NEW BEAVER BOROUGH
LAWRENCE COUNTY, PENNSYLVANIA
ORDINANCE NO. XX of 2026

AN ORDINANCE OF NEW BEAVER BOROUGH, LAWRENCE COUNTY, PENNSYLVANIA, AMENDING THE NEW BEAVER BOROUGH ZONING ORDINANCE, TO PROVIDE DEFINITIONS AND REGULATIONS FOR DATA CENTERS AND DATA CENTER ACCESSORY USES

WHEREAS, the Borough of New Beaver, Lawrence County, Pennsylvania (hereinafter "New Beaver Borough") is a Borough in the Commonwealth of Pennsylvania; and

WHEREAS, New Beaver Borough has enacted a zoning ordinance pursuant to its statutory authority, the Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968, as amended; and

WHEREAS, Article VI of the Pennsylvania Municipalities Planning Code, 53 P.S. § 10601, *et seq.,* authorizes the Council of New Beaver Borough to enact, amend and repeal Zoning Ordinances within New Beaver Borough; and

WHEREAS, New Beaver Borough seeks to promote the general health, safety and welfare of the community by adopting and implementing an amendment to the Zoning Ordinance to provide for Data Centers and Data Center Accessory Uses; and

WHEREAS, New Beaver Borough desires to add provisions to the Zoning Ordinance relating to Data Centers and Data Center Accessory Uses; and

WHEREAS, this Ordinance serves as an amendment to the Borough's existing Zoning Ordinance and is consistent with the MPC; and

WHEREAS, the Council of New Beaver Borough hereby adopts the following ordinance amendments in the New Beaver Borough Zoning Ordinances.

NOW, THEREFORE, BE IT ORDAINED AND ENACTED by the Council of New Beaver Borough, Lawrence County, Commonwealth of Pennsylvania, as follows:

Section 1: DEFINITIONS

Article 7 of the New Beaver Borough Zoning Ordinance is hereby amended to add the following definitions:

BATTERY ENERGY STORAGE SYSTEMS (BESS): A facility or portion of a facility consisting of one or more electrochemical energy storage devices, batteries, battery modules, battery cells, inverters, transformers, switchgear, power conversion equipment, thermal management systems, fire suppression

systems, monitoring equipment, control systems, security equipment, and other associated equipment and improvements designed to store electrical energy for later use in connection with the operation of a Data Center. A Battery Energy Storage System may be used to provide backup power, emergency power, reliability services, peak shaving, load management, demand-response functions, and other operational support for a Data Center. The term includes all accessory equipment and structures necessary for the safe operation of the system. A Battery Energy Storage System shall be permitted only as an accessory use to a lawfully established Data Center and shall not be operated as a principal use, merchant energy storage facility, utility-scale energy storage facility, or other stand-alone energy storage use intended primarily for the commercial sale, transmission, distribution, storage, or dispatch of electricity to third parties. The rated storage capacity of a Battery Energy Storage System shall be reasonably related to and subordinate to the projected power requirements of the Data Center that it serves, as determined by New Beaver Borough based upon evidence submitted by the applicant.

COOLING TOWER: A structure designed or used for the cooling by exposure to the open air of liquids or gases used in the operation of a Data Center or Data Center Accessory Use.

CRYPTOCURRENCY: A digital or virtual asset that uses cryptographic methods to secure, validate, or record transactions and ownership interests through a blockchain or other distributed ledger technology. Cryptocurrency may be denominated in units commonly referred to as coins, tokens, or similar digital assets and is generally intended to function as a medium of exchange, store of value, or unit of account.

CRYPTOCURRENCY MINING: Cryptocurrency mining is the use and operation of specialized computers, servers, application-specific integrated circuits (ASICs), graphics processing units (GPUs) or similar computing equipment for the primary purpose of validating, processing, securing, recording, or facilitating transactions on a blockchain or other distributed ledger network, including the creation, issuance, or mining of cryptocurrency or other digital assets. Typical physical characteristics of cryptocurrency mining include, but are not limited to, specialized computer hardware located within a Data Center or similar computing facility and all associated cooling systems, ventilation systems, electrical infrastructure, communications equipment, and other systems necessary to support such operations. Cryptocurrency Mining does not include the mere ownership, purchase, sale, exchange, transfer, custody, or investment in cryptocurrency or any other digital assets, nor does it encompass the incidental use of blockchain or distributed ledger technology as part of another lawful business activity.

DATA CENTER: One or more buildings, structures or facilities occupied primarily by computers, servers, telecommunications equipment, networking equipment, data storage devices and/or similar or related electronic equipment used for the

acquiring, processing, transmission, management, distribution and/or storage of digital information, data or communications primarily to and from offsite locations. The term includes facilities engaged in, high-performance computing, cloud computing, artificial intelligence processing, colocation services, server farm operations, Cryptocurrency Mining and other similar digital data processing activities conducted within a permanent facility designed for such purposes. This term does not include computers, servers, telecommunications related equipment or similar devices that are secondary and customarily incidental to an otherwise permitted or approved principal use on a property. A Data Center may include Data Center Accessory Uses.

DATA CENTER ACCESSORY USE: A use, building, structure, facility or improvement that is ancillary, subordinate, secondary and/or incidental to a principal Data Center use and that supports the construction, operation, administration, maintenance, security, reliability, cooling, communications, water supply, wastewater management and/or electrical needs of the Data Center. Data Center Accessory Uses may include, but are not limited to: administrative and operational offices directly supporting the Data Center; storage facilities; security buildings, guard stations, gates, fencing and monitoring equipment; telecommunications and communications infrastructure including fiber optic facilities; backup power generation facilities and associated fuel storage; Data Center Electrical Substations; Battery Energy Storage Systems; utility lines and utility connections; domestic water facilities; non-contact cooling water and wastewater treatment facilities; water holding facilities; pump stations; water towers; and environmental controls (air conditioning or cooling towers, fire suppression, and related equipment), provided such Data Center Accessory Uses are located on the same lot, tract or assemblage of adjacent parcels developed as a unified Data Center development. No Data Center Accessory Use shall be established, expanded or operated in a manner that causes the accessory use to become the principal use of the property.

DATA CENTER ELECTRICAL SUBSTATIONS: A facility containing equipment used to transform, switch, regulate or distribute electric power for the primary purpose of serving a Data Center and its associated Data Center Accessory Uses on the same or adjacent site, or on a site separated only by a public road right-of-way.

dBA (A-WEIGHTED SOUND LEVEL): A measurement of sound pressure level, expressed in decibels, using the A-weighting network of a sound level meter. The A-weighting network is designed to approximate the sensitivity of human hearing by emphasizing frequencies to which the human ear is most sensitive and de-emphasizing very low and very high frequencies. Sound levels measured using the A-weighting network shall be expressed as dBA.

dBC (C-WEIGHTED SOUND LEVEL): A measurement of sound pressure level, expressed in decibels, using the C-weighting network of a sound level meter.

Unlike A-weighting, the C-weighting network retains substantially more low-frequency sound energy and is therefore useful for evaluating Low-Frequency Noise, rumble, hum, and similar sounds associated with cooling equipment, transformers, generators, and other industrial or mechanical equipment. Sound levels measured using the C-weighting network shall be expressed as dBC.

ELECTRONIC WASTE (E-WASTE): Any electrical or electronic device, equipment, component, material, apparatus, peripheral, storage medium, cable, battery, or related item that is obsolete, surplus, abandoned, discarded, decommissioned, replaced, intended for recycling or disposal, or otherwise no longer used for its original operational purpose. Electronic Waste includes, without limitation, servers, processors, computer equipment, networking equipment, telecommunications equipment, data storage devices, batteries, power supply equipment, cables, circuit boards and associated components.

ENERGY GENERATION SYSTEM: A facility, system, device or combination thereof that generates electricity for the primary purpose of supplying power directly to a Data Center and its associated Data Center Accessory Uses, if any, during normal operations, including, without limitation, solar, wind, fossil fuel, fuel cell, geothermal, hydrogen or other energy generating systems.

FOOTCANDLE: Enough light to saturate a one-foot square with one lumen of light.

LOW-FREQUENCY NOISE: Sound energy occurring within the Octave Bands having center frequencies at or below 125 Hz.

OCTAVE BAND: A portion of a sound spectrum with the upper limit twice the frequency of the lower limit. Octave bands are named for the center frequency (geometric mean) of the band. Standard octave bands for sound levels meters are defined in ANSI S1.11.

POWER USAGE EFFECTIVENESS (PUE): A measure of a Data Center's energy efficiency, calculated by dividing the facility's total energy use by the energy used by its information technology equipment.

QUALIFIED ACOUSTICAL PROFESSIONAL: A person with demonstrated education, training, and experience in environmental acoustics and vibration assessment who is a Board Certified Member of the Institute of Noise Control Engineering, a professional engineer with substantial experience in acoustics and vibration, or another person determined by the Borough's independent acoustical consultant to possess equivalent qualifications.

