

THE CITY OF WARWICK
STATE OF RHODE ISLAND

APPENDIX A
ZONING

No..... Date.....

Approved.....Mayor

AN ORDINANCE AMENDING APPENDIX A, ZONING ORDINANCE OF THE CITY OF WARWICK TO DEFINE, ESTABLISH AND CLASSIFY DISTRICTS, CREATE ADMINISTRATIVE PROCEDURES FOR SOLAR ENERGY SYSTEMS ON CONTAMINATED SITES, AND PROVIDE SUPPLEMENTARY REGULATIONS FOR THE INSTALLATION OF SOLAR ENERGY SYSTEMS CITY OF WARWICK, PETITIONER

Be it ordained by the City of Warwick:

Section I. Appendix A, Zoning Section 200 of the Ordinances of the City of Warwick is hereby amended by adding thereto the following:

Accessory use solar energy system, roof or ground-mounted. A solar energy system that is structurally mounted to, structurally ballasted, or integrated into the design of the roof or any other architectural aspect of a building or structure.

Contaminated site. A property (1) that has been identified by the Rhode Island Department of Environmental Management (RIDEM) as having reviewed and approved a solar energy system atop property containing hazardous material contamination; (2) on which remediation activities were conducted to the satisfaction of RIDEM as documented within a “Letter of Compliance” or an “Interim Letter of Compliance,” and (3) for which RIDEM has required the use of the property to be restricted through an Environmental Land Use Restriction.

Large Scale Solar Energy System. Any solar energy system that is not either (1) an accessory solar energy system or (2) a contaminated site solar energy system as defined by this ordinance.

Old growth forest. A forest that is over 1 acre in size where the oldest trees in that forest have attained a minimum age of 100 years old.

Old growth tree. Any native tree that has attained a minimum age of 100 years old.

Solar energy system. The equipment and requisite hardware and structures that provide and are used for collecting, transferring, converting, storing or using incident solar energy for water heating, space heating, cooling, generating electricity, and off-loading said electricity to the grid, or other applications that would otherwise require the use of a conventional source of energy such as petroleum products, natural gas, manufactured gas, or electricity produced from a nonrenewable resource. This shall include photovoltaic arrays and installations that utilize ground-mounted systems. A solar energy system, when the principal use of a parcel, shall be deemed to be a manufacturing use.

Solar energy system, accessory. A solar energy system that is incidental and subordinate to the principal use(s) of the parcel or development including the following:

- (a) Roof or building-mounted energy-generating panels;
- (b) Solar canopies and ground-mounted arrays.

Solar energy system, canopy. A solar energy system that has a support structure secured to the ground through the use of structural footings and is restricted to paved areas such as parking lots.

Section II. Appendix A, Zoning Section 302, Table 1 of the City of Warwick Code of Ordinances is hereby amended as follows, with numbered parenthesis representing the insertion of a footnote in section 302:

Zoning Districts	OS	A-40	A-15	A-10	A-7	O	WB	GB	LI	GI	Inter modal	Gateway	Village District
608. Electric Power Plant <u>Accessory use solar canopy</u>	No	No	No	No	No	No <u>Yes</u>	No	No <u>Yes</u>	No <u>Yes</u>	S <u>Yes</u>	No	No	No
612. <u>Contaminated Site solar energy system, ground-mounted</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>S</u> <u>(28)</u>	<u>S</u> <u>(28)</u>	<u>No</u>	<u>No</u>	<u>No</u>
613. <u>Accessory use rooftop or ground-mounted solar energy systems</u>	<u>No</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
614. <u>Large scale solar energy system</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>

1 Footnotes:
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3 (28) Subject to all applicable review procedure and performance standards
4 outlined in Section 509.
5
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7 Section III. Appendix A, Zoning Section 500 of the City of Warwick Code of Ordinances is
8 hereby amended by adding thereto the following:
9

10 **509. - Administrative procedures for solar energy systems on contaminated sites.**
11

