YOLO COUNTY ZONING CODE
TITLE 8 LAND DEVELOPMENT

CHAPTER 2: ZONING REGULATIONS

Article 11: Energy and Telecommunications Development Standards

Sec. 8-2.1101 Co-generation facilities

(a) Purpose

The purpose of this Section is to establish permit requirements and development standards for co-generation energy facilities in the unincorporated area of Yolo County.

(b) Definitions

Co-generation
"Co-generation" means the production of electricity using waste heat (as in steam) from an industrial process or the use of steam from electric power generation as a source of heat.

Co-generation facility
"Co-generation facility" shall mean a facility which involves the generation of more than 500 kilowatts of power.

Co-generation facility, small
"Small co-generation facility" shall mean a facility which involves the generation of 500 kilowatts of power or less and does not create secondary uses on the site.

(c) Permits required

(1) Construction of a co-generation facility located on lands zoned for agricultural uses (including the Agricultural Intensive (A-N) zone, the Agricultural Extensive (A-X) zone, the Agricultural Commercial (A-C) zone, and the Agricultural Industrial (A-I) zone), and on lands zoned for industrial uses (including the Heavy Industrial (I-H) and the Light Industrial (I-L) zone, but not in the Office Park/Research and Development (OPRD) zone), may be approved through the issuance of a Major Use Permit by the Planning Commission.

(2) Construction of a small co-generation facility located on properties zoned for agricultural and industrial uses may be approved through the issuance of a Minor Use Permit by the Zoning Administrator.

(d) Findings

Co-generation facilities of any size shall be approved in agricultural zones only if they are located so as to preserve as much land in agricultural production as possible, in addition to complying with all other requirements for issuance of a Use Permit.

Sec. 8-2.1102 Wireless telecommunication facilities

(a) Purpose

The purpose of this Section is to implement permit requirements and development standards for wireless telecommunication facilities in the unincorporated area of Yolo County.

(b) Definitions

Eligible facilities request
"Eligible facilities request" shall mean any request for modification of an existing permitted tower or base station that does not substantially change the physical dimension of the tower or base station, involving: (1) colocation of new transmission equipment; (2) removal of transmission equipment; or (3) replacement of transmission equipment.

Radio
Radio is a generic term for communication of sound, data, or energy by means of electromagnetic wave propagation. For regulatory purposes "radio" includes the popular terms "television" and "microwave". The term "wireless" is interchangeable with "radio."

Section 6409(a) modification
"Section 6409(a) modification" shall mean any eligible facilities request pursuant to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 ("Spectrum Act"), which mandates that a local government approve certain wireless broadband facilities siting requests for modifications and colocations of wireless transmission equipment on an existing tower or base station that do not result in a substantial change to the physical dimensions of the tower or base station.

Wireless facility modification, substantial change
A "substantial change to a wireless facility" shall be as defined by the Federal Communications Commission (FCC) in Title 47 Code of Federal Regulations (CFR) Section 1.6100(b)(7), including the following:

(i) An increase in the height of a permitted tower, that is not in the public right of way, by more than 10 percent or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed 20 feet, whichever is greater; or, an increase in the height of a permitted support structure by more than 10 percent or more than 10 feet, whichever is greater.

(ii) Adding an appurtenance to the body of a permitted tower, that is not in the public right of way, that would protrude from the edge of the tower more than 20 feet or more than the width of the tower structure at the level of the appurtenance, whichever is greater; or, adding an appurtenance to the

body of a permitted structure that would protrude from the edge of the structure by more than six feet.

(iii) Installation of more than the standard number of new equipment cabinets for the technology involved, not to exceed four cabinets; or, for permitted towers and base stations in the public right of way, installation of any new equipment cabinets on the ground if there are no existing ground cabinets associated with the structure or installation of ground cabinets that are more than 10 percent larger in height or overall volume than any other ground cabinets associated with the structure.

(iv) Excavation or deployment outside of the permitted facility site; for permitted towers not in the public right of way any excavation or deployment of transmission equipment outside of the current site by more than 30 feet in any direction (measurement excludes existing access or utility easements related to the site).

(v) Modifications that would defeat the concealment elements of the permitted support structure.

(vi) The modification does not comply with conditions associated with the siting approval of the construction or modification of the permitted facility.

Wireless telecommunication facility
"Wireless telecommunication facility" shall mean an un-staffed facility for the transmission and reception of radio signals, including, but not limited to cellular radiotelephone service facilities, specialized mobile radio service facilities, microwave service facilities, broadband Internet service, communication towers, personal communication service facilities, and commercial paging service facilities.

Wireless telecommunication facility, attached
"Attached wireless telecommunication facility" shall mean a telecommunication facility that is attached to an existing permitted structure whose tower height is no more than 80 feet.

Wireless telecommunication facility, small
"Small wireless telecommunication facility" shall mean a telecommunication facility whose tower height is no more than eighty (80) feet.

Wireless telecommunication facility, large
"Large wireless telecommunication facility" shall mean one whose tower height is greater than eighty (80) feet.

(c) Permits required

(1) Construction of a wireless telecommunication facility may be approved in the following zoning districts, provided the facility meets setback

requirements and other standards, as provided in Section 8-2.1102(e), below, as shown in Table 8-2.1102.

Table 8-2.1102

Allowed Wireless Telecommunications Facility Uses and Permit Requirements

A = Allowed use, subject to zoning clearance SP = Site Plan Review UP (m) = Minor Use Permit UP (M) = Major Use Permit N = Use Not Allowed	Land Use Permit Required by Zone					
	A-N, A-X, A-I A-C, A-R	RR-5, RR-2, R-L, R-M, R-H	C-L, C-G, DMX, C-H	I-L, I-H, OPRD	PQP POS, P-R	Specific Use Requirements or Performance Standards
Wireless Telecommunication Facility						
Small telecommunication facility (up to 80 ft on min parcel sizes) [(a)]	SP	UP(m)	UP(m)	UP(m)	UP(m)	20-ac minimum in agricultural zones 2-ac minimum in all other zones See Sec. 8-2.1102(e)
Small telecommunication facility (up to 80 ft if min parcel size cannot be met) [(b)]	UP(m)	UP(M)	UP(M)	UP(M)	UP(M)	See Sec. 8-2.1102(e)
Large telecommunication facility (>80 ft on 40 ac or more)	UP(m)	N	N	UP(m)	UP(m)	See Sec. 8-2.1102(e)
Large telecommunication facility (>80 ft <40ac)	UP(M)	N	N	UP(M)	UP(M)	
Attached telecommunication facility (up to 80 ft)	A	UP(m)	SP	A	SP	
Eligible facilities request	A	A	A	A	A	See definition in Sec. 8-2.1102(b) and Sec. 8-2.1102(f)

(a) Must meet parcel size requirements: 20 acres or more in agricultural zones, 2 acres or more in all other zones

(b) Minor Use Permit required in the agricultural zones on parcels less than 20 acres, Major Use Permit required in all other zones on parcels less than 2 acres

(2) Construction of a small wireless telecommunication facility on rural lands zoned for agricultural uses may be approved through the issuance of a Site Plan Review approval, provided the facility is located on a parcel 20 acres or more in size.

(3) If an application for a proposed small wireless telecommunication facility in the agricultural zones fails to meet the minimum parcel size or any of the specific development standards set forth in Section 8-2.1102(e), below, the application shall be referred to the Zoning Administrator for a hearing and decision to issue a Minor Use Permit.

(4) Construction of a wireless telecommunication facility that is attached to an existing structure (such as a barn on rural lands zoned for agricultural uses or a warehouse on lands zoned for industrial uses), regardless of the size of the parcel, may be approved with the issuance of a building permit only, provided the overall height of the tower is no more than 80 feet.

(5) An attached telecommunication facility may be permitted in the commercial and public and open space zones through Site Plan Review approval so long as the overall tower height is no more than 80 feet.

(6) If an application for a small telecommunication facility is proposed in the residential, commercial, industrial, or public and open space zones on a small lot of less than two acres, or if the application fails to meet any of the development standards set forth in 8-2.1102(e), below, the application shall be referred to the Planning Commission for a public hearing to consider issuance of a Major Use Permit.