SENSITIVE RECEPTOR: Any Dwelling, Half-way Home, Group Home, school, preschool, Day Care for Children, day care center for adults, Personal Care Boarding Home, Room/Boarding Home, medical care facility, Hospital, long term care facility, retirement community, skilled nursing facility, community center, place

of worship, playground, park (excluding trails), campground, correctional facility, dormitory or similar use where individuals reside, sleep, receive healthcare, receive education, worship or regularly congregate or recreate. Sensitive Receptors shall also include any lawful residential use regardless of whether such use is located within a zoning district that permits residential uses or development.

VdB (VIBRATION VELOCITY LEVEL): A logarithmic measure of ground-borne or structure-borne vibration expressed in decibels and calculated based upon the root-mean-square (RMS) vibration velocity relative to a reference velocity of one micro-inch per second (1 µin/sec). VdB is commonly used to evaluate human perception of vibration and vibration impacts within buildings. Measurements shall be made and evaluated in accordance with applicable ANSI and ISO vibration standards.

Section 2: ZONING DISTRICT

Section 205 of the New Beaver Borough Zoning Ordinance is hereby amended to add "Data Center and Data Center Accessory Use" and "Energy Generation System" to the list of Conditional Uses in the Industrial Park Overlay District.

Section 3: SUPPLEMENTARY REGULATIONS

Article 2 of the New Beaver Borough Zoning Ordinance, is hereby amended to add a new Section 206.36, as follows:

206.36 - Data Centers and Data Center Accessory Uses

A. **Conditional Use.** Data Centers shall be a Conditional Use in the Industrial Park Overlay District when approved in compliance with the procedures, standards, and criteria contained in this section.

B. **Dimensional Standards.** The dimensional standards of Data Centers and Data Center Accessory Uses shall be in accordance with the standards and regulations governing uses in the Industrial Park Overlay District, with the following exceptions:

1. The maximum building height for a Data Center shall be Eighty (80) feet, exclusive of roof-mounted equipment such as cooling and ventilation systems, HVAC units and cooling towers; provided however, the building height plus the height of the roof-mounted equipment shall not exceed One Hundred (100) feet.

2. The maximum height of any Data Center Accessory Use(s) shall be no greater than Eighty (80) feet.

3. All principal Data Center buildings, structures and facilities and all Data Center Accessory Use buildings, structures and facilities, including but not limited to Data Center Electrical Substations, must be set back at least Three Hundred (300) feet from all property lines or public road rights-of-way, unless otherwise specified in this Section.

4. Property owners of adjacent non-participating properties and Sensitive Receptors may waive the setback requirements applicable to Data Centers and Data Center Accessory Uses by signing a waiver that sets forth the applicable setback provisions and the proposed changes thereto. For any setback waiver, the following requirements shall apply:

   a. The waiver must be in writing and executed by the owner(s) of the property on which the Data Center or Data Center Accessory Use is being constructed and the owner(s) of the adjacent property that is waiving the applicable setback provisions;

   b. The waiver must be notarized and in recordable form;

   c. A copy of the deed to the property adjacent to the setback being waived must be attached to the waiver; and

   d. The waiver must be recorded with the Lawrence County Recorder of Deeds.

5. No Data Center or Data Center Accessory Use building, structure or facility shall be located in a flood zone as referenced in Article 8 of the New Beaver Borough Zoning Ordinance.

6. A Data Center or Data Center Accessory Use may not be used for office uses for unrelated third parties, retail uses or walk-in customer service operations.

7. The maximum impervious coverage on a lot is Fifty Percent (50%).

C. Power Lines, Data Center Electrical Substations, and Energy Generation Systems

1. Any Energy Generation System intended to provide all or a portion of the electrical power requirements of a Data Center and/or Data Center Accessory Use during normal operations shall constitute a separate principal use and shall not be considered part of the Data Center use. Energy Generation Systems shall be a Conditional Use

in the Industrial Park Overlay District and shall be subject to the same dimensional standards, and exceptions thereto, that apply to Data Centers as more particularly set forth in Section 206.36(B). The applicant for an Energy Generation System shall demonstrate compliance with all applicable state and federal permits and approvals required for the proposed Energy Generation System. The applicant shall select, design, and locate the Energy Generation System to minimize noise, emissions, glare, and visual impacts to adjacent and nearby properties to the maximum extent reasonably practicable. The landscaping and screening requirements applicable to Data Center Electrical Substations as set forth in Section D-3 below shall apply to Energy Generation Systems.

2. The construction or operation of a nuclear energy generation facility on the same lot, tract or assemblage of adjacent parcels developed as a unified Data Center development is prohibited.

3. Data Center Electrical Substations must include year-round opaque landscaping, a screen wall, or a combination thereof and such screening shall be a minimum of eight (8) feet in height to minimize visual impact. If landscaping is utilized it shall comply with the Landscape Buffer requirements set forth in Section D below.

4. Data Center Electrical Substations on the same property as the Data Center they serve must be located in a side or rear yard of the Data Center and shall comply with the screening requirements for Data Centers set forth in this Section 206.36. On-site Data Center Electrical Substations do not require a buffer or screening between the substation and the Data Center principal building or any Data Center Accessory Use.

5. Any Data Center Electrical Substation that is located on a property that abuts a zoning district other than Industrial, and/or that abuts a property with a Sensitive Receptor located thereon shall be set back a minimum of Three Hundred (300) feet from the applicable property line. Where all properties abutting a Data Center Electrical Substation are zoned Industrial and are in industrial use, such substation shall comply with the setback requirements applicable to accessory uses within the underlying zoning district.

6. Burying power lines serving the property is strongly encouraged. On-site power lines must be buried to the extent permissible. Transmission/distribution lines to off-site utility facilities or structures are not required to be buried, but shall comply with all applicable state or federal laws and regulations.

7. Except as otherwise provided in this Section, Data Center Electrical Substations shall comply with the setback requirements applicable to accessory uses within the underlying zoning district. For purposes of setback measurement, the setback shall be measured from the outermost perimeter fence, wall, or other enclosure surrounding the substation compound to the applicable property line

D. Landscape Buffer. A landscape buffer yard is required between all Data Centers and Data Center Accessory Uses and any adjoining Residential or Agricultural Zoning District, Sensitive Receptor, or public roadway. The landscape buffer shall comply with the following requirements:

1. Data Center sites abutting Sensitive Receptors, Residential Zoning Districts, Agricultural Zoning Districts, or collector/arterial roads must include an enhanced buffer yard with required plantings located on an earthen berm with a grade no steeper than 2:1. The minimum height of the berm abutting Sensitive Receptors is five (5) feet, and abutting collector/arterial roads is three (3) feet.

2. Where the combined footprint of the principal Data Center structure or structures is less than Two Hundred Fifty Thousand (250,000) square feet:

   a. A minimum One Hundred (100) foot buffer yard shall be provided along the entire length of any public street frontage of any property upon which the Data Center is located and along any property line which abuts or is within Five Hundred (500) feet of a Residential Zoning District or a Sensitive Receptor.
   b. A minimum Fifty (50) foot buffer yard shall be provided along any property line not subject to Subsection D(2)(a) above.

3. Where the combined footprint of the principal Data Center structure or structures is Two Hundred Fifty Thousand (250,000) square feet or more:

   a. A minimum Three Hundred (300) foot buffer yard shall be provided along the entire length of any public street frontage of any property upon which the Data Center is located and along any property line which abuts or is within Five Hundred (500) feet of a Residential Zoning District or a Sensitive Receptor.

   b. A minimum Fifty (50) foot buffer yard shall be provided along property line not subject to Subsection D(3)(a) above.

4. Utilities shall be located outside of buffer yards unless the applicant demonstrates that no reasonable alternative exists. Utilities shall be co-located to minimize the number of utility crossings through the required buffer yard, unless the applicant demonstrates that co-location is not feasible.

5. Use of existing vegetation for landscaping and screening is strongly encouraged and may be substituted for required berms and plantings where the Council determines that such existing vegetation provides screening that is substantially equivalent to the screening that would be achieved through compliance with the requirements of this Section.

6. Buffer yards along roadways shall be measured from the street right-of-way line.

7. Buffer plantings shall consist of native species planted as follows:

   a. One (1) large evergreen tree per Twenty-Five (25) linear feet of buffer. The size of large evergreen trees shall be a minimum of Eight (8) feet in height at the time of planting.

   b. One (1) deciduous canopy (shade) tree per Seventy-Five (75) linear feet of buffer. Size of canopy (shade) trees shall be a minimum of Two and One-Half (2½) inch caliper at the time of planting.

   c. One ornamental/flowering tree per Fifty (50) linear feet of buffer. The size of ornamental/flowering trees shall be a minimum of Eight (8) feet in height for multi-stemmed varieties, or Two and One-Half (2½) inch caliper at the time of planting for single-stemmed varieties.

   d. Five (5) shrubs per Twenty-Five (25) linear feet of buffer. Size of shrubs shall be fully branched and minimum of Three (3) feet in height at the time of planting. Shrubs shall be a combination of evergreen and deciduous species, with a minimum of Fifty Percent (50%) being evergreen.

