

ORDINANCE NO. 2022-_____

AN ORDINANCE AMENDING THE ZONING ORDINANCE,
PART 13 OF THE CITY OF BETHLEHEM, LEHIGH
AND NORTHAMPTON COUNTIES, PENNSYLVANIA,
AMENDING SOLAR ENERGY DEVICES

THE COUNCIL OF THE CITY OF BETHLEHEM HEREBY ORDAINS AS
FOLLOWS:

SECTION 1. Article 1318.29 of the Zoning Ordinance shall be amended as follows
(underlined text denotes additions except where underlined in existing ordinance,
whereas ~~strikeouts~~ denote deletions):

1318.29 Solar Energy Collection Systems.

(a) Purpose.

- 1) To promote the use of Solar Energy Systems for the generation of electricity (photovoltaics), for water heating, space heating or cooling, and to obtain the benefits of solar energy as a renewable and clean energy source which enhances the reliability of the overall electrical power grid, reduces peak power demands, helps diversify Pennsylvania’s energy supply portfolio, and helps reduce dependence on fossil fuels;
- 2) To promote the safe, effective, and efficient use of Solar Energy Systems installed to reduce on-site consumption of energy, while protecting health, safety and welfare of adjacent and surrounding land uses;
- 3) To provide for the land planning, installation, and construction of Solar Energy Systems in Bethlehem subject to reasonable conditions that will protect the public health, safety and welfare, and protect the historic character and resources of the City.

(b) Definitions

- 1) Solar Energy: Radiant energy (direct, diffuse and/or reflective) received from the sun.
- 2) Solar Energy System: An energy system that consists of one or more solar collection devices, solar-energy related “balance of system” equipment, and other associated infrastructure with the primary intention of generating electricity, storing electricity, or otherwise converting solar energy to a different form of energy. Solar Energy Systems may generate energy in excess of the energy requirements of a property if it is to be sold back to a public utility in accordance with the law.
- 3) Rooftop-mounted Solar Energy System: A solar energy system where an array is mounted to a roof.
- 4) Ground-mounted Solar Energy Systems: A solar energy system where an array is mounted onto the ground.

- ~~5) Glare: The effect produced by light with an intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility to a reasonable person of ordinary sensibilities.~~
- 6) Solar Access: The ability of one property to continue to receive sunlight across property lines without obstruction from another's property (buildings, foliage or other impediment).

(c) Design & Installation

- 1) This Article applies to Solar Energy Systems to be installed and constructed after the effective date of this Article 1318.29.
- 2) Solar Energy Systems constructed prior to the effective date of this Article 1318.29 shall not be required to meet these requirements.
- 3) Any upgrade, modification, or structural change that materially alters the size or placement of an existing Solar Energy System shall comply with the provision of this Article.
- 4) The use of Solar Energy Systems are permitted as an Accessory Use in all zoning districts.
- 5) Solar Energy Systems shall be located so that the removal of living trees is not required to the extent practicable. If tree removal is necessary for a Ground-mounted Solar Energy System, the project must comply with Section 1318.28 regarding Tree Conservation.
- 6) Use of Solar Energy Systems is subject to the restraints imposed by the present development pattern and topography found inside the city limits of Bethlehem, plus zoning and height restrictions. Where a strict provision of the zoning ordinance may prohibit adequate solar access, causing loss of efficiency, the developer may apply to the City of Bethlehem Zoning Hearing Board for a variance. In addition to other relevant factors, the Zoning Hearing Board shall weigh the following factors in its evaluation:
 - ~~i. Different levels of solar access~~
 - i. Restrictiveness of the Zoning Ordinance with regard to height, bulk, setback, and related provisions.
 - ii. Local energy costs, topography, and aesthetics of the specific area or land tract proposed for Solar Access use.
 - iii. Characteristics of shading due to building and trees in determination of necessary Solar Access plane.
 - iv. Identification of possible conflicts with Solar Access, including architectural or historic preservation requirements, steep slopes, low- and moderate-income housing restrictions, and individual landowner preferences.

- v. Owners of Solar Energy Systems are encouraged but not required to obtain Solar Access easements from neighboring landowners to ensure Solar Access. The City does not guarantee and will not protect any individual property rights with respect to Solar Access.
- 7) The Solar Energy System shall comply with the most recently amended and adopted Pennsylvania Uniform Construction Code, Act 45 of 1999, and the most recently adopted Fire Code as amended and adopted by the City of Bethlehem. Plans must be submitted to the Code Enforcement Office and Fire Department for approval. Plans must meet all current code requirements and required access for safety of emergency personnel.
 - 8) The design of the Solar Energy System shall conform to applicable industry standards. To the extent reasonably possible, the design shall use materials, colors, textures, screening and landscaping that will blend the system into existing structures and environment.
 - 9) ~~Low slope roof: On low slope roof structures (i.e., roof structures not exceeding 25% slope), solar devices should be mounted with adequate set back so as to not be visible from any public way at ground level. Where this is not possible, solar devices should be located so as not to be visible from the front of the building or from major approaches at ground level.~~ The design of Solar Energy Systems within the Bethlehem Historic District, Southside Historic Conservation District and Mount Airy Historic District, or on a Historic Structure, as defined in Article 1302.55, shall be evaluated for approval by an authority having jurisdiction, if applicable, including the Historic Architectural Review Board (HARB) or Historic Conservation Commission (HCC), prior to installation. Flush mount of solar panels on sloped roofs shall be utilized where possible.
 - 10) ~~Steep slope roof: On steep slope roof structures (i.e., roof structures exceeding 25% slope), solar devices should not be visible from the street, unless the device is an Architecturally Integrated Device. If the device must be visible (no other alternative is feasible without Major Loss of Efficiency of the system), the design of the solar system will be evaluated for approval by an authority having jurisdiction, if applicable, including the Historic Architectural Review Board (HARB) or Historic Conservation Commission (HCC), prior to installation. Flush mount of solar panels on sloped roofs should be utilized where possible.~~ All installers of Solar Energy Systems shall establish to the satisfaction of the code official that they meet the certification standards of the North American Board of Certified Energy Practitioners (NABCEP). Installers must also hold a City of Bethlehem Business Privilege License as well as hold all appropriate licenses to perform the work as per the City of Bethlehem.
 - 11) ~~All installers of Solar Energy Systems shall be on the Pa. Department of Environmental Protection's list of registered installers for the DEP Solar~~

~~Sunshine program or shall establish to the satisfaction of the code official that they meet the certification standards of the North American Board of Certified Energy Practitioners (NABCEP). For purposes of determining compliance with impervious coverage standards of the applicable zoning district, the total horizontal projection area of all Ground-mounted and free-standing Solar Energy Systems shall be considered pervious coverage so long as pervious conditions are maintained underneath the Solar Energy System.~~

~~12) In all cases, Solar Energy Systems shall be set back from roof edges and from the roof ridge line a minimum of three feet to provide safe access for firefighters and other emergency responders.~~

~~13) If solar collection devices are installed above vehicle parking, such solar structures shall not be regulated as part of building coverage.~~

(d) Setbacks and Height Restrictions

- 1) A Roof-mounted Solar Energy System must comply with all setback requirements for the zoning district in which it is installed.
- 2) A Ground-mounted Solar Energy System must comply with accessory structure restrictions contained in the zoning district where it is installed; all exterior electric and/or plumbing lines must be buried below the surface of ground and placed in conduits. Where Ground-mounted Solar Energy Systems are proposed to be adjacent to a dwelling in a residential zoning district, then a buffer yard shall be installed between the principal dwelling or dwellings and shall meet the design requirements as prescribed in Article 1318.23 of the Zoning Ordinance.
- 3) ~~All Solar Energy Systems shall be placed such that concentrated solar radiation or glare does not project onto nearby lot or roadways. The applicant has the burden of proving that any glare produced does not have significant adverse impact on neighboring or adjacent uses whether through siting or mitigation.~~
- 4) ~~Solar Collection devices may extend a maximum of 15 feet above the maximum height limit and are a permitted by right use in all districts. Solar collection devices powering signs may extend 10 feet above the maximum height of the sign. To the extent feasible, Solar Energy Systems shall be designed to limit their visibility as viewed from the public right-of-way, but in no case shall a Solar Energy System extend more than 15 feet above the building to which it is attached or more than the maximum building height, as prescribed in Article 1306 of the Zoning Ordinance, whichever is more restrictive. Solar collection devices powering signs~~

shall not extend more than 10 feet above the sign to which they are attached or more than the maximum permitted height of the sign, as prescribed in Article 1320 of the Zoning Ordinance, whichever is more restrictive.

5) A Solar Energy System shall not be used to display advertising.

~~(e) Abandonment and Removal~~

~~1) Any Solar Energy System that is not operated for a continuous period of six months shall be considered abandoned, and the owner of such system shall remove the same within 90 days of receipt of notice from the City of Bethlehem notifying the owner of such abandonment. Failure to remove an abandoned system within said 90 days shall be grounds to remove the system at the owner's expense and constitute a violation, subject to fines as outlined in this ordinance.~~

SECTION 2. All Ordinances and parts of Ordinances inconsistent herewith are, and the same are hereby repealed.

Sponsored by: /s/ _____

/s/ _____

PASSED finally in Council on this ____ day of _____, 2022.

/s/ _____
President of Council

ATTEST:

/s/ _____
City Clerk

This Ordinance approved this ____ day of _____, 2022.

/s/ _____
Mayor