

Los Angeles County Zoning Ordinance Update Program

**Discussion Paper:
Oak Tree Permits
And
Renewable Energy**

Prepared for
Los Angeles County

February 12, 2009

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INTRODUCTION

This discussion paper includes two chapters - a revision to the current Oak Tree Permit Ordinance and proposed development standards for renewable energy projects in Los Angeles County.

Revisions to the Oak Tree Permit Ordinance were based on meetings with County staff, including planners and biologists from Regional Planning and foresters from the Fire Department. Revisions to the oak tree permit include:

- Expanded definitions.
- Revised the definition of protected tree, matching the 2006 state oak woodlands law, which includes trees greater than 5" in diameter.
- Expansion of exemptions, including brush clearance and tree pruning, as approved by the Forester.
- Codification of current and additional authorities and responsibilities of the Forester.
- Revised the provisions of the administrative permit to include impacts of up to four trees, with not more than the removal of two trees.

The Oak Tree Ordinance Appendix included with this document further describes the changes made to the existing Oak Tree Permit Ordinance.

The Renewable Energy Chapter includes revisions to the existing Wind Energy Conversion System – Noncommercial (WECS-N) Ordinance. These revisions were based on staff comments and include the concerns of applicants who felt the existing process is too restrictive and conflicts with the State and County’s goals to encourage renewable energy. The revisions to the WECS-N include the following:

- Revised the definition of noncommercial, and added the terms “small” and “residential” to be consistent with the State’s and other jurisdictions descriptions of wind energy systems.
- Permits WECS-N in some zones without the requirement of a conditional use permit.
- Revised the visual effects development standards

Development standards were added for solar systems, as well as various types of wind and solar commercial applications. As we anticipate there will be many types of renewable energy projects being developed in the near future, we provided a method for processing similar uses.

POLICY QUESTIONS

1. Are the oak tree permit findings adequate to protect oak trees during the development process?
2. Are there other types of renewable energy that should be addressed within this Chapter?

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CHAPTER 22.xxx: OAK TREE PERMITS

Sections:

22.xxx.010	Purpose
22.xxx.020	Definitions
22.xxx.030	Applicability
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22.xxx.050	Application Filing and Project Review
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22.xxx.080	Post Decision Procedures
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22.xxx.010 Purpose

As one of the most picturesque trees in Los Angeles County, oak trees supply beauty and charm to the natural and man-made landscape. Oak trees add distinct and unique aesthetic character to the areas of Los Angeles County in which they are indigenous. The oak tree permit is established to recognize oak trees as significant and valuable historical, aesthetic and ecological resources. The purpose of the oak tree permit is to:

- A. Protect, maintain and enhance the general public health, safety and welfare by reducing air pollution, soil erosion and other related environmental damage;
- B. Preserve and enhance property values by conserving oak trees, particularly heritage trees, and the natural communities in which they exist;
- C. Protect and preserve oak trees by incorporating their conservation into the development process; and
- D. Protect and preserve ecological diversity associated with the oak resource.

22.xxx.020 Definitions

The following terms shall be applicable to this chapter:

- A. **Canopy.** The total foliage spread or crown of a tree. Such spread includes leaves, twigs, and branches.

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- B. **Damage.** Any act causing or tending to cause injury to the root system or other parts of an oak tree, including, but not limited to, the acts of burning, pruning, cutting, application of toxic substances, operation of equipment or machinery, paving, construction, changing the natural grade, and trenching or excavating within the protected zone of an oak tree.
- C. **Deadwood.** Limbs or branches that contain no green leaves or live tissue. A tree or limb may be considered dead if it does not show evidence of any green leaves or live branches over the span of one year, inclusive of prime growing weather.
- D. **Dripline.** A vertical line extending from the outermost portion of a tree canopy to the ground. When depicted on a map, the dripline will appear as an irregular shape that follows the contour of the tree's branches as seen from overhead.
- E. **Encroach.** Any act which damages an oak tree and/or to conduct any activity within the protected zone of any oak tree, including but not limited to: 1) construction and placement of permanent, semi-permanent or temporary structures; 2) grading; and 3) any single instance, repeated or permanent activities that would result in compaction of soils, such as parking, storage, etc. as determined by the director or the county forester.
- F. **Heritage tree.** Heritage trees are:
 - 1. A protected oak tree that has any one of the following:
 - a. At least one tree trunk measuring 24 inches or more in diameter, as measured at four and one-half feet above mean natural grade; or
 - b. A combination of any two trunks measuring a total of 34 inches or more in diameter, as measured at four and one-half feet above mean natural grade.
 - 2. Any oak tree that is identified on the Federal or California Historic Resource Inventory to be of historical or cultural significance.
- G. **Protected oak tree.** A live native oak tree (*Quercus* genus) indigenous to southern California, with at least one trunk measuring five inches or more in diameter or sixteen inches or more in circumference, or a combination of any two trunks measuring a total of ten inches or more in diameter or thirty-two inches or more in circumference, at four and one-half feet above mean natural grade. Protected oak trees include those that have been planted as a requirement of a county permit or code, regardless of the trunk diameter.
- H. **Protected zone.** The surface and subsurface area of a protected oak tree that lies within the dripline of such tree, plus the area extending to a minimum of five feet beyond the dripline, or fifteen feet outward from the outside perimeter of the trunk of such tree, whichever is greater.
- I. **Pruning.** The removal of a portion of an oak tree's shoots, branches, limbs or roots.

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- J. **Public resources agency.** A government or non-profit agency that has the authority to manage, preserve or enhance public resources for the benefit of the County and its residents.
- K. **Remove.** Any act to cut down or destroy any oak tree or to encroach upon any protected oak tree beyond a reasonable expectation of recovery, as determined by the county forester. Relocation of protected oak trees shall be considered removals.

