

THE CITY OF WARWICK
STATE OF RHODE ISLAND

APPENDIX A

ZONING

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

Approved.....Mayor

AN ORDINANCE RELATIVE TO AMENDMENT OF THE WARWICK ZONING
ORDINANCES: REGULATIONS FOR THE INSTALLATION OF SOLAR ENERGY
SYSTEMS

Be it ordained by the City of Warwick:

Section I. Appendix A of the City of Warwick Code of Ordinances is hereby amended as follows:

[. . .]

SECTION 200. - Definitions.

Direct Benefit, Energy. A substantial tangible benefit afforded to the City, as determined by the City Council, as part of the Solar Energy System (SES) and Energy Storage Facilities (ESF) process per Sec. 314, including, but not limited to, the dedication of land to the City with a minimum area equivalent to the SES or ESF footprint; providing a conservation easement that restricts future development rights on the parcel once an SES or ESF is decommissioned in accordance with Section 314.3(T); direct monetary compensation to the City placed in a restricted account for the acquisition and/or enhancement of City open space; or other similar proposals that provide a substantial long-term benefit to the entire community, including, but not limited to, the immediate abutters of the proposed SES or ESF development.

Energy storage facility. Facilities and structures for the storage of energy and the charging and discharging of power. Such facilities may include, but not be limited to, electrochemical storage batteries, battery chargers, controls, power conditioning systems, and associated electrical equipment designed to provide electrical power to a building or to a utility grid. The facility is typically used to provide standby or emergency power, an uninterruptible power supply, load shedding, load sharing or similar capabilities.

Energy storage facility, accessory. An energy storage facility as defined herein that is incidental and subordinate to the principal use(s) of a property and does not exceed more than ten percent

1 (10%) of the total footprint of the principal use or structure on the parcel. When the principal use
2 is a solar energy system or similar principal use, the total footprint includes all access aisles and
3 area necessary to maintain the system.

4 Energy storage facility, principal. An energy storage facility as defined herein that is the principal
5 use of a property and/or larger than the definition of an accessory energy storage facility.

6 Forest, old growth. A grouping of trees, shrubs, and other vegetation determined by a certified
7 arborist to have substantial value based on the presence of old growth trees, snags and woody
8 debris, and a multi-layered canopy that is usually in a late stage of ecological succession.

9 Remediated and restricted contamination site. A property (1) that has been identified and
10 confirmed by the Rhode Island Department of Environmental Management (RIDEM) as having
11 contained a hazardous material contamination; (2) on which remediation activities were
12 conducted to the satisfaction of RIDEM as documented within a “Letter of Compliance” or an
13 “Interim Letter of Compliance,” and (3) for which RIDEM has required the use of the property
14 to be restricted through an Environmental Land Use Restriction.

15 Solar canopy. A ground-mounted solar energy system constructed over an existing or proposed
16 parking area, walkway, pedestrian plaza, or similar area, as determined by the building official,
17 that provides substantial benefits from shade and protection from other climatic conditions. Any
18 solar canopy that does not exceed the total footprint area of a principal use occupied structure on
19 the parcel shall be considered an accessory solar energy system. All other solar canopies shall be
20 considered a principal solar energy system.

21 Solar energy system (SES). The equipment and requisite hardware that provide and are used for
22 collecting, transferring, converting, storing, or using incident solar energy for water heating, space
23 heating, cooling, generating electricity, and off-loading said electricity to the grid, or other
24 applications that would otherwise require the use of a conventional source of energy such as
25 petroleum products, natural gas, manufactured gas, or electricity produced for a nonrenewable
26 resource.

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

- 29 (a) Roof or building-mounted energy-generating panels;
- 30 (b) Ground-mounted solar energy systems, including solar canopies, that do not
31 exceed the total footprint area of a principal use occupied structure on the parcel,
32 inclusive of all area within the required fencing for the system.

33
34 An accessory SES is subject to all requirements outlined in Section 601.

35 Solar energy system, contaminated site. A principal solar energy system in which a majority of the
36 SES is located on a remediated and restricted contamination site pending remediation or a
37 remediated and restricted site in accordance with RIDEM Rules and Regulations.

38 Solar energy system, ground-mounted. A solar energy system, including a solar canopy, that has a
39 support structure fixed or secured to the ground through the use of structural footings, ballasts, or
40 other similar devices approved by the building official.

1 Solar energy system, principal. A solar energy system as defined herein that is the principal use of
2 a property, and/or where a solar energy system is larger than the definition of an accessory solar
3 energy system.

4 Solar energy system, roof- or building-mounted. An active solar energy system that is structurally
5 mounted to, structurally ballasted, or integrated into the design of the roof or any other architectural
6 aspect of a building or structure.

7 Structure, principal use occupied. A residential or commercial structure, or grouping of
8 approved principal use structures, that have a minimum of 75% of the total gross floor area
9 occupied and actively in use as designed, arranged, or intended, and has a valid certificate of
10 occupancy issued by the building official.

11 Tree, old growth. A tree that is determined by a certified arborist to be in a late stage of
12 ecological succession and has substantial value based on the tree species, geography, reference
13 conditions, and regional disturbance cycle.

14 [...]

