



Staff Report to the Western Weber and Ogden Valley Planning Commission

Weber County Planning Division

Synopsis

Application Information

Application Request: A public hearing to consider and take action on ZTA 2018-07, a request to allow large solar energy farms in the A-3 zone, to create a solar energy overlay zone (SOZ), to modify solar energy regulations in the M-3 zone, and to create standards and processes governing the same.

Agenda Date: Tuesday, January 08, 2019
Staff Report Date: Thursday, January 03, 2019
Applicant: Strata Solar, Doug Larsen as Agent
File Number: ZTA 2018-07

Staff Information

Report Presenter: Charlie Ewert
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(801) 399-8763

Report Reviewer: RG

Applicable Ordinances

- § 101-1-7 – Definitions
- § 104-1-1 – Establishment of zones
- § 104-25-3 – Conditional uses
- § 104 – Creation of a new overlay zone
- § 108-7-27 – Solar energy systems

Legislative Decisions

Decision on this item is a legislative action. When the Planning Commission is acting on a legislative item it is acting as a recommending body to the County Commission. Legislative decisions have wide discretion. Examples of legislative actions are general plan, zoning map, and land use code amendments. Typically, the criterion for providing a recommendation on a legislative matter suggests a review for compatibility with the general plan and existing ordinances.

Summary

Weber County has received an application to enable a large solar energy installation in the A-3 zone. The project needs to be located in the A-3 zone due to the proximity to power infrastructure. The only zone the County currently allows large solar energy installations is in the M-3 zone. It should be noted that in the M-3 zone a solar energy installation is a conditional use permit, meaning it is allowed provided it can mitigate detrimental effects as specified by the conditional use code. The county would have very little discretion to deny a solar installation in the M-3 zone or to apply conditions that are beyond the scope of the conditional use code.

The proposed ordinance, attached as Exhibits A and B, will create an overlay zone for the A-3 and M-3 zones that could enable a large solar energy system. The attached does not apply this new overlay to any particular property at this time. If adopted, no land owner would be entitled to the overlay zone until the County Commission, after recommendation from the Planning Commission, applies the overlay to their property.

This is intended to enable legislative discretion in allowing large solar energy systems on a specific site, and vest the Commission with the power to appropriately negotiate a project that will offer the most positive public effects. Staff is recommending approval of the proposal.

Background

The Wasatch Front's electric energy generation profile is changing. A decade ago the area was highly dependent on coal generated power. This is shifting toward natural gas and renewable energy sources. With the growing concern over local air quality, and the global concern over climate change, there is a push towards reducing our

dependency on the burning of fossil fuels and increasing dependency on renewable resources.

The U.S. Energy Information Administration offers this information about Utah:

About two-thirds of Utah's net electricity generation came from coal in 2016, down from more than four-fifths just three years earlier and from nine-tenths in 2006. Most of Utah's recently added electricity generating capacity is fueled by natural gas. In 2016, natural gas accounted for nearly one-fourth of the state's net generation. Almost all of the rest of Utah's in-state electricity generation came from solar, wind, hydroelectric, geothermal, and biomass energy.

...

An arid state with abundant sunshine, Utah is among the states with the most solar resources.

...

More than 8% of Utah's net electricity generation came from renewable sources in 2016. Utility-scale solar energy provided more electricity than any other renewable resource in the state for the first time. Electricity generation from all solar facilities in Utah provided one-third of the state's renewable generation and was 10 times greater in 2016 than in 2015. More than 1,240 megawatts of solar generating capacity was added in 2016, about half of it utility-scale, raising Utah's installed capacity to about 1,550 megawatts. The state requires investor-owned electric utilities and most electric cooperatives to offer net metering, further encouraging electricity generated from solar arrays on consumers' rooftops. In 2016, one-seventh of all the state's solar generation came from distributed (customer-sited, small-scale) facilities.¹

Weber County currently has four hydropower generating plants.² Adding another clean-power generation source such as solar will help bolster the existing grid while also supporting the growing power generation needs in of the Wasatch Front without compromising local air quality or incurring other risks associated with transporting and burning fossil fuels.

Policy Analysis

The proposed ordinance draft is attached as Exhibits A and B. The following is an analysis of the proposal based on the existing general plan and existing ordinances.

General plan. The West Central Weber County General Plan does not offer much information by way of future power generation implementation goals or objectives. The plan's future land use map designates the A-3 area as "one acre and five acre development" with "cluster style development pattern required [and] minimum 30 percent open space."³ However, the Western Weber County Resource Management Plan suggests that solar energy should be pursued but may be unlikely because of the private agricultural lands in the area. Further, it offers a policy that reads:

Policy: Energy Resources

Support the development of renewable energy resources, such as solar, wind power, and geothermal energy for private or small-scale commercial uses.

If the reason that large-scale power is unlikely in the area is due to minimal available lands as a result of agricultural uses, then perhaps the Planning Commission would be comfortable accepting that *if* agricultural land is made available for large-scale power generation then this directive could be extended to large-scale solar thereon.