22.xxx.030 Applicability

- A. **Requirements.** Except as otherwise provided below, an approved oak tree permit shall be obtained:
 - 1. Prior to the removal of or encroachment into any protected oak tree and/or protected zone on any lot or parcel of land within the unincorporated area of Los Angeles County,
 - 2. In concurrence with the issuance of any zoning permits, land division approvals, lot line adjustments, and prior to the issuance of any building permits or grading permits, and prior to any construction or grading activities on a lot or parcel of land, where such approval or activity would result in removal of or encroachment into the protected zone of any protected oak tree(s), and
 - 3. An application for an oak tree permit may not be filed with the director of regional planning if final action by the review authority has been taken on the same or a similar permit application within the last twelve months.
- B. **Exemptions.** An oak tree permit shall not be required for:
 - 1. Any permit, variance or tentative map for a subdivision of property, including a minor land division, approved by the board of supervisors, regional planning commission or the planning director, prior to the initial effective date of this Section - August 20, 1982;
 - 2. Emergency situations where the county forester, county fire department, or county sheriff, in the performance of duty, determines that a tree or its limbs pose an imminent threat to public safety, general welfare and property;
 - 3. Emergency or routine maintenance by a public utility necessary to protect or maintain an electric power or communication line or other property of a public utility;
 - 4. Tree maintenance, where such maintenance is limited to pruning of dead branches, or to the pruning of live branches not to exceed two inches in diameter. Additionally, property owners may be exempted from the live-branch two-inch provision if greater pruning is necessary for the health and maintenance of the tree, as approved by the county forester;
 - 5. Trees planted, grown and/or held for sale by a licensed nursery;

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6. Trees of a non-native species; and
7. Brush clearance required by the fire code where verified by a fire department official inspection report (410B) from the county forester.

22.xxx.040 Review Authority and Related Procedures

- A. **Concurrent Permits.** Where an application for a permit, variance, plan amendment, zone change or tentative map for a subdivision, including a minor land division, is filed with an application for an oak tree permit, the review authority shall conduct a public hearing pursuant to Chapter 22.94 (Common Procedures) to consider said oak tree permit application concurrently with such other applications. In making their findings and decisions, the review authority shall consider each case individually.
- B. **Oak Tree Permit.** Where the review authority is considering an oak tree permit with no other concurrent discretionary permit applications, the review authority shall conduct a public hearing pursuant to Chapter 22.94 (Common Procedures).
- C. **Administrative Oak Tree Permit.** Where construction is proposed in conjunction with an individual single-family residence, the director has the authority to approve or deny, without a public hearing, an application for the removal or encroachment of not more than four protected oak trees, where not more than two oak trees are requested for removal. An administrative oak tree permit shall not apply to heritage trees.

22.xxx.050 Application Filing and Project Review.

- A. **Application Filing.** An application for an oak tree permit shall be filed and processed in compliance with Chapter 22.94 (Common Procedures).
- B. **Review by the Director.** Each application shall be reviewed by the Director to ensure that the proposal complies with all applicable requirements of this Zoning Ordinance. The county forester may require additional information from the applicant and may consult with qualified agencies and other county departments as needed in reviewing the application.
- C. **Oak Tree Report.** The oak tree report shall be reviewed accordingly:
 1. **Review and inspection.** Upon receipt of an application for an oak tree permit, the director shall refer a copy of the applicant's oak tree report to the county forester. The county forester shall review said report for the accuracy of statements contained therein, and shall make inspections on the project site. Such inspections shall verify the health and location of all protected oak trees on the project site and such other factors as may be necessary and proper to complete the review. A copy of said review shall be submitted in writing to the director.
 2. **Recommended conditions.** The county forester may recommend conditions for approval of an oak tree permit in order to preserve as many protected trees as feasible in accordance with appropriate forestry or arboriculture practices.

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3. Requests for additional information. The county forester may require additional information from the applicant and may consult with qualified agencies and other county departments as needed in reviewing the oak tree report.

22.xxx.060 Findings and Decision

A. **Authorized Actions.** An application for an oak tree permit may be approved, conditionally approved, or denied by the review authority.

B. **Required Findings.** The review authority shall approve an oak tree permit only after first finding all of the following:

1. The proposed construction will be accomplished without endangering the health of any protected oak trees that were not specified in the application for removal or encroachment, if any, on the subject property;
2. The proposed removal or encroachment into the protected zone(s) of the affected protected oak tree(s) will not result in soil erosion which cannot be satisfactorily mitigated; and
3. At least one of the following:
 - a. The proposed removal or encroachment into the protected zone(s) of the oak tree(s) is necessary as the protected trees impede the proposed use of the subject property to such an extent that:
 - i. Alternative development plans cannot achieve the minimum density permitted by the land use element of the general plan or the areawide plan for the area, or that the cost of such alternative would be unreasonably excessive; and
 - ii. Location of such tree(s) prevents the reasonable use of such property for a use otherwise authorized; and
 - iii. The protected oak tree(s) proposed for removal or encroachment into their protected zone(s), interferes with utility services or streets and highways, either within or outside of the subject property, and no reasonable alternative to such interference exists other than removal of the tree(s); or
 - b. The condition of the protected oak tree(s) proposed for removal or encroachment into their protected zone(s), with reference to seriously debilitating disease or danger or falling, is such that it cannot be remedied through reasonable preservation procedures and practices; or
 - c. The proposed removal or encroachment into the protected zone(s) of the protected oak tree(s) will not conflict with the intent and purpose of the oak tree permit procedure.

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- C. **Failure to Substantiate Findings.** The review authority shall deny the application where the information submitted by the applicant and/or presented at the public hearing fails to substantiate all of the required findings.

22.xxx.070 Conditions of Approval

In approving an oak tree permit, the review authority shall impose any conditions deemed reasonable and necessary to ensure that the approval will comply with Section 22.xxx.060 Findings and Decision. These conditions are intended to mitigate anticipated impacts associated with the grant of an oak tree permit and shall include, but are not limited to, the following:

A. **Replacement trees.**

1. Matters to be considered. Protected oak trees proposed for removal or encroachment shall be replaced with trees of a suitable type, size, number, location and date of planting. In determining what replacement trees should be required, whether off-site planting of replacement trees should be required or allowed, and whether an in-lieu fee payable to the Los Angeles County Oak Forest Special Fund should be required instead of replacement trees, the review authority shall consider factors, including but not limited to the following:
 - a. The vegetative character of the surrounding area;
 - b. The number of protected oak trees proposed to be removed or encroached upon in relation to the number of oak trees currently existing on the subject property;
 - c. The anticipated effectiveness of the replacement of oak trees, as determined by the oak tree report submitted by the applicant and evaluated by the county forester; and
 - d. The development plans submitted by the applicant for the proposed construction or the proposed use of the subject property.
2. Ratio of replacement trees. The number of required replacement trees shall be as follows:
 - a. A minimum of two replacement trees shall be planted for each removal of each protected oak tree; and
 - b. A minimum of ten replacement trees shall be planted for removal of each heritage oak tree.
3. Size of trees. Replacement trees shall be at least one inch in diameter as measured one inch above the soil level in the container base or greater, as determined by the county forester, and shall be of at least 15-gallon specimen in size. Such trees may be free-form with multiple stems if the largest of the stems totals one inch or more in diameter.