(7) Construction of large wireless telecommunication facilities on lands zoned for agricultural, industrial, open space and recreation uses, shall be considered for approval of a Minor Use Permit, provided the facility is located on a parcel 40 acres or more in size. Large wireless telecommunication facilities constructed on parcels less than 40 acres, on lands zoned for agricultural, industrial, open space and recreation uses, shall be considered in all cases for approval of a Major Use Permit. The application shall meet all of the development standards set forth in Section 8-2.1102(e), below.

(8) An applicant may submit in writing a request for modification to an existing permitted tower or base station. An eligible facilities request that does not substantially change the physical dimensions of the facility shall be approved in accordance with 47 CFR Section 1.6100, as described in subsection (f), below.

(d) Application

Each application for a wireless telecommunication facility permit shall include the following:

(1) A graphic depiction of the search ring used in determining facility location. The graphic shall identify all existing telecommunication tower sites within the search ring.

(2) A propagation or signal map showing the proposed coverage area (with and without the proposed facility).

(3) A photo simulation of the proposed developed site from four directions (north, south, east and west).

(4) A written justification that identifies opportunities to collocate the proposed facility on an existing facility have either been exhausted or are not available in the area.

(e) Development standards

The following development standards shall be satisfied prior to the approval of a wireless communications facility:

(1) The site can provide all necessary infrastructure for the development of the proposed wireless communication facility. The minimum parcel size required for a large telecommunication facility shall be two acres.

(2) Opportunities to co-locate the subject facility on an existing facility have either been exhausted or are not available in the area.

(3) The facility as proposed is necessary for the provision of an efficient wireless communication system.

(4) The development of the proposed wireless communication facility will not significantly affect the existing onsite topography and vegetation; or any designated public viewing area, scenic corridor or any identified environmentally sensitive area or resource. Wireless communication facilities proposed to locate in a designated scenic corridor, including areas identified by the General Plan as providing scenic value, may require stealth design elements to mitigate visual impacts.

(5) The proposed wireless communication facility will not create a hazard for aircraft in flight and will not hinder aerial spraying operations.

(6) The applicant agrees to accept proposals from future applicants to co-locate at the approved site.

(7) The applicant agrees to reserve space and/or provide conduit available for County and emergency communications.

(f) Eligible Facilities Request for a Wireless Telecommunication Facility Modification

(1) An application for a "Section 6409(a) Modification" on an existing wireless communication facility may be submitted to the Planning Division for processing. Federal law requires local government approval of any eligible facilities request for modification of an existing wireless tower or base station. An eligible facilities request is any request for modification of an existing tower or base station that does not substantially change the physical dimensions of such tower or base station, involving:

i. Colocation of new transmission equipment
ii. Removal of transmission equipment; or
iii. Replacement of transmission equipment.

(2) A modification substantially changes the physical dimensions of an existing wireless communication facility if it meets the criteria listed in Sec. 8-2.1102(b) above.

Sec. 8-2.1103 Small and large wind energy systems

(a) Purpose

The purposes of this section are as follows:

(1) To provide for the placement of small, accessory wind energy systems to enable generation of electricity from the wind, primarily for on-site use, thereby reducing the consumption of electricity supplied by utility companies.

(2) To provide regulations to process applications for utility-scale large wind energy systems that generate electricity from the wind primarily for off-site customers.

(3) To minimize potential adverse impacts associated with wind energy systems on area residents, historic sites, aesthetic quality and wildlife through careful siting, design and screening, consistent with state law.

(4) To avoid or minimize public safety risks associated with wind energy systems by providing standards for the placement, design, construction, modification and removal of such systems, consistent with federal, state and local regulations.

(b) Definitions

Wind energy, free air zone
"Wind energy, free air zone" shall mean that the bottom of the turbine's blades are at least 10 feet above any structure or object that is within 300 feet.

Large wind energy system
"Large wind energy system" shall mean a utility-scale wind energy conversion system consisting of several wind turbines, towers, and associated control or conversion electronics, which have a rotor size greater than 200 square meters in size (approximately 52 feet in diameter), or which have a rated capacity of more than 150 kilowatts per turbine site, whichever is less, and that will be used to produce utility power to off-site customers.

Meteorological (met) tower
"Meteorological (or met) tower" shall mean a temporary wind test tower erected by a wind energy company to measure wind speeds and other meteorological data, in preparation of applying for a permanent large-scale wind energy system.

Wind energy, on-site

"Wind energy, on-site" shall mean only the parcel upon which a small wind energy system and its associated accessory structure(s) are located and the location upon which the electrical power generated is primarily used.

Small wind energy system
"Small wind energy system" shall mean a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 150 kilowatts per customer site consistent with the requirements of paragraph (3) of subdivision (b) of Section 25744 of the Public Resources Code and that will be used to reduce net onsite consumption of utility power. Such uses are accessory to a primary use on the site**.**

Wind energy, system height
"Wind energy, system height" shall mean the height above existing grade of the fixed portion of both a small or large wind energy system tower, and the height to the tip of the blade or the highest point of the system at the 12:00 position.

Wind energy, tower height
"Wind energy, tower height" shall mean the height above existing grade of the fixed portion of a small or large wind energy system tower, excluding the wind turbine.

(c) Permitted and prohibited locations

The provisions of this Section apply to small wind energy systems that generate more than one (1) kilowatt of electricity, or are greater than thirty-five (35) feet in height, or have rotors one (1) meter or more in diameter. These small wind energy systems require the issuance of a Site Plan Review, Minor Use Permit, or Major Use Permit approval, as set forth below. In addition, the installation of any wind energy system below these size criteria is allowed in any zone district and requires issuance of a building permit only.

The provisions of this Section also apply to large wind energy systems that generate more than one hundred fifty (150) kilowatts of electricity. Any wind energy systems installed prior to the effective date of this section shall be treated as a prior nonconforming use pursuant to this chapter unless, through the issuance of a permit pursuant to this Section, they are subsequently made conforming.

(1) Permitted locations. Small wind energy systems used to reduce onsite consumption of electricity may be installed and operated in the following zoning districts or specific zones: agricultural districts (in the Agricultural Intensive (A-N), the Agricultural Extensive (A-X), the Agricultural Commercial (A-C), the Agricultural Industrial (A-I), and the Agricultural Residential (A-R) zones); residential districts (in the Rural Residential (RR-5 and RR-1), Residential Low (R-L), Residential Medium (R-M), and Residential High (R-H) zones); commercial districts (in the Local Commercial (C-L), the General Commercial (C-G), the Downtown Mixed

Use (DMX), and the Highway Commercial (C-H) zones); industrial districts (in the Light Industrial (I-L), the Heavy Industrial (I-H), and the Office Park/Research and Development (OPRD) zones); and in the Public Quasi-Public (PQP) zone only.

Large utility scale wind energy systems used to produce electricity for off-site customers, and meteorological towers, may be installed and operated in the following districts: agricultural districts (the Agricultural Intensive (A-N), the Agricultural Extensive (A-X), and the Agricultural Industrial (A-I) zones.

(2) Prohibited Locations. Small and large wind energy systems, and meteorological towers, are not allowed or permitted in locations other than those identified in subsection (1), above, or where otherwise prohibited by any of the following:

(i) Small and large wind energy systems, and meteorological towers, are specifically prohibited in the POS and P-R zones.
(ii) Sites listed in the National Register of Historic Places or the California Register of Historical Resources pursuant to Section 5024.1 of the Public Resources Code.
(iii) A comprehensive land use plan and any implementing regulations adopted by an airport land use commission pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Division 9 of Part 1, as well as height limits established in any provision of federal, state, or local laws or regulations for structures located in the vicinity of an airport.
(iv) The terms of an open-space easement entered into pursuant to the Open-space Easement Act of 1974, Chapter 6.6 (commencing with Section 51070) of Division 1 of Title 5 of the Government Code.
(v) The terms of an agricultural conservation easement entered into pursuant to the California Farmland Conservancy Program Act, Division 10.2 (commencing with Section 10200) of the Public Resources Code.
(vi) The terms of a contract entered into pursuant to the Williamson Act, Chapter 7 (commencing with Section 51200) of Division 1 of Title 5 of the Government Code.
(vii) The terms of any easement entered into pursuant to Chapter 4 (commencing with Section 815) of Division 2 of Part 2 of the Civil Code.

(d) Minimum parcel size

All small wind energy systems shall be located on parcels of at least one (1) acre in size. All large wind energy systems, and meteorological towers, shall be located

on parcels of at least twenty (20) acres in size, subject to a Major Use Permit being issued, as required below.