1 **SECTION 300. – Establishment and Classification of Districts.**

2
3 302.9. Overlay district – principal solar energy system (SES) and energy storage facilities (ESF). Properties mapped in accordance with
4 subsection 303 of this ordinance and so designated to provide for principal solar energy systems and/or energy storage facilities. No overlay
5 district is required for accessory solar energy systems or accessory energy storage facilities.

6
7 TABLE 1. USE REGULATIONS

8

| | Zoning Districts | OS | A-40 | A-15 | A-10 | A-7 | O | WB | GB | LI | GI | Inter-modal | Gate-way | Village District | |
|-----|---|------------------|------------------|------------------|------------------|------------------|----------------------|----|----------------------|-------------------|-------------------|-------------|----------|------------------|--|
| 600 | Transportation, communication and utility uses: | | | | | | | | | | | | | | |
| 612 | Principal Solar Energy System | No ²⁷ | No ²⁷ | No ²⁷ | No ²⁷ | No ²⁷ | No ^{28, 29} | No | No ^{28, 29} | Yes ³⁰ | Yes ³⁰ | No | No | No | |
| 613 | Principal Energy Storage Facility | No ²⁷ | No ²⁷ | No ²⁷ | No ²⁷ | No ²⁷ | No ^{28, 29} | No | No ^{28, 29} | Yes ³⁰ | Yes ³⁰ | No | No | No | |

9

10
11 ²⁷ Eligible for overlay designation on City-owned properties, or when the SES provides a direct benefit (as defined in Section 200), or if a majority of the SES is
12 located on a contaminated site, (as defined in Sec. 200), subject to all the requirements of Section 314.

13 ²⁸ Eligible for overlay designation, subject to all the requirements of Section 314.

14 ²⁹ Principal Use Solar Canopies are allowed within this zoning district subject to all applicable review procedures and performance standards outlined in Section 314.

15 ³⁰ Subject to all applicable review procedure and performance standards outlined in Section 314.

1 **305. - Administrative procedures for overlay districts.**

2
3 The administrative procedures described in this subsection apply to the following overlay districts,
4 except for flood hazard, historic overlay, watershed protection and groundwater protection overlay
5 districts, which are described in subsections 310 and [through] 313, respectively:

6
7 Institutional-health care (IH), subsection 306.

8
9 Institutional-educational (IE), subsection 307.

10
11 Planned district residential (PDR) and planned district residential - limited (PDR-L), subsection
12 308.

13
14 Planned unit development (PUD), subsection 309.

15
16 Principal Solar Energy System (SES) and Energy Storage Facilities, subsection 314.

17
18 For the purposes of this subsection, all references to "overlay districts" shall specifically include
19 only the ~~four~~ five overlay districts listed above.

20
21 305.1. *Administrative procedure.* Overlay districts may be enacted by the city council following
22 full compliance with this subsection.

23 (A) *Preapplication conference.* The applicant for an overlay district is required to submit
24 written and graphic descriptions of his/her proposed development to the department of
25 city plan. ~~The plan shall include the location and areas of all open spaces, building area,~~
26 ~~recreational areas, and parking spaces. The preapplication conference is intended to allow~~
27 ~~[the] department to:~~ An aerial overlay plan shall be provided that includes:

28 (1) ~~Acquaint the application with the comprehensive plan and any specific plans that~~
29 ~~apply to the site, as well as this and other ordinances that affect the proposed~~
30 ~~development;~~ Approximate property boundaries and zoning of the parcel and all abutting
31 parcels;

32 (2) ~~Suggest improvements to the proposed design on the basis of a review of the sketch~~
33 ~~plan;~~ The location and areas of all open spaces, recreational areas, and parking spaces;

34 (3) ~~Advise the applicant to consult appropriate authorities on the character and~~
35 ~~placement of public utility services; and~~ All buildings located on the subject parcels and
36 directly abutting parcels;

37 (4) ~~Help the applicant to understand the steps to be taken to receive approval.~~ General
38 site topography. Indicate major slopes, shifts in grade, berms, or other significant
39 topographic site features.

40 (5) Approximate edge delineation of areas of environmental concern such as wetlands,
41 floodplains, coastal buffers, etc.

42 (6) Approximate limits of vegetated vs. non-vegetated (cleared) areas with associated
43 area calculations.

1 (7) For Solar Energy Systems (SES), the limits of all areas on the proposed
2 development site that have been substantially cleared of vegetation in the past 5
3 (five) years based on an assessment of historical aerial photography.

4 (8) Scale, north arrow, and content references.
5

6 The pre-application conference is intended to allow the department to:
7

- 8 (1) Acquaint the applicant with the comprehensive plan and any specific plans that
9 apply to the site, as well as this and other ordinances that affect the proposed
10 development;
- 11 (2) Suggest improvements to the proposed design on the basis of a review of the sketch
12 plan;
- 13 (3) Advise the applicant to consult appropriate authorities on the character and
14 placement of public utility services;
- 15 (4) Help the applicant to understand the steps to be taken to receive approval; and
16
- 17 (5) Verify whether a site qualifies for an overlay designation.
18
19
20

21
22 (B) ~~Development plan review prerequisite for approval. Any amendment to this zoning~~
23 ~~ordinance by which an overlay district would be established shall be considered and/or~~
24 ~~enacted only after a development plan for said overlay district shall have been received~~
25 ~~and given a recommendation by the planning board of the City of Warwick. Application~~
26 ~~for overlay zoning review and decision. Any amendment to this zoning ordinance by~~
27 ~~which an overlay district would be established shall be subject to the following:~~