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4. Type of replacement trees. Replacement trees shall:
 - a. Be of the same genus and species as those oak trees that are removed or encroached;
 - b. Consist exclusively of indigenous oak trees; and
 - c. Be certified as grown from a seed source collected in Los Angeles or adjoining counties. Seed sources shall be approved by the county forester.
 5. Planting location. If feasible, replacement trees shall be planted and maintained on the subject property in the same general area where the removed or encroached oak trees were located.
 6. Acorns. Two acorns shall be planted at the same time as and within the watering zone of each replacement tree. Acorns shall be of the same species as the replacement tree and shall be identified with metal identification tags attached to redwood stakes.
 7. Tree Protection. Screening to protect from browsing herbivores and omnivores shall be provided and maintained for replacement trees and acorns, as approved by the county forester.
 8. Tree Death. Replacement trees shall be planted for any oak tree permitted for encroachment dies within the maintenance period.
 9. Planting and maintenance supervision. The planting, maintenance, and monitoring of replacement trees shall be supervised in the field by an individual with expertise acceptable to the county forester.
 10. Relocation of Trees. The relocation of trees approved for removal shall not be deemed a mitigating factor in determining the need for replacement trees.
 11. Manual. The applicant shall provide an oak tree informational publication, "Oak Trees: Care and Maintenance," prepared by the County of Los Angeles Fire Department, Forestry Division, to any future purchasers and to any related home association of the property.
- B. **Maintenance Agreement.** A maintenance agreement shall be prepared by the applicant, including that:
1. Replacement trees, where required by the County, shall be properly cared for and maintained for a minimum period of seven years, or for a greater period if deemed necessary by the county forester;
 2. Replacement trees are protected trees regardless of trunk diameter and shall be maintained by subject property owner and all subsequent subject property owners in perpetuity;

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3. Any tree with permitted encroachment and any replacement tree shall be replaced by the permittee at the rate specified by the county forester, if such tree dies within the maintenance period;
 4. The maintenance agreement shall include each tree permitted for removal or encroachment and each replacement tree. The maintenance agreement and maintenance responsibility shall be transferred with the sale of the property if title to the property is transferred within the specified maintenance period; and
 5. The maintenance agreement shall be reviewed by the director prior to recordation by the permittee.
- C. **Los Angeles County Oak Forest Special Fund.** In-lieu fees may be collected for payment to the Los Angeles County Oak Forest Special Fund as follows:
1. Payment into fund. When the review authority or county forester determines that the planting of replacement trees is infeasible, they may recommend that the applicant mitigate anticipated impacts by paying an in-lieu fee into the Los Angeles County Oak Forest Special Fund administered by the Fire Department. Payment shall be equivalent to the replacement cost or the resource value of the protected trees, or portions of the protected trees, proposed for removal or encroachment.
 2. Calculation of resource value. The oak tree resource value shall be calculated in accordance with the most current edition of the International Society of Arboriculture's "Guide to Establishing Values for Trees and Shrubs" by an individual with appropriate expertise, and shall be approved by the county forester.
 3. Fund mitigation measures. The Los Angeles County Oak Forest Special Fund in-lieu fees may be used for mitigation measures such as, but not limited to, the following:
 - a. Establishing, planting and maintaining new trees on publicly held lands;
 - b. Establishing and planting new trees on privately held land with adequate owner-agreed-to maintenance measures to the satisfaction of the director and county forester;
 - c. Purchasing properties with prime oak woodlands that are located in unincorporated area near the removed or encroached oak trees, which properties may be held by a public resource agency in fee, as an open space easement, or in such other arrangement to the satisfaction of the county forester; or
 - d. Purchasing properties containing sensitive oak trees of cultural or historical significance.

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4. Administration of Fund. Not more than 10% of the funds collected and deposited into the Los Angeles County Oak Forest Special Fund may be used to study and identify appropriate programs for accomplishing these purposes.
- D. **Oak Tree Protection Plan.** A plan for protecting oak trees on the subject property during and after development, including but not limited to the following requirements:
1. Fencing. Temporary chain link fencing shall be provided as follows:
 - a. Such fencing shall be at least six feet in height and shall be installed around the protected zone of each protected oak tree located within 200 feet of proposed construction or grading, unless such requirement is modified by the county forester.
 - b. Such fencing shall be in place and inspected by the county forester prior to commencement of any activity on the subject property. Fencing shall remain in place throughout the entire period of construction and/or grading, and shall not be removed without written authorization from the county forester.
 2. Supervision. Where grading or any other similar activity is approved, the applicant shall provide an arborist or an individual with special expertise acceptable to the county forester. Said individual will supervise all grading within the oak tree protected zones and will supervise, monitor and certify to the county forester the implementation of all conditions imposed in connection with the applicant's oak tree permit.
 3. Grading within protected zone. Any excavation or grading allowed within the protected zone of an oak tree shall be limited to hand tools or small handheld equipment, and shall not cause undue root damage.
 4. Restrictions within protected zone. No materials, machinery, equipment, or debris of any kind shall be placed or operated within the protective fencing required for any protected tree. No fuel, paint, solvent, oil, thinner, asphalt, cement, grout or any other construction chemical shall be stored or allowed in any manner to enter within the protected zone.
 5. Utility trenching in protected zone. Utility trenching shall avoid encroaching into the protected zone on its path to and from any structure. If utility trenching within the protected zone is unavoidable, the placement of a utility conduit with space for multiple lines shall be used. The utility conduit and associated grading shall be placed in between major roots and shall avoid cutting major roots to the furthest extent possible.
 6. Tree identification. Trees on the site plan shall be physically identified by number on a tag affixed to the north side of the tree in a manner preserving the health and viability of the tree. The tag shall be composed of a noncorrosive all-weather material and shall be permanently affixed to the

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tree. The tree shall be similarly designated on the site plan in a manner acceptable to the director.