(e) Number of systems allowed

On parcels containing large agricultural operations, up to a maximum of one small wind energy system for every ten (10) acres may be allowed, provided that each of the systems meet the definition of a small wind energy system contained in Section 8-2.1103(b), above. For large wind energy systems, and meteorological towers, up to a maximum of one wind energy system or tower for every ten (10) acres may be allowed, subject to a Major Use Permit being issued, as required below.

(f) Permits required

The following types of approvals are required:

(1) Construction of small wind energy systems on rural lands zoned for agricultural uses (including the Agricultural Intensive (A-N), the Agricultural Extensive (A-X), the Agricultural Commercial (A-C), the Agricultural Industrial (A-I), and the Agricultural Residential (A-R) zones) may be approved through the issuance of a Site Plan Review approval by staff. This approval is a ministerial, "over the counter" approval like a building permit, and does not require a public hearing, unless the application fails to meet the specific Development Standards set forth in Section 8-2.1103(h), below, in which case the application may be referred by staff to the Zoning Administrator or the Planning Commission for a hearing and decision to issue a Minor or Major Use Permit.

(2) Construction of small wind energy systems located on properties within non-agricultural or urban areas that are zoned for rural residential, commercial, and industrial uses are also allowed through the issuance of a Minor or Major Use Permit, depending on the application's consistency with all of the Development Standards set forth in Section 8-2.1103(h), below. Specifically, wind systems are permitted with approval of a Minor Use Permit, issued by the Zoning Administrator after a public hearing, on lots of two acres or more, and which meet all of the Development Standards set forth in Section 8-2.1103(h), below, in areas zoned for residential uses (in the RR-5, RR-1, R-L, R-M, and R-H zones), commercial uses (in the C-L, C-G, DMX, and C-H zones), industrial uses (in the I-H, I-L, and OPRD zones), and in the PQP zone only. If the application for a small wind energy system is proposed on a small lot of less than two acres, or if the application fails to meet any of the Development Standards, the application may be referred by staff to the Planning Commission for a public hearing and issuance of a Major Use Permit.

(3) Construction of large wind energy systems, and meteorological towers, on rural lands zoned for agricultural uses (including the A-N, A-X, and A-I zones) shall be approved in all cases through the issuance of a Major Use Permit.

(g) Application

An application for a large wind energy system shall include all of the application requirements for a Major Use Permit, in addition to all of the detailed site plan materials noted below. An application for a meteorological tower shall be required to submit only the site plan materials that are relevant to its construction and operation:

(1) Existing topography and drainage channels.

(2) Direction and velocity of prevailing winds across the project site, at various elevations.

(3) Location, height, and dimensions of all existing structures.

(4) Distance to all residences and any sensitive receptors located within two (2) miles of the wind turbine(s).

(5) Manufacturer and model designation, rated KW capacity, overall machine height (grade level to highest tip extension), total blade diameter, hub height, rated maximum rotor RPM, location of proposed structures and buildings and, upon request of the Planning Director, manufacturer's production record.

(6) Location, grades, and dimensions of all roads and parking areas, both existing and proposed.

(7) Location and extent of known archaeological resources.

(8) Location and type of project security fencing.

(9) Location of site by longitude and latitude coordinates within ten (10) feet and elevation of site above mean sea level within ten (10) feet.

(10) A plan of proposed project phasing.

(11) Any and all technical reports which may be required to prove consistency with applicable policies and design standards listed in this section, and which may be used as the basis for implementing mitigation measures incorporated into the environmental document adopted for the project, such as noise, biological resources, scenic resources, geotechnical and other studies.

(12) A certificate signed by a registered civil engineer or licensed land surveyor stating that area encompassed by the project has been surveyed under his supervision or that a previous survey was performed by a registered civil engineer or licensed land surveyor and that sufficient monuments have been placed to accurately establish the exterior project boundaries.

(13) A certificate signed by a registered civil engineer or licensed land surveyor stating that the proposed development is in full compliance with the requirements of this chapter. The Director of the Community Services Department may require the submittal of additional documentation of compliance when deemed necessary.

(14) A soil erosion and sedimentation control plan, including revegetation plan.

(15) If the application includes any wind energy system tower with a total height over 200 feet or any system which is located within 20,000 feet of the runway of any airport, the application shall be accompanied by a copy of written notification to the Federal Aviation Administration.

(16) An application including any wind energy system located within two miles of any microwave communications link shall be accompanied by a copy of a written notification to the operator of the link.

(17) An application including any wind energy system located within a 100-year flood plain area, as such flood hazard areas are shown on the maps designated by the county or the Federal Emergency Management Agency, shall be accompanied by a detailed report which shall address the potential for wind erosion, water erosion, sedimentation and flooding, and which shall propose mitigation measures for such impacts.

(18) Photo simulations showing how the proposed project would appear visually from several viewing points.

(19) Such additional information as shall be required by the Planning Director.

(h) Development standards for small wind energy systems

Applications for small wind energy systems shall meet all of the following standards and any permit issued for such a system shall be conditioned to meet the standards, unless findings of fact to justify a waiver of any of the standards are adopted by the Zoning Administrator or the Planning Commission. Such a waiver shall be appropriate only where the findings demonstrate that a waiver is consistent with the overall purposes described in this chapter and all relevant considerations of public health, safety, and welfare:

(1) Maximum tower and system height. Any system application shall include evidence that the proposed height does not exceed the height recommended by the manufacturer or distributor of the system. In no case shall the system height exceed any limits established by applicable Federal Aviation Administration requirements.

(2) On agricultural (A-N, A-X, A-C, A-I, A-R) and PQP zoned parcels of one acre to five acres, the height of small wind energy systems shall not exceed a maximum height of sixty (60) feet for the tower and eighty (80) feet for the system.

(3) On agricultural (A-N, A-X, A-C, A-I, A-R) and PQP zoned parcels of more than five acres, the height of small wind energy systems shall not exceed a maximum height of one hundred (100) feet for the tower and one hundred sixty (160) feet for the system unless the applicant can demonstrate that such height is not in the free air zone. In no case shall the system height exceed any limits established by applicable Federal Aviation Administration requirements.

(4) Small wind energy systems proposed on agricultural (A-N, A-X, A-C, A-I, A-R) and PQP zoned parcels with heights greater than those specified in (1) and (2), above, may be permitted through the issuance of either a Minor Use Permit or a Major Use Permit, to be determined by County staff.

(5) On parcels of two (2) acres or more within the **r**esidential (RR-5, RR-1, R-L, R-M, and R-H) zones, the commercial (C-L, C-G, DMX, and C-H) zones, and the industrial (I-L, I-L and OPRD) zones, the height of small wind energy systems shall not exceed a maximum height of fifty (50) feet for the tower and one hundred (100) feet for the system, and the systems may be permitted through the issuance of a Minor Use Permit. Wind energy systems on parcels between one (1) and two (2) acres within the **r**esidential (RR-5, RR-1, R-L, R-M, and R-H) zones, the commercial (C L, C-G, DMX, and C-H) zones, and the industrial (I-L, I-H and OPRD) zones, and wind energy systems between fifty (50) and one hundred (100) feet in height for the tower, and between one hundred (100) feet and one hundred sixty (160) feet in height for the system, may be permitted through the issuance of a Major Use Permit;

(6) Notwithstanding the height limits in (1) through (5), above, all allowed and permitted wind energy towers located on properties within or adjacent to an Airport Overlay (A-O) zone that are within a designated aviation safety zone and/or which are regulated by an applicable airport master or land use plan, shall comply with applicable Federal Aviation Administration (FAA) safety height requirements and/or the applicable adopted airport master or land use plans.

(7) Setbacks. The minimum setback from any property line to the base of wind energy system shall be equal to the system's height. The setbacks required by this subsection shall be measured from the base of the tower to the property line of the parcel on which it is located; provided that where guy wire supports are used, setbacks shall be measured from where the guy wire is anchored to the ground, rather than the base of the tower. The Zoning Administrator or Planning Commission may allow reduced setbacks if s/he determines it would result in better screening of the system, i.e., closer spacing would allow greater screening from trees, structures, or topography or otherwise reduce the systems' visual impact, provided that the owner of the neighboring property agrees in writing.

(8) Lattice and/or guyed towers shall not be allowed within five hundred (500) feet of a residential district (R-L, R-M, R-H districts), excluding Rural Residential (RR-5 and RR-1) districts.