- 28 (1) The application may be considered and/or enacted by the city council only after a
29 development plan, prepared in accordance with the City's standard checklist, has
30 been received and given a recommendation by the planning board pursuant to
31 Section 1007 the Zoning Ordinance and R.I.G.L. § 45-24-51.
32
- 33 (2) Pursuant to R.I.G.L. § 45-24-51, the planning board shall make a recommendation
34 to the city council. In addition to the documentation required by R.I.G.L. § 45-24-
35 52, the planning board shall reference the development plans attached to its
36 recommendation and any alterations to the plan that are part of the recommendation
37 to the city council. These development plans and any associated alterations shall be
38 considered part of the application to the city council.
39
- 40 (3) Pursuant to R.I.G.L. § 45-24-51, the city council shall hold a public hearing and
41 render a decision, ensuring proper notice as prescribed in R.I.G.L. § 45-24-53. The
42 provisions of this section pertaining to deadlines shall not be construed to apply to
43 any extension consented to by an applicant.
44

1 (4) For an overlay district to be established, the city council must amend the "zoning
2 plat" as defined in subsections 303 and 1007 of this ordinance.

3
4 (5) The city council's written decision shall be filed with the city clerk along with all
5 supporting materials, including, but not limited to, the development plan and any
6 approved amendments thereto.

7
8 (C) ~~*Application to city council for a change of zone.*~~ In order for an overlay district to be
9 established, the city council must amend the "zoning plat" as defined in subsections 303
10 and 1007 of this ordinance. ~~*Permit review.*~~ After a change of zone by the city council, the
11 applicant must submit for approval under the permitting processes applicable to the
12 proposed use/activity (e.g., Development Plan Review, Major Land Development, etc.)
13 as set forth in the Zoning ordinance and the planning board regulations.

14 (1) Upon receipt of the development application, the administrative officer shall review
15 the development plan to determine whether it is substantially in conformity with the
16 development plan on file with the city council decision for a zone change.

17
18 (2) The administrative officer shall notify the permitting authority in writing whether
19 the development plan is in substantial conformity with the development plan on file
20 with the city council decision.

21
22 (3) Where the development plan is deemed to be not in substantial conformity,
23 applicants must resubmit the application for a change of zone by the city council.

24
25 (D) ~~*Final site plan submission.*~~ After a change of zone by the city council, the applicant shall
26 submit copies of the complete and final site plan for the overlay district as approved by
27 the city council, with any modifications thereto, to the building official, who shall
28 forward such plan to the director of city plan for review. ~~*Change of approved*~~
29 development plan. Applicants wishing to make changes to an approved development plan
30 shall do so in accordance with the procedures associated with the applicable permitting
31 process (e.g., Development Plan Review, Major Land Development Review, etc.).

32 (E) ~~*Action on the site plan.*~~ Not more than 30 days after receipt of the development plan, the
33 director of city plan shall determine whether the proposed development complies with all
34 requirements of this zoning ordinance, the comprehensive plan and all modifications
35 imposed by the city council. The site plan submitted for final review must be in substantial
36 conformity with the plan approved by the city council, provided the number of dwelling
37 units and/or the number and gross floor area of buildings does not change. The director
38 of city plan shall notify the building official in writing that the plan meets the
39 requirements of the zoning ordinance. ~~*Duration of approval.*~~ Any amendment to this
40 zoning ordinance by which an overlay district is established may be repealed by the city
41 council in accordance with the following:

42 (1) The amendment may be repealed after five years from the date of its enactment
43 where the city council finds that no building permits related to the development
44 plans associated with the zone change have been issued.

1 (2) The action to repeal shall be in accordance with subsection 1007 of this ordinance.
2 Where an overlay district has been repealed, the most recently adopted zoning
3 ordinance provisions for the underlying area shall govern.

4 ~~(F) *Change of approved site plan.* If the applicant wants to make any amendment to an~~
5 ~~approved development plan, a written request shall be submitted to the building official.~~
6 ~~The building official shall forward such plan to the director of city plan for review. If in~~
7 ~~the opinion of the director of city plan a requested change is sufficiently substantial, the~~
8 ~~building official shall require that the applicant repetition the city council according to the~~
9 ~~procedures outlined in this subsection.~~

10 ~~(G) *Duration of approval.* Any amendment to this zoning ordinance by which an overlay~~
11 ~~district is established may be repealed by the city council one year from the date of its~~
12 ~~enactment unless a building permit for construction in the overlay district shall have been~~
13 ~~issued. The action to repeal shall be in accordance with subsection 1007 of this ordinance.~~
14 ~~The zoning classification of any overlay district which has been repealed shall revert to the~~
15 ~~classification in effect before the enactment of the appropriate overlay district amendment.~~

16 305.2. *Content of site plan.* Applicants for an overlay district shall submit six copies of a site
17 ~~plan drawn by a registered engineer, architect or surveyor at a scale of no more than 100 feet to~~
18 ~~the inch indicating: Site plans shall be submitted in accordance with the City's development~~
19 ~~review regulations and associated checklists.~~

20 ~~(A) Existing and proposed property boundary lines, zoning lines, [and] abutting lots~~
21 ~~including those across any street and the property owners of such.~~