7. Replacement tree planting area. Replacement tree planting areas shall be designated on the site plan.
 8. Remedial measures. Remedial measures shall be implemented for trees noted on the oak tree report as requiring corrective action, including pest control, pruning, fertilizing and similar actions, to the satisfaction of the county forester.
 9. Approved oak tree report availability. At the start of grading operations and throughout the entire period of development, no person shall perform any work for which an oak tree permit is required, unless a copy of the oak tree report, location map, fencing plans, and approved oak tree permit and conditions are available at the site.
 10. Unforeseen impacts. The county forester shall require replacement trees or an in-lieu fee for all unanticipated removal of or encroachment to, protected oak trees during construction or grading.
- E. **Validation of Permit.** The oak tree permit shall not be valid until all of the required permits and approvals are obtained for the work which necessitates the removal or encroachment of protected oak trees as authorized by said permit.

22.xxx.080 Post Decision Procedures

The procedures and requirements in Chapter 22.94 (Common Procedures), and those related to appeals in Chapter 22.114 (Appeals), shall apply. The violation of any required condition shall constitute a violation of this Section and may constitute grounds for enforcement actions per Section 22.xxx.090.

22.xxx.090 Enforcement

- A. In interpreting the provisions of Section 22.118 as they apply to this Section 22.xxx, each individual tree removed or encroached upon in violation of these provisions shall be deemed a separate offense.
- B. A violation of any provision of this Chapter or of any conditions of an approved oak tree permit, shall be a misdemeanor as specified in Section 22.118.030-B Violations, punishable as follows:
 1. The director or the county forester, at their discretion, may consider any act by an individual to remove or encroach upon an oak tree or oak tree protected zone of an oak tree in violation of this Chapter, as a willful violation.
 2. The director or the county forester may require replacement trees for removed or encroached trees in accordance with this Chapter.

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3. A non-compliance fee may be imposed by the director in accordance with Section 22.118.070.
4. Fines may be imposed by the director or county forester in accordance with civil action.
5. Upon the service of an enforcement order, a violator may be required to file a retroactive oak tree permit for any protected oak tree that was illegally removed or encroached upon. A violator may be required to plant replacement trees or make a contribution to the Oak Forest Special Fund. In the event that replacement trees are required, the number, size and location of the mitigation trees shall be determined by the county forester. In the event that a contribution to the Oak Forest Special Fund is required, the amount shall be determined by the county forester in accordance with values set by the International Society of Arboriculture.

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OAK TREE PERMIT ORDINANCE APPENDIX

Major Policy Changes

Ordinance Studies staff met several times with Regional Planning planners and biologists and County Forester staff to discuss and collaborate on a list of proposed changes to the Oak Tree Permit Ordinance. After these meetings, both staff and the County Forester have agreed to the following list of policy changes that will be incorporated into an amendment to the Oak Tree Permit Ordinance.

Policy Number	Proposed Policy Changes	Section Reference
1	<p>Modify definition of protected oak trees as trees with a one-trunk diameter of at least five-inches and multi-trunk trees with a combined diameter of any two trunks is at least ten inches (was eight inches and twelve inches, respectively).</p> <p>Modify the definition of protected oak tree to include “those that have been planted as a requirement of a county permit or code.” (was “any tree provided as a replacement tree...”)</p>	<p>Section 22.xx.020-G</p> <p>(previously in Section 22.56.2060-A and Section 22.56.2080-B)</p>
2	<p>Modify designation of heritage tree to trees with one trunk of at least 24 inches in diameter or any combined two-trunk diameter of at least 34 inches (was 36 inches in diameter irrespective of the number of trunks).</p> <p>Replace “oak trees having significant historical or cultural importance to the community” with “Any oak tree that is identified on the Federal or California Historical Resources Inventory to be of historical or cultural importance.”</p>	<p>Section 22.xx.020-F</p> <p>(previously in Section 22.56.2090- F.1.e)</p>
3	<p>Delete circumferences from the measurements of non-heritage protected trees. (There was no such previous reference for heritage trees.)</p>	<p>Section 22.xxx.020</p> <p>(previously in Subsection F.1.e of Section 22.56.2090)</p>
4	<p>Add definitions of “canopy”, “deadwood”, “encroach”, “pruning”, “public resource agency” and “remove”; and revise and/or expand the definitions of “protected oak tree”, “protected zone”, and “dripline”.</p>	<p>Section 22.xx.020 A, C, E, J, K and G, H, and D</p> <p>(previously in Section 22.56.2090)</p>

