



Allentown Environmental Advisory Council

Kyle Ropski, *Chair*
Tinku Khanwalker, *Co-chair*
Peter Dent
Craig Beavers
Brandon Swayser
Susan Gilbert Zencka
✉ atowneac@gmail.com

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Allentown City Council
435 Hamilton Street
Allentown, PA 18101

Re: Priority Zoning Ordinance Amendments - Data Center Use

Dear Mayor Tuerk and Members of Allentown City Council:

On March 23, 2026 the Allentown EAC (“AEAC”) submitted a letter to you in support of the final proposed language of Bill 20-2026 amending Chapter 660 of the Zoning Ordinance to define and regulate Data Center Use. On Wednesday June 17, 2026 the Allentown City Council voted to pass Bill 20-2026. Our support for the final proposed language of Bill 20-2026 was based on our review of best practices at that time in municipal zoning regulation with respect to data centers.

In the last few months, best practices around municipal regulation of data centers has evolved and public interest has rapidly grown. During the discussion related to this piece of legislation, there was an unprecedented level of public engagement and commentary.

Thanks to the Muhlenberg College Office of Community Engagement, the AEAC has a summer intern. They produced an analysis and review of public comment related to Bill 20-2026. Its purpose is to document and communicate public input to AEAC members and other interested parties. The content and specific wording reflects the perspectives and themes expressed by commenters and does not represent the official position, findings, or recommendations of the AEAC or the City of Allentown. This analysis document is included in “Appendix A”.

In light of these developments and engagement, the AEAC is submitting this supplementary letter in response to public commentary and to indicate our priorities for proposed revisions to the Zoning Ordinance related to Data Center Use.

Priority 1 - Use and Location
Priority 2 - Operational Accountability
Priority 3 - Operational Impacts
Priority 4 - Resource Consumption

Priority 1 - Use and Location

- a) Industrial Manufacturing (IM) / Industrial General (IG) Districts
- b) The Setback Requirement

Consistent with the comments provided in the AEAC's previous recommendation letter¹, public feedback received throughout the City's review of data center regulations has repeatedly emphasized the importance of carefully evaluating where data centers may be located and how they relate to surrounding neighborhoods. Numerous individuals expressed support for limiting data center development to exclusively the Industrial Manufacturing (IM) District rather than permitting the use in both the Industrial Manufacturing (IM) and Industrial General (IG) Districts. There was also substantial public comment advocating for increased setback requirements between data center facilities and sensitive receptors such as residences, schools, child care facilities, parks, and other locations where vulnerable populations may be present.

As noted in the Lehigh Valley Planning Commission (LVPC) Industrial Land Use Guide² setbacks should be sufficient to protect neighboring uses from adverse impacts but should not be so restrictive as to create a de facto exclusion of the use. In particular, the City should consider whether setback requirements should be expanded to provide additional protection for sensitive receptors. While the AEAC continues to support the Special Exception review process and the ability of the Zoning Hearing Board to impose additional setbacks and mitigation measures based on site-specific conditions and sensitive receptors, the City should also evaluate whether certain protections are appropriate as baseline ordinance requirements rather than relying solely on case-by-case review. In regards to specific zoning districts, such as IM or IG, it is outside of our scope and we would defer to the Allentown City Planning Commission (ACPC).

The AEAC's priority is to ensure that data center development is directed to the most appropriate industrial locations and that clear, enforceable setback standards are established to provide the maximum reasonable protection for surrounding neighborhoods and sensitive land uses **while avoiding a de facto exclusion of the use.**

Priority 2 - Operational Accountability

- a) Decommissioning Protocols
- b) Public Transparency

Public feedback received throughout the review of data center regulations emphasized the importance of long-term accountability and public transparency. Community members expressed concerns regarding the decommissioning of data center facilities, including the removal and disposal of equipment, site restoration, and the potential for costs to ultimately fall upon the

¹  260205_EAC_REC_DataCenterAmendment.pdf

²<https://lvpc.org/community-plans-%2B-guides>

community if a facility is abandoned. Public comments also highlighted the importance of ensuring that information related to proposed projects and their impacts is readily accessible to residents, including in all languages commonly spoken within the community.

The AEAC recognizes that current regulations as established in Bill 20 include important accountability measures. For example, there are requirements for an Electronic Waste Plan outlining procedures for the safe removal, recycling, and disposal of server infrastructure, batteries, hazardous materials, and related equipment when a facility is updated or decommissioned. Current code also requires numerous plans, studies, and assessments to be submitted and reviewed as part of the approval process. However, the City may wish to evaluate whether additional measures, such as financial security for decommissioning (like a posted bond), enhanced public reporting requirements, document accessibility standards, and community notification procedures, would further strengthen long-term accountability and transparency. Currently, Data Centers are defined as Special Exception Uses, which require mailed public notice and posting for submitted projects to adjacent property owners. We would recommend that, to properly meet the needs of the community, the City should require Applicants to notify more than adjacent property owners, including providing notice in Spanish.