(9) Measures to minimize aesthetic impacts:

(i) Use of existing site features for screening. Wind energy systems should be located to take advantage of the screening afforded by any existing trees, topography and structures to minimize the system's visibility from dwellings on adjacent property and public roads, but without significantly compromising viable system performance. Screening should not significantly block or reduce the wind reaching the turbine and should not increase the turbulence (gustiness) of the wind to the turbine. Priority for appropriate screening shall be given (in descending order) to minimizing visibility from existing dwellings on adjacent properties and across the roadway from the wind energy system, public rights-of-way, and public parks and open spaces. At the discretion of staff, applicants proposing wind energy systems in locations that are not at least partially screened by any existing trees, topography or structures must submit documentation as to why locations which would provide screening are not available or technically feasible due to wind speeds or other characteristics.

(ii) Colors and finish. Wind energy system components shall have a nonglare/non-reflective finish (e.g., galvanized metal) or appropriate color of neutral white or light gray. On smaller turbines, darker neutral colors (dark gray, black, unfinished metal) are usually also acceptable. Logos and advertising are explicitly prohibited.

(iii) Signals, Lights and Signs. No signals, lights or signs shall be permitted on a small wind energy system unless required by the Federal Aviation Administration (FAA). If lighting is required, the County shall review the available lighting alternatives acceptable

to the FAA and approve a design that it determines would cause the least impact on surrounding views. Such permitted wind systems shall be of a height that does not require installation of a flashing light or signal in compliance with FAA regulations, unless the lights/signals are screened from view of motorists, pedestrians, and occupants of adjacent structures, consistent with FAA requirements; or the applicant demonstrates that the alternative locations for the system would also require a light/signal and would be no less visible from the surrounding area than the proposed location. However, in documented migratory bird flyways, preference shall be given to white strobe lights operating at the longest interval allowed per FAA requirements.

(10) Crop Dusting. In the event a wind energy system is proposed to be sited in an agricultural area that may have pest control aircraft operating at low altitudes, the applicant and County shall take reasonable steps to notify and solicit comments from pest control aircraft pilots registered to operate in the County. Wind energy systems shall not be allowed where the Zoning Administrator or Planning Commission determines they would pose a risk for pilots spraying fields.

(11) Biological Impacts. Wind energy systems shall not be allowed in locations that would significantly affect habitat for special status protected bird and bat species. Monthly monitoring of bird and/or bat strikes for at least the first year of operation shall be required as a Condition of Approval for large wind turbines located within sensitive habitat areas, as modified by recommendations from the wildlife agencies involved.

To minimize the potential for special status birds and bats to collide with towers/turbines, wind energy systems shall not be located in the following general locations, as mapped or determined by the Natural Diversity Data Base, the Yolo County Natural Heritage Program, or similar programs, unless findings are adopted by the Zoning Administrator or Planning Commission, as described in (iv), below:

(i) Within five hundred (500) feet of wetlands, staging areas, wintering areas, bat roosts, or rookeries documented as supporting birds or bats listed as endangered or threatened species under the federal or California Endangered Species Acts; or

(ii) Within migratory flyways documented by state or federal agencies; or

(iii) Within one thousand (1,000) feet of publicly owned wildlife refuges.

(iv) Wind energy systems may be located in such areas described above in (i), (ii), or (iii), if discretionary Use Permit review is provided

and the Zoning Administrator or Planning Commission adopts findings of fact, after consultation with the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service, as appropriate, and consistent with *The California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development*, (October 2007, as amended), that determine installation of a small wind energy system in the proposed location will not have a significant impact on any protected birds and bats. In determining potential impacts, the design of the proposed tower shall be considered, and the use of monopoles, as opposed to lattice or guyed-lattice towers, shall be encouraged.

(12) Views and scenic corridors. Wind energy systems shall not be located where they would substantially obstruct views of adjacent property owners and shall be placed or constructed below any major ridgeline visible from any designated scenic corridor listed by the state or in the Open Space Element of the Countywide General Plan, unless they are designed to blend in with the surrounding environment in such a manner that they would not have a significant visual impact, as determined by the Zoning Administrator or Planning Commission.

(13) Slopes. Construction of a wind energy system on any slopes steeper than four to one (4:1) is prohibited.

(14) Noise. The proposed system shall not generate noise levels exceeding 60 decibels or any existing maximum noise levels applied pursuant to the Noise Element of the General Plan, or noise ordinance, for the applicable zoning district, as measured at the nearest property line, except during short-term events such as utility outages and severe wind storms. This 60 decibel noise threshold may be exceeded if the adjacent property owner agrees in writing, and/or if the adjacent property is commonly owned by the applicant or owner of the project site.

(15) Climbing apparatus. Climbing apparatus shall be located at least twelve (12) feet above the ground, and the tower shall be designed to prevent climbing within twelve (12) feet of the ground.

(16) Site access and on-site roads. Construction of on-site roads to install and maintain wind energy systems shall be minimized. Temporary access roads used for initial installation shall be regraded and revegetated to a natural/preconstruction condition after completion of installation.

(17) Turbine certification. Wind energy system turbines shall be approved by the California Energy Commission or certified by a national program (i.e., National Electrical Code (NEC), American National Standards Institute (ANSI) and Underwriters Laboratories (UL)).

(18) Building, engineering, and electrical codes. The system shall comply with the California Building Code and be certified by a professional mechanical, structural, or civil engineer licensed by the state. However, a wet stamp shall not be required, provided that the applicant demonstrates that the system is designed to meet the:

(i) UBC requirements for wind exposure D;
(ii) UBC requirements for Seismic Zone 4;
(iii) Requirements for soil strength of not more than 1,000 pounds per square foot; or
(iv) Other relevant conditions required by the County to protect public safety.
(v) Electrical components of the system shall conform to the National Electric Code.

(i) Development standards for large wind energy systems

Applications for large wind energy systems, and meteorological towers, shall meet all of the following standards and any Major Use Permit issued for such systems shall be conditioned to meet the standards, unless findings of fact to justify a waiver of any of the standards are adopted by the Planning Commission:

(1) Large wind energy systems, and meteorological towers, shall comply with subsections (5) through (17) of Section 8-2.1103(h), above.

(2) Maximum tower and system height. Any system application shall include evidence that the proposed height does not exceed the height recommended by the manufacturer or distributor of the system.

(3) Setbacks. The following setbacks shall be required for large wind energy systems:

(i) The minimum setback from the base of any large wind energy system to any adjacent property line(s) where the adjacent parcel(s) are not under common applicant ownership and contain less than forty (40) acres shall be equal to two (2) times the overall system's height, or five hundred (500) feet, whichever is more;
(ii) The minimum setback from the base of any large wind energy system to any adjacent property line(s) where the adjacent parcel(s) are not under common applicant ownership and contain more than forty (40) acres shall be equal to one and one-half (1.5) times the overall system's height, or five hundred (500) feet, whichever is more;
(iii) The minimum setback from the base of any large wind energy system to any off-site residence(s) on adjacent parcels not under

common applicant ownership shall be three (3) times the overall system's height, or one thousand (1,000) feet, whichever is more, unless the adjacent neighbor approves a lesser distance;

(iv) The Planning Commission may allow a reduction in the setbacks in (i), (ii) or (iii), above, not to exceed a minimum setback of one (1) times the overall wind system's height, if a letter of consent from the owner(s) of record of adjacent parcels is filed with the County. The Planning Commission may also allow a reduction or waiver of the setbacks in (i) or (ii), above, if the project exterior boundary is a common property line between two (2) or more approved wind energy projects and the property owner of each affected property has filed a letter of consent to the proposed setback reduction with the County.

(v) The minimum setback from the base of any large wind energy system to any on-site residence(s) and accessory structures designed for human occupancy shall be equal to one and one-half (1.5) times the overall system's height, or five hundred (500) feet, whichever is less;

(vi) The minimum setback from the base of any large wind energy system to any publicly maintained public highway or street, any public access easement, including any public trail, pedestrian easement, or equestrian easement, or railroad right-of-way, shall be equal to one and one-half (1.5) times the overall system's height, or five hundred (500) feet, whichever is less.

(4) Wind generator setbacks (spacing) within the project boundary shall be in accordance with accepted industry practices pertaining to the subject machine.