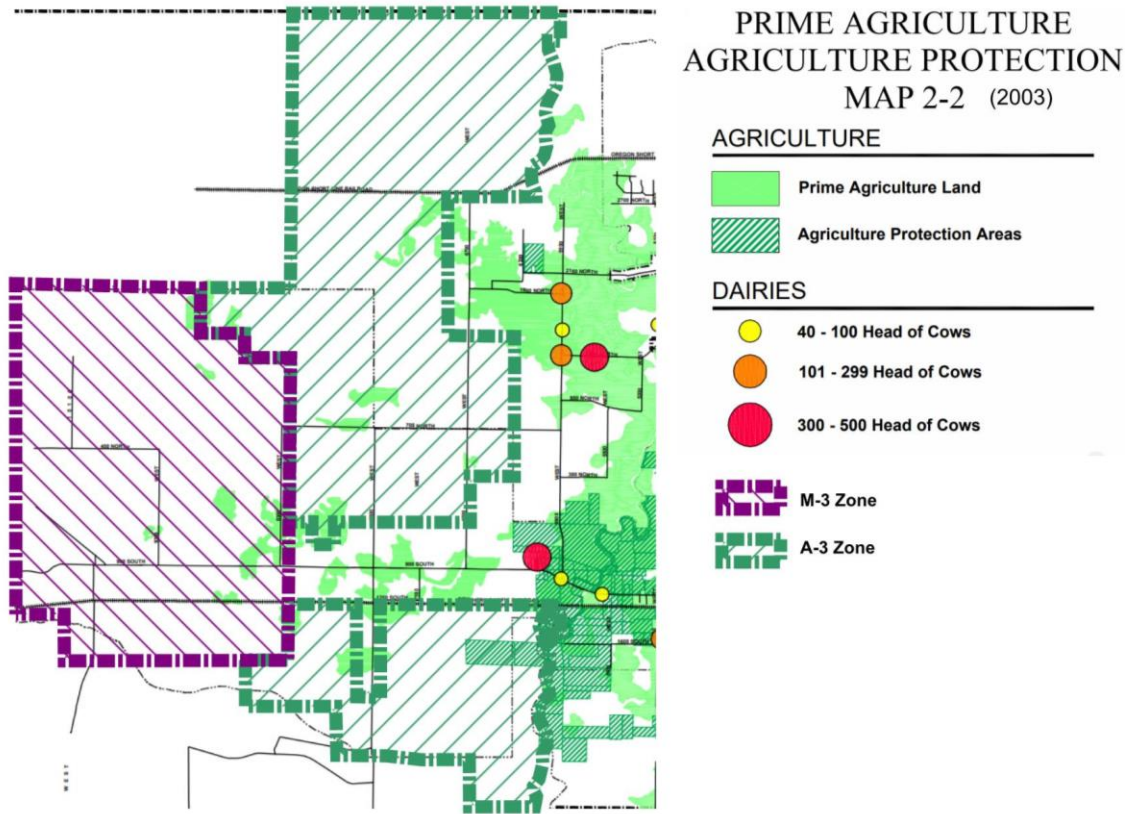
A review of prime agricultural lands and agricultural protection areas (based on the 2003 General Plan maps) show very little prime agricultural lands in the A-3 and M-3 zones (see figure 1). While these lands could be used for grazing and other limited agricultural production, they are more likely to support heavy agricultural-industry uses rather than crop production, as provided in the A-3 zoning regulations. While not a traditional agricultural use, this may lend to support the use of solar farming as a potential agricultural-industry.

¹ Obtained from U.S. Energy Information Administration (<https://www.eia.gov/state/analysis.php?sid=UT>)

² Western Weber County Resource Management Plan, p. 18.

³ West Central Weber County General Plan, Map 2-4.

Figure 1: Prime Agricultural Land and Agricultural Protection Lands in the A-3 and M-3 Zones.



Ordinance. The purpose and intent of the A-3 zone is:

“The purpose of the A-3 Zone is to designate farming areas where heavy agricultural pursuits can be permanently maintained.”⁴

The preferred use of the A-3 zone is:

“Agriculture is the preferred use in Agriculture Zone A-3. All agricultural operations shall be permitted at any time, including the operation of farm machinery and no agriculture use shall be subject to restriction because it interferes with other uses permitted in the zone.”⁵

The preference for heavy agricultural-industries in the A-3 zone, and possible support for solar energy farming, is reflected in the uses that are only allowed in the A-3 zone but not in the other agricultural zones. The following list offers uses that are unique to the A-3 zone. Please note that not all follow the traditional definition of agriculture.

- Hog farm
- Livestock feed or sales yard
- Manure spreading, drying, and sales
- Soil composting, manufacturing, and sales (also allowed in A-2 but only on ten-acre parcel)
- Airport
- Animal hospital as a permitted use (it is a conditional use in other zones)
- Dog breeding, dog kennels, or dog training school as a permitted use (it is a conditional use in other zones)
- Slaughter house
- Stockyard
- Dog pound
- Hospital
- Sanitarium as a permitted use (also allowed in A-2 but only with conditional use permit)

⁴ Weber County Code § 104-8-1

⁵ Weber County Code § 104-8-2

Please also note that the code has a specific definition for agriculture, which reads:

Agriculture. The term "agriculture" means use of land for primarily farming and related purposes such as pastures, farms, dairies, horticulture, aquaculture, animal husbandry, and crop production, but not the keeping or raising of domestic pets, nor any agricultural industry or business such as fruit packing plants, fur farms, animal hospitals or similar uses.⁶

This definition explicitly excludes agricultural-industries from being defined as agriculture, however, based on the above list of unique uses allowed in the A-3 zone, it can be observed that even though "agriculture" is the preferred use in the A-3 zone, the zone is not exclusive to that use.

The purpose of the M-3 zone is:

This district is to be primarily for industrial uses related to the manufacture, testing, and production of jet and missile engines, aircraft or space craft parts or similar heavy industry, and for the extraction and processing of raw materials. Industrial operations or uses, which are compatible with the general purpose of this zone, are included.⁷

While the impact of the use of a solar energy farm is quite different than aerospace product manufacturing and testing, the A-3 zone is currently the only zone in which a solar energy farm is allowed. The Planning Commission might find that the limited impacts of a solar energy farm may enable it to be extended to other zones, such as the heavy-agricultural zone.