8. To ensure visibility at intersections, no object, including without limitation, fences, hedges, trees and other plantings, which may be required by this Section, exceeding a height of Three (3) feet as measured from the lowest elevation of the centerline of any abutting street, shall be temporarily or permanently placed, erected, installed or parked within the clear sight triangle required on a corner lot. The required clear sight triangle on a corner lot shall be determined as follows:

a. The street line abutting the corner lot shall form the legs of the clear sight triangle. Each of the legs shall extend a distance of Fifty (50) feet from the point of intersection of the street lines abutting the corner lot. The hypotenuse of the clear sight triangle shall be formed by drawing a straight line joining the legs at their farthest point from the vertex of the triangle.

9. Plant material within buffer plantings shall meet the following requirements:

a. Plant materials shall be selected to withstand the environmental conditions expected at the site, including roadway exposure, air pollution, wind, seasonal weather conditions and local wildlife.

b. Plant materials shall not include any plants identified on the most current DCNR Invasive species or watch lists.

c. Plant materials shall be suitable for growth within the applicable USDA hardiness zone for the Borough.

d. All plants shall be planted on the top and the exterior of any berm in order to provide effective screening.

e. All plants shall be arranged in groupings to allow for ease of maintenance and to provide a natural appearance.

f. All plants shall provide a diversity in plant species, such that no one species accounts for more than 25% of each plant type.

g. The plantings shall be arranged to provide a complete visual screen of the property at least Twelve (12) feet in height, measured in addition to the height of any required berm, within Three (3) years.

10. The buffer yard shall be located within the required building setback lines. No impervious surface is permitted within the buffer yard aside from access drives, sidewalks, approved utility crossings and associated improvements.

11. Any dead, diseased, or damaged plant material shall be replaced within the next planting season with plant material of the same or equivalent species and size.

E. Screening and Fencing.

1. To provide visual screening and reduce noise levels, ground-mounted and roof-mounted equipment used for cooling, ventilating, or otherwise operating the facility, including power generation or other power supply equipment shall be enclosed on four sides within a building or within an acoustically-rated equipment enclosure designed to screen the equipment from off-site view and to reduce noise emissions, except where the applicant demonstrates through documentation prepared by the equipment manufacturer and the applicant's engineer that such enclosure would impair the safe operation, cooling capacity, efficiency, warranty or maintenance of the equipment. If such enclosure is not feasible based on the criteria set forth in this section, the equipment must be fully screened from view using one or more of the following means:

    a. The landscape buffer required by Section D above.

    b. By existing vegetation that will remain on the property, subject to Section D above.

    c. By the principal Data Center building or an accessory building or by a berm averaging a minimum of five (5) feet in height above the adjacent average ground level with a maximum side slope of 3:1, provided that the berm shall be covered by a well-maintained all season natural ground cover and any required screening plantings shall be arranged on the outside and top of the berm.

    d. By a visually solid fence, screen wall or panel, parapet wall, or other visually solid screen that shall be constructed of durable materials compatible with those used in the exterior construction of the principal building and maintained in good repair at all times.

    e. Any fencing shall be of high-quality design and durable materials approved by the Borough.

    f. All screening, fencing, walls, berms, landscaping, and enclosures required by this Section shall be continuously maintained in good condition and shall be repaired or replaced as necessary to preserve their intended screening function.

F. Noise, Vibration and Sound.

1. **General Standard.** Data Centers, all Data Center Accessory Uses, Energy Generation Systems and all associated equipment shall comply with the sound and vibration limits established in this Section under all reasonably anticipated operating conditions. Compliance is required during normal operations, operation at maximum reasonably anticipated load and cooling demand, equipment cycling, startup, shutdown, maintenance, and routine testing of emergency or backup power equipment.

   The applicant shall demonstrate through a sound and vibration study conducted by a Qualified Acoustical Professional that the sound generated by the Data Center, any Data Center Accessory Use(s) and by any Energy Generation System during normal operations shall be limited to a maximum daytime (7:00 a.m. to 8:00 p.m.) Equivalent Continuous Sound level of 55 dBA and 65 dBC and a maximum nighttime (8:00 p.m. to 7:00 a.m.) Equivalent Continuous Sound Level of 45 dBA and 55 dBC as measured at or beyond the property line of the Data Center or Energy Generation System site, as applicable.

   At the property line of a lot containing a Sensitive Receptor or within a Residential Zoning District, sound attributable to the Data Center, any Data Center Accessory Use(s) and any Energy Generation System shall not exceed the applicable limit stated above or increase the preconstruction ambient sound level by more than five (5) dBA or five (5) dBC, whichever standard is more restrictive.

   Compliance with a dBA limit shall not establish compliance with the applicable dBC limit. Sound studies shall specifically evaluate Low-Frequency Noise, tonal sound, impulsive sound, amplitude modulation, pulsation, beating, humming, droning, and other recurring acoustical characteristics that may create an adverse impact, regardless of compliance with the numerical dBA and dBC limits. Where a prominent discrete tone or repetitive impulsive sound is present, as determined in accordance with generally accepted acoustical methodology, five (5) decibels shall be added to the measured sound level when determining compliance.

   The sound study shall include measurements at the property line in at least four (4) locations selected to represent each cardinal direction and the locations most likely to receive the highest facility-generated sound levels. At least one (1) measurement shall be taken along each property line abutting or facing a Residential Zoning District, Sensitive Receptor, or public roadway.

The sound study shall be conducted using the current versions of ANSI/ASA S1.4, ANSI/ASA S1.11, ISO 1996-2, or duly adopted successor standards and generally accepted acoustical methodology. Sound measurements shall be conducted using Class 1 integrating-averaging sound-level meters capable of measuring A-weighted and C-weighted sound levels. Each study shall identify the instruments and calibration procedures used, measurement locations and durations, meteorological conditions, facility operating conditions, ambient sound conditions, and any material extraneous sound.

A sound and vibration study shall be conducted at the following phases:

a. Preconstruction Study. A preconstruction study shall be conducted and certified by a Qualified Acoustical Professional prior to submission of the Conditional Use application. The study shall be submitted to Borough Council and the Borough Engineer for review and shall demonstrate compliance with the requirements of this Section.

The study shall:

i. establish existing ambient dBA and dBC sound levels and vibration levels during daytime and nighttime hours, on at least one weekday and one weekend day, during representative meteorological conditions and during foliage-on and foliage-off conditions;

ii. model the sound and vibration anticipated from the Data Center, Data Center Accessory Use(s) and any Energy Generation System at full buildout and under maximum reasonably anticipated simultaneous operating and cooling conditions;

iii. evaluate normal operations, startup, shutdown, equipment cycling, maximum cooling demand, routine generator testing, and operation of the maximum number of generators capable of operating simultaneously;

iv. separately identify projected dBA and dBC levels and evaluate Low-Frequency Noise, tonal, impulsive, repetitive, humming, droning, and vibration impacts; and

v. include recommended sound and vibration reducing materials or systems necessary to meet the sound and vibration limits established herein.

The sound and vibration study shall identify and discuss all assumptions, uncertainty factors, and safety margins utilized in the analysis.

All mitigation measures identified as necessary to achieve compliance shall be incorporated into the approved plans and maintained for the duration of the use.

The Borough may retain an independent acoustical consultant to review any sound and vibration study, supporting data, modeling assumptions, proposed mitigation measures, and conclusions. The applicant shall reimburse the Borough for the reasonable costs of such review. Upon request, the applicant shall provide all supporting data, calculations, modeling inputs, equipment specifications, and other information reasonably necessary to complete the review.

b. Updated Study. If, prior to completion of construction of the Data Center, Data Center Accessory Use and/or any Energy Generation System any changes are proposed to the facility design, building materials, equipment selection, equipment location, electrical capacity, cooling capacity, site layout, operating characteristics, or sound or vibration mitigation measures, the applicant shall submit an updated sound and vibration study prepared by a Qualified Acoustical Professional. The updated study shall demonstrate continued compliance with this Section and shall be submitted to the Borough for review prior to the installation, construction, or operation of the proposed modification. No such modification shall be installed, constructed, or operated until compliance with this Section has been demonstrated to the satisfaction of the Borough through the updated study. Failure to submit an updated study when required by this subsection shall constitute a violation of this Ordinance.

c. Postconstruction Studies. An initial postconstruction sound and vibration study shall be conducted not earlier than thirty (30) days and not later than ninety (90) days after the Energy Generation System, Data Center or applicable phase thereof commences operation. For Data Centers, the study shall be conducted while the completed portion of the facility is operating at the highest reasonably obtainable electrical and cooling load. If the facility has not reached

at least seventy-five percent (75%) of its designed electrical or cooling load, the study shall be repeated within thirty (30) days after that load is reached.

A second postconstruction sound and vibration study shall be conducted during the season opposite that in which the initial study was performed so that the postconstruction studies collectively include foliage-on and foliage-off conditions.

The postconstruction studies shall include daytime and nighttime measurements, measurements on at least one weekday and one weekend day, and measurements under representative meteorological conditions, including conditions reasonably expected to produce the highest facility-generated sound levels at the nearest Sensitive Receptor.