(5) Fencing shall be erected for each wind machine or on the perimeter of the total project. Wind project facilities shall be enclosed with a minimum four- (4-) foot-high security fence constructed of four (4) strand barbed wire or materials of a higher quality. Fencing erected on the perimeter of the total project shall include minimum eighteen- (18-) inch by eighteen- (18-) inch signs warning of wind turbine dangers. Such signs shall be located a maximum of three hundred (300) feet apart and at all points of site ingress and egress. Where perimeter fencing is utilized, the Planning Commission may waive this requirement for any portion of the site where unauthorized access is precluded due to topographic conditions.

(6) All on-site electrical power lines associated with wind machines shall be installed underground within one hundred fifty (150) feet of a wind turbine and elsewhere when practicable, excepting therefrom "tie-ins" to utility type transmission poles, towers, and lines. However, if project terrain or other factors are found to be unsuitable to accomplish the intent and purpose of

this provision, engineered aboveground electrical power lines shall be allowed.

(7) Colors and finish. Wind energy system components shall have a nonglare/non-reflective finish (e.g., galvanized metal) or color appropriate to the background against which they would be primarily viewed, as determined by the Planning Commission, unless it is not technically possible to do so.

(8) Signals, Lights and Signs. No signals, lights or signs shall be permitted on a wind energy system unless required by the Federal Aviation Administration (FAA). If lighting is required, the County shall review the available lighting alternatives acceptable to the FAA and approve a design that it determines would cause the least impact on surrounding views. However, in documented migratory bird flyways, preference shall be given to white strobe lights operating at the longest interval allowed per FAA requirements.

(9) Noise. Where a sensitive receptor such as a group of residences, a school, church, public library, or other sensitive or highly sensitive land use, as identified in the Noise Element of the County General Plan, is located within one-half (1/2) mile in any direction of a project's exterior boundary, a noise or acoustical analysis shall be prepared by a qualified acoustical consultant prior to the issuance of any Major Use Permit. The report shall address any potential noise impacts on sensitive or highly sensitive land uses, and shall demonstrate that the proposed wind energy development shall comply with the following noise criteria:

(i) Audible noise due to wind turbine operations shall not be created which causes the exterior noise level to exceed forty-five (45) dBA for more than five (5) minutes out of any one- (1-) hour time period, or to exceed fifty (50) dBA for any period of time, when measured within fifty (50) feet of any existing group of residences, a school, hospital, church, or public library.

(ii) In the event that noise levels, resulting from a proposed development, exceed the criteria listed above, a waiver to said levels may be granted by the Planning Commission provided that: written consent from the affected property owners has been obtained stating that they are aware of the proposed development and the noise limitations imposed by this code, and that consent is granted to allow noise levels to exceed the maximum limits allowed; and a permanent noise impact easement has been recorded on the affected property.

(10) A toll-free telephone number shall be maintained for each wind energy project and shall be distributed to surrounding property owners to facilitate the reporting of noise irregularities and equipment malfunctions.

(11) Fire Protection. Any Major Use Permit issued for a large wind energy system project shall include fire control and prevention measures stated in the Conditions of Approval which may include, but are not limited to, the following:

(i) Areas to be cleared of vegetation and maintained as a fire/fuel break as long as the wind system is in operation, such as thirty (30) feet around the periphery of the system base and around all buildings (access driveways and roads that completely surround the project may satisfy this requirement); and ten (10) radius feet around all transformers.

(ii) All buildings or equipment enclosures of substantial size containing control panels, switching equipment, or transmission equipment, without regular human occupancy, shall be equipped with an automatic fire extinguishing system of a Halon or dry chemical type, as approved by the applicable Fire Department.

(ii) Service vehicles assigned to regular maintenance or construction at the wind energy system shall be equipped with a portable fire extinguisher of a 4A40 BC rating.

(iv) All motor driven equipment shall be equipped with approved spark arrestors.

(12) Erosion and Sediment Control. Any Major Use Permit issued for a large wind energy system project shall include erosion and sediment control measures stated in the Conditions of Approval which may include, but are not limited to, necessary re-soiling, proposed plant species, proposed plant density and percentage of ground coverage, the methods and rates of application, sediment collection facilities. The soil erosion and sedimentation control plan shall be consistent with the applicable requirements of the California Regional Water Quality Control Board pertaining to the preparation and approval of Storm Water Pollution Prevention Plans.

(13) Monitoring. Upon reasonable notice, County officials or their designated representatives may enter a lot on which a large wind energy system permit has been granted for the purpose of monitoring noise environmental impacts, and other impacts which may arise. Twenty-four hours advance notice shall be deemed reasonable notice.

(14) Building, engineering, and electrical codes. The system shall comply with the California Building Code and be certified by a professional mechanical,

structural, or civil engineer licensed by the state. A wet stamp shall be required.

(j) Abandonment, financial surety, and other violations

(1) A small wind energy system that ceases to produce electricity on a continuous basis for eighteen 18 months shall be considered abandoned. A large wind energy system that ceases to produce electricity on a continuous basis for twelve months shall be considered abandoned. Facilities deemed by the County to be unsafe and facilities erected in violation of this Section shall also be subject to this provision. The code enforcement officer or any other employee of the Community Services Department shall have the right to request documentation and/or affidavits from the system owner/operator regarding the system's usage, shall make a determination as to the date of abandonment or the date on which other violation(s) occurred.

(2) Upon a determination of abandonment or other violation(s), the County shall send a notice hereof to the owner/operator, indicating that the responsible party shall remove the wind energy system and all associated facilities, and remediate the site to its approximate original condition within ninety (90) days of notice by the County, unless the County determines that the facilities must be removed in a shorter period to protect public safety. Alternatively, if the violation(s) can be addressed by means short of removing the wind energy system and restoring of the site, the County may advise the owner/operator of such alternative means of resolving the violation(s).

(3) In the event that the responsible parties have failed to remove the wind energy system and/or restore the facility site or otherwise resolve the violation(s) within the specified time period, the County may remove the wind energy system and restore the site and may thereafter initiate judicial proceedings or take any other steps authorized by law against the responsible parties to recover costs associated with the removal of structures deemed a public hazard.

(4) Financial Surety. Prior to the issuance of a building permit authorizing installation of a large wind energy system, the applicant shall provide a demolition surety in a form and amount deemed by the County to be sufficient to remove and dispose of the wind energy system and restore the site to its approximate preconstruction condition. The County shall draw upon this surety in the event the responsible party fails to act in accordance with the provisions of this section within ninety (90) days of termination of operations, or upon determination by the County that the wind energy system is unsafe, has been abandoned, or is in violation of this Chapter. The surety shall remain in effect until the wind energy system is removed.

Sec. 8-2.1104 Solar energy systems

(a) Purpose

The purposes of this Section are as follows:

(1) To provide for the placement of solar energy systems to enable generation of electricity from the sun, for on- and/or off-site uses, thereby increasing local production and use of renewable energy and reducing peak demand on the power grid.

(2) To minimize potential adverse impacts associated with solar energy systems on area residents, historic sites, and agricultural and biological resources through careful siting, design and operation, consistent with State law.

(3) To avoid or minimize public health and safety risks associated with solar energy systems by providing standards for the placement, design, construction, modification and removal of such systems, consistent with Federal, State and local regulations.

(4) To streamline the solar permitting process that complies with the Solar Rights Act and AB 2188 (Chapter 21, Statutes 2014) to achieve timely and cost-effective installations of small accessory use solar energy systems, as defined below.

(b) Definitions

Solar energy system
"Solar energy system" shall mean a device, array of devices, or structural design feature which is used to provide for generation and/or storage of electricity from sunlight, or the collection, storage, and distribution of solar energy for space heating or cooling, daylight for interior lighting, or water heating

Accessory solar energy system
"Accessory solar energy system" shall mean an onsite solar energy system in which the energy generated supplies power to and/or offsets energy demands on the property, or on adjacent or contiguous properties. An accessory solar energy system shall be limited to ground-mounted systems, roof-mounted systems, floating systems, and systems affixed to shade structures located over parking areas. Accessory solar energy systems do not include small accessory use roof-mounted and ground-mounted solar energy systems as defined in this Section. Accessory solar energy systems shall not occupy more than 7.5 acres of land. A solar energy system that produces power that is sold directly to the electrical grid

with a generation capacity of more than one megawatt shall be considered a utility solar energy system, as defined below.

Adjacent
A property shall be “adjacent” to the property with the accessory solar energy system if the property lines are separated by less than 100 feet at their nearest point.