A closer review of the proposed Exhibit A may lend to the following:

- Lines 6-13 offer new definitions that distinguish between small solar energy systems and large solar energy systems.
- Lines 21-22 and the table below offers corrected information that is not relevant to this change. It also adds "Large Solar Energy System Overlay Zone" (SOZ) as a new allowable zone.
- Lines 33-40 eliminate large scale photovoltaic solar energy systems as a use in the M-3 zone. This use would still be supported in this zone if using the new SOZ.
- Lines 42-121 add the text for the SOZ.
- Lines 44-47 offer a purpose and intent for the SOZ.
- Lines 48-50 allow the SOZ in the A-3 and M-3 zones only.
- Lines 51-58 offer permitted uses in the new SOZ.
- Lines 59-60 offer prohibited uses in the SOZ. This lists any solar system that uses reflected light or mirrors. These energy systems of documented detrimental effect on fowl and the A-3 and M-3 zones are in the Ogden Bay migratory bird area.
- Lines 61-99 provide additional procedural requirements for rezoning to the SOZ.
- Lines 64-73 explain that the SOZ will automatically expire and be removed from the property under certain circumstances.
- Lines 74-99 require a development agreement to run with the zone, and offer minimum requirements for the development agreement.
- Lines 100-121 offer the minimum site development standards for property in the SOZ. Other more site-specific development standards can be negotiated and implemented into the development agreement.
- Lines 124-133 offer administrative code cleanup in the supplemental standards chapter to support the added definitions and language.

This overlay would not be applied to any property until the County Commission adopts a rezone to it and approves a development agreement. No property owner is currently entitled to it, and the discretion to apply it to any property is up to the County Commission. Site specific concerns can be addressed and negotiated at that time.

Past Action on this Item

⁶ Weber County Code § 101-1-7

⁷ Weber County Code § 104-25-1

The Western Weber Planning Commission discussed this idea in their December 11, 2018 work session. No formal action has been taken. The original idea was to allow large solar energy systems in the A-3 zone. While the planning commission seems accepting of the use, there was concern that allowing it by-right in the A-3 zone could have unforeseeable consequences. There was a desire to address this type of use on a site-by-site basis. This proposal allowed for that.

Noticing Compliance

A hearing for this item before the Planning Commission has been posted for public notice in compliance with UCA §17-27a-205 and UCA §17-27a-502 in the following manners:

- Posted on the County's Official Website
- Posted on the Utah Public Notice Website
- Published in a local newspaper

Staff Recommendation

Staff recommends that the Planning Commission offer a positive recommendation to the County Commission for file ZTA 2018-07, the addition of a solar overlay zone to the County Land Use Code. This is based on the following findings:

1. That there is some support for solar energy provisions in the Western Weber County Resource Management Plan.
2. That the existing A-3 and M-3 zones are suitable for large solar energy systems, provided unique site conditions are better addressed by development agreement.
3. That clean energy generation is in the best interest of the County and the greater Wasatch Front region.
4. That the impact solar energy generation may have on an area is offset by the benefit of it.
5. That the proposal is not detrimental to the health, safety, and welfare of the public.

Exhibits

- A. Proposed Ordinance Changes – Track Change Copy.
- B. Proposed Ordinance Changes – Clean Copy.

1 **Sec. 101-1-7. - Definitions.**

2 ...

3 *Small wind energy system.* The term "small wind energy system" means a wind energy conversion
4 system consisting of a wind turbine, a tower, and associated control or conversion electronics, which will
5 be used primarily to reduce on-site consumption of utility power for an individual parcel.

6 Solar energy system, small. The term "small solar energy system" means a facility that converts
7 sunlight into electricity, clearly being an incidental and accessory use to the main use or structure on the
8 lot or parcel and which only supplies power to other uses or structures on the same lot or parcel. Multiple
9 lots or parcels developed together under common ownership or management shall be deemed the same
10 parcel for the purposes of this definition.

Commented [E1]: New definition.

11 Solar energy system, large. The term "large solar energy system" means a utility-scale commercial
12 facility that converts sunlight into electricity for the primary purpose of wholesale or retail sales of
13 generated electricity to be used offsite.

Commented [E2]: New definition.

14 *Special occasion, agri-tourism.* The term "agri-tourism special occasion" means an agri-tourism
15 use/activity that provides the opportunity for agri-tourists to rent an area that can act as a venue for
16 events, including, but not limited to, birthdays, weddings, family reunions, small scale fundraisers, and/or
17 corporate picnics/outings that do not constitute a special event as defined by title 38, special events.

18 ...

19 **CHAPTER 1. - IN GENERAL**

20 **Sec. 104-1-1. - Establishment of zones.**

21 For the purpose of this title, the Territory of Weber County to which this title applies is divided into ~~32~~
22 34 classes of zones as follows:

Residential Estates Zone	RE-15
Residential Estates Zone	RE-20
Gravel Zone	G
Agricultural Zone	A-1
Agricultural Zone	A-2
Agricultural Zone	A-3
Agricultural Valley Zone	AV-3
Forestry Zone	F-5
Forestry Zone	F-10

Forestry Zone	F-40
Forest Valley Zone	FV-3
Shoreline Zone	S-1
Commercial Valley Resort Recreation Zone	CVR-1
Residential Zone	R-1-12
Residential Zone	R-1-10
Forest Residential Zone	FR-1
Residential Zone	R-2
Residential Zone	R-3
Forest Residential Zone	FR-3
Residential Mobile/Manufactured Home Park Zone	RMHP
Residential Manufactured Home Zone	RMH-1-6
Commercial Zone (Neighborhood)	C-1
Commercial Zone (Limited)	C-2
Commercial Zone (Business District)	C-3
Commercial, Valley Zone	CV-1
Commercial, Valley Zone	CV-2
Manufacturing Zone	M-1
Manufacturing Zone	M-2
Manufacturing Zone	M-3

Manufacturing Valley	MV-1
Open Space Zone	O-1
Ogden Valley Sensitive Lands Overlay Districts	SLOD
Ogden Valley Destination and Recreation Resort Zone	DRR-1
Large Solar Energy System Overlay Zone	SOZ

- Commented [E3]:** This is missing from this table but already elsewhere in the code. Must have been a previous oversight.
- Commented [E4]:** This is missing from this table but already elsewhere in the code. Must have been a previous oversight.
- Commented [E5]:** New overlay zone.

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CHAPTER 25. - MANUFACTURING ZONE M-3

Sec. 104-25-1. - Purpose and intent.

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Sec. 104-25-3. - Conditional uses.

The following uses shall be permitted only when authorized by a conditional use permit as provided in title 108, chapter 4 of this Land Use Code:

...

- (11) Missiles and missile parts.
- ~~(12) Large scale photovoltaic solar energy systems designed to produce energy for wholesale purposes.~~
- (123) Public utility substations.
- (134) Private recreation areas.
- (145) Railroad yards, shop or roundhouse; rock crusher.
- (156) Site leveling and preparation for future development.
- (167) Space craft and space craft parts.
- (178) Storage of petroleum.

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CHAPTER 30. - Large Solar Energy System Overlay Zone SOZ

Sec. 104-30-1. - Purpose and intent.

The solar overlay zone (SOZ) is intended to allow a legislatively adopted overlay zone that permits a large solar energy system. This chapter also establishes minimum requirements and regulations for the placement, construction, and modification of large solar energy systems, as defined in 101-1-7, while promoting the safe, effective and efficient use of these energy systems.

Sec. 104-30-2. - Applicability.

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49 The SOZ is an overlay zone only allowable in the M-3 and A-3 zones and in compliance with this
 50 chapter.

51 **Sec. 104-30-3. - Permitted uses.**

52 In addition to the uses allowed in the specific base-zone, the following uses are permitted in the
 53 SOZ:

54 (1) Accessory building incidental to the use of a main building; main building designed or used to
 55 accommodate the main use to which the premises are devoted; and accessory uses
 56 customarily incidental to a main use.

57 (2) Large solar energy system.

58 (3) Public utility substation, in compliance with standards of Title 108, Chapter 10.

59 **Sec. 104-30-4. – Prohibited uses.**

60 Any solar energy system that uses lenses or mirrors to focus or reflect sunlight is prohibited.

61 **Sec. 104-30-4. – Supplemental SOZ adoption procedures and requirements.**

62 In addition to the rezone procedures found in Title 102, Chapter 5, the following supplemental rezone
 63 and development agreement procedures apply to the SOZ:

64 (1) *Overlay zone expiration.* The SOZ shall expire and be removed from the County zone map, and
 65 the development agreement shall also expire, for any of the following reasons:

66 a. The term of the development agreement expires;

67 b. The large solar energy system use is discontinued or abandoned;

68 c. The solar entity or landowner defaults on any part of the agreement, and the default is not
 69 resolved within the time specified by the agreement.

70 d. The ownership of the large solar energy system or the ownership of the land changes.
 71 However, at the sole discretion of the County Commission, an existing development
 72 agreement may be amended by legislative authority to apply to new owners without
 73 causing an expiration of the overlay zone;

74 (2) *Development agreement.* The SOZ requires special consideration related to site specific
 75 circumstances. As such, prior to adopting the SOZ for any particular property, a development
 76 agreement shall be negotiated by mutual agreement between the County, the solar entity, and,
 77 if different than the solar entity, the landowner.

78 a. Execution of the development agreement shall be deemed a legislative action.

79 b. The development agreement shall be in a form as approved by the County Attorney, and
 80 shall be executed simultaneous with the adoption of the SOZ.

81 c. The development agreement may address specific topics as deemed appropriate by the
 82 negotiating parties, but at a minimum, shall provide the following:

83 1. All applicable provisions of this section.

84 2. A site plan, showing location of all facilities, equipment, infrastructure, and screening
 85 and vegetation.

86 4. Solar equipment treatment plan that demonstrates mitigation of detrimental effects of
 87 solar energy system on migratory fowl.

- 88 5. Performance measures necessary to ensure proper site reclamation at the expiration or
- 89 discontinuance of the use.
- 90 6. Procedures for default of agreement, and resolution of the default.
- 91 7. A property legal description, including all acreage necessary to meet the minimum site
- 92 requirement of this chapter. The legal description shall consume all new acreage in the
- 93 SOZ overlay so that all area in a SOZ is regulated by a development agreement.
- 94 d. As a baseline for negotiation, the standards applicable for conditional uses, as found in
- 95 108-4-5(c), shall be addressed by the applicant prior to any action on the overlay zone.
- 96 Actual implementation of a conditional use standard shall be at the discretion of the County
- 97 Commission and shall be executed as part of the development agreement. Use of
- 98 conditional use standard shall not constitute an administrative approval of a conditional
- 99 use.

Sec. 104-30-5. – Site development standards.

The following site development standards apply to the SOZ. For the purpose of this chapter, the term "site" shall mean an entire contiguous area described in the applicable development agreement.

- 103 (1) Site area: The minimum contiguous site area shall be 100 acres.
- 104 (2) Site setbacks:
 - 105 a. Minimum setback of open-air solar equipment shall be:
 - 106 1. 30 feet from the perimeter of the site.
 - 107 2. 500 feet from adjacent property containing a residential use. This may be reduced to 30
 - 108 feet if the entire use is completely obscured from view from the adjacent property
 - 109 containing the residential use by berms, vegetation, or opaque fence or wall.
 - 110 3. 1,000 feet from any zone in which the overlay zone is not permitted by this chapter.
 - 111 This may be reduced to 200 feet if the entire use is completely obscured from view
 - 112 from the properties in the other zone(s) by berms, vegetation, or opaque fence or wall.
 - 113 b. Minimum setback of accessory use shall be 30 feet from any street right-of-way and 10 feet
 - 114 from the perimeter of the site.
- 115 (3) Height:
 - 116 1. Maximum height of open-air main or accessory use shall be 15 feet.
 - 117 2. Maximum height of accessory building shall be 25 feet.
- 118 (4) Site design requirements. The requirements of this chapter and any site design standard or
- 119 requirement adopted in the development agreement constitute the entire design requirements
- 120 for the site. No other design, architectural, landscaping, or screening requirements found
- 121 elsewhere in this land use code shall apply.

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Sec. 108-7-27. - Solar energy systems.

- 124 (a) Small solar energy system. ~~Solar energy systems located on individual parcels/lots, which are used~~
- 125 ~~to supply energy to a principal use or structure on the parcel/lot, shall be allowed in any zone as an~~
- 126 ~~accessory use to a principal use or structure. A small solar energy systems, as defined in 101-1-7,~~
- 127 ~~are allowed in any zone, and~~ shall meet the setback and height requirements for an accessory
- 128 building in the zone in which the system is located. Setbacks shall be measured to the outermost

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129 edge of the system nearest the property line. Solar energy systems which are attached to a building
130 shall meet the same setbacks that are required for the building.

131 (b) Large solar energy system. ~~This section does not address large scale projects which include multiple~~
132 ~~solar energy systems designed to produce energy for wholesale purposes.~~ A large solar energy
133 system, as defined in 101-1-7, is regulated by Title 104 Chapter 30 of this Land Use Code.

134

1 **Sec. 101-1-7. - Definitions.**

2 ...

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 4 system consisting of a wind turbine, a tower, and associated control or conversion electronics, which will
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 8 lot or parcel and which only supplies power to other uses or structures on the same lot or parcel. Multiple
 9 lots or parcels developed together under common ownership or management shall be deemed the same
 10 parcel for the purposes of this definition.

11 *Solar energy system, large.* The term "large solar energy system" means a utility-scale commercial
 12 facility that converts sunlight into electricity for the primary purpose of wholesale or retail sales of
 13 generated electricity to be used offsite.

14 *Special occasion, agri-tourism.* The term "agri-tourism special occasion" means an agri-tourism
 15 use/activity that provides the opportunity for agri-tourists to rent an area that can act as a venue for
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Forestry Zone	F-40
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Manufacturing Zone	M-1
Manufacturing Zone	M-2
Manufacturing Zone	M-3

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Manufacturing Valley	MV-1
Open Space Zone	O-1
Ogden Valley Sensitive Lands Overlay Districts	SLOD
Ogden Valley Destination and Recreation Resort Zone	DRR-1
Large Solar Energy System Overlay Zone	SOZ

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25 **CHAPTER 25. - MANUFACTURING ZONE M-3**26 **Sec. 104-25-1. - Purpose and intent.**

27 ...

28 **Sec. 104-25-3. - Conditional uses.**

29 The following uses shall be permitted only when authorized by a conditional use permit as provided
30 in title 108, chapter 4 of this Land Use Code:

31 ...

32 (11) Missiles and missile parts.

33 (12) Public utility substations.

34 (13) Private recreation areas.

35 (14) Railroad yards, shop or roundhouse; rock crusher.

36 (15) Site leveling and preparation for future development.

37 (16) Space craft and space craft parts.

38 (17) Storage of petroleum.

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40 **CHAPTER 30. - Large Solar Energy System Overlay Zone SOZ**41 **Sec. 104-30-1. - Purpose and intent.**

42 The solar overlay zone (SOZ) is intended to allow a legislatively adopted overlay zone that
43 permits a large solar energy system. This chapter also establishes minimum requirements and
44 regulations for the placement, construction, and modification of large solar energy systems, as defined in
45 101-1-7, while promoting the safe, effective and efficient use of these energy systems.

46 **Sec. 104-30-2. - Applicability.**

47 The SOZ is an overlay zone only allowable in the M-3 and A-3 zones and in compliance with this
48 chapter.

49 **Sec. 104-30-3. - Permitted uses.**

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50 In addition to the uses allowed in the specific base-zone, the following uses are permitted in the
51 SOZ:

- 52 (1) Accessory building incidental to the use of a main building; main building designed or used to
53 accommodate the main use to which the premises are devoted; and accessory uses
54 customarily incidental to a main use.
- 55 (2) Large solar energy system.
- 56 (3) Public utility substation, in compliance with standards of Title 108, Chapter 10.