22 ~~(B) Location and dimensions of existing and proposed principal and accessory buildings~~
23 ~~and structures on the site.~~

24 ~~(C) Location of existing and proposed roads and sidewalks and the location, dimensions~~
25 ~~and number of off street parking and loading spaces including guest parking spaces.~~

26 ~~(D) Location, dimensions, and design of existing and proposed signs and exterior~~
27 ~~illumination of the site.~~

28 ~~(E) Location of existing and proposed recreation facilities, open space, easements and/or~~
29 ~~rights of way, and utilities including water supply, sewage disposal, storm drainage, and~~
30 ~~electrical or gas service.~~

31 ~~(F) Soil types and where regrading is proposed, existing and proposed grade contours at~~
32 ~~five-foot intervals (to be shown separately if necessary).~~

33 ~~(G) Location and type of existing and proposed major tree and shrub areas, flood hazard~~
34 ~~areas as defined by this ordinance, and location and area of coastal or freshwater~~
35 ~~wetlands, as defined in subsections 200.36 and 200.146.~~

36 ~~(H) Location, dimensions and type of existing and proposed screening, fences, or walls.~~

37 ~~(I) Proposed density, number of bedrooms per dwelling unit, and percentage of lot~~
38 ~~coverage as defined by subsection 200.93 of this ordinance.~~

39 ~~(J) General exterior architectural plans and elevations of all proposed structures~~
40 ~~indicating proposed style and materials.~~

1 ~~(K) Any other information deemed necessary by the secretary of the planning board or~~
2 ~~the director of city plan.~~

3 ~~(L) Title block in the lower righthand corner of the site plan showing names of the~~
4 ~~property owner and developer, date of original plan and revisions, if any, north arrow,~~
5 ~~and a blank for the signature of the director of city plan for final site plan approval as~~
6 ~~required in subsection 305.1(E).~~

7 ~~(M) The director of city plan may waive any of the above submittal requirements~~
8 ~~([subsections] (A) through (L)) if he/she determines such are unnecessary.~~

9
10 [. . .]

11
12 **SECTION 314. – Overlay district regulations – Solar energy systems (SES) and Energy**
13 **storage facilities (ESF)**

14 The Solar Energy System (SES) and Energy Storage Facilities (ESF) overlays are established in
15 accordance with section 302.9 of this ordinance and may be enacted from time to time by
16 amendments to this ordinance consisting of appropriate changes in the boundaries of districts in
17 such a manner as best to fit the general pattern of land use established by the comprehensive plan
18 and this ordinance and to further the purposes set forth in Section 100. The intent of the SES and
19 ESF overlay district is to regulate the installation of solar energy systems and energy storage
20 facilities by providing standards for the placement, design, construction, operation, monitoring,
21 modification, and removal of such systems. The standards set forth herein will ensure that solar
22 energy systems and energy storage facilities are compatible with the surrounding area, provide for
23 public safety, and minimize impacts on scenic, natural, and historic resources. The provisions of
24 this section shall apply, as specified herein, to construction, operation, and/or repair of solar energy
25 system and energy storage facilities installation in the city.

26 314.1. Use Types. Solar Energy Systems (SESs) and Energy Storage Facilities (ESFs) defined
27 and regulated by the City of Warwick include:

| <u>Principal Uses</u> | <u>Accessory Uses</u> |
|---|---|
| <u>Principal SES</u> | <u>Accessory SES</u> |
| <u>Contaminated Site SES</u> | <u>Solar Canopy, Accessory</u> |
| <u>Solar Canopy, Principal</u> | <u>Energy Storage Facility, Accessory</u> |
| <u>Energy Storage Facility, Principal</u> | |

28
29 314.2. Review process. In addition to any review performed as part of establishing an SES overlay
30 district (per Sec. 305 as relevant), or where an SES is allowed in an established district, SESs and
31 ESFs shall be reviewed as follows:

| <u>Type of Use</u> | <u>Review Type</u> |
|---|-------------------------------|
| <u>Principal</u> | |
| <u>Overlay Principal SES</u> | <u>Major Land Development</u> |
| <u>Non-Overlay Principal SES</u> | <u>Administrative DPR</u> |
| <u>Contaminated Site SES</u> | <u>Administrative DPR</u> |
| <u>Solar Canopy, Principal</u> | <u>Administrative DPR</u> |
| <u>Energy Storage Facility, Principal</u> | <u>Administrative DPR</u> |
| <u>Accessory</u> | |
| <u>Accessory SES</u> | <u>Building Official</u> |
| <u>Energy Storage Facility, Accessory</u> | <u>Building Official</u> |

1

2 The petitioner shall submit a development plan that shall provide all necessary information to
3 demonstrate compliance with the applicable performance standards of Sec. 314.3.

4 The findings and decision of the administrative officer or the planning board shall be retained as
5 part of the permanent record of decision and a building permit shall not be issued until an approval
6 letter is provided to the building official by the administrative officer.

7 314.3. Performance standards for Solar Energy Systems (SES) and Energy Storage Facilities
8 (ESF).

9 (A) Location.

10

11 (1) SESs and ESFs shall be allowed under zoning in accordance with the Table 1 – Use
12 Regulations as outlined herein.

13 (2) SESs and ESFs shall not be allowed on land held under conservation easement or
14 land for which the development rights have been sold, transferred, or otherwise
15 removed from the parcel, unless the conditions of the easement, deed or other
16 applicable legal document specifically allows for such facility.