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5	<p>Modify “dripline” to refer to the point “fifteen feet outward from the outside perimeter of the trunk of the tree.” Deleted “fifteen feet from the trunk of a tree.”</p> <p>Add a second sentence, “When depicted on a map, the dripline will appear as an irregular shape that follows the contour of the tree branches when seen from overhead.”</p>	<p>Section 22.xx.020 D</p> <p>(previously defined in Section 22.56.090-F.1)</p>
6	<p>Modify “Applicability” section to include timing permit filing and oak tree impacts.</p>	<p>Section 22.xxx.030-A</p>
7	<p>Modify exemption for emergency removal authority to include the county forester, county fire department, or county sheriff.</p>	<p>Section 22.xxx.030-B.2</p> <p>(previously in Section 22.56.2070-B)</p>
8	<p>Modify exemption for tree maintenance and pruning to include “dead branches” and “for live branches over two inches in diameter if the county forester finds that it is necessary for the health of the tree”.</p> <p>This will allow the Forester to create a permit for trimming of branches over two inches in diameter.</p>	<p>Section 22.xxx.030-B.4</p> <p>(previously in Section 22.56.2070-D)</p>
9	<p>Add exemptions for:</p> <p>Oak trees of a non-native species; and</p> <p>Oak tree brush clearance required by the Fire Department for fire safety purposes.</p>	<p>Section 22.xxx.030-B.6 and B.7</p> <p>(no previous references)</p>
10	<p>Expand the director’s review for construction related to a single family residence from the removal or encroachment of one tree to the removal or damage of up to four protected trees where not more than two trees are requested for removal and where none of the impacted trees are heritage trees.</p>	<p>Section 22.xxx.040-C</p> <p>(previously in Section 22.56.2160)</p>
11	<p>Modify findings to include "Alternative development plans cannot achieve the minimum density permitted by the land use element of the general plan or the areawide plan for the area, or that the cost of such alternative would be unreasonably excessive"</p>	<p>Section 22.xxx.060-B.3.a.i</p> <p>(previously in Section 22.56.2100-A.3)</p>
12	<p>Codified the replacement tree ratio for damaged or removed protected oak trees and heritage oak trees – minimum 2:1 and 10:1 replacement trees for reach removal, respectively.</p>	<p>Section 22.xxx.070-A.2</p> <p>(previously in Section 22.56.2180- A.6.a)</p>
13	<p>Add additional standards – “Replacement trees may be free-form trees with multiple stems if the largest of the stems totals at least one inch in diameter”.</p>	<p>Section 22.xxx.070-A.3</p> <p>(no previous reference)</p>

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14	Expand the seed source requirement for replacement trees to allow trees from seed sources from Los Angeles or adjoining counties as approved by the county forester. Added requirement for “such seed sources at all times” rather than specifying “when feasible...”	Section 22.xxx.070-A.4 (previously in Section 22.56.2180- A.6.c.)
15	Add requirements for two acorns to be planted with each replacement tree and for replacement provisions for maintenance tree death.	Section 22.xxx.070-A.6 and A.7 (no previous reference)
16	Modify maintenance requirement to seven years to match State oak woodlands monitoring requirements (was two years) and add requirement for a maintenance agreement for replacement trees	Section 22.xxx.070-B and D (previously in Section 22.56.2180-A.6.b)
17	Add a provision allowing for purchasing of properties with Los Angeles County Oak Forest Special Fund funds for the holding of such lands by a public resource agency, and require that such properties be located in an unincorporated area in the vicinity where existing trees are to be removed or damaged.	Section 22.xxx.070-C (no previous reference)
18	Revise the maximum amount of Oak Forest Special Fund money that can be spent on administrative costs from 7 percent to 10 percent.	Section 22.xxx.070-C.4 (previously in Section 22.56.2140-E)
19	Modify requirement for fencing around protected oak trees during construction from four feet to six feet in height. Modify requirement of fencing around all trees on the site to fencing of each tree located within 200 feet of any proposed grading or construction, or such other distance as specified by the director or the county forester.	Section 22.xxx.070-D.1.a (previously in Section 22.56.2180- B.1 and B.4)
20	Modify “Restrictions” to include that no debris or toxics shall be placed within the required protective fencing for any protected oak tree.	Section 22.xxx.070-D.4 (no previous reference)
21	Add requirement that unanticipated protected tree removal or damage during construction shall be remedied with replacement trees or in-lieu fees to the director’s and forester’s satisfaction prior to final forester inspection.	Section 22.xxx.070-D.10 (no previous reference)
22	Add provision that “Prior to the removal and/or encroachment of protected oak trees, the applicant shall obtain all permits and approvals required for the work which necessitates such removal or encroachment, including grading permits or building permits”	Section 22.xxx.070-E (no previous reference)

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23	Add additional review authority for the county forester to various requirements to allow the director and forester decision making authority to handle unforeseen situations.	Throughout Ordinance
24	Codify enforcement proceedings. Include provision that the director and forester may, at their discretion, assume that a violation of the oak tree ordinance was a willful act and the requirement of filing a retroactive oak tree permit.	Section 22.xxx.090 (no previous reference)
25	Codify state the authority of the director and newly give the forester the right, at their discretion, to require, retroactive oak tree permits, replacement trees, and/or payment of in lieu fees into the <i>Los Angeles County Oak Forest Special Fund</i> for removal, damage or encroachment into the protected zone of protected oak trees undertaken in violation of the Oak Tree Permit Ordinance.	Section 22.xxx.090 (no previous reference)
26	Replace "licensed forester" with "County Forester."	Throughout Ordinance
27	Newly specify throughout the Ordinance where it was lacking, that the oak tree permit requirement is applicable to removals <i>or encroachments</i> into the protected zones of protected oak trees.	Throughout Ordinance
28	Rename the Oak Tree Mitigation Fund as the "Los Angeles County Oak Forest Special Fund."	Throughout Ordinance

Chapter 22.XX Renewable Energy

Sections:

- 22.XX.010 Purpose
- 22.XX.020 Definition
- 22.XX.030 Applicability
- 22.XX.040 Permit Requirements
- 22.XX.050 General Development Standards
- 22.XX.060 Additional Requirements
- 22.XX.070 Required Findings

22.XX.010 Purpose

The County recognizes to achieve a clean and competitive energy future renewable energy sources must be pursued. Climate change concerns coupled with high oil prices are driving increasing renewable energy legislation, incentives and commercialization. While there are many large-scale renewable energy projects in production, renewable technologies are also suited to small on-grid and off-grid applications. The intent of the standards in this Chapter is to insure the timely and orderly development of energy projects to meet the energy and economic needs of the County, while protecting the environment.

22.XX.020 Definitions

- A. **Alternative energy.** Energy from a source other than the conventional fossil-fuel sources of oil, natural gas and coal (i.e. wind, running water, the sun). Also referred to as alternative fuel or renewable energy.
- B. **Array.** Any number of electrically connected solar panels providing a single electrical output.
- C. **Cogeneration.** Cogeneration, also known as combined heat and power (CHP), is the process in which fuel is used to produce heat for a boiler-steam turbine or gas for a turbine. The turbine drives a generator that produces electricity, with the excess heat used for processing steam. A cogeneration plant is a commercial power generation facility; however CHP may be used inside an industrial or commercial facility to serve that facility only.
- D. **Commercial power generation facility (commercial facility).** A facility that produces electrical energy for profit. Commercial facilities include commercial renewable energy projects.
- E. **Commercial renewable energy project.** A renewable energy project that produces electrical energy for profit. Commercial renewable energy projects include high output wind energy conversion systems (WECS-C), wind farms, water energy (in the form of hydroelectric dams and power installations, ocean and tidal energy, saline gradient power, vortex power, or deep lake water cooling), solar power, biofuel, biomass, biogas and geothermal energy.