Small accessory use ground-mounted solar energy system
“Small accessory use ground-mounted solar energy system” shall mean a system that:

(i) is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal; and
(ii) is structurally mounted to the ground.

Small accessory use roof-mounted solar energy system
“Small accessory use roof-mounted solar energy system” shall mean a system that:

(i) is mounted to the roof of a house, building, or other structure;
(ii) is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal; and
(iii) has a solar panel or module array that does not exceed five feet above rooftop for photovoltaic or seven feet above rooftop for thermal solar systems.

Medium-sized solar energy system
“Medium-sized solar energy system” shall mean a private on-site or utility solar energy conversion system consisting of many ground–mounted solar arrays, a solar photovoltaic system mounted on a rack or pole that is ballasted on or attached to the ground, or roof-panels, and associated control or conversion electronics, occupying more than 7.5 acres and no more than 30 acres of land, and that will be used to produce utility power to on-site uses and/or off-site customers.

Large-scale solar energy system
“Large-scale solar energy system” shall mean a utility solar energy conversion system consisting of many ground–mounted solar arrays, or a solar photovoltaic system mounted on a rack or pole that is ballasted on or attached to the ground, and associated control or conversion electronics, occupying more than 30 acres of land, and that will be used to produce utility power to off-site customers.

Utility solar energy system
“Utility solar energy system” shall mean a solar facility featuring panels designed to generate solar power that is fed directly into the electrical grid, supplying a utility

company with energy which is distributed to offsite end users. For the purposes of this Section, a utility solar energy system has a total generation capacity of more than one megawatt. A solar energy system that feeds directly to the power grid but generates one megawatt or less shall be considered a medium-sized solar energy system as defined above.

Specific, Adverse Impact
"Specific, Adverse Impact" means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

(c) Applicability

The provisions of this Section apply to onsite accessory and small accessory use solar energy systems, medium-sized solar energy systems, and large-scale solar energy systems, as defined in subsection (b). These solar energy systems require the issuance of a Building Permit, a Site Plan Review, or a Use Permit, as set forth below. Any solar systems installed prior to the effective date of this Section shall be considered legal, conforming uses so long as a County permit or approval was issued in connection with their installation.

(d) Administration and required approvals

The following types of approvals are required in addition to any other permits that may be required by State, federal, and regional agencies and by any other sections of this Code:

(1) All solar energy systems shall meet applicable health and safety standards and requirements imposed by the state and the County Building and local fire department or districts.

(2) Solar energy systems for heating water in single-family residences and for heating water in commercial or swimming pool applications shall be certified by an accredited listing agency as defined by the California Plumbing and Mechanical Code.

(3) Solar energy systems for producing electricity shall meet all applicable safety and performance standards established by the California Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission regarding safety and reliability.

(4) Small accessory use roof-mounted and ground-mounted solar energy systems may be approved in all zones through the issuance of a Building

Permit and a Zoning Clearance, provided the application meets setback and other standards, as provided in this Section. However, consistent with Section 65850.5 of the California Government Code, if the Chief Building Official has a good faith belief that the solar energy system could have a specific, adverse impact upon the public health and safety, the Official may require the applicant to apply for a Use Permit. Such a Use Permit shall be considered by the Zoning Administrator according to the requirements of Section 65850.5

(5) Accessory solar energy systems that occupy more than 2.5 acres, excluding ground-mounted systems located in the POS and P-R zones, may be approved through the issuance of a Building Permit and Site Plan Review, provided the application meets the Development Standards set forth in Section 8-2.1104(g), below. The Site Plan Review approval is ministerial (not discretionary) and does not require a public hearing. If the application fails to meet any of the standards, the application shall instead be evaluated as an application for a Minor Use Permit by the Zoning Administrator.

(6) Accessory or medium-sized ground-mounted solar energy systems proposed to locate in the POS and P-R zones may be approved through the issuance of a Minor Use Permit as set forth in Section 8-2.1104(e)(4), below.

(7) Solar energy systems proposed on a property or structure that is a designated Historic Landmark or is located within a designated Historic District may be permitted provided that the design of the facilities is consistent with the purposes of the Landmark or District designation.

(8) Medium-sized solar energy systems may be approved through Site Plan Review if the facility is located on non-prime farmland that is not under a Williamson Act contract and shall include a vegetative substrate, derived from source-identified plant materials whose origin includes Yolo County and surrounding counties, planted and maintained beneath and between the rows of panels. Any medium-sized solar energy system that is located on prime farmland or on land that is enrolled in the Williamson Act shall require the issuance of a Minor Use Permit provided the application is consistent with the conditions and standards set forth in subsections (h) and (i), below.

(9) Large-scale solar energy systems occupying no more than 120 acres of land may be approved through the issuance of a Major Use Permit by the Planning Commission, provided the application is consistent with conditions and standards set forth in subsections (h) and (i). A large-scale solar energy system greater than 120 acres requires approval from the Board of Supervisors, following a recommendation from the Planning

Commission, provided the application is consistent with conditions and standards set forth in subsections (h) and (i), below.

(10) If a utility solar energy system is proposed to locate on lands under a Williamson Act contract, the use must be found to be compatible in accordance with Section 106 of the Yolo County Williamson Act Guidelines, including compliance with the Williamson Act statutes governing the principles of compatibility required under Section 51238.1 of the California Government Code.

(11) Solar energy development shall employ design features that allow for full restoration of the land once the system has ceased to generate electricity.

(e) Permitted locations

(1) Solar energy systems may be installed and operated in the following zones, provided the systems meet setback and other standards, as provided in this Section and shown in Table 8-2.1104:

Table 8-2.1104
Allowed Solar Uses and Permit Requirements

A = Allowed use, subject to zoning clearance SP = Site Plan Review UP (m) = Minor Use Permit UP (M) = Major Use Permit N = Use Not Allowed	Land Use Permit Required by Zone							
	A-N, A-X, A-I	**A-C, A-R**	**RR-5, RR-2, R-L, R-M, R-H**	**C-L, DMX, C-G, C-H**	**I-L, I-H, OPRD**	**PQP**	**POS, P-R**	**Specific Use Requirements or Performance Standards**
Solar Energy System								
Small accessory use roof-mounted solar energy system (up to 10kW)	A	A	A	A	A	A	A	Sec. 8-2.1104(f)
Small accessory use ground-mounted solar energy system (up to 10kW)	A	A	A	A	A	A	SP	
Accessory solar energy system (>10kW, < 2.5 ac)	A	A	A	A	A	A	A/SP[(a)]	Sec. 8-2.1104(g)
Accessory solar energy system (2.5 to 7.5 ac)	SP	SP	SP	SP	SP	SP	SP/UP(m)	
Medium-sized solar energy system (7.5 to 30 ac)	SP/UP(m)	N	N	SP/UP(m)	SP/UP(m)	SP/UP(m)	N	Sec. 8-2.1104(h)(i)
Large-scale solar energy system (> 30 ac)	UP(M)	N	N	N	UP(M)	UP(M)	N	

(a) Site Plan Review required for ground-mounted systems

(2) Installation of roof-mounted solar arrays is encouraged in all public facilities in all zones so long as associated controls or conversion electronics do not impact other facilities.

(3) Accessory and medium-sized solar energy systems in the Public and Open Space (POS) and Park and Recreation (P-R) zones are limited to roof-mounted panels and associated controller and conversion electronics.

(4) Under circumstances where roof -mounted solar arrays alone cannot provide sufficient power for onsite uses in the POS or P-R zones, supplemental ground-mounted solar arrays may be permitted only to the extent necessary to provide sufficient power for onsite uses only through the issuance of a Minor Use Permit**.**

(5) Large-scale solar energy systems are prohibited in the Public Open Space (POS) and Parks and Recreation (P-R) zones.

(f) Development standards for small accessory use solar energy systems

Applications for small accessory use roof-mounted and ground-mounted solar energy systems shall meet all of the following standards and any permit issued for such a system shall be conditioned to meet the standards:

(1) Photovoltaic solar energy systems may extend up to five (5) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).

(2) Solar water or swimming pool heating systems may extend up to seven (7) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).

(3) Excluding solar collection panels, solar energy system equipment may be installed within the required side and rear yards, but shall not be closer than ten (10) feet from any property line in agricultural, commercial, industrial, and public and open space zones and five (5) feet from any property line in residential zones.

(4) Pole mounted solar collection panels located in the residential zones shall comply with existing regulations for accessory structures (Section 8-2.506(a) and Table 8-2.506 of this Chapter), i.e., the panels may not exceed ten (10) feet in height in residential zones and must meet a rear yard setback of five (5) feet.