The AEAC's priority is to ensure that data center facilities remain accountable to the community throughout their entire lifecycle by promoting effective decommissioning standards, meaningful public transparency, and accessible information for all residents.

Priority 3 - Operational Impacts

- a) Noise and Vibration
- b) Heat Mitigation

Public feedback received throughout the review of data center regulations consistently identified noise, vibration, and heat generation as concerns that could affect the quality of life of nearby residents. Community members frequently expressed concerns regarding continuous equipment noise, low-frequency hums, and the potential impacts of large facilities on surrounding neighborhoods.

The AEAC recognizes that current regulations as established in Bill 20 include substantial requirements intended to address these concerns, including compliance with Chapter 400 (Noise), sound studies, post-construction noise verification, vibration studies, and Thermal Impact Mitigation Plans. The ordinance also specifically requires evaluation of persistent tonal sounds and low-frequency ambient noise, concerns that were highlighted by both the public and the AEAC. We recommend a thorough review of available best practices and emerging research related to operational impacts and defined standards for heat mitigation, including heat

mitigation strategies identified in the EPA Heat Island Community Actions Database³. The City may also wish to evaluate whether studies and mitigation recommendations related to noise, vibration, heat, and other operational impacts should be conducted or reviewed by independent qualified professionals to further strengthen public confidence in the review process. **We recommend the City establish clearly defined thresholds, where not already defined, for all studies that are required for submission by the Applicant** (such as post-construction noise verification, vibration studies, Thermal Impact Mitigation Plans, etc.).

The AEAC's priority is to ensure that operational impacts, including noise, vibration, and heat generation, are thoroughly evaluated and effectively mitigated to protect the health, comfort, and quality of life of surrounding neighborhoods.

Priority 4 - Resource Consumption

- a) Water Use
- b) Energy Use

Public feedback received throughout the review of data center regulations frequently identified water and energy consumption as significant concerns. Community members expressed concerns regarding the potential strain that large-scale data centers may place on local utility infrastructure, water resources, and electrical generation systems, as well as the potential impacts on greenhouse gas emissions, energy reliability, and long-term environmental sustainability. There was also commentary on the lack of requirements for the use of renewable energy.

The AEAC recognizes that many aspects of utility planning, service provision, rates, and reliability are regulated by utility providers and the Pennsylvania Public Utility Commission (PUC), limiting the City's direct authority in these areas. The AEAC also recognizes that current regulations established under Bill 20 include substantial requirements intended to address these concerns, including Water Utilization Reports, Energy Management Plans, utility capacity reviews, and infrastructure improvement requirements where existing systems are determined to be insufficient. As part of the AEAC's purpose statement, we support the use of renewable energy and incentivization of renewable energy, but cannot opine as to the City's ability to require it.

The Energy Management Plan must be prepared and certified by a professional engineer. The ordinance also requires documentation from the applicable electric service provider demonstrating that sufficient capacity exists to serve the facility if it will be connected to the electric grid, and requires the applicant to fund any necessary system improvements or infrastructure upgrades identified as necessary to provide adequate service. This requirement is in line with the provisions of PPL's tariff which imposes costs related to any system

³ <https://www.epa.gov/heatislands/heat-island-community-actions-database>

improvements for data centers on the data center applicant. For more information from PPL see this link:

<https://www.pplelectric.com/sitecore/content/ppl-jss-app/home/Landing-Pages/Data-Centers>

The Water Utilization Reports will detail projected water use, water sources, discharge volumes, cooling system efficiency, and compliance with applicable stormwater regulations. Applicants must demonstrate that adequate water and wastewater infrastructure exists to support the facility, fund any necessary system improvements, and, where nonpublic water sources are proposed, evaluate potential impacts on groundwater, surface water, and nearby wells through review by applicable regulatory agencies such as the Delaware River Basin Commission and the PA Department of Environmental Protection.

We recommend the professional engineer be a design professional with expertise appropriate to the proposed project and should have no financial interest in the project. We also recommend, to ensure minimization of water use in proposals, the City remain informed in its understanding of emerging technologies and should encourage water reuse and the usage of graywater and partially treated wastewater.

The AEAC's priority is to ensure that water and energy demands associated with data center development are thoroughly evaluated, transparently disclosed, and appropriately mitigated to protect community resources, utility reliability, environmental sustainability, and the City's long-term climate objectives.

As an advisory body, the AEAC's role is to identify environmental issues, research solutions, and make recommendations to City Council and Administration. We appreciate the opportunity to continue to provide input on this important amendment to the City's zoning ordinances.

Sincerely,

The Allentown EAC

Appendix A

Disclaimer:

The following section was prepared by an AEAC intern as part of a review and analysis of public comments in regard to Data Center Regulations and Bill 20. The content is intended solely as a summary of themes, perspectives, concerns, and suggestions expressed by members of the public. It does not represent the positions, findings, recommendations, or official views of the AEAC, or the City of Allentown. The inclusion of any comment, viewpoint, or recommendation in this summary should not be interpreted as endorsement by the AEAC. The purpose of this section is to document and convey public input as received.