- F. **Decommissioning.** Removal of a facility (i.e. reactor) from service, also the subsequent actions of safe storage, dismantling and making the site available for unrestricted use.
- G. **Ethanol.** In some areas, cornstalks, sugarbeets, sugar cane, and switchgrasses are grown specifically to produce ethanol (also known as a grain alcohol), a liquid which can be used in internal combustion engines and fuel cells.
- H. **Flat-plate PV array.** An arrangement of PV panels mounted on a rigid flat surface with the panels exposed freely to incoming sunlight.
- I. **Guy wires.** Wire or cable attached from a structure to the ground, used in tension to support the structure.
- J. **On-grid applications.** When a system provides more power than the customer is using, the excess flows into the utility grid. Off-grid applications stand alone and are not connected to the utility grid. The California Solar Initiative Program and the Emerging Renewables Program for small wind turbines only provide incentives for on-grid applications.
- K. **Overall machine height.** The distance measured from the ground to the top of the tower, including the wind turbine generator, including the uppermost extension of the blades at vertical position, wind-measuring device, or solar collection device.
- L. **Photovoltaic (PV).** Pertaining to the direct conversion of light into electricity. An interconnected system of photovoltaic panels functions as a single electricity-producing panel. PV panels are also known as solar panels.
- M. **Renewable energy.** Energy generated from natural resources, such as sunlight, wind, rain, tides and geothermal heat, which are renewable or naturally replenished. Also known as alternate energy.
- N. **Stand-off mounting.** Technique for mounting a PV array on a sloped roof, which involves mounting the module a short distance above the pitched roof and tilting them to the optimum angle.
- O. **Solar parabolic dish systems.** A solar thermal power plant consisting of a parabolic-shaped concentrator (similar to a satellite dish) that reflects solar radiation onto a receiver mounted at the focal point in the center of concentrator. The collected heat is utilized by a heat engine mounted on the receiver which generates electricity.
- P. **Solar parabolic troughs.** A solar thermal power plant that utilizes curved mirrors, which form troughs that focus the sun's energy on a pipe. A fluid, typically oil, is circulated through the pipes, which is used to drive a conventional generator to create electricity.
- Q. **Solar panel.** Any solar collector or other solar energy device whose primary purpose is to provide for the collection or storage of solar energy for space heating, or cooling, or for electricity; the direct conversion of light into electricity. Also known as photovoltaic (PV) panels. Solar panels are also used to power accessory structures including fountains and

lighting. Ground mounted solar arrays and noncommercial solar towers shall be treated as accessory structures and shall comply with Section 22.84.030 of the County Code.

- R. **Solar power towers.** A solar thermal power plant consisting of solar power towers, or solar central receivers, consist of a tower surrounded by a large array of heliostats. Heliostats are mirrors that track the sun and reflect its rays onto the receiver, which absorbs the heat energy that is then utilized in driving a turbine electric generator.
- S. **Solar thermal power plant.** A power plant that generates heat by using lenses and reflectors to concentrate the suns energy. By concentrating the suns energy on a relatively small area, high temperatures are created to vaporize water or other fluids to drive a turbine for generation of electric power, heat water, or space conditioning (heating and cooling). Because the heat can be stored, these plants are unique because they can generate power when its needed, day or night, rain or shine.
- T. **Temporary meteorological tower.** A temporary meteorological tower (Temp Met Tower) is a meteorological station used on an interim basis that gathers atmospheric information such as: temperature, humidity, relative humidity (the extent to which air is saturated with water vapor), solar radiation (a measure of how sunny it is), wind speed and direction.
- U. **Tower.** The vertical component of a WECS or Temp Met Tower that elevates the wind turbine generator and attached blades above the ground; or the vertical component of a solar energy project that elevates the solar collector above the ground.
- V. **Tower height.** The distance measured from the ground to the top of the tower, excluding the wind turbine generator, blades, wind-measuring devices, or solar collection device.
- W. **Wind energy conversion system (WECS).** A wind energy conversion system consists of a wind turbine, tower or ladder, and associated control or conversion electronics.
- X. **Wind energy conversion systems, small (WECS-S).** A system is considered a small wind energy system only if it supplies electrical power solely for on-site use; except what when a parcel on which the system is installed also receives electrical power supplied by a utility company, excess electrical power generated and not presently needed for on-site use may be used by the utility company. The California Energy Commission Emerging Renewable Program provides a list of certified small wind turbines. Small wind energy conversion systems are also known as residential energy system or wind energy conversion systems – noncommercial. Ground mounted WECS-S shall be treated as accessory structures and shall comply with Section 22.84.030 of the County Code.
- Y. **Wind farms.** A wind farm is a group of wind turbines in the same location used for production of electric power. Individual turbines are interconnected with a medium voltage power collection system and communications network. At a substation, this medium-voltage electrical current is increased in voltage with a transformer for connection to the high voltage transmission system. A large wind turbine may consist of a few dozen to about 100 individual wind turbines, and cover an extended area up to hundreds of square miles, the land between the turbines may be used for agricultural or other purposes. A wind farm is a commercial wind energy conversion system (WECS-C).

- Z. **Wind turbine.** A turbine that is generated by the wind. The wind turbines include horizontal or vertical blades.
- AA. **Wind turbine generator.** The component of a WECS device that transforms mechanical energy from the wind into electrical energy.