57 **Sec. 104-30-4. – Prohibited uses.**

58 Any solar energy system that uses lenses or mirrors to focus or reflect sunlight is prohibited.

59 **Sec. 104-30-4. – Supplemental SOZ adoption procedures and requirements.**

60 In addition to the rezone procedures found in Title 102, Chapter 5, the following supplemental rezone
61 and development agreement procedures apply to the SOZ:

- 62 (1) *Overlay zone expiration.* The SOZ shall expire and be removed from the County zone map, and
63 the development agreement shall also expire, for any of the following reasons:
- 64 a. The term of the development agreement expires;
- 65 b. The large solar energy system use is discontinued or abandoned;
- 66 c. The solar entity or landowner defaults on any part of the agreement, and the default is not
67 resolved within the time specified by the agreement.
- 68 d. The ownership of the large solar energy system or the ownership of the land changes.
69 However, at the sole discretion of the County Commission, an existing development
70 agreement may be amended by legislative authority to apply to new owners without
71 causing an expiration of the overlay zone;
- 72 (2) *Development agreement.* The SOZ requires special consideration related to site specific
73 circumstances. As such, prior to adopting the SOZ for any particular property, a development
74 agreement shall be negotiated by mutual agreement between the County, the solar entity, and,
75 if different than the solar entity, the landowner.
- 76 a. Execution of the development agreement shall be deemed a legislative action.
- 77 b. The development agreement shall be in a form as approved by the County Attorney, and
78 shall be executed simultaneous with the adoption of the SOZ.
- 79 c. The development agreement may address specific topics as deemed appropriate by the
80 negotiating parties, but at a minimum, shall provide the following:
- 81 1. All applicable provisions of this section.
- 82 2. A site plan, showing location of all facilities, equipment, infrastructure, and screening
83 and vegetation.
- 84 4. Solar equipment treatment plan that demonstrates mitigation of detrimental effects of
85 solar energy system on migratory fowl.
- 86 5. Performance measures necessary to ensure proper site reclamation at the expiration or
87 discontinuance of the use.
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89 7. A property legal description, including all acreage necessary to meet the minimum site
 90 requirement of this chapter. The legal description shall consume all new acreage in the
 91 SOZ overlay so that all area in a SOZ is regulated by a development agreement.

92 d. As a baseline for negotiation, the standards applicable for conditional uses, as found in
 93 108-4-5(c), shall be addressed by the applicant prior to any action on the overlay zone.
 94 Actual implementation of a conditional use standard shall be at the discretion of the County
 95 Commission and shall be executed as part of the development agreement. Use of
 96 conditional use standard shall not constitute an administrative approval of a conditional
 97 use.

98 **Sec. 104-30-5. – Site development standards.**

99 The following site development standards apply to the SOZ. For the purpose of this chapter, the term
 100 “site” shall mean an entire contiguous area described in the applicable development agreement.

101 (1) *Site area*: The minimum contiguous site area shall be 100 acres.

102 (2) *Site setbacks*:

103 a. Minimum setback of open-air solar equipment shall be:

104 1. 30 feet from the perimeter of the site.

105 2. 500 feet from adjacent property containing a residential use. This may be reduced to 30
 106 feet if the entire use is completely obscured from view from the adjacent property
 107 containing the residential use by berms, vegetation, or opaque fence or wall.

108 3. 1,000 feet from any zone in which the overlay zone is not permitted by this chapter.
 109 This may be reduced to 200 feet if the entire use is completely obscured from view
 110 from the properties in the other zone(s) by berms, vegetation, or opaque fence or wall.

111 b. Minimum setback of accessory use shall be 30 feet from any street right-of-way and 10 feet
 112 from the perimeter of the site.

113 (3) *Height*:

114 1. Maximum height of open-air main or accessory use shall be 15 feet.

115 2. Maximum height of accessory building shall be 25 feet.

116 (4) *Site design requirements*. The requirements of this chapter and any site design standard or
 117 requirement adopted in the development agreement constitute the entire design requirements
 118 for the site. No other design, architectural, landscaping, or screening requirements found
 119 elsewhere in this land use code shall apply.

120 ...

121 **Sec. 108-7-27. - Solar energy systems.**

122 (a) *Small solar energy system*. A small solar energy system, as defined in 101-1-7, is allowed in any
 123 zone, and shall meet the setback and height requirements for an accessory building in the zone in
 124 which the system is located. Setbacks shall be measured to the outermost edge of the system
 125 nearest the property line. Solar energy systems which are attached to a building shall meet the same
 126 setbacks that are required for the building.

127 (b) *Large solar energy system*. A large solar energy system, as defined in 101-1-7, is regulated by Title
 128 104 Chapter 30 of this Land Use Code.

129

Weber County Zoning Map | Text Amendment Application

Application submittals will be accepted by appointment only. (801) 399-8791. 2380 Washington Blvd. Suite 240, Ogden, UT 84401

Date Submitted: **29 November 2018**

Received By (Office Use)

Added to Map (Office Use)

Property Owner Contact Information | (TEXT AMENDMENT TO A-3 ZONE – *Not parcel specific*)

Name of Property Owner(s)

N/A

Mailing Address of Property Owner(s)

Phone

Fax

Email Address

Preferred Method of Correspondence

Email Fax Mail

Authorized Representative Contact Information | APPLICANT

Name of Person Authorized to Represent Request | Project

Douglas Larsen | Mathew Niesen (Strata Solar)

Mailing Address of Authorized Person

Strata Solar Development LLC.

Phone

Fax

801.726.9048 | 435.260.0366

285 South 400 East | Suite 216

Moab, Utah 84532

Email Address

Welev8@gmail.com | mniesen@gmail.com

Preferred Method of Correspondence

Email Fax Mail

Property Information

Project Name

West Weber Solar Farm Text Amendment

Current Zoning

A-3

Proposed Zoning

A-3: Text amendment to allow solar farms.