17 (3) SES panels and equipment shall, to the greatest extent possible, be sited within the
18 project site in the area(s) that are anticipated to minimize potentially adverse
19 impacts to nearby properties, communities and natural resources with reasonable
20 considerations to site conditions and other use(s) on site as applicable.

21

22 (B) Setbacks.

23

1 (1) All solar energy systems and storage facilities will follow the setback requirements
2 in the table below. The City shall make the final determination on the setback
3 required within the ranges provided.

4 (2) Required setbacks will be measured from the edge of the SES or ESF, including
5 any perimeter fencing.
6

| <u>Location</u> | <u>Minimum/ Maximum Setback _____ from property lines</u> |
|---|---|
| <u>Any overlay zoning district bordering GI or LI</u> | <u>25 FT/ 50FT</u> |
| <u>Any overlay zoning district bordering any district other than GI or LI</u> | <u>50 FT/400 FT</u> |
| <u>Adjacent principal use solar facilities on abutting parcels</u> | <u>0 FT/ 100 FT</u> |

7 (3) Setbacks shall be determined by the administrative officer after consulting with the
8 applicant, and the city's landscape coordinator, at the pre-application stage.
9 Setbacks shall be determined after the administrative officer reviews the site layout
10 plan and details of proposed equipment; visits the project site; takes into
11 consideration site topography, existing vegetation and abutting land uses; and
12 analyzes cross sections, elevations, and other visual assessments provided by the
13 Applicant.

14 (4) Setbacks for principal solar energy systems reviewed as a major land development
15 may be modified by the planning board, within the limits outlined herein, after
16 consideration of the application proposal and public comment.

17 (C) Height.

18 (1) The maximum height of a ground-mounted solar energy system or energy storage
19 facility shall be 12 feet, with the exception of solar canopies, which may be up to
20 20 feet in height.

21 (2) The height shall be measured from the average surrounding grade of the system's
22 pedestal to the highest point of the solar energy system or facility, including the top
23 of any support structure or panel.
24

25 (D) Glare.

26 (1) All solar energy systems shall be designed and located to prevent reflective glare
27 toward any inhabited buildings on adjacent properties.
28

- 1 (2) Glare generated from solar panels shall not interfere with traffic or create a safety
2 hazard.
3
4 (3) Racks shall have a matte finish to reduce glare and glimmer.
5
6 (4) A glare study may be required by the administrative officer, building official, or
7 planning board to determine if glare will impact abutting properties, structures, or
8 airport operations.

9 (E) Noise.

- 10 (1) Systems shall maintain a noise level at or below 55dB, and there shall be no greater
11 than a 3dB change in amplitude (the minimum audible difference perceptible to the
12 average person) measured along the entirety of any property line which abuts an
13 existing residential zone or open space.
14
15 (2) If necessary, and at the request of the City, the applicant shall be responsible to
16 fund and submit a noise study, conducted by an environmental professional,
17 measuring pre-background sound with the post construction as-built conditions that
18 illustrate adherence with this stipulation. Said study shall be submitted to the
19 building inspector and administrative officer to the planning board within 90 days
20 of the City's request.

21 (F) Access and safety.

- 22 (1) The solar energy system or facility shall have adequate and permanent access from
23 a City-accepted roadway or state highway.
24
25 (2) Reasonable accessibility for emergency service vehicles is required, and a means
26 of shutting down the solar energy system or facility connection to any utility
27 provider interconnection shall be clearly and sufficiently marked.
28
29 (3) A public safety preparedness and response plan detailing the standards, procedures,
30 and communication protocol to be utilized for the system and in the event of an
31 emergency shall be provided to the City's emergency management agency director,
32 as well as documentation indicating that the plan has been distributed to the fire
33 department.
34

35 (G) Site contamination.

- 36
37 (1) For contaminated solar energy systems, the site shall be remediated to a state where
38 site work and the eventual construction of an SES is appropriate as confirmed by
39 RIDEM. Refer to the definition of a remediated and restricted contamination site in
40 Section 200.
41

42 (H) Site preparation and ground cover.

- 43
44 (1) No substantial clearing or grading of the proposed project site shall have occurred

1 within five (5) years of the application for an SES or ESF based on a review of
2 aerial photography by the administrative officer.

3
4 (a) If it is determined by the administrative officer that substantial clearing
5 occurred within five (5) years of the application date, the applicant shall pay
6 a supplemental application fee based on the amount of site clearing that
7 occurred within the footprint of the proposed system, as determined by the
8 City's landscape coordinator. This additional fee will be deposited in a
9 restricted account to be used for reforestation either at the project site or
10 elsewhere in the City.

11
12 (b) Alternatively, the administrative officer may require the applicant to reduce
13 the footprint of the proposed system, and/or reforest a portion of the
14 property equivalent to the cleared area, and/or provide plantings on
15 alternative City-owned property.

16
17 (2) Clearing of non-invasive vegetation shall be limited to what is necessary for the
18 construction and operation of the SES or ESF.

19
20 (3) Topsoil shall not be removed from the site. Topsoil will not be disturbed except as
21 required for installation of the system or facility.

22
23 (4) Removal of ledge by blasting or other similar invasive methods is prohibited.