Bill Strength and Enforcement

- Replace all vague, discretionary terms like "encourage" or "recommend" with strict, mandatory language such as "shall" and "must."
- Establish clear, enforceable performance standards rather than generalized, non-binding recommendations. Set S.M.A.R.T. goals.
- Implement meaningful financial and operational penalties for non-compliance to guarantee developer accountability (not just a small fine considered a cost of business).
- Require annual compliance reporting, continuous monitoring post-construction, and third-party verified technical reviews. Require developers to pay for all studies, reports, assessments, and reviews mentioned throughout this document.
- Require that all requested plans and supporting documents for data center proposals be submitted before any approval or vote.

Zoning

- Limit data center construction strictly to Industrial Manufacturing (IM) districts.
- Require conditional approval via special exception rather than "by right."
- Increase mandatory setbacks from 200 feet to several thousand feet away from sensitive uses, including homes/apartments/residential areas, schools, centers for those with special needs, daycares, hospitals, parks, places of worship, senior centers, etc.
- Close loopholes that permit warehouse conversions to evade updated regulations.
- Prevent the negative effects of data centers from disproportionately affecting minority groups and the working class.
- Consider opening up zoning for data centers underground and only allowing them there.

Environmental and Public Health Research

- Mandate comprehensive, independent Environmental Impact Assessments (EIAs) (some also suggested Pennsylvania DEP studies) to evaluate cumulative and long-term impacts on:
 - Air, water, groundwater, and soil quality.
 - Stormwater management and local wildlife/habitat disruption.
 - Heat island effects and localized climate impacts.
- Study how the data center will affect the above items and the noise concerns listed below both in isolation and as contributing to the collective environment (e.g. consider the joint effects of airport noise and data center noise for the people in an area near both in addition to just how the data center will increase noise levels).
- Commission long-term public health studies to investigate risks of cancer, birth defects, and developmental disorders near existing data centers. Also specifically study the public health risks for children, senior citizens, disabled citizens, and people especially vulnerable to reduced air quality.

Noise

- Require ongoing post-construction noise testing. Studies must evaluate low-frequency noise, infrasound, and physical vibration alongside standard audible noise, utilizing both A-weighted and C-weighted sound metrics.
- Explicitly protect and recognize the significant impacts of industrial noise on children, seniors, schools, and individuals with autism, ADHD, PTSD, anxiety disorders, sensory disorders, or hearing impairments.
- Establish max allowable decibel limits and a public complaint process for mitigation.

Water, Energy, and Heat

- Mandate water conservation through water recycling systems or closed-loop cooling. Consider requiring cooling systems to utilize rainwater.
- If possible, set limits on water and electricity usage, local heat generated, and pollution.
- Specify what the thermal impact mitigation plan must entail and take measures to ensure heated water from data centers isn't dumped into rivers and streams.
- Develop a plan to prevent data centers from driving up residential utility costs. Require developers to fully fund all new/upgraded utility infrastructure associated with the development. Also ensure taxpayers don't lose power or water because of centers.
- Mandate or heavily incentivize the construction of dedicated renewable energy sources to offset grid strain. Specify how much of energy use must be renewable.
- Require annual, verifiable public reporting of water usage, energy consumption, and renewable energy metrics. Have PPL—data center agreements be made public.

Emergency and Decommissioning Protocols

- Enforce strict Tier 4 diesel standards for backup generators, regulate large-scale onsite fuel storage, and mandate robust spill-prevention protocols.
- Identify, track, and regulate all toxic fire suppression chemicals and hazardous materials stored or generated onsite.
- Guarantee that local fire departments receive the specialized training and equipment necessary to combat complex lithium-ion battery and high-voltage electrical fires. Mandate co-authored emergency response planning before operations begin.
- Mandate comprehensive decommissioning and site-restoration plans (including soil remediation and phytoremediation planning). Developers must fund escrow accounts or remediation trusts prior to operation (and have them pay percentage of revenue into it every year) to ensure cleanup and electronic/hazardous waste disposal costs never fall on taxpayers. Alternatively, someone suggested forcing developers to commit to stay for a set period of time.

Neighborhood Impacts

- Specify landscaping requirements by describing plant sizes and intervals (prioritize native species). State that the Shade Tree Commission has the decision making power.
- Enforce strict controls to mitigate external light pollution, traffic congestion, heat generation, wildlife disruption, and negative impacts on local property values and general quality of life.

Public Transparency

- Make all studies and environmental monitoring data fully transparent and open to public.
- Require comprehensive conflict-of-interest disclosures for all engineering and environmental consultants involved in the project.
- Improve public notification procedures for data centers (including electronic and social media notification) and ensure all meetings, digital documents, and website information are highly accessible even in other languages (especially Spanish).
- Make the public aware of data center applications farther in advance, provide more opportunities for the public to give input (including after working hours), and write in the bill when you will notify the public of applications. Ensure citizens on all sides of the city are informed on matters related to data centers in Allentown.
- Require developers to give public notice of their development a specified number of days in advance to each household showing direct community impacts in plain language and with multilingual outreach.