12 Purpose and Applicability. The purpose of this section is to regulate the installation of solar
13 energy systems by providing standards for the placement, design, construction, operation
14 monitoring modification and removal of such systems. These standards are intended to
15 ensure that solar energy systems are compatible with the surrounding area, provide for
16 public safety, and minimize impacts on scenic, natural, and historic resources. The
17 Provision of this section shall apply, as specified herein, to construction, operation, and/or
18 repair of solar energy system installation in the City.
19

20 Large scale solar energy systems (which refers to systems that are not either (1) an
21 Accessory solar system or (2) a contaminated site solar system as defined by this
22 ordinance) shall be prohibited throughout the City of Warwick.
23

24 509.1 Review procedures. Contaminated sites (i.e. brownfield sites) subject to solar energy
25 systems shall require Planning Board review in accordance with Major Land Development
26 review provisions.

27 Any system located in a historic overlay district in view of a public ROW as determined
28 by the Building Official, must obtain a Certificate of Appropriateness in accordance with
29 Section 311.
30

31 509.2 Performance standards. These standards shall be required in addition to the Major
32 Land Development review procedures set forth by RIGL 45-23 and the City's Subdivision
33 and Land Development Regulations. The standards set forth herein will ensure that solar
34 energy systems are compatible with the surrounding area, provide for public safety, and
35 minimize impacts on wildlife; scenic, natural and historic resources, and abutting
36 properties.
37

38 (A) The applicant is required to provide verification from a RI licensed landscape architect
39 at the preliminary stage of review that the landscape buffer is adequate to thoroughly
40 screen the solar energy facility year round. In addition, the required vegetated
41 buffer/screening shall be maintained for the life of the solar energy facility. The
42 property owner and/or facility owner shall be required to replant any section of the
43 buffer/screening found not to meet the requirements of this section as determined by
44 the Zoning Enforcement Officer with consultation from the City Planner.
45

- 1 (B) All solar energy systems shall, at minimum, employ the zoning setback requirements
2 in Table 2 A & B, entitled Dimensional Regulations. The Planning Board shall reserve
3 the right to increase setbacks to minimize visibility of the system as a result of
4 information learned through public hearings.
5
- 6 (C) The maximum height of a ground-mounted solar energy system shall be 10 feet.
7
- 8 (D) To prevent glare on adjacent properties and mitigate public safety potential, only matte
9 finish, and non-reflective panels shall be utilized.
10
- 11 (E) The applicant shall submit an independent, pre-development noise study for which a
12 baseline shall be established indicating general background noise in perimeter areas
13 adjacent to neighbors averaged over several weeks. A post startup noise study shall be
14 executed to ensure no increase in noise occurs from the facility. Noise mitigation must
15 be employed for solar energy systems responsible for an increased decibel level of 3dB.
16
- 17 (F) Accessibility for emergency service vehicles is required along with clearly-marked
18 procedures for shutting down the solar energy system.
19
- 20 (G) A public safety preparedness and response plan detailing the standards, procedures, and
21 communication protocol to be utilized for the system and in the event of an emergency
22 shall be provided to the City's emergency management agency director, as well as
23 documentation indicating that the plan has been distributed to the fire department.
24
- 25 (H) Contaminated sites shall be remediated and properly capped in accordance with State
26 or Federal remediation standards as part of the development.
27
- 28 (I) Unless required by ELUR, no substantial clearing or grading of the proposed project
29 site shall have occurred five (5) years prior to submission of the application for an SES
30 based on a review of aerial photography provided by the applicant.
31
- 32 (J) Clearcutting outside of the immediate array area is prohibited unless required by
33 remediation permit. A reforestation plan prepared by a certified forester (CF) or
34 registered landscape architect shall be required to minimize view shed nuisance from
35 the perspective of abutters.
36
- 37 (1) A combination of natural vegetation, berms, fencing, walls, and other similar
38 features shall be used to visually buffer the system(s) from the view of abutting
39 properties, as well as mitigate noise, glare, or other potential nuisances.
40
- 41 (2) No chemicals, solvents, herbicides, or insecticides, excluding water, will be used
42 in the operation and maintenance of the site landscaping requirements, (such as
43 pollinator cover and buffer plantings).
44
- 45 (3) Buffer plantings shall be maintained for the life of the project by the owner,
46 applicant, and or operator of the facility.

