue for systemic change.

1

HB 120 [PENDING 2026]

Emergency Moratorium on New Data Centers. Prohibits construction until co-location requirements with gas, nuclear, or SMR facilities are enacted. Sponsored by Del. Fisher of Calvert.

 ACTION: Contact your delegate NOW, urge passage before AWS receives any permit.

2

HB 560 [PENDING 2026]

Repeal of 2020 Data Center Tax Incentive. Repeal the 10-YR person. property tax exemption, removing major financial incentive for AWS & strengthening the community's CBA negotiating position.

 ACTION: Support passage , removes taxpayer subsidy without guaranteed community benefits.

3

Maryland Utility Relief Act [2026]

Large Load User Protections. Addresses cost-shifting to residential ratepayers. Critical for SMECO and BGE ratepayer protection. Requires large load users to execute 14-year contracts.

 ACTION: Demand Calvert delegation ensure residential ratepayer protections are in the final bill.

4

IL POWER Act [In Committee]

Mandatory CBAs for Data Centers (Illinois Model). Requires cumulative environmental impact assessments and mandates legally binding, publicly disclosed CBAs. Bipartisan support — a model for Maryland to adopt.

 ACTION: Advocate Maryland adopt similar legislation requiring CBAs before any large data center permit.

5

TX S.B. 6 [Enacted Jun 2025]

Texas Large-Load Customer Framework (>75 MW). Regulates large-load customers demanding more than 75 MW. Requires developers to pay for interconnection studies, infrastructure upgrades, and demonstrate financial assurance.

 ACTION: Request identical developer obligations in Calvert local text amendments.

Sources: MD General Assembly / ArentFox Schiff State Regulation of Data Centers 2026 / Columbia Climate Law Blog May 2026 / Cameron/VerdAbility 2026

Action Plan: What Calvert Residents Can Do Now

AWS paid Environmental Health fees May 26, 2026. The application is officially filed. The review clock is running. Your window to act is closing — but it is not closed.



Step 1: Application Filed — Shift Strategy

Demand the strongest text amendments. Support candidates who back environmental protections in 2026 elections. File all available legal petitions immediately. Every comment on the record matters.



Step 2: Submit Maryland MPIA Requests

Request: (1) All NDA terms signed by any commissioner. (2) AWS/MDE permit application. (3) Kimley-Horn site plan documents. (4) All county communications with AWS and Constellation. File at msa.maryland.gov.



Step 3: File Army Corps Section 404 Petition

Citizens can petition the Army Corps of Engineers Baltimore District at usace.army.mil. Reference the 2011 ACoE/NRC wetlands study. Demand a Jurisdictional Determination **before any site work begins**.



Step 4: Support HB 120 at the State Level

Contact Delegate Fisher (HB 120) and all Calvert and Southern Maryland delegates. Attend Annapolis testimony sessions. Build coalitions, the Chesapeake Bay Foundation and Sierra Club Maryland.



Step 5: Organize — Loudoun Had 42 Active Groups

Form a Calvert data center watchdog coalition. Loudoun's Data Center Watch blocked or delayed \$64B in projects by March 2025. Connect with cbf.org and choosecleanwater.org. Establish a Citizen Environmental Oversight Committee.



Step 6: Demand a Community Benefit Agreement NOW

A Executed BEFORE Planning Commission review. Key terms: 50% local hiring, rate freeze fund, independent monitoring, annual public reporting, tree canopy replacement, and school facility investment.

2026 Ivonne Cameron / VerdAbility LLC — Proprietary & Confidential

Other U.S. AWS Campuses: Comparable Design Patterns

Three confirmed AWS hyperscale campuses share the same multi-building, nuclear-adjacent or large-acreage design pattern — and each community's experience holds critical lessons for Calvert County.



Salem Township, PA — AWS Susquehanna Nuclear Campus

1,200–1,600 acres adjacent to Susquehanna Steam Electric Station. Acquired from Talen Energy for \$650M in 2024. Up to 15 buildings, 960 MW of nuclear-sourced power. **No decommissioning protections** before approval. Same AWS nuclear-adjacent campus design as Calvert.



Prince William Co., VA — AWS US East Birchwood Campus

869 acres at a former power plant in Manassas. 7.5 million sq ft across 19 buildings at \$6B. Strikingly similar to Calvert: former energy site, campus-style security perimeter. County required a **comprehensive data center overlay district** before approvals proceeded.



Falls Township, PA — AWS Pennsylvania AI Campus

Part of AWS's \$20B Pennsylvania investment announced June 2025. Located at former U.S. Steel Fairless Hills facility — a brownfield industrial site. **Largest private-sector investment in state history.** Environmental impact studies and decommissioning plans were the most contested issues.

Key Hotspots & Major Projects: Lessons for Calvert County

Every community on this list thought they had more time. The window to shape outcomes closes quickly once applications are officially filed.

Ashburn, VA — The Cautionary Benchmark

300+ data centers | 70% of global internet traffic | ~6,000 MW active. Dominion: 14% rate hike in 2026. 500 kV poles through school yards. One-third of facilities within 200 ft of residential zones. Residents report sleep disorders and declining property values. Moratorium attempts failed repeatedly. **Do not let this be Calvert's story.**

Texas — Abilene / Dallas / Houston

140 under construction | Stargate (OpenAI/Oracle): 5 GW campus in Abilene. Texas passed **S.B. 6 (enacted June 2025)** requiring developers to pay for interconnection studies and infrastructure upgrades — a model Calvert must demand locally through text amendments and CBA language.

Calvert County, MD — We Are Here

8 buildings | 3 campuses | ~2,050 acres | 300–500 MW demand. Adjacent to Calvert Cliffs Nuclear Plant. Official site plan filed May 26, 2026. Review underway NOW. **Moratorium defeated 3-2. CBA not yet required. Your window to act is closing.**

Pennsylvania — Salem & Falls Townships

AWS \$20B investment | Salem: 1,200 acres at Susquehanna Nuclear Plant. Same AWS nuclear-adjacent design pattern as Calvert. Salem Township had **no decommissioning protections** before approval. Advocates demanded an EIS and obtained it. Calvert should do the same — immediately.

Prince William Co., VA — What Worked

Required a comprehensive data center overlay district before ANY approval. Loudoun County (Mar 2025): Eliminated by-right development, mandated specific approvals. Residents had **42 organized groups**. Data Center Watch blocked or delayed \$64B in projects nationally by March 2025.

Sources: Aterio / Data Center Dynamics / WaPo Apr 2026 / Baltimore Banner Apr 3, 2026 / SoMD Chronicle May 27, 2026 / GovTech Mar 2026 / Tech Policy Press Nov 2025

Research Resources & Companion Reading List

Key sources organized by category, all publicly available. These materials form the scientific

Calvert County — Local Coverage

- **Baltimore Banner, Bria Overs, Apr 3, 2026:** MPIA-obtained docs reveal AWS 7-building plan on 2,000 acres. Campus 1 overlaps MIHP historic boundary.
- **The BayNet, Apr 16, 2026:** Documents April 15 joint commission meeting. ACoE review gap, beaver habitat, and scientists' EIS warning.
- **choosecalvert.com/4059, May 26, 2026:** Official county project page confirming application filing and commencement of Concept Site Plan review.

National Science & Policy

- **World Resources Institute, Feb 17, 2026:** Impact framework covering energy, water, air quality, equity, and governance. 80% of Virginia localities with data centers had NDAs.
- **Li et al., Nature Sustainability, Nov 2025:** U.S. data centers could consume water equal to 10 million Americans by 2030. Peer-reviewed; state-level modeling.
- **IEA Energy and AI Report, 2025:** Global data centers consumed ~415 TWh in 2024. Projected 945 TWh by 2030. U.S. share rising to potentially 12% of all electricity by 2028.
- **EESI, Feb 2026:** Community health impacts of 24/7 noise. Low-frequency ranges that escape standard ordinance measurement.

Legal, Zoning & CBA Tools

- **MD General Assembly — HB 120, Jan 2026:** Del. Fisher's emergency moratorium bill. Contact your delegate to urge support before any permit is issued.
- **PennFuture Model Data Center Ordinance, 2025:** Complete legal language on setbacks, sensitive receptors, noise limits, water use, and CBA requirements. Adapt for Calvert County.
- **Brookings Institution, Jan 2026:** Why CBAs are necessary for data centers. Policy analysis and template language for local governments.
- **Columbia Law Sabin Center CBA Database:** Publicly available CBA examples from energy and infrastructure projects. Direct legal templates for Calvert County use.

 All sources are publicly accessible. Contact i.Cameron@verdability.com

Contacts & Key Oversight Bodies

Know who to contact, and contact them now. Every written comment, every public hearing appearance, and every MPIO request creates a legal record.

Calvert County Board of County Commissioners (BOCC)

- 175 Main Street, Prince Frederick, MD 20678 | Phone: (410) 535-1600
- Email: bocc@calvertcountymd.gov | calvertcountymd.gov/BOCC
- Data Center Application: choosecalvert.com/4059

Calvert County Planning & Zoning

- 150 Main Street, Prince Frederick, MD 20678
- Phone: (410) 535-1600 ext. Environmental Planning
- Submit comments on the AWS Concept Site Plan through official channels
- calvertcountymd.gov/Planning-and-Zoning

Calvert County Economic Development

- 175 Main Street, Prince Frederick, MD 20678
- Phone: (410) 535-4583 | calvertcountymd.gov/Economic-Development

Maryland State Oversight — Key Agencies

- **MD General Assembly — Economic Matters Committee:**
mgaleg.maryland.gov | (410) 841-3850
- **MD General Assembly — Environment & Transportation:**
mgaleg.maryland.gov | (410) 841-3650
- **Maryland Dept. of the Environment (MDE):** mde.maryland.gov | (410) 537-3000
- **Maryland Historical Trust (MHT):** mht.maryland.gov | (410) 697-9525
- **Maryland Public Service Commission (PSC):** psc.maryland.gov | (410) 767-8000
- **Maryland Energy Administration:** energy.maryland.gov | (410) 537-4000
- **Army Corps of Engineers, Baltimore District:** nab.usace.army.mil | (410) 962-3670
- **HB 120 Sponsor:** Delegate Steve Fisher, District 27C | mgaleg.maryland.gov



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