Approximate Address

N/A

Land Serial Number(s)

N/A

Total Acreage

100 Acres – Recommended Minimum

Current Use

Agricultural

Proposed Use

Solar Farms

Project Narrative

Describing the project vision | Text Amendment

The current A-3 Zone in western Weber County does not allow for the development of commercial solar farms. Accordingly, we are requesting a Text Amendment to the Weber County Code of Ordinances, Land Use Code: Title 104-Chapter 8- Agricultural Zone A-3 Section 104-8-5 Conditional Uses to include (add) the following:

(35) Utility Scale Commercial Solar Farms.

Utility Scale Commercial Solar Farms for the purpose of this title shall mean: A system of solar photovoltaic panels that generate electrical energy to be sold to a utility, or a private end-user. The system size shall have a minimum peak output of ten mega-watts and the solar farm development shall have a minimum contiguous acreage not less than 100 acres.

Solar farm systems are typically comprised of solar photovoltaic panels (modules) set in an array mounted to the ground on steel or aluminum frames, substations, inverters, monitoring systems and security fencing. Lower voltage clean energy generated from the solar farm system is converted to high voltage energy and will then typically interconnect with a regional power grid (electricity distribution network) via existing or new transmission lines. As well, solar farms may also incorporate storage systems to capture surplus energy.

Project Narrative (continued...)

How is the change (text amendment) in compliance with the General Plan?

Solar farm projects align well with certain components of the West Central Weber County Vision Statement:

Values and protects its rural character, lifestyle, and atmosphere: Development of solar farms protect large tracts of open acreage from other forms of development such as: residential, commercial, mixed use or industrial with very little impact on environmental and community assets. Once installed (planted) solar farms will not create increased traffic, utilize culinary or secondary water, create sewer waste and do not create any measurable demand on, or need for public safety services. Solar farms across the country exist harmoniously with their rural neighbors. In addition, at the end of a solar farm projects useful life, the ground at a subject site will be returned to the conditions that existed prior to development of the solar farm – open space, often farm ground.

Manages growth to strike a balance between preservation and development: Solar farms can be considered almost a perfect balance between preservation and development as they perpetuate both perspectives. Solar farms inhibit typical growth within a subject site for 25 to 35 years while at the same time allowing and supporting a development project that increases the tax base substantially with minimal use and impact on public services. Furthermore, allowing development of solar farms fosters the concept of enabling property rights opportunities that can provide a feasible pathway to sustaining open-space within communities.

Maintains a community that is safe from environmental hazard and criminal activity: Solar farms are a renewable energy producer. The system will generate “clean” electric power with very limited, if any impact on the surrounding and regional environment.

Why should the present zoning be changed to allow this proposal? (Why should the A-3 zone be amended to include this type of use?)

The development of solar farms protects the integrity of open-space and will inhibit residential sub-division sprawl that is likely to occur over time in Western Weber County on large open areas of vacant land where solar farms may be developed.

The harvesting of energy from the sun via ground mounted infrastructure is by all means a process very similar to other harvesting agricultural activity wherein the land is dedicated to the development of a crop. Such crops are dependent on the sun, in addition to water and often other nutrients as well as maintenance and care of the crops – crops are then harvested with the purpose of providing some form of value.

Accordingly, the solar panel and related infrastructure can be thought of as the crop, dependent *only* on the sun and maintenance of the components – ultimately producing a product, clean (renewable) energy that provides sustainable monetary and environmental value.

In conjunction with, this request falls under the Conditional Use provisions of the Weber County Code of Ordinances wherein “the intent of providing conditional use regulations is to provide allowance for additional uses in each zone and give the land use authority flexibility in applying reasonable conditions to effectively manage unique characteristics or detrimental effects of those uses, on a case-by-case basis”

Therefore, solar farm developments should anticipate incorporating cost effective measures (conditions) within the design and development of the project in a manner that best supports and maintains the priorities of the General Plan and of great importance, the desire of the community to maintain “...a sense of quiet, country living”.

Project Narrative (continued...)

How is the change in the public interest?

Together with fundamentally preserving open-space in rural western Weber County, the development of commercial solar farms will have very minimal impact on public services and infrastructure. The table below represents the impact and public costs associated with a residential development consisting of 124 single family dwellings. (124 represents the quantity of homes needed at the current average assessed value in order to generate an amount of property tax revenue to public entities equal to that of a solar farm development at a significantly depreciated value of \$19M).

Public Service Public Asset	Public Cost Impact Est. of 124 Residential Dwellings	Impact Use of Public Services & Assets from Solar Farm
Education (Weber School District)		None
Average Cost Per Student	\$ 6,500	
Average Estimated Number of K-12 Students Per Household	1.50	
Yearly Cost to District from Residential Development	\$ 1,213,840	
Water (Utah Department of Natural Resources Data)		Relatively minimal use during construction only.
Average Household Size	3.00	
Average Gallons Per Person Per Day	256	
Yearly Water Use (gallons) from Residential Development	34,898,826	
Sewer (Central Weber Sewer Data)		Relatively minimal use during construction only.
Average Gallons Per Household Per Day	450	
Yearly Sewer Use (gallons) from Residential Development	20,448,531	
Public Safety (Weber County Sheriff Data)		Minimal to None
Total Subdivision Population Estimate	373	
Local Cost Basis:		
Unincorporated Weber County Cost per Resident - Public Safety	\$ 78.00	
Anticipated cost associated with residential development	\$ 29,094	
National Cost Basis:		
One officer per 1,000K people (373/100)	0.37	
Resource cost based on National Est. of \$125k per officer.	\$ 46,625	
Traffic Generation (2012 Utah Travel Study)		Construction traffic: 6 to 8 months. Post construction estimate @ 50 (+/-) trips annually
Estimated number of vehicles per household	2	
Estimated number of vehicles in subdivision	248	
Wasatch Front daily trip rates by households with 2 vehicles	13	
Estimated number of daily trips generated from subdivision	3,214	
Estimated number of weekday trips	16,070	
Estimated number of annual trips generated on weekdays	835,661	

Project Narrative (continued...)