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(4) A 1 to 1 tree replacement effort shall occur within the City for all trees requiring removal that are of 20 inches in diameter or larger. All newly-planted trees shall be a minimum of 3 inch caliper at breast height.

(5) Soil erosion and sediment control systems shall be maintained at all times in accordance with RIDEM wetlands permit(s), and local regulations.

(6) Clearing, cutting, girdling, and any other form of disturbance to an old growth tree or old growth forest is prohibited.

(K) Neither blasting nor removal of ledge by mechanical means is allowed.

(L) Pollinator mix is required, shall be supported by a maintenance plan, and contain annual reports supplied by the applicant’s landscape architect until the pollinator mix approved by RIDEM is established. Disturbed topsoil shall remain onsite unless removal is required by remediation permit(s).

(M) Utility connections shall be underground, equipment screened from view with plantings or fencing, and approved by the utility company as part of the Final Plan Application.

(1) Interconnection agreement shall be compliant with Code of Ordinance Section 74-52, Renewable energy system tax exemption, and submitted with the Final Plan Application.

(2) A comprehensive development pro forma including but not limited to land cost (lease or purchase, equipment cost, construction, decommission cost etc., shall be submitted with Final Plan application.

(N) Perimeter fencing shall be raised a minimum of 8 inches for wildlife passage and be comprised of black coated chain link fence.

(O) A sign shall be posted at the entry of the SES displaying the name of the owner and operator of the system and a twenty-four (24) hour emergency contact number.

(P) SES systems shall provide for motion detect lighting in maintenance areas and dark sky compliant lighting elsewhere.

(Q) Applicant shall provide a decommissioning plan and cost estimate with the Preliminary Application, and surety funds provided with the Final Plan Application to ensure adequate removal at the end of useful life or abandonment.

(1) Funds deposited shall be equal in amount to removal of the system, as verified by the City’s peer review engineer, inclusive of 2% annual inflation over life of the

1 system with funds deposited into an interest bearing escrow account under City
2 control.

3
4 (2) The calculation of the decommissioning reserve shall be predicated upon the
5 assumption that 100% of the retired solar panels will be recycled by an accredited
6 solar panel waste recycler, without any credit on the financial guarantee amount for
7 anticipated salvage value or reuse of and project components. City peer review
8 engineers shall afford the City the right to evaluate the inflation rate every 5 years.

9
10 (3) A separate surety of an amount equal to the cost of repairing 100% of the pollinator
11 mix, as established by the City's peer review engineer during Preliminary
12 Application review, shall be submitted with the Final Plan Application.

13
14 (4) Within one week after permanent shutdown, the owner, applicant, and or operator
15 shall notify the Building Official and remove the system within 6 months of said
16 notification. The City shall utilize escrow funds to remove all or remaining system
17 components beyond six months, with owner, applicant, and or operator liable for
18 all expenses beyond escrow, should escrow be exceeded. City shall retain the right
19 to fine the owner in accordance with local ordinances.

20
21 (R) Maintenance. The contaminated site solar energy system shall be maintained by the
22 solar energy owner and/or operator and shall be cleared of debris, weeds, trash, etc.
23 Maintenance shall include, but not be limited to, painting, structural repairs,
24 maintenance of the landscape buffers, care and replanting if necessary, of any
25 vegetative screening, cleaning clearing and repairing of stormwater and drainage
26 infrastructure, and integrity of security measures.