(5) The solar panels of a small accessory use ground-mounted solar energy system shall not be included in any calculation of impervious surface for purposes of calculating lot coverage.

(g) Development standards for accessory solar energy systems

Applications for accessory solar energy systems shall meet all of the following standards. If the application does not meet one or more of the standards, a Minor Use Permit shall be required and shall be conditioned to meet the standards, unless findings of fact to justify a waiver of any of the standards are adopted by the Zoning Administrator. A waiver may be granted only if the Zoning Administrator concludes that the waiver is consistent with the purposes of this Section and that, due to unusual circumstances or other considerations, it is not reasonable to require compliance with one or more of the standards.

(1) Photovoltaic solar energy systems may extend up to five feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).

(2) Solar water or swimming pool heating systems may extend up to seven (7) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).

(3) Accessory solar energy systems occupying more than 2.5 acres of land that are proposed in agricultural zones and the PQP zone are encouraged to locate on predominantly (more than 60 percent) non-prime farmland and/or previously disturbed areas to the extent feasible.

(4) Ground-mounted solar facilities shall meet the front, rear, and side yard setback requirements of the zone in which they are located, with the following exceptions: Accessory solar energy systems in agricultural zones occupying no more than 2.5 acres shall not be required to meet the front yard setback. To address Fire Code requirements for weed control, a 10-foot perimeter is required from property lines in all agricultural, commercial, industrial, and public and open space zones and a 5-foot perimeter is required in all residential zones.

(5) Ground-mounted solar facilities shall meet the height limit requirements of the zone in which they are located, except that auxiliary equipment may exceed this limit.

(6) Ground-mounted solar arrays that occupy more than 2.5 acres of Swainson's hawk foraging habitat shall require a management plan that

includes a vegetative substrate, such as native grasslands habitat or pollinator habitat, planted and maintained beneath and between the rows of panels. Native vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.

(7) Accessory solar energy systems larger than 2.5 acres shall be located no closer than a minimum of 100 feet away from a riparian corridor.

(8) Accessory solar energy systems shall occupy no more than 7.5 acres of land or 20 percent of the area of the parcel, whichever is smaller.

(9) The solar panels of an accessory solar energy system shall not be included in any calculation of impervious surface for purposes of calculating lot coverage.

(h) Development standards for medium-sized and large-scale solar energy systems

(1) Medium-sized and large-scale solar energy systems are encouraged to locate on predominantly non-prime farmland and non-Williamson Act contracted land, as feasible. Any medium-sized solar energy system that locates on prime farmland or farmland under Williamson Act contract shall require a Minor Use Permit.

(2) Utility solar energy systems shall be integrated into the agricultural landscape by maintaining a substrate with a plant palette that supports ecological function and encourages and maintains wildlife use. Native vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.

(3) Solar uses shall require a minimum 100-foot buffer from riparian corridors.

(4) Medium-sized solar energy systems shall meet the front, rear, and side yard setback requirements of the zone in which they are located, with the following exception: in agricultural zones, the setbacks shall be at least 50 feet from all property lines. A 10-foot perimeter shall be required in all other zones to address Fire Code requirements for weed control.

(5) Large-scale solar energy systems must be setback at least 50 feet from any property line.

(6) Utility solar energy systems shall be located no closer than 100 feet from any residential dwelling on an adjacent property.

(7) To the extent reasonably practicable, a utility solar energy system shall have a visual buffer of native vegetation that provides a visual screen to

reduce the view of the solar energy system from residences on adjacent lots, including those lots located across a public right-of-way. Solar energy systems proposed to locate in a designated scenic corridor shall require visual screening. Vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.

(8) Solar panels shall not be included in any calculation of impervious surface or impervious cover.

(i) Mitigation required

(1) All utility solar energy systems shall mitigate for the permanent loss of agricultural land, in accordance with Section 8-2.404 (the Agricultural Conservation and Mitigation Program). Medium-sized solar energy systems approved by Site Plan Review are exempt from this requirement.

(2) If a proposed utility solar energy system will remove Swainson's hawk foraging habitat, mitigation for the loss of foraging habitat shall be required to minimize adverse effects. For each acre of suitable agricultural land removed, a replacement acre shall be protected and managed to consistently provide suitable conditions for foraging Swainson's hawks. Mitigation can be accomplished by payment of a development fee for land in lieu, providing land in lieu of a development fee, or other arrangement in accordance with the California Department of Fish and Wildlife. Alternatively, a project proponent may seek coverage for the loss of habitat under the Yolo HCP/NCCP as a special participating entity.

(j) Decommissioning

Unless otherwise approved by the County, decommissioning shall begin no later than 12 months after a medium-sized or large-scale solar energy system has ceased to generate electricity. Within six months of the beginning of decommissioning, the solar energy system and all structures associated with it shall be removed, all materials shall be recycled or otherwise reused to the extent reasonably practicable, and the property shall be returned to its condition prior to the installation of the solar energy system or to some other condition reasonably appropriate for the designated land use.

Sec. 8-2.1105 Energy storage facilities

(a) Purpose

The purpose of this Ordinance is to add provisions to the Yolo County Code to regulate the permitting and installation of energy storage systems. These changes are necessary and appropriate to improve and enhance public welfare and safety, to ensure compatible land uses in the vicinity of areas affected by energy storage systems, and to mitigate the impacts of energy storage systems on important environmental resources, such as agricultural lands and wildlife habitat.

(b) Definitions

Dedicated use building

"Dedicated use building" shall mean a building that is constructed for the primary intention of housing battery energy storage system equipment, is classified as Group F-1 occupancy as defined in the California Building Standards Code, and complies with the following:

(i) The building's only use shall be for energy storage, energy generation, and other electrical grid-related operations.
(ii) No other occupancy types shall be permitted in the building.

Participating property

"Participating property" shall mean an energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the energy storage system owner (or affiliate) regardless of whether any part of the energy storage system is constructed on the property.

Small energy storage system

"Small energy storage" shall mean one or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle. A small energy storage facility may be used in conjunction with an accessory renewable energy system and shall have an aggregate energy capacity less than or equal to 600kWh and consist of only a single energy storage system technology.

Energy storage system

"Energy storage system" shall mean one or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time. An energy storage system has an aggregate energy capacity greater than 600kWh or is comprised of more than one storage battery technology in a room or enclosed area. An energy storage system facility may be integrated with a utility renewable

energy system with storage connected to the renewable energy system and the grid or may be a standalone storage facility with storage connected to the grid only.

(c) Applicability

The requirements of this Section shall apply to all energy storage systems permitted, installed, or modified in unincorporated Yolo County after the effective date of this ordinance, excluding general maintenance and repair. Energy storage systems constructed or installed prior to the effective date of this ordinance shall not be required to meet the requirements of this Section. Modifications to, retrofits or replacements of an existing energy storage system that increase the total energy storage system designed discharge duration or power rating shall be subject to the provisions of this Section.

(d) Permitting requirements

Energy storage facilities may be permitted to locate in the following zones:

Table 8-2.1105
Allowed Energy Storage System Uses and Permit Requirements

A = Allowed use, subject to zoning clearance* SP = Site Plan Review UP (m) = Minor Use Permit UP (M) = Major Use Permit N = Use Not Allowed	Land Use Permit Required by Zone							
	A-N, A-X, A-I	A-C, A-R	RR-5, RR-2, R-L, R-M, R-H	C-L, DMX, C-G, C-H	I-L, I-H, OPRD	PQP	POS, P-R	Specific Use Requirements or Performance Standards
Energy Storage System								
Small energy storage (≤600Kw)	A	A	A	A	A	A	A	
Energy storage (>600kW to 2MW)	SP	SP	N	SP	SP	SP	N	See Sec. 8-2. 1105(e)
Energy storage (>2MW)	UP(m)	N	N	UP(m)	UP(m)	UP(m)	N	

(1) Energy storage systems shall meet all applicable safety and performance standards established by the California Building Standards Code.

(e) Development standards for energy storage systems

(1) Small energy storage systems must be installed in non-habitable spaces, such as utility rooms, garages, storage rooms or on the exterior of a building.

(2) Onsite utility lines shall be placed underground to the extent feasible and as permitted by the serving utility.