The studies shall evaluate both normal operations and routine testing of emergency or backup power equipment, including the maximum number of generators that may be operated or tested simultaneously.

If a required seasonal, load, or meteorological condition does not occur within the prescribed period, the Borough may grant a reasonable extension. The obligation to complete the required testing shall continue notwithstanding the extension.

If a postconstruction study identifies a violation of the sound or vibration limits established herein, such violation shall constitute a violation of this Ordinance.

d. Additional Studies. The owner or operator shall submit an additional sound and vibration study following any expansion, increase in approved capacity, equipment replacement, or operational change reasonably expected to materially increase sound or vibration.

The Borough may also require additional testing upon receipt of a credible complaint, an observable material change in facility-generated sound or vibration, or other reasonable evidence of possible noncompliance.

2. Emergency and Backup Power Equipment. The numerical sound limits specified herein shall not apply during an actual interruption of utility electrical service to a Data Center that necessitates operation

of emergency or backup power equipment; however, the sound studies required by this Section shall evaluate and report anticipated dBA and dBC sound levels and vibration levels when all emergency power generation equipment is operating, including backup generators.

This exception shall apply only for the duration of the utility interruption and a reasonable period required to restore normal operations.

Routine testing and maintenance of emergency or backup power equipment shall comply with the sound and vibration limits of this Section and shall occur only between 9:00 a.m. and 3:00 p.m., Monday through Friday, excluding legal holidays, unless operation at another time is required by an actual emergency or by a governmental or utility authority.

Testing shall be scheduled and sequenced to minimize simultaneous operation of multiple generators unless simultaneous testing is reasonably necessary to verify operation of the emergency power system.

The owner or operator shall provide the Borough with at least five (5) business days' written notice before conducting testing that will operate more than one generator simultaneously or is expected to continue for more than thirty (30) minutes.

The owner or operator shall maintain a log of each operation of emergency or backup power equipment. Such log shall be retained for at least five (5) years and shall be provided to the Borough upon request.

3. **Vibration.** The applicant shall provide a vibration study as part of the preconstruction sound and vibration study required by this Section.

Ground-borne or structure-borne vibration attributable to the Data Center, any Data Center Accessory Use(s) and any Energy Generation System shall not exceed:

a. 72 VdB at or beyond the property line of a lot containing a Sensitive Receptor or within a Residential Zoning District; or

b. 75 VdB at or beyond any other property line.

Vibration measurements and evaluations shall be conducted by a Qualified Acoustical Professional in accordance with generally accepted vibration-assessment methodology and applicable ANSI, ISO, or successor standards.

Compliance with the numerical vibration limits shall not create a presumption of compliance where recurring and documented vibration attributable to the Data Center, any Data Center Accessory Use and/or any Energy Generation System causes perceptible vibration within a Sensitive Receptor or causes rattling of windows, walls, dishes, fixtures, or other building components. Upon receipt of a credible complaint, the Borough may require additional vibration testing at the Data Center owner's or operator's cost and, if warranted, corrective measures to eliminate such impacts.

4. **Enforcement, Mitigation and Monitoring.** If a study, measurement, inspection, monitoring record, or other competent evidence establishes a violation of this Section, the applicant, owner or operator, as applicable, shall promptly implement reasonable interim measures to reduce the sound or vibration and, within thirty (30) days, submit a corrective-action plan prepared by a Qualified Acoustical Professional.

   Required mitigation may include equipment repair or replacement, silencers, mufflers, acoustic louvers, barriers, enclosures, vibration isolation, changes in equipment orientation or operating sequence, operational restrictions, restrictions on simultaneous generator testing, or other measures necessary to achieve compliance.

   Following completion of corrective work, the applicant, owner or operator, as applicable, shall conduct compliance testing under the operating condition that caused, or was reasonably expected to cause, the violation.

   Following repeated credible complaints, a documented violation, an observable material change in facility-generated sound or vibration, or other reasonable evidence of possible noncompliance, the Borough may require the applicant, owner or operator, as applicable, to install and operate temporary or permanent monitoring equipment at locations approved by the Borough at such applicant's, owner's or operator's cost.

Monitoring data shall be retained for at least five (5) years and provided to the Borough in an accessible electronic format upon request.

If monitoring is required because of a documented violation, the applicant, owner or operator, as applicable, shall reimburse the Borough for the reasonable costs of monitoring and independent professional review.

A violation of an applicable dBA, dBC, tonal-sound, or vibration standard constitutes a violation of this Ordinance. Each day on which a violation occurs or continues constitutes a separate violation.

G. Lighting.

1. All outdoor lighting shall comply with the Borough's outdoor lighting regulations.

2. Lighting shall be designed to minimize glare and light trespass onto adjacent properties.

3. Full cut-off fixtures shall be used for all outdoor lighting.

4. A photometric plan shall be provided as part of any Conditional Use application showing all exterior lighting for the Data Center and any Data Center Accessory Uses. The photometric plan shall demonstrate compliance with the illumination limits established in this Section. The photometric plan shall identify fixture type, mounting height, lumen output, shielding details, color temperature, hours of operation, and lighting-control systems.

5. Horizontal Surfaces.

    a. For the lighting of predominantly horizontal surfaces, such as, but not limited to, parking areas, roadways, vehicular and pedestrian passage areas, loading docks, building entrances, sidewalks, bicycle paths, and site entrances, luminaires shall be aimed down, and shall meet Illuminating Engineering Society of North America (IESNA) full cut-off/fully shielded criteria.

6. Non-Horizontal Surfaces.

    a. For the lighting of predominantly non-horizontal surfaces, such as, but not limited to, facades, landscaping, and signs, luminaires shall be shielded and shall be installed and aimed

to not project their output into the windows of neighboring residences, adjacent uses, or past the object being illuminated, skyward, or onto a public roadway.

7. Adjacent Residential Uses.

   a. The illumination projected onto a residential use shall at no time exceed 0.1 footcandles, measured line-of-sight and from any point on any receiving property which contains a residential use.

8. Adjacent Non-Residential Uses.

   a. The illumination projected from any property onto a non-residential use or a non-Sensitive Receptor shall at no time exceed 0.5 initial footcandles, measured line-of-sight from any point on the receiving property.

9. Glare.

   a. Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily using such means as cutoff luminaires, shields and baffles, and appropriate application of luminaire mounting height, wattage, aiming angle, and luminaire placement.

10. LED Lights.

    a. LED light sources shall have a correlated color temperature that does not exceed 3000K.

11. Luminaires.

    a. Luminaires shall not be mounted more than 20 feet above the finished grade of the surface being illuminated. Pole-mounted lighting on the roof shall be prohibited, except for lighting necessary for maintenance, emergency access, security, or safe operation of rooftop equipment. Such rooftop lighting shall utilize fully shielded, full cutoff fixtures directed downward toward the surface or equipment being illuminated and shall not be visible from adjoining Residential Zoning Districts, Sensitive Receptors, or public roadways to the maximum extent practicable. Rooftop lighting shall be the minimum necessary to provide safe access to and maintenance of rooftop equipment and shall not be used to

provide general site illumination. Rooftop maintenance lighting shall remain extinguished except when personnel are present on the roof or when required for maintenance, inspection, emergency response, or the safe operation, repair or replacement of rooftop equipment.

12. Lighting During Overnight Hours.

a. All exterior lighting shall be controlled by timers, photocells, motion sensors, dimming controls, or a combination thereof designed to minimize unnecessary illumination while maintaining required safety, security, and operational functions.

b. Exterior lighting not necessary for safety, security, emergency access, inspections, maintenance activities, or facility operations shall be extinguished nightly after 11:00 p.m.

c. Exterior lighting that remains illuminated after 11:00 p.m. shall be reduced through dimming controls, motion-sensor activation, adaptive lighting controls, or similar technology to the maximum extent practicable while maintaining required safety, security, and operational functions.

d. The applicant shall identify on the photometric plan all lighting proposed to remain illuminated after 11:00 p.m. and shall provide a written explanation of the operational, safety, or security purpose served by such lighting.

e. Rooftop lighting shall remain extinguished except when required for maintenance, inspections, emergency response, or the safe operation, repair, or replacement of rooftop equipment. Any such lighting shall utilize fully shielded, full-cutoff fixtures directed downward toward the surface of equipment being illuminated and shall not be used for general site illumination.

f. The Borough may require additional shielding, dimming, fixture modifications, motion-sensor controls, operational restrictions, or other measures where necessary to prevent glare, light trespass, or nuisance conditions affecting adjoining properties and/or Sensitive Receptors.

H. Water, Sewer and Electricity.

1. Projects shall be designed and constructed to meet the current version of the USGBC LEED rating system applicable to new Data Center construction at the time the application is filed, or an equivalent nationally recognized Data Center energy, water, and resource efficiency design standard, as approved by the Borough Engineer. The applicant shall identify the selected standard, the level of performance or certification proposed, and the means by which compliance will be verified. Any needed expansion of local utilities shall be identified in the Conditional Use application and designed, located, constructed, and operated to minimize adverse impacts on surrounding properties, public infrastructure, utility reliability, and existing utility customers.