24
25 (5) Wildflower pollinators and native grasses shall be utilized for the ground cover
26 under and around SES or ESF equipment to the extent practicable, except where
27 systems or facilities are built on previously paved sites or where solar canopies are
28 built over parking areas. The applicant shall provide a long-term management plan
29 for ensuring wildflowers and grasses are properly cut and maintained throughout
30 the life of the project.

31
32 (6) Gravel, crushed stone, or similar materials may be used on primary travel ways and
33 turn around areas to provide a stable travel surface and prevent weed growth in the
34 direct vicinity of transformers or energy storage equipment. Access aisles between
35 sets of panels shall not be considered primary travel ways. The site shall be
36 maintained against invasive species over the life of the SES or ESF.

37
38 (I) Deforestation.

39
40 (1) If the project proposal includes the removal of trees, shrubs, and/or other vegetation
41 in a combined area equal to or more than five (5) percent of the total parcel or land
42 development area, the applicant shall provide a report, drafted by an arborist
43 certified by the International Society of Arboriculture, that includes the following:

44
45 (a) A description and map of the total proposed land area to be cleared.

46
47 (b) An analysis of existing conditions in forested areas, to include:

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- (1) A description of the various growing environments on the property – upland, wetland, etc.;
 - (2) Identification of dominant species of trees, shrubs, and other substantial stands of vegetation on the property;
 - (3) Mapping of old growth trees or forests, as defined in Section 200, on the property;
 - (4) Identification of trees or shrubs that are endangered or have significant ecological or habitat value based on their species or cultural features;
 - (5) Mapping and identification of invasive species;
 - (6) Documentation of sample points or areas where tree species, diameter, and average tree heights are inventoried;
 - (7) An approximation of the number of trees impacted by the development with accompanying calculation methodology.
- (c) A plan for the preservation and protection of old growth trees and forest stands.
- (d) A deforestation mitigation plan. The plan may include one or more mitigating actions including, but not limited to, reforesting areas within the development parcel not currently forested, foresting offsite public or private areas within the City that are not currently forested, or providing monetary compensation to the City to be placed in a restricted account for tree planting and reforestation initiatives administered by the City.
- (2) The forestry report shall be provided to the administrative officer as part of the master plan submittal package.
 - (3) The administrative officer may request additional clarifications and/or analysis be performed.
 - (4) After reviewing the report, and consulting with the City’s landscape coordinator, the administrative officer shall work with the applicant to finalize a forest mitigation plan and recommendation to the planning board.
 - (5) The administrative officer shall provide the forest mitigation plan along with a written recommendation to the planning board that addresses each of the following and shall make positive findings regarding each of the following provisions as they apply to the application under review:

- 1 (a) The clearing of trees, shrubs, and other vegetation is the least amount
2 necessary for the proposed development;
3
4 (b) Old growth trees or forest stands have been preserved to the maximum
5 extent feasible;
6
7 (c) Invasive species within the development area will be managed or eliminated
8 as part of the project development;
9
10 (d) The forest mitigation plan includes actions and/or compensation that
11 reasonably addresses the short-term impacts of proposed site deforestation.
12

13 (J) Screening and Buffering Plan.

- 14 (1) A screening and buffering plan prepared and stamped by a Rhode Island licensed
15 landscape architect shall be submitted to the administrative officer.
16
17 (2) During the pre-application stage, the applicant's landscape architect shall work
18 with the administrative officer and the City's landscape coordinator to develop a
19 screening plan for all setback areas. Screening plans shall be developed with
20 consideration of the following:
21
22 (a) A combination of natural vegetation, berms, fencing, walls, and other
23 similar features shall be used to visually buffer the system(s) from the view
24 of abutting properties, as well as mitigate noise, glare, or other potential
25 nuisances;
26
27 (b) Healthy, non-invasive trees shall be preserved to the extent practicable.
28 Removal of isolated trees that are unusually tall or unhealthy may be
29 allowed where the applicant can show maintaining the tree will obstruct
30 solar access, is in significant decline, or will adversely impact the operation
31 of the system;
32
33 (c) Where existing vegetation provides little to no visual screening, applicants
34 may be required to install dense, layered evergreen plantings to supplement
35 existing vegetation and create opaque screening from neighboring
36 properties and rights of way;
37
38 (d) Earthen berms may be used in addition to natural vegetation or plantings,
39 but are typically not acceptable buffers on their own;
40
41 (e) When feasible, the natural topography of the site should be used to achieve
42 screening objectives in combination with existing and/or proposed
43 vegetation.
44
45

- 1 (3) Longevity. Required visual screening shall be maintained for the life of the SES.
2 The property owner and/or facility owner shall be required to replant any section
3 of the buffer/screening found not to meet the requirements of this section as
4 determined by the City zoning official.
5

6 (K) Utilities.
7

- 8 (1) Utility connections for solar canopies shall be placed underground to the maximum
9 extent feasible.
10
11 (2) All utility connections from the system shall be placed underground at a minimum
12 between the right of way and the interior (development site side) screening or in
13 other areas where wires may pose a visual or physical nuisance as determined by
14 the building official and/or administrative officer.
15
16 (3) If physically necessary, a riser pole may be constructed within a required screening
17 area in order to connect the underground line to the nearest existing overhead line.