(3) Lighting of an energy storage system shall be limited to that minimally required for safety and operational purposes and shall be shielded and downcast from abutting properties and public right-of-way, and shall take into consideration protection of the rural night sky.

(4) Areas within 10 feet on each side of an energy storage system, excluding small energy storage systems, shall be cleared of combustible vegetation and other combustible growth. Removal of trees should be minimized to the extent possible.

(5) Noise generated from energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of 60 dBA as measured at the property line of the nearest offsite residence. Applicants may submit equipment and component manufactures noise ratings to demonstrate compliance.

(6) Energy storage systems, excluding small energy storage systems, shall comply with the setback requirements of the zone in which they are located.

(7) Energy storage systems shall comply with the height limitations of the zone in which they are located.

(8) Energy storage systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area.

(f) Decommissioning

(1) A decommissioning plan, developed in accordance with all relevant codes, shall be submitted with any application for an energy storage system, but excluding a small energy storage system, and shall be implemented upon abandonment and/or in conjunction with removal from the facility. The decommission plan shall include:

(i) A narrative description of the activities to be accomplished for complete physical removal of all energy storage system components, batteries, structures, equipment, security barriers, and transmission lines from the site;
(ii) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;

(iii) The anticipated life of the energy storage system;

(iv) The estimated decommissioning costs and method of ensuring funds will be available for decommission and restoration of the site;

(v) The manner in which the site will be restored, including a description of how any changes to the surrounding areas will be protected during decommissioning and confirmed as being acceptable after the system is removed; and

(vi) A listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other natural disaster event.

(2) The owner and/or operator of the energy storage system, not including a small energy storage system, shall continuously maintain a fund or bond payable to the County of Yolo, in a form approved by the County, for the removal of the energy storage system, in an amount to be determined by the County for the period of the life of the facility. All costs of the financial security shall be borne by the applicant.

Sec. 8-2.1106 Major electrical transmission and distribution facilities

(a) Definitions

Major electrical transmission and distribution project

"Major electrical transmission and distribution project" shall mean a project that includes a network of transmission lines and related towers and similar facilities with a capacity to convey 200 kilovolts (kV) or greater. It shall also include any project that proposes the designation of a transmission corridor zone to accommodate such facilities.

(b) Application required

At a minimum, each application for a Major Use Permit for a major electrical transmission and distribution project shall include the following:

(1) A completed application form and filing fee.

(2) A description of a reasonable range of alternatives to the proposed project, including alternatives that use or expand existing rights-of-way and existing infrastructure.

(3) All application materials (maps, site plans, etc.) necessary to illustrate the proposed location of the proposed facilities and all alternative locations, together with all other materials required for a conditional use permit application pursuant to Section 8-2.217 of this Chapter, as described on application forms provided by the Planning Division.

(4) A photo simulation of the proposed project and each alternative from at least six locations along its route in the County. Each location shall include simulated views of project facilities from four directions (north, south, east, and west).

(5) A narrative explanation of the route of the proposed project and each alternative, together with a discussion of any alternative locations and project alternatives considered by the applicant but not formally included for County consideration.

(6) For the proposed project and each alternative, all of the following:

(i) Estimated cost, including construction, land acquisition, and other development costs;
(ii) A description of the type of vegetation and soils that would be removed or impacted by construction;
(iii) A map showing the number, types, uses, and distances of buildings, public and private airports, dedicated open space, and parklands located within a 1,000 foot distance of project infrastructure; An analysis of the audible noise and lighting impacts of the proposal, together with any other studies

reasonably necessary for the County to perform its duties as a lead or responsible agency in connection with the environmental review of the project;

(iv) An analysis of the potential adverse human health effects of the project on those present in residential areas, schools, licensed day-care facilities, playgrounds, and other developed areas in reasonable proximity to the project. The analysis shall use the best available scientific information at the time it is conducted; and

(v) An analysis of potential economic impacts on agriculture and related support industries. The Director may also require an analysis of potential economic impacts on other matters relevant to the review criteria set forth below, including potential economic impacts on other industries, on County and special district revenues, on local tourism and economic development efforts, and on other similar matters.

(c) Coordination and documentation

Within 30 days of filing an application for a major use permit in connection with a major electrical transmission and distribution project, the applicant shall provide the County with copies of all applications for state, federal, and other permits and licenses in connection with the proposed project. Promptly following the issuance of any state or federal permits or licenses, biological opinions, records of decision, memoranda of understanding, exemptions, variances, or similar authorizations or approvals related to the proposed project, the applicant shall provide copies of those documents to the County.

(d) Public outreach

For all major electrical transmission and distribution projects that traverse a significant portion of the County, and whose impacts are not likely to be isolated to a small geographic area, the Director may require the applicant to present the application to interested members of the public at one or more public meetings arranged by the applicant at a location convenient for interested members of the public. Such meetings shall be in addition to any hearings on the permit application held by the Planning Commission or the Board of Supervisors, and in addition to any meetings of local general plan advisory committees to which the application is referred. The Director and the applicant shall, if requested by the Director, develop a mutually acceptable public outreach program that includes such meeting(s) and any similar public outreach efforts to be undertaken by the applicant. If any portion of the proposed project is located within a planning area designated in a city general plan, the outreach program shall also include one or more meetings in that city.

(e) Deciding authority

The Deciding Authority for a major electrical transmission and distribution project application shall be the Board of Supervisors. The Planning Commission shall review the project application and any other relevant documents, hold at least one noticed public hearing, and make a recommendation to the Board of Supervisors thereon. Upon receiving this recommendation, the

Board of Supervisors shall consider the application at a noticed public hearing, taking into account the criteria set forth in Subsection (f), below.

(f) Review criteria

The purpose of this Section is to establish use permit criteria for major electrical power distribution and transmission projects in the unincorporated area of the County, and shall apply to all such projects that require a use permit. A use permit for such projects may only be approved if all of the following findings are made based on substantial evidence in the record:

(1) The proposed project is consistent with any applicable policies in the General Plan and any applicable specific plan(s), as well as the Yolo Natural Heritage Program (HCP/NCCP) upon its adoption;

(2) There is a demonstrated need for the proposed project;

(3) To the greatest feasible (as that term is defined in Public Utilities Code Section 12808.5) extent, the project utilizes existing infrastructure and rights-of-way or, alternatively, expands existing rights-of-way, in that order of preference;

(4) There are no feasible alternatives that are superior to the proposed project, taking into consideration and balancing the considerations set forth in this Section;

(5) The proposed project would not have adverse human health effects, particularly with respect to individuals present in residential areas, schools, licensed day-care facilities, playgrounds, and other developed areas in reasonable proximity to the project;

(6) To the greatest feasible extent, the proposed project does not have a significant adverse effect on the environment, agriculture, existing land uses and activities, areas with significant scenic qualities, or other relevant considerations of public health, safety, or welfare;

(7) To the greatest feasible extent, the proposed project avoids lands preserved by the County for public park purposes;

(8) To the greatest feasible extent, the proposed project avoids lands preserved by a conservation easement or similar deed restriction for agricultural, habitat, or other purposes. The Board of Supervisors may waive this requirement if the applicant provides documentation that the project does not conflict with the conservation easement or deed restriction, or that the conservation easement or deed restriction will be amended or extinguished prior to implementation of the project. If the conservation easement or deed restriction was provided as mitigation for the impacts of a prior development project, however, it shall only be amended or extinguished if adequate substitute mitigation is provided by the applicant;

(9) The proposed project complies with all laws, regulations, and rules regarding airport safety conditions and similar matters, and would not require a significant change in the operations of a public or private airport in the County, create an undue hazard for aircraft, or substantially hinder aerial spraying operations;

(10) To the greatest feasible extent, operation of the proposed project would not create conditions that unduly reduce or interfere with public or private television, radio, telemetry, or other electromagnetic communications signals; and

(11) The applicant has agreed to conduct all roadwork and other site development work in compliance with all laws, regulations, and rules relating to dust control, air quality, erosion, and sediment control, as well as any permits issued pursuant thereto.

(g) Scope

The requirements of this Section shall apply to all major electrical power transmission and distribution projects that have not received all required federal, state, and local agency approvals prior to the effective date of this ordinance.

(h) Costs

The project applicant shall reimburse all County costs associated with reviewing an application for a major electrical power transmission and distribution project. In addition, if the County is required to review a proposed transmission corridor zone pursuant to California Government Code Section 25334 or other provisions of law, such costs shall also be reimbursed by the project applicant.