   Compliance with a design or certification standard shall not relieve the applicant, owner, or operator from compliance with any more restrictive requirement of this Ordinance or applicable law.

2. The Conditional Use application shall clearly demonstrate how electricity shall be provided and how the project's overall power demand relates to the available capacity and reliability of the local and regional electric transmission and distribution systems. If the applicant proposes to connect the Data Center and/or any Data Center Accessory Uses to the electric grid, the applicant shall provide documentation from the applicable electric service provider identifying:

   a. The electric service requested by the applicant;

   b. The applicant's projected peak demand and annual electricity consumption at initial operation, at each proposed phase of development, and at full buildout;

   c. The status of any transmission, distribution, interconnection, or service request submitted for the project;

   d. Whether the electric service provider has determined that sufficient capacity exists to serve the requested load and, if not, the additional generation, transmission, distribution, substation, or other system improvements anticipated to be required;

e. The anticipated schedule for completion of the interconnection process, required system improvements, and energization of each phase of the Data Center; and

f. Whether service to the proposed Data Center and Data Center Accessory Uses, including during peak-demand or emergency conditions, is reasonably expected to impair electric service reliability for existing customers.

The applicant shall identify all known or reasonably anticipated generation, transmission, distribution, substation, interconnection, and network-upgrade costs attributable to the project and shall describe the party or parties expected to bear those costs. Nothing in this Section shall require the Borough to determine or regulate electric rates or matters within the exclusive jurisdiction of the Pennsylvania Public Utility Commission, the Federal Energy Regulatory Commission, PJM Interconnection, or another governmental or regulatory authority.

3. The applicant for a Data Center shall provide an Energy Usage Plan with the Conditional Use application. The Energy Usage Plan shall provide or identify, at a minimum:

a. Projected peak electrical demand, expressed in megawatts, and projected annual electrical consumption, expressed in megawatt-hours, at initial operation, at each proposed phase of development, and at full buildout;

b. Energy supply sources that will be utilized, including electric-grid service and any on-site or off-site generation intended to serve the Data Center during normal operations;

c. Energy storage capacity, technology, location, intended use, and anticipated duration of discharge, if applicable;

d. Proposed sources of backup and emergency power, including the fuel type, number, individual and aggregate generating capacity, anticipated annual testing hours, and anticipated operating circumstances;

e. The proposed electrical and cooling-system design, including the anticipated Power Usage Effectiveness, or PUE, at initial operation and full buildout, the assumptions underlying the PUE calculation, and the equipment and procedures that will be used to monitor actual PUE;

f. The maximum amount of electric service reserved or requested for the project, regardless of whether that amount is expected to be used immediately;

g. The project's proposed phasing, anticipated energization date for each phase, and projected increase in electric demand attributable to each phase;

h. Identification of any demand-response, load-curtailment, peak-shaving, islanding, microgrid, or emergency operating program in which the Data Center or any associated generation or storage equipment may participate;

i. Identification of all electric substations, transmission lines, distribution lines, switching equipment, transformers, and other material electrical infrastructure proposed on the Data Center site or required off site to serve the project;

j. Documentation of efforts to maximize use of renewable and/or clean energy for all electrical and cooling needs, including measures to reduce the need for new electric generation by incorporating commercially available energy-efficient information-technology equipment, cooling equipment, electrical-distribution systems, controls, and building systems appropriate to the proposed facility.

   i. The applicant shall evaluate and report the feasibility of rooftop or ground-mounted solar energy systems and shall identify the roof area unavailable for solar installations due to rooftop mechanical equipment, dunnage, fire access, structural limitations, shading, safety requirements, or other documented constraints. Buildings exceeding 100,000 square feet shall be designed and constructed to be solar-ready to the extent required by applicable Commonwealth requirements.

   ii. The applicant shall evaluate and report the feasibility of using battery or other energy-storage systems to reduce the number, capacity, operating duration, or simultaneous operation of fossil-fuel-powered backup generators.

   iii. Support off-site renewable energy generation through a power purchase agreement or other arrangement

that will result in new renewable energy generation within the PJM region.

iv. The owner or operator shall monitor and report the information required under Subsection 16 annually and shall promptly report any material change in the facility's approved electrical demand, energy sources, generating equipment, energy-storage systems, or cooling technology.

k. If interconnecting to the energy grid, documentation of the energy utility interconnection approval process with the following information, to the extent applicable to the project and available at the time of submission:

i. Documentation that an application for the project has been filed with the electric utility provider, and the required fee has been paid or PJM Interconnection, as applicable, and identification of the requested service and interconnection capacity;

ii. Copies or a description of any feasibility study, system-impact study, facilities study, construction-service agreement, interconnection-service agreement, transmission-owner agreement, security agreement, or other material utility or interconnection document issued or executed for the project, subject to reasonable protection of confidential or proprietary information;

iii. The status of each required utility or interconnection study, agreement, approval, security posting, deposit, or financial assurance; and

iv. The date or schedule most recently identified by the applicable utility or PJM Interconnection for the anticipated energization of each phase of the Data Center.

l. The Energy Usage Plan shall be prepared and certified by a professional engineer qualified by education and experience in electrical infrastructure and data center energy systems. The plan shall be subject to review and comment by the Borough and its professional consultants. The applicant shall supplement or amend the Energy Usage Plan as reasonably required to address comments from the Borough or its

consultants and to reflect material changes occurring before final zoning approval.

m. If the final electric-service arrangement, generating capacity, energy-storage capacity, cooling technology, facility capacity, or projected peak demand differs from that evaluated in the approved Energy Usage Plan, the applicant shall submit an amended Energy Usage Plan before construction, installation, or operation of the affected change. No such change shall be constructed, installed, or operated unless the amended plan demonstrates continued compliance with this Section and all applicable approvals.

4. A proposed Data Center whose Energy Usage Plan shows a projected peak electrical power demand of over Fifty (50) megawatts (MW) and that proposes to connect to the power grid shall comply with all applicable federal and Pennsylvania renewable, clean, or clean firm energy requirements. To the extent not otherwise required, at least ten percent (10%) of the electricity used by the Data Center (including any Data Center Accessory Uses) shall be obtained from new or incremental renewable generation within the PJM region through a power purchase agreement or similar arrangement and shall not be satisfied solely through the purchase of unbundled renewable energy credits. The applicant shall provide documentation reasonably sufficient to demonstrate compliance.

5. The applicant shall demonstrate that a lawful, adequate, and reliable water supply is available for the Data Center and all Data Center Accessory Uses at initial operation, at each proposed phase, and at full buildout, including water required for cooling, initial system fill, makeup water, fire protection, maintenance, domestic use, emergency conditions, and any associated on-site power-generation facility. The proposed water supply shall not adversely affect wells, groundwater, surface waters, public water sources, water flow to fire suppression systems and hydrants, existing customers, or the reliability of public water service.

   If water will be supplied by a public system, the applicant shall provide written documentation from the water provider identifying the requested average and peak demands, available system capacity, required improvements, conditions or limitations on service, and the provider's certification that it has the ability to serve the project without adversely affecting existing customers. A general willingness-to-serve letter that does not address the requested average and peak demands, available system capacity, required improvements, and material service conditions shall not be sufficient.

6. No principal use on a data center site shall use private groundwater wells or direct withdrawals from surface watercourses as its primary source of water for cooling or other purposes if a public water source is available. Any proposed groundwater or surface-water withdrawal shall require specific approval by the Borough and all agencies having applicable jurisdiction.

7. The applicant shall identify each cooling technology proposed for the Data Center and any associated on-site power-generation facility, including any closed-loop, liquid, immersion, evaporative, air-cooled, refrigerant-based, dry, hybrid, or other cooling system. A closed-loop cooling system shall be used for Data Center processing equipment unless the applicant demonstrates that an alternative system will result in equal or lower reasonably anticipated water consumption and environmental impacts while satisfying energy-efficiency, safety, reliability, and operational requirements. For each closed-loop system, the applicant shall identify the source and quantity of the initial fill, makeup-water requirements, anticipated flushing or blowdown, water-treatment chemicals, expected losses, and the proposed recycling, treatment, and disposal of cooling-system water. For each air-cooled, refrigerant-based, dry, or hybrid system, the applicant shall identify its anticipated energy and water demands, noise, heat rejection, refrigerant type and quantity, leak-detection measures, and refrigerant recovery and disposal procedures. Reclaimed, recycled, treated wastewater, or other lawful nonpotable water shall be used where reasonably available, technically suitable, and capable of use without adversely affecting public health, facility safety, water resources, or wastewater systems.

8. The applicant shall submit a Water Feasibility and Conservation Plan prepared and certified by a professional engineer, professional geologist, hydrogeologist, or other professional qualified by education and experience to evaluate the proposed water supply, cooling systems, and potentially affected water resources. The Water Feasibility and Conservation Plan shall include, at minimum, the following information:

    a. Calculations of the projected water needs, including seasonal fluctuations, initial system fill, average-day demand, maximum-day demand, peak withdrawal rate, makeup water, fire-protection demand, maintenance and emergency demand, and demand at initial operation, at each proposed phase, and at full buildout.

b. A geologic map of the proposed project area within a radius of at least one mile from the site property boundary that identifies each water source.

c. The location of all existing and proposed wells within 1,000 feet of the site property boundary with a notation of the capacity of all high-yield wells.

d. The location of all surface waters within 1,000 feet of the site property boundary and all known point sources of pollution.

e. A determination of the long-term safe yield of the water source.

f. A determination that the proposed water supply system will not adversely affect public or private water supplies, groundwater, surface waters, fire flow, existing water customers, or the reliability of public water service.

g. Identification of how water will be recycled, treated, reused, discharged, or otherwise managed.

h. For each closed-loop system, the source and quantity of the initial fill and makeup water, together with anticipated losses and the frequency and volume of flushing, purging, blowdown, maintenance, and replacement.

i. The water-conservation, reuse, metering, submetering, leak-detection, monitoring, and reporting measures proposed for the facility.

j. Identification of water-treatment chemicals and their proposed storage, containment, treatment, and disposal.

k. Identification of the proposed Water Usage Effectiveness, or another recognized water-efficiency metric approved by the Borough Engineer, and the method by which actual performance will be measured.

l. A statement of the qualifications and the signature(s) of the person(s) preparing the Water Feasibility and Conservation Plan.

No Data Center shall exceed an approved water-withdrawal or consumptive-use limit without first obtaining all required Borough and outside-agency approvals.

9. The applicant shall identify all federal, state, regional, and other permits and approvals required for water supply, water withdrawal, wastewater, air emissions, utility infrastructure, on-site generation, and related activities, including applicable permits or approvals from PADEP and any other agency having jurisdiction. No activity regulated by an outside agency shall commence until all permits required for that activity have been obtained. If an outside agency requires local approval before issuing its permit, the Borough may grant approval expressly conditioned upon receipt of the required outside-agency permit before commencement of the regulated activity.

10. The applicant shall provide a drought response plan to demonstrate compliance with state, water supplier, and local drought declaration requirements. The plan shall identify essential and nonessential water demands, water-reduction measures applicable during each drought stage, the triggers and procedures for implementing those measures, any proposed alternative lawful water source, and the effect of curtailment on cooling, fire protection, wastewater discharge, on-site generation, and facility operations.

11. The Water Feasibility and Conservation Plan required by Subsection 8 shall establish maximum water withdrawal and consumptive use limits and shall include monitoring, reporting, investigation, and mitigation triggers applicable to an exceedance of those limits or a material discrepancy between projected and actual water use. Before changing the cooling technology, facility capacity, on-site generation, water source, or operating conditions in a manner that may increase an approved water withdrawal or consumptive use, the owner or operator shall submit an updated Plan and obtain all required approvals.

12. Prior to building permit issuance or at such earlier time as may be required for review of the Conditional Use application:

    a. The applicant shall submit an analysis of wastewater disposal needs prepared by a qualified professional. The analysis shall identify all sources and material characteristics of wastewater; the average-day, maximum-day, and peak discharge rates anticipated at initial operation, at each proposed phase, and at full buildout; the proposed public or private collection and treatment system; any required pretreatment; and all improvements necessary to serve the project. Wastewater shall include sewage and water discharged as part of the Data Center's HVAC or cooling system, cooling system blowdown, equipment cleaning wastewater, water treatment residuals,

wastewater from associated on-site power generation, and other process wastewater.

b. Any untreated wastewater generated shall not be discharged to stormwater systems, groundwater, or surface waters. No wastewater shall be discharged to a public or private wastewater system unless the discharge complies with permits and treatment requirements applicable to industrial waste.

c. If wastewater will be conveyed and/or treated by a public system, the applicant shall submit documentation certified by the applicable public authority that the public authority can support the conveyance and treatment needed and shall specifically identify, among other things, available collection and treatment capacity, acceptance of the proposed wastewater volumes and characteristics, applicable pretreatment and discharge limitations, required improvements, and the party responsible for the costs of those improvements. A general willingness-to-serve letter that does not address these matters shall not be sufficient.

d. If the data center is to rely upon a private system of wastewater disposal, a wastewater feasibility study shall be required. The purpose of the study is to determine whether the system has sufficient lawful capacity to collect, treat, and dispose of all wastewater without adversely affecting groundwater, surface waters, wells, adjoining properties, public health, or the environment. A wastewater feasibility study shall include the following information at a minimum:

   i. Calculations of the projected wastewater generation including, average day, maximum day, and peak discharge rates and the sources and material characteristics of wastewater.

   ii. A description of the proposed collection, treatment, disposal, monitoring, and maintenance systems.

   iii. Identification of all chemicals and material wastewater constituents reasonably anticipated to enter the system and the proposed pretreatment, containment, monitoring, and disposal procedures.

   iv. A determination that the proposed system will not adversely affect groundwater, surface waters, wells, adjoining properties, public health, or the environment.

v. Identification of the process by which water will be recycled, treated, discharged, disposed of, or released into surrounding water bodies.

vi. A determination that the proposed wastewater disposal system has no adverse impact on the quantity and quality of water in nearby wells, surface waters, and the groundwater table.

vii. A statement of the qualifications and the signature(s) of the person(s) preparing the study.

If a private wastewater system will discharge to groundwater or surface water, or otherwise has the potential to affect groundwater, surface water, or nearby wells, the Wastewater Feasibility Study shall also include appropriate geologic and hydrogeologic mapping, identification of potentially affected wells and surface waters, and analyses of groundwater, surface-water, and water-quality impacts.

e. Separate meters or monitoring devices shall be provided for domestic sewage, cooling-system discharge, power-generation-related discharge, and other material process wastewater where reasonably necessary to verify compliance.

f. Before changing cooling technology, water treatment, chemical use, on-site generation, facility capacity, or operations in a manner that may materially increase wastewater volume or alter wastewater characteristics, the owner or operator shall submit an updated wastewater analysis in accordance with this Section and obtain all required approvals.

14. A Battery Energy Storage System shall comply with all applicable zoning, building, fire, electrical, environmental, product testing, listing, commissioning, and safety requirements, including applicable provisions of NFPA 855 and the International Fire Code. Hydrogen production, storage, or use shall require specific disclosure and approval and shall not be deemed authorized solely by approval of a Battery Energy Storage System.

15. Before operation of a Battery Energy Storage System, the applicant shall submit an emergency response plan prepared by qualified fire protection and engineering professionals and developed in

consultation with the Borough's emergency-management personnel and serving fire department. The plan shall address fire and explosion prevention, detection and suppression; thermal runaway; toxic or flammable gas release; emergency shutdown; firefighter access; runoff and contaminated water containment; post-incident monitoring and remediation; and initial and recurring emergency responder training at the owner's or operator's expense. Before constructing, installing, or operating a change in facility capacity, electrical demand, generating capacity, energy storage capacity, cooling technology, water source, approved water use, wastewater volume or characteristics, or utility infrastructure that may affect compliance with this Section, the owner or operator shall submit updated information and studies sufficient to demonstrate continued compliance with this Section and all applicable approvals. No such change shall be constructed, installed, or operated until the Borough has completed its review and all required approvals have been obtained.

16. An Energy Generation System intended to provide any portion of the normal operating requirements of a Data Center shall constitute a separate principal use and shall require all approvals applicable to that use. The application shall identify the generating technology, fuel, capacity, cooling system, refrigerants, air emissions controls, anticipated operating conditions, and applicable permits. The applicant shall specifically identify all emissions control technology proposed. The combined impacts of the Data Center and Energy Generation System shall be included in the applicable energy, water, wastewater, noise, air-quality, lighting, and emergency response submissions required by this Ordinance.

I. Emergency Management.

1. The applicant shall submit an Emergency Response Plan (ERP) prepared by a qualified fire protection professional. All costs associated with the preparation, review, implementation and updating of the ERP, including reasonable costs incurred by the Borough or reviewing emergency response agencies, shall be paid by the applicant. The ERP shall be reviewed and updated whenever there is a material modification to facility design, emergency systems, hazardous materials inventory or emergency response procedures and, in all events, not less than annually. The ERP shall:

    a. Be submitted for review and comment by the local fire department and emergency management services as part of the Conditional Use approval process. The review shall address emergency access, fire protection systems, water

supply, emergency responder safety, hazard mitigation measures and coordination with facility personnel.

b. Be submitted for review and comment by the Lawrence County Department of Public Safety as part of the Conditional Use approval process. The review shall address emergency communications, coordination with public safety agencies and any other applicable matters within the jurisdiction of the Lawrence County Department of Public Safety.

c. Include detailed procedures for fire prevention, detection, suppression, containment, ventilation, electrical and fuel isolation, emergency communications, responder access, and evacuation as well as site plans and other information reasonably necessary for emergency responders to identify emergency access routes, fire protection systems, emergency controls, hazardous materials, fuel systems, battery systems, generators and other critical facility infrastructure.

d. Include an evaluation of the access roads and hydrant locations within the site to ensure suitable access for emergency equipment. The evaluation shall identify primary and secondary emergency access routes, fire lanes, turning radii, load-bearing capacity, vertical clearances, hydrant locations, available fire flow, and any gates, security measures or operational conditions that may affect emergency access.

e. Ensure that local first responders receive adequate facility-specific training. Such training shall be paid for by the Data Center. Training shall be offered before the commencement of operations and at least annually thereafter. Supplemental training shall be offered following a material change to the facility's layout, fire protection systems, emergency isolation systems, battery systems, fuel systems, hazardous-material inventory or emergency response procedures. The Data Center shall not be responsible for a first responder's failure to attend training that has been timely offered.

f. If the local fire department determines, based upon the reasonably anticipated hazards unique to the Data Center, that specialized equipment, protective gear, monitoring devices or suppression agents are reasonably necessary for emergency response and are not otherwise available to the fire department, the applicant shall provide the equipment or

reimburse the fire department for its reasonable acquisition cost. The need for and nature of any such equipment shall be identified during review of the ERP.

g. Include provisions for annual fire protection and life safety inspections demonstrating compliance with applicable fire safety standards to be performed by a qualified independent fire protection professional retained by the owner or operator. Copies of the inspection reports, together with documentation of the correction of any material deficiency, shall be provided to the Borough and the local fire department within thirty (30) days after completion or correction, as applicable. Nothing in this subsection shall limit the Borough's inspection or enforcement authority.

h. Any gated emergency access route or secondary access route shall be fitted with a "knox-box", key box, access-control override or other secured emergency access device as may be required by the fire department. Any such device shall be protected against unauthorized access and maintained in operable condition.

i. Approved signs shall be displayed on all exterior doors and around the perimeter of the complex where necessary to identify electrical, fire, fuel, battery, chemical or other material hazards to emergency responders. In addition, twenty four (24) hour local emergency contact signage shall be visible at the main entrance. Such signage shall include the company name, the owner's or operator's name and the name of an individual representative, a local emergency telephone number, and the corresponding local power company's name and telephone number. The emergency telephone number shall provide immediate access to facility personnel authorized to coordinate emergency response and initiate appropriate operational measures.

j. An approved building, electrical, or facility monitoring system shall be provided for monitoring voltages, temperatures, and other critical operating conditions and safety related functions within the manufacturer's specifications. This system shall transmit an alarm signal to an approved continuously attended location if potentially hazardous conditions are detected. Critical electrical, mechanical, fire protection and life-safety systems shall be monitored twenty-four (24) hours per day, seven (7) days per week, by personnel capable of promptly initiating the facility's emergency procedures.

k. An approved automatic smoke detection system shall be installed. The type, sensitivity, zoning and placement of detection equipment shall account for the airflow and operating characteristics of the protected areas and shall comply with applicable codes and accepted fire protection engineering practices. This system will alert emergency responders and shall also transmit an alarm to a continuously attended monitoring location in the Data Center.

l. All portions of any Data Center structure shall be protected by approved automatic fire suppression systems appropriate to the hazards present and designed, installed, inspected and maintained in accordance with applicable building and fire codes. The systems shall transmit alarms to a continuously attended monitoring location in the Data Center and shall also automatically notify local emergency responders or a supervising station responsible for such notification.

m. Emergency isolation and shutdown capabilities shall be provided in accordance with the approved Emergency Response Plan and applicable fire code requirements. Such controls shall be accessible only to authorized emergency responders and authorized facility personnel through secured means approved by the fire department. The Emergency Response Plan shall identify the location and operation of all emergency isolation, fuel shutoff, battery disconnect, and electrical emergency controls.

n. In areas that contain liquid electrolytes, acids or other hazardous materials, an approved method shall be provided to control, contain and neutralize spills or releases, as appropriate to the material involved. The ERP shall identify the location and nature of such materials and the applicable spill or release response procedures.

o. A gas detection system shall be provided if natural gas is used within a building or enclosed equipment area. The system shall be designed to detect natural gas leaks in concentrations of not more than 25% of the lower flammable limit. The system shall be designed, where applicable, to close affected supply valves, shut down affected fuel cell power systems, initiate local audible and visual alarms, and transmit an alarm to a continuously attended monitoring location and automatically notify emergency responders or a supervising station responsible for such notification.

p. Protection from impact by a motor vehicle shall be provided for buildings, transformers, switchgear, generators, fuel storage and delivery systems, Battery Energy Storage Systems, fire protection equipment and other critical equipment exposed to vehicular traffic.

q. All E-waste and recycling shall be handled and disposed of at an approved disposal or recycling facility in accordance with applicable law. The cost of such disposal shall be paid by the Data Center owner or operator, as applicable.

2. Any Data Center use proposing battery storage or any other device or group of devices capable of storing energy in order to supply electrical energy at a later time, whether the energy is stored for use on-site or off-site, shall demonstrate compliance with the edition of National Fire Protection Association (NFPA) 855, Standard for the Installation of Stationary Energy Storage Systems, together with any other applicable code or successor standard. Battery energy storage areas shall be equipped with fire detection, fire suppression, ventilation, gas detection, explosion control, spill containment and emergency isolation systems appropriate to the battery technology and required by applicable codes. The ERP shall address thermal runaway, propagation, reignition, hazardous gas generation, extended monitoring and any other material hazard associated with the battery technology proposed.

3. No Data Center shall be approved unless the applicant demonstrates that procedures for fire suppression, containment, ventilation, and evacuation are sufficiently protective of public health, safety and welfare.

4. All buildings, electrical equipment, information technology equipment areas, backup power systems, battery energy storage systems, generators, fuel systems, cooling systems and associated infrastructure shall be designed, installed, operated, inspected and maintained in accordance with applicable building, electrical, fire and life-safety codes and standards, including NFPA 70, NFPA 72, NFPA 75 and other NFPA standards applicable to the particular equipment or hazard. The facility's fire protection design shall incorporate fire compartmentation, fire resistance rated construction, detection, suppression, emergency isolation and other protective measures appropriate to the hazards presented. Fire barriers and fire resistance rated assemblies shall be designed and maintained to limit the spread of fire and smoke and to reduce the potential for a localized event to result in a facility-wide fire or loss. The required

location and fire resistance rating of such assemblies shall be determined in accordance with applicable codes and a facility specific fire protection analysis prepared by a qualified fire protection professional.

5. The applicant shall coordinate with the Lawrence County Emergency Management Coordinator to ensure there is adequate radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communications systems used by the applicable emergency response agencies, as measured at the exterior of the building, to provide the coverage required by the applicable building or fire code. The system shall be designed, installed, tested, monitored and maintained in accordance with applicable code requirements and the technical requirements of the public safety communications agencies using the system.

J. Aesthetics.

1. Any Data Center and Data Center Accessory Use building facade that faces a road, Residential Zoning District, or Sensitive Receptor shall incorporate design elements to improve its appearance, and must incorporate at least two of the following design elements every One Hundred Fifty (150) horizontal feet:

   a. A change in building material, pattern, texture, or color;

   b. A change in building height of not less than four (4) feet as measured at the parapet;

   c. Building step-backs, recesses or articulations having a minimum depth of not less than three (3) feet and extending vertically for at least one story; and

   d. Architectural screening elements, vertical pilasters, canopies, sun-shading devices, decorative metal panels, green walls, or similar architectural features creating visual relief.

2. All primary building entrances shall be clearly defined through architectural features, materials, canopies, recesses, changes in plane, landscaping, signage, lighting, or similar design elements.

3. Building Placement and Orientation.

   a. All principal and accessory structures associated with a Data Center shall be arranged, designed, and constructed to be harmonious and compatible with the site and with the

surrounding properties. Blank, uninterrupted building walls should be avoided through the use of building articulation, varied materials, changes in plane, architectural detailing, landscaping, and other design elements that reduce perceived building mass.

b. Buildings shall be sited and oriented to:

- Minimize visual impacts of the bulk of the building when examined on a line-of-sight basis from adjacent public streets and Sensitive Receptor areas.
- Provide safe and convenient vehicular access to the site, including sufficient on-site queuing areas at security gates.
- Accommodate adequate parking.
- Minimize impacts to natural resources.
- Incorporate appropriate stormwater management practices.
-

c. Data Center campuses containing more than one building shall provide variation in building size, massing, siting, and appearance by transitioning from smaller or lower buildings along street frontages to larger and taller structures on the interior of the site where consistent with operational needs, topography, emergency access requirements, and environmental constraints.

4. Building Colors.

a. External building materials shall be of colors that are low-reflective, subtle, or earth tone. Fluorescent and metallic colors shall be prohibited as exterior wall colors.

K. Parking and Infrastructure.

1. Data Centers are to be provided with at least one parking space per 8,000 square feet of floor area designed and intended to be accessible regularly by employees, or one parking space for every one employee, based upon the maximum number of employees on site during the largest shift.

2. The applicant shall identify all impacts on local infrastructure including but not limited to traffic impacts, as well as all necessary

infrastructure improvements, if applicable. Prior to commencement of construction, applicant shall coordinate with the affected school districts, emergency service providers, and the municipality regarding anticipated construction traffic routes, oversized loads, and periods of peak construction activity. Reasonable efforts shall be made to minimize conflicts with school arrival and dismissal periods and to maintain safe traffic operations.

3. A minimum of one loading space is required. Loading docks, service bays, truck maneuvering areas and similar facilities shall be located and screened to minimize visibility from public streets, Residential Zoning Districts, Agricultural Zoning Districts, and Sensitive Receptors to the greatest extent practicable. The site plan shall identify anticipated truck access routes, security gate locations, on-site truck queuing areas, loading areas, and turning movements for the largest vehicle expected to access the site. Adequate on-site queuing shall be provided to prevent trucks and other vehicles from stacking onto public roads.

4. Sensitive Receptors.

   a. Loading docks, truck entries, truck maneuvering areas and truck drive aisles shall be located so as to maximize separation from Sensitive Receptors to the extent reasonably practicable given site constraints, traffic safety requirements, emergency access requirements, utility locations and operational needs. Required screening shall be provided in accordance with this Ordinance.

L. Security and Access.

1. Security.

   a. All Data Centers and all Data Center Accessory Uses shall be secured against unauthorized entry and safeguarded in an approved manner.

2. Access.

   a. All access roads, including emergency access roads, shall have a total lane width of not less than twenty-four (24) feet, excluding any on street parking areas and shoulder. All access roads shall be improved to a dustless all-weather surface which prevents stormwater erosion or sedimentation from being carried on to public roadways and/or adjoining properties. All access roads and/or driveways shall be

constructed to buffer adjoining properties from headlights and to minimize traffic noise.

b. It shall be demonstrated that there is an adequate second means of ingress and egress suitable for emergency access to the site.

c. A minimum of one (1) fire lane intended for aerial apparatus access to roof structures shall be provided. The lane shall be:

- A minimum of twenty-four (24) feet wide restricted to travel and not including any street parking or shoulder.
- Clearly identified with ground markings and post-mounted signs.
- Free from any overhead obstructions; and
- Able to access the area not less than 15 feet or greater than 30 feet from the Data Centers and be on the same side of the structure as the access road.

M. Environmental Impact Assessment.

1. An Environmental Impact Assessment shall be performed where the proposed combined footprint of the principal structure or structures of a Data Center exceeds One Hundred Thousand (100,000) square feet. The assessment shall be prepared by a professional engineer, ecologist, environmental planner, or other qualified individual. An assessment shall include a description of the proposed use, including location, relationship to other projects or proposals, with adequate data and detail to assess the environmental impact. The assessment shall also include a comprehensive description of the existing environment and probable future effects of the proposal. The description shall focus on the elements of the environment most likely to be affected as well as potential regional effects and ecological interrelationships. At a minimum, the assessment shall include an analysis of the items listed below regarding the impact of the proposed use and the mitigation of any such impacts. The assessment shall also include a detailed examination of public resources most likely impacted by the development plan and include the following focus areas:

a. Air pollution impact emissions from vehicle operations, including from truck engines during idle time. The applicant shall identify all stationary and mobile sources of fine particulate matter (PM2.5), volatile organic compounds, and

nitrogen oxides at the site. The applicant shall specify best management practices for preventing and reducing the concentration of air-polluting emissions at the site. The owner or operator of the facility shall have anti-idling signs prominently posted in areas where two (2) or more trucks may park or congregate.

b. The proposed Data Center shall be designed and operated to minimize adverse impacts on nearby residents and Sensitive Receptors resulting from operations and truck traffic, including noise, vibration, glare, lighting, and visual impacts. The Environmental Impact Assessment shall identify the measures incorporated into the project to achieve this objective.

c. The Environmental Impact Assessment shall summarize stormwater management measures proposed for the site and identify any environmentally sensitive areas potentially affected by stormwater runoff. A stormwater management plan will be required.

d. The applicant shall submit an assessment report of the impact of the proposed use on the goals of the municipal and county comprehensive plans. Where the proposed use conflicts with a comprehensive plan, the assessment report shall identify mitigation measures that may be undertaken to offset any degradation, diminution, or depletion of public natural resources.

e. A statement of any adverse impacts that cannot be avoided.

f. Environmental protection measures, procedures, and schedules to minimize damage to critical impact areas during and after construction, including design considerations.

g. A listing of steps/structural controls proposed to minimize damage to the site before and after construction.

h. The extent of existing woodland, tree canopy, and mature vegetation proposed to be removed, together with reforestation, revegetation, buffering, or landscaping measures proposed to mitigate such impacts.

i. The location, number, and type of backup generators and associated fuel storage systems, including a discussion of expected testing schedules, anticipated emissions, and

mitigation measures intended to minimize impacts on nearby properties.

2. The Environmental Impact Assessment shall identify any area, condition, or feature that is environmentally sensitive or that, if disturbed during construction, would have an adverse impact on the environment. Critical impact areas include, but are not limited to, floodplains, riparian buffers, streams, wetlands, slopes greater than 15%, highly acid or highly erodible soils, hydric soils, hydrologic soil groups, areas of high-water table, and mature stands of native vegetation and aquifer recharge and discharge areas.

N. Solar. New Beaver Borough Ordinance No. 1 of 2025 shall govern any and all solar uses in connection with Data Centers. A Principal Solar Energy System (PSES) must be located on a separate parcel from any Data Center or any other principal use.

O. Miscellaneous.

1. The applicant shall ensure specific measures are employed to mitigate or eliminate any negative environmental impacts that are likely to be generated during and after any period of construction (e.g., odor, noise, smoke, dust, litter, glare, heat islands, vibration, electrical disturbance, wastewater, stormwater, solid waste, etc.). The applicant shall further furnish evidence that the impacts generated by the proposed use fall within acceptable levels, as regulated by applicable laws and ordinances.

2. Any use or activity producing air, dust, smoke, glare, exhaust, heat or humidity in any form shall be carried on in such a manner that it is not perceptible at or beyond the property line.

3. The applicant shall reimburse the Borough for all reasonable and necessary costs incurred by the Borough in reviewing and processing a Conditional Use application for a Data Center and/or an Energy Generation System, including the costs of professional consultants, advisors, attorneys, engineers, and other experts retained by the Borough. The Borough may require the applicant to establish and maintain an escrow account, in an amount determined by the Borough, to secure payment of such costs. The applicant shall replenish the escrow account upon request of the Borough, and no application shall be deemed complete, nor shall any approval be issued, unless all required escrow deposits and reimbursements have been paid.

P. Compliance with Applicable Law.

The applicant shall demonstrate compliance with all applicable state and federal laws and regulations pertaining to Data Centers. The applicant shall be responsible for obtaining all applicable federal and state permits.

Q. Decommissioning of Data Centers.

As part of the Conditional Use application, the applicant shall submit a decommissioning plan addressing the proposed removal, demolition, remediation, restoration, and related activities that may be necessary upon the cessation of operations of the Data Center or associated facilities. The decommissioning plan shall be subject to review and approval by Council as part of the Conditional Use process and shall be acceptable to Council in both form and substance. Council may require such provisions, conditions, safeguards, financial assurances, and other requirements as it determines are reasonably necessary to address the specific characteristics and impacts of the proposed facility and its eventual decommissioning.

R. Violation.

Any violation of the provisions of this Ordinance shall constitute a violation of the New Beaver Borough Zoning Ordinance and shall be subject to all enforcement procedures, remedies, and penalties set forth therein, as the same may be amended from time to time. The Borough shall have the right to seek, in addition to any monetary penalties, temporary, preliminary, and permanent injunctive relief, including an order requiring the cessation of all or part of the operation of a Data Center until the violation has been cured and compliance has been demonstrated to the satisfaction of the Borough.

S. Indemnification.

Each person and/or entity that constructs, owns, operates, maintains, or removes a Data Center, a Data Center Accessory Use and/or an Energy Generation System shall, at its sole cost and expense, indemnify, defend and hold harmless the Borough, its elected and appointed officials, employees and agents, at all times against any and all claims for personal injury, including but not limited to death, and property damage arising in whole or in part from, caused by, or connected with any act or omission of the person/entity, its officers, agents, employees or contractors arising out of, but not limited to, the construction, operation, maintenance or removal of any structure or facility comprising the Data Center, Data Center Accessory Use and/or Energy Generation System, as applicable.

Section 4: SEVERABILITY

The provisions of this Ordinance are declared to be severable, and if any provision of this Ordinance shall, for any reason be held to be invalid, such invalidity shall not affect the Ordinance as a whole or any other part thereof. If any provisions of

this Ordinance shall conflict with or be inconsistent with other provisions of the Zoning Ordinance, the provisions of this Ordinance shall control.

Section 5: REPEALER

All Ordinances or parts of Ordinances which are inconsistent herewith, except to the extent otherwise provided herein, are hereby repealed.

Section 6: EFFECTIVE DATE

This Ordinance shall take effect immediately upon its adoption.

ORDAINED AND ENACTED this _____ day of _____,2026.

ATTEST:

_____
Drita L. Crawford, Secretary

New Beaver Borough

_____
Thomas Hairhoger, President

_____
Robert M. Crawford, Mayor