18 (L) Fencing.
19

- 20 (1) Principal SESs (except solar canopies) and ESFs, including all associated
21 equipment, will be enclosed by a perimeter fence that meets building code
22 requirements for height.
23
24 (2) Barbed wire, razor wire or similar is prohibited.
25
26 (3) Fencing shall incorporate wildlife passage features in its design and installation.
27
28 (4) Perimeter fencing shall be secured from unauthorized entry.
29
30 (5) Fencing shall be solid in appearance, such as chain link with slats or wood stockade.
31
32 (6) Ornamental fencing may be required by the administrative officer in areas that are
33 visible from a right of way or residentially zoned properties.
34
35 (7) Chain-link fencing shall be black vinyl-coated unless otherwise approved by the
36 Administrative officer or Building Official.
37

38 (M) Signage.

- 39 (1) A sign shall be posted at the entry of the SES (except for solar canopies) or ESF,
40 displaying the name of the owner and operator of the system and a twenty-four (24)
41 hour emergency contact number.
42 (2) In areas where an SES or ESF abuts a right of way, an educational interpretive sign
43 shall be provided. Final size, verbiage, and location shall be coordinated with the
44 administrative officer.
45

1 (3) All signage shall comply with Section 800.

2
3 (N) Lighting.

4 (1) Lighting shall be limited to that required for safety and operational purposes. All
5 site lighting shall be directed downward and incorporate full cut-off fixtures to
6 reduce light pollution and minimize glare to abutting properties.

7
8 (2) Solar canopies built over parking areas or pathways may have lighting integrated
9 into the canopy for vehicular/ pedestrian safety.

10 (O) Interconnection study and utility notification.

11 (1) As part of the submittal for master plan approval, the applicant shall provide a
12 preliminary interconnection study as submitted to the local electrical utility
13 indicating the anticipated route and associated costs for interconnection of a solar
14 energy system to the electric distribution system.

15 (2) No installation of a SES or ESF (whether located indoors or outdoors) shall
16 commence, and no interconnection shall take place, until evidence has been given
17 that the electric utility company that operates the electrical grid where the system
18 or facility is to be located has been informed of the customer's intent to install an
19 interconnected customer-owned system or facility.

20 (P) System maintenance.

21 (1) The SES or energy storage facility will be maintained by its owner and/or operator
22 and will be cleared of debris, weeds, trash, etc.

23
24 (2) Maintenance shall include, but not be limited to, painting, structural repairs, and
25 integrity of security measures. The equipment shall remain in good repair and
26 working order. Malfunctioning or inoperable equipment will be removed from the
27 property.

28
29
30 (3) Screening and buffering, including ground cover around and below panels, shall be
31 maintained properly on a continuous and regular schedule. The building official
32 may require the replanting of any dead or declining screening vegetation throughout
33 the life of the project.

34 (Q) Decommissioning agreement and financial surety.

35 (1) Before receiving development approval, owners or operators of a principal SES or
36 ESF must develop a decommissioning plan with accompanying estimate and
37 establish an escrow account to provide surety for the removal of system
38 infrastructure in the event the owner/ operator fails to decommission the system as
39 outlined in Sec. 314.3 (T).

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- (2) A registered engineer experienced with the design and decommissioning of solar energy systems shall provide an estimate of all costs and revenues associated with removal of the SES and accompanying remediation.
- (3) The decommissioning estimate shall include all expenses required to restore the site as closely as feasible to its pre-development condition. At a minimum, the estimates for the removal of all SES structures and equipment related to the system or facility, any fees related to disposal or disconnection, and grading and seeding of disturbed areas shall be included. If the area was forested prior to establishment, the decommissioning estimate shall include the cost of reasonably reforesting the area to its pre-development state.
- (4) Revenues used to offset decommissioning expenses may include seventy five percent (75%) of the current salvage value of metals and other materials likely to be recycled. Other revenue may be included upon authorization of the building official.
- (5) The City may engage the services of a qualified engineer, at the applicant's expense, to independently verify the projected decommissioning expenses and revenues.
- (6) Once the decommissioning estimate is approved by the City, the applicant shall draft a decommissioning agreement and establish an escrow account for the deposit of the surety funds.
- (7) Funds must be deposited into the escrow by an authorized agent. The escrow agent and/or applicant shall provide documentation to the building official verifying that funds are properly held in escrow for purposes of decommissioning prior to receiving a building permit.
- (8) Verification of escrow funds must be provided annually by January 31st of each year of operation.
- (9) Failure to maintain sufficient funds in escrow, or failure to provide annual reports as required, are considered a zoning violation and shall be enforced by the building official in accordance with City Ordinance.

1 (R) Notification of Decommissioning or Use Continuance

- 2 (1) Twenty (20) years from the date the final decision letter and plans are recorded (or
3 as otherwise stipulated in the land development approval) the applicant,
4 owner/operator of the system or facility or land owner shall notify the building
5 official and the City planning director in writing of their intent to either
6 decommission the system or facility or continue its use.
- 7
- 8 (2) If the applicant, owner/operator of the system or facility or landowner intends to
9 continue utilizing the system or facility for electric generation, they must provide a
10 new decommissioning study for the existing system or facility in accordance with
11 Section 314.3(Q).
- 12
- 13 (3) The updated decommissioning report must provide an analysis of the existing
14 system or facility and update the estimate related to its decommissioning.
- 15
- 16 (4) After consulting with the City planning director, the building official may allow
17 continued use of the system or facility, provided any additional funds required to
18 decommission it are provided in escrow and the building official determines that
19 the system or facility has been operating in conformance with all prior stipulations
20 and approvals.
- 21
- 22 (5) As a condition of continuing the use, the building official may require the applicant
23 to supplement or replace landscaping, repair or replace fencing, and/or provide
24 similar updates/ improvements.
- 25
- 26 (6) In no case shall the use of a principal use SES be continued longer than thirty-five
27 (35) years from the date of the final decision letter and plans are recorded.

28 (S) Abandonment.

- 29 (1) A principal SES shall be considered abandoned when one or more of the following
30 occurs:
- 31 (a) Use of the solar panels and relevant infrastructure has ceased;
- 32 (b) The solar array is no longer transmitting electricity for offsite use;
- 33 (c) The solar array is in such disrepair that it is no longer providing useful
34 production of electricity; or
- 35 (d) The applicant, owner/operator of the system or facility or landowner fails
36 to notify the building official of their intent to continue use of the system or
37 facility, and provide an updated decommissioning study and escrow funds,
38 as stipulated in Section 314.3(R).
- 39 (e) The system has been in operation (active or inactive) for a period of thirty-
40 five years from the date of the final decision letter and plans are recorded.
- 41
- 42 (2) A principal SES or ESF that has been abandoned shall be removed in accordance
43 with Section 314.3(T).

1 (T) Decommissioning.

- 2 (1) The owner or operator shall physically remove the SES or ESF no more than six
3 (6) months after the date of abandonment.
4
5 (2) In the event the system or facility is not properly decommissioned six (6) months
6 after the system or facility reaches the end of its useful life, or abandonment, the
7 City will have the right to enter the property and utilize escrow funds to properly
8 decommission the system or facility.
9
10 (3) If the cost of decommissioning the system or facility exceeds the actual amount
11 held in escrow, the applicant, operator, and/or landowner shall be liable for any
12 remaining balance and shall be subject to fines for non-compliance with plan
13 approval stipulations. Fines will be imposed by the City building official as outlined
14 in City Ordinance.

15 [. . .]

16
17 601.1. *Accessory building and uses, residential.* Accessory buildings and uses, including private
18 garages, in a residence district are permitted which:

- 19
20 (A) Are clearly incidental to and customarily associated with the principal use.
21
22 (B) Are operated and maintained under the same ownership and on the same lot as the
23 principal use.
24
25 (C) Do not exceed 20 feet in height for detached buildings and solar canopies, or 12 feet in
26 height for ground-mounted solar panels.
27
28 (D) Do not contain any dwelling units.
29

30 Refer to Section 601.10 for standards for accessory SES and EFS.
31

32 [. . .]

33 601.10. *Accessory solar energy systems (SES) and energy storage facilities (ESF).* Accessory
34 SESs or ESFs shall require a building permit and are subject to the following requirements:

- 35 (A) Roof or building mounted SES must not increase the footprint of the structure.
36
37 (B) Ground Mounted Accessory SESs, solar canopies, and ESFs in residential zones shall
38 comply with all operating standards outlined under Section 604 and the following
39 requirements:
40
41 (1) Location. The system shall be located within rear and/or side yard setbacks as
42 outlined in subsection 601.2.

1 (2) Color and materials. Solar panels shall be neutral in color and shall be constructed
2 of materials that minimize impact to surrounding properties.

3
4 (3) Screening. The building official may require all, or a portion, of the SES or ESF
5 be screened with a solid fence, wall, evergreen hedge, or similar element if he/she
6 determines that the system poses a visual, noise, or other similar nuisance to
7 abutting properties.
8

9 (C) Ground Mounted Accessory SESs, solar canopies, and ESFs in non-residential zones
10 shall comply with all operating standards outlined under Section 604 and with the
11 following requirements:
12

13 (1) Location. The system shall be located in accordance with subsection 601.8. Solar
14 canopies located in the front of a building shall not visually or physically obstruct
15 access to the main entrance, windows, signage, pedestrian pathways, etc.
16

17 (2) Color and materials. Solar canopies located in the front of a building, or to the side
18 of a building and visible from a public way, shall be visually and architecturally
19 compatible with the building, in terms of color, lighting, and basic form. Where
20 appropriate, integrated artwork, trim additions, or other such design features shall
21 be used to improve compatibility. Ground level casings, conduits, and other
22 electronics shall be given similar treatment as the main structures of the solar
23 canopies.
24

25 (3) Buffer from public way. All permit applications for systems located within
26 viewshed of a public right of way or front yard area shall be accompanied by a
27 landscape plan, prepared by a Rhode Island registered landscape architect, that
28 utilizes plantings, fencing, walls, or combination thereof to reduce visual nuisance,
29 improve the overall aesthetic along the right of way, and buffer panels where
30 deemed necessary by the building official or city landscape coordinator.
31

32 (4) Screening. The building official may require all, or a portion, of the SES or EFS
33 be screened with a solid fence, wall, evergreen hedge, or similar element if he/she
34 determines that the system poses a visual, noise, or other similar nuisance to
35 abutting properties.
36

37 Section II. This Ordinance shall take effect upon passage.
38

39 SPONSORED BY: COUNCILMAN SINAPI

40 COMMITTEE: ORDINANCE
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