How does this proposal promote the health, safety and welfare of the inhabitants of Weber County?

According to the U.S. Department of Energy's National Renewable Energy Lab – While the impacts of a solar farm on neighboring property values have not been studied in-depth, numerous studies have found the impact of wind energy generation on neighboring property values to be negligible. As solar farms do not have the same impacts as wind farms (i.e., PV facilities do not cast a shadow on neighboring properties, cause light flicker, or have the same visual impact as wind farms), *the impacts on property values caused by solar farms are anticipated to be very minimal.*

Additionally, photovoltaic (PV) solar panels are coated with non-reflective materials designed to maximize light absorption and, as a result, minimize glare. According to a 2014 study, solar panels produce less glare and reflection than standard window glass. Regarding noise, a study conducted by Tech Environmental, Inc., for the Massachusetts Clean Energy Center, that investigated two utility-scale solar projects concludes: any sound from the PV array and equipment was inaudible at set back distances of 50 to 150 feet from the (project) boundary. In fact, solar is a quiet and, typically, visually appealing neighbor that can *block the path of undesirable development for decades to come.* The same study also concludes that the electrical and magnetic fields generated by solar panels and their inverters are lower than background electrical and magnetic fields created by other devices that surround our daily lives, such as computers and cell phones, and emit fields that are several hundred times less than recommended exposure limits.

Photovoltaic solar farms produce no air emissions, do not release toxic materials, and emit no radiation. Photovoltaic technology does not produce excessive heat. In fact, solar farms are frequently home to nesting birds, and with the right plant and grass mix, can attract bees, butterflies and other species.

Compared with reserves of fossil fuel, which are essentially finite, solar energy production is a renewable resource of almost unlimited capacity and scale. As the International Energy Agency noted in a 2011 report, "Solar energy is the largest energy resource on Earth -- and is inexhaustible." The amount of solar energy received by Earth in a year exceeds the energy that has been developed from oil, natural gas, coal, and nuclear sources in the history of humankind. The amount received by the planet in an hour is greater than the earth's entire yearly energy consumption. Additionally, the volatile price fluctuations typical of fossil fuels -- stemming from political tension, strife and other regional factors -- solar offers the potential for more stable energy costs, which benefits consumers as well as utilities.

From an economic development perspective, renewable energy is quickly becoming a requirement for corporate expansion and relocation decisions, particularly by tech and new generation business. Since 2010, renewable energy power purchase agreements generated over 18,000 mega-watts of clean power from wind and solar operations – tech companies alone have purchased 47% of the 18,000mw's with government and universities in second place at only 13%. Beyond environmental and sustainability objectives, the long-term fixed utility rate from renewables feeds the health of a positive bottom-line. Communities supportive of renewables will have increased opportunities for tactical commercial growth that takes place in the urban centers while inhibiting such in the rural environments where the renewable systems may be located.

Finally, solar farm systems generate significant increases in local property tax revenue to fund public service entities: The County, Weber School District, Park Districts and other special service property taxing districts within western Weber County with little to no demand on assets and services of such entities.

Source(s):

Strata Solar at <https://www.stratasolar.com/g>

Bloomberg Opinion, Tech Investments are Powering Up Clean Energy at <https://www.bloomberg.com/opinion/articles/2018-09-29/tech-companies-are-big-spenders-on-renewable-energy>

National Renewable Energy Laboratory, TOP FIVE LARGE-SCALE SOLAR MYTHS (Feb. 3, 2016), at <https://www.nrel.gov/technical-assistance/blog/posts/top-five-large-scale-solar-myths.html>.

Tech Environmental, Inc., STUDY OF ACOUSTIC AND EMF LEVELS FROM SOLAR PHOTOVOLTAIC PROJECTS (Dec. 2012), at <http://files.massceec.com/research/StudyAcousticEMFLevelsSolarPhotovoltaicProjects.pdf>

Sciencing, Positive Effects of Solar Energy (April 2017), at <https://sciencing.com/positive-effects-solar-energy-6192992.html>

Authorized Representative(s):

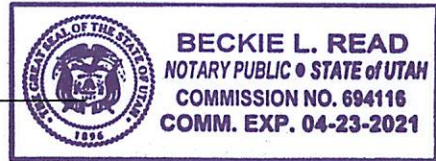
 11.29.2018
Douglas S. Larsen
L E V8 Consulting (dba of Apple Eye LC) on behalf of Strata Solar Development LLC

State of Utah
Weber County

This instrument was acknowledged before me on:

Date: Nov 29th 2018 By: Douglas Larsen


Notary Signature





Weber County Corporation

Weber County
2380 Washington Blvd
Ogden UT 84401

Customer Receipt	
Receipt Number	93895

Receipt Date
11/29/18

Received From:
Doug Larsen

Time: 14:28
Clerk: amorby

Description	Comment	Amount
ZONING FEES	Zoning Amendment	\$1,052.00

Payment Type	Quantity	Ref	Amount
CREDIT CARD		138016	

AMT TENDERED:	\$1,052.00
AMT APPLIED:	\$1,052.00
CHANGE:	\$0.00