27
28 (S) Enforcement. The Building/zoning Official and City engineering consultant a have the
29 power to inspect any solar energy system at any time to ensure compliance with the
30 provisions of this Ordinance. Any entity who fails or refuses to adhere to all of the
31 provisions of this Ordinance or any other conditions imposed by the City, State of
32 Rhode Island or Federal government, shall be deemed to be in violation and liable to
33 the City of Warwick for penalties not to exceed \$500 per day for each violation. Each
34 day of existence of a violation shall be deemed a separate offense.

35
36 (T) Inspection. The City's Engineer or designee shall inspect any contaminated site solar
37 energy system at the expense of the applicant on a weekly basis during construction,
38 and during the month of April each year after completion of construction. Said
39 inspection will include a review of any and all reports as required by the State of Rhode
40 Island, the City of Warwick and the Federal Government. The applicant and any
41 successor shall reimburse the City for any cost incurred as specified in the Stormwater
42 Facility Maintenance Agreement.

43
44
45 Section IV. Appendix A, Zoning Section 600 of the City of Warwick Code of Ordinances is hereby
46 amended as follows:

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2 601.2. *Location of accessory buildings and uses.*

3 (A) A building or use accessory to a dwelling, including an attached or detached
4 garage, ~~or~~ carport, or solar canopy, shall not be located in any required front
5 or corner side yard, shall not be located within ten feet of any rear lot line
6 and may be located within a required side yard as follows:

7 In residence district A-40 to within 15 feet of a side lot line.

8 In residence district A-15 to within ten feet of a side lot line.

9 In residence district A-10 to within eight feet of a side lot line.

10 In residence district A-7 to within five feet of a side lot line.

11 (B) In any district, seasonal boat storage of a single boat, for not more than nine
12 consecutive months, may be located within a required front, side or rear
13 yard.
14

15 601.10. Accessory solar energy systems (SES). Accessory SESs shall require a building
16 permit only, shall not require Planning Board review as land development projects, and
17 shall be subject to the following requirements:
18

19 (1) Roof or building mounted SES must not increase the footprint of the structure.

20
21 (2) Residential use ground mounted systems shall be no larger than that required to
22 power the needs of the residential use only, and not sell power into the power grid
23 on a commercial scale.

24
25 (3) Residential use ground mounted systems shall incorporate landscaping and design
26 elements to visually screen the installation from view of public roads and adjoining
27 properties, at ground-level, year round. If planting is required within the designated
28 setbacks due to a lack of natural screening, such planting shall be a minimum of 6
29 feet in height at the time of installation.

30
31 (4) Accessory solar canopies in non-residential zones shall comply with all operating
32 standards outlined under Section 604.

33
34 (5) Solar canopies shall be visually and architecturally compatible with the building,
35 in terms of color, lighting, materials, and basic form. Where appropriate, integrated
36 artwork, trim additions, or other such design features shall be used to improve
37 architectural compatibility. Ground level casings, conduits, and other electronics
38 shall be given similar treatment as the main structures of the solar canopies.

39
40 (6) Solar canopies shall include, by AASHTO or equivalent standards, lighting beneath
41 canopies to ensure pedestrian and vehicular safety.
42

43 Accessory solar canopies shall be shut down in the event of an abandonment or vacancy of
44 the primary use of the property to ensure public safety and ensure employment is not
45 displaced by solar canopies.
46

1 Subject to the following stipulations:

2

3 1. None.

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5 Section V. The Clerk of the Zoning Board of Review is hereby authorized and directed to cause
6 said changes to be made on the Zoning Map and the Record Book of Lot Classifications.

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8 Section VI. This Ordinance shall take effect upon passage and publication as prescribed by law.
9 Upon this ordinance taking legal effect, the moratorium issued pursuant to O-21-23 (PCO-34-21)
10 shall be terminated.

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SPONSORED BY: COUNCIL PRESIDENT MCALLISTER
ON BEHALF OF MAYOR PICOZZI

COMMITTEE: ORDINANCE