22.XX.030 Applicability

- A. **Where Allowed.** The uses that are subject to the standards in this Chapter shall be located only where allowed by base zone regulations.
- B. **Planning Permit Requirements.** The uses that are subject to the standards in this Chapter are allowed only when authorized by the permit required by base zone regulations (for example, a conditional use permit), except where a different permit requirement is established by this Chapter for a specific use.
- C. **Development Standards.** The standards for energy generation in this Chapter supplement and are required in addition to those in base zone regulations, and in other applicable provisions of this Zoning Ordinance.
- D. **Requirements.** Each power generation facility included in this Chapter shall comply with the development requirements and standards as noted. If an applicant's proposal does not comply with the required standards the approval of a conditional use permit is required. The proposed deviations from standards shall be included in all notices regarding the proposal.
- E. **Other Similar Uses.** The Director may determine that a proposed energy use not listed in Title 22 may be allowed in compliance with Section 22.94.190 (Interpretations) of the County Code. The development standards in this Chapter shall serve as guidelines for any similar use. The approval of a conditional use permit is required for any similar use.

22.XX.040 Permit Requirements

Table 22.XX.040-A identifies the types of energy power generation uses, zones in which they are allowed, and the type of permit required.

TABLE 22.XX.040-A: Renewable Energy Power Generation Allowed Uses and Permit Requirements						
Use	Permit Required By Zone					
	P = Permitted (requires Zoning Conformance Review) MUP = Minor Use Permit CUP = Conditional Use Permit -- = Use Not Allowed					
	AL, AG, RL	OS, W	RS, RM, RHD, RMI	CG, CN, CS, CR, MX	LI, GI, IB	PS
WECS-S systems (noncommercial)	P,1	--	P,1	P	P	P
Roof or Building Mounted WECS (noncommercial)	P,1	--	P,1	P,1	P,1	P,1
Temp Met Towers (noncommercial or commercial)	P,1	P,1	P,1	P,1	P,1	P,1
WECS-C systems (commercial)	CUP	--	--	CUP	CUP	CUP
Roof Mounted or Ground Mounted Solar Arrays (noncommercial)	P,1	--	P,1	P,1	P,1	P,1
Roof Mounted or Ground Mounted Solar Arrays (commercial)	MUP	--	--	CUP	CUP	CUP
Solar Thermal Power Plant (commercial)	CUP	--	--	CUP	CUP	CUP
Cogeneration Facility (commercial)	CUP	--	CUP	CUP	CUP	CUP
Power Generating Facility² (commercial)	CUP	--	CUP	CUP	CUP	CUP

- Notes: 1. A MUP shall be required when modification of any development standard in subsection B is requested.
 2. Facilities that are not specifically listed in table.

22.XX.050 Development Standards

This Section lists development standards that apply to various power generating facilities; to determine which standards apply to a specific energy project refer to Table 22.XX.050-A or the Energy Generation handouts provided by the Department.

TABLE 22.XX.050-A: Summary of Development Standards for Energy Use Types

	Small Wind Energy Conversion System (noncommercial)	Roof or Building Mounted Wind Energy Conversion System (noncommercial)	Temporary Meteorological Tower (noncommercial or commercial)	Wind Energy Conversion Systems (commercial)	Roof or Ground Mounted Solar Array (noncommercial)	Roof or Ground Mounted Solar Array (commercial)	Solar Thermal Electric Power Plant (commercial)	Cogeneration and Power Generating Plant (commercial)
Location	22.XX.050.A.1; A.3; A.4; A.5	22.XX.050.A.1; A.5	22.XX.050.A	22.XX.050.A.1 A.2;A.3;A.4;A.5	22.XX.050.A.5	22.XX.050.A.5	22.XX.050.A.1; A.2; A.3; A.4; A.5	--
Access Roads	--	-	22.XX.050.B.2	22.XX.050.B	-	22.XX.050.B	22.XX.050.B	22.XX.050.B
Noise	22.XX.050.C.1	22.XX.050.C.1	22.XX.050.C.1	22.XX.050.C	22.XX.050.C.2	22.XX.050.C	22.XX.050.C	22.XX.050.C
Maximum Height	22.XX.050.D.1.	22.XX.050.D.1; D.2	22.XX.050.D.1	--	22.XX.050.D.3	22.XX.050.D.3	--	--
Clearance	22.XX.050.E.1	22.XX.050.E.1	--	22.XX.050.E.2	--	--	--	--
Aviation Safety	22.XX.050.F	22.XX.050.F	22.XX.050.F	22.XX.050.F	22.XX.050.F	22.XX.050.F	22.XX.050.F	22.XX.050.F
Notification Signs	22.XX.050.G.1	22.XX.050.G.1	--	22.XX.050.G	--	22.XX.050.G.2	22.XX.050.G	22.XX.050.G.2
Guy Wires	22.XX.050.H.1	22.XX.050.H	22.XX.050.H.1	22.XX.050.H	--	--	22.XX.050.H	--
Over speed controls	22.XX.050.I.1	22.XX.050.I	22.XX.050.I	22.XX.050.I	--	--	--	--
Climbing Apparatus	22.XX.050.J	--	22.XX.050.J	22.XX.050.J	--	--	22.XX.050.J	--
Underground Electrical Wires	22.XX.050.K	22.XX.050.K	--	22.XX.050.K	22.XX.050.K	22.XX.050.K	22.XX.050.K	22.XX.050.K
Fire Protection	--	--	--	22.XX.050.L	--	22.XX.050.L	22.XX.050.L	22.XX.050.L
Maintenance	22.XX.050.M	22.XX.050.M	22.XX.050.M	22.XX.050.M	22.XX.050.M	22.XX.050.M	22.XX.050.M	22.XX.050.M
Colors	22.XX.050.N	22.XX.050.N	22.XX.050.N	22.XX.050.N	22.XX.050.N	22.XX.050.N	22.XX.050.N	22.XX.050.N
Visual Impact	22.XX.050.O	22.XX.050.O.2; O.3	22.XX.050.O	22.XX.050.O	22.XX.050.O.2; O.3	22.XX.050.O.2; O.3	22.XX.050.O	22.XX.050.O.2; O.3

A. Location

1. The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements.
2. The minimum distance between a tower, excluding guy wires and their anchors, and any on-site residence or accessory structure designed for human occupancy, property line, road right-of-way, public access easements, public trails or railroad right-of-way shall be the distance which is equivalent to one and one-half times the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements.
3. No tower with an overall machine height of 35 feet shall be located within 1,000 feet of the nearest outer boundary of any designated state or county scenic highway.
4. Safe clearance shall be provided between any tower and structures or trees. The safe clearance between any tower and accessory structure shall be six feet. The distance between any tower and trees shall be as required by the Fire Department.
5. More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower.
6. A Tem Met Tower shall be placed on the property for no longer than eighteen months from the date of the permit approval. Any abandoned or obsolete temporary tower shall be removed within 30 days from the cessation of operation at the site. The tower shall be temporary by nature and shall not have permanent foundations. Guy wires may be used as long as the connections to the ground are temporary and the wires are designed to support the wind and ice load of the tower.

B. Access roads.

1. Construction of onsite access roadways shall be minimized. All weather access roadways shall be constructed and maintained to provide access for emergency vehicles as required by the Fire Department.
2. Temporary access roads utilized for initial installation shall be re-graded and re-vegetated to the pre-existing natural condition after completion of installation.

C. Noise.

1. Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms.
2. Exterior noise levels generated by a power generation facility shall comply with the County Noise Ordinance, Section 12.08.390 of the County Code.

D. Maximum height.

1. WECS-S maximum tower height shall not exceed:
 - a. 35 feet above finished grade for parcels less than one acre in size;
 - b. 65 feet above finished grade for parcels from one acre to less than two acres in size; and
 - c. 85 feet above finished grade for parcels of two acres or greater in size.
2. Roof mounted wind turbines may be located a maximum of 12 inches above the maximum height permitted in the base zone. Additional height may be allowed with the approval of a Minor Use Permit.
3. Flat-plate and stand-off mounting of solar panels are permitted. Solar panels may be located a maximum of 12 inches above the maximum height permitted in the base zone. Additional height may be allowed with the approval of a Minor Use Permit.

E. Clearance.

1. No portion of a WECS-S blade shall extend within 20 feet of the finished grade.
2. To prevent harmful wind turbulence from existing structures, the minimum height of the lowest part of any horizontal axis wind turbine blade shall be at least 30 feet above the highest structure or tree within a 250-foot radius. Modification of this standard may be allowed when the applicant demonstrates that a lower height will not jeopardize the safety of the wind turbine structure.

F. Aviation Safety.

1. The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions.
2. All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements.

3. A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower.
4. An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan.

G. Notification Signs.

1. One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of a tower or generator. The sign shall include a notice of no trespassing, a warning of high voltage or electrical shock from machinery, and the phone number of the property owner to call in the event of an emergency. No brand names, logo or advertising shall be placed or painted on the tower, rotor, generator or tail vane.
2. A freestanding monument sign totaling 60 square feet in sign face area may be located at each project entrance; each freestanding monument sign shall not exceed a maximum height of 15 feet, measured vertically from finished grade at the base of the sign. The facility may have two, but not more than two, freestanding signs if there is more than one entrance to the facility. The sign face area of these signs shall be counted toward the maximum amount of signs permitted on the property, per Section 22.XX of the Code.

H. Guy wires.

1. Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines.
2. The point of attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in bright orange or yellow covering from three to eight feet above the finished grade.

I. Over speed controls. A WECS shall be equipped with manual and automatic over speed controls to limit the blade rotation speed to within the design limits of the WECS.

J. Climbing apparatus. All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet. If the tower is constructed so that it can be climbed within the first 12 feet, fencing is required around the tower. The fence shall be a minimum of five feet in height and can be constructed of cement block, woven or welded wire, chain link, wrought iron, metallic panels or similar materials approved by the Director. A barb wire fence or barbed wire wrapped around the base of the tower is not permitted.

K. Underground electrical wires. Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review

authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors.

- L. Fire protection.** Commercial power generation projects shall provide fire prevention measures as required by the County Fire Department. These may include, but are not limited to, fire/fuel breaks, equipment requirements, and design standards.
- M. Maintenance.** Facilities shall be maintained in an operational condition that poses no potential safety hazards.
- N. Colors.** The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development.
- O. Visual impact.**
 - 1. The top of the overall machine height shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and the project shall be located at least 100 horizontal feet from any adjacent major ridgeline. Ridgelines are as defined in the County's Major Ridgeline Map.
 - 2. Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied.
 - 3. The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan.

Section 22.XX.060 Additional Requirements

- A. Code of Regulations.** All facilities shall comply with the California Code of Regulations Title 20 – Public Utilities and Energy.
- B. Compliance Plan.** All commercial power generation facilities shall complete a Compliance Monitoring and Closure plan for submittal to the California Energy Commission. The Compliance Plan shall include procedures for termination, decommissioning and abandonment of such facility, as required by Public Resources Code Section 25532.
- C. CEQA.** The Director shall also determine if the project is subject to review under the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the County's environmental procedures.
- D. Impacts to Birds and Bats.** All commercial wind energy conversion systems shall include review and comments on the *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development (Guidelines)* developed by the California Energy Commission.

Section 22.XX.070 Required Findings

- A. All permits.** For all energy projects that require a Minor Use Permit or a Conditional Use Permit, in addition to the findings required in Section 22.XX., the applicant shall explain how their request addresses the County's and State's goals for renewable energy.
- B. Commercial Facilities.** In addition to the findings required in Section 22.XX., and the finding in subsection A above, all commercial power generating facilities shall make the following findings that address biotic resources:
1. That the requested development is designed to maintain water bodies, watercourses, and their tributaries in a natural state;
 2. That the requested development is designed so that wildlife movement corridors (migratory paths) are left in an undisturbed and natural state;
 3. That the requested development retains sufficient natural vegetative cover and/or open spaces to buffer critical resource areas from said requested development;
 4. That where necessary, fences or walls are provided to buffer important habitat areas from development; and
 5. That roads and utilities serving the proposed development are located and designed so as not to conflict with critical resources, habitat areas or migratory paths.
- C. Modifications.** If the review authority modifies any development standard specified in this Chapter, the following finding is required, in addition to those listed in subsections A and B above:

That strict compliance with all of the required development standards would substantially and unreasonably interfere with the establishment of any proposed Temp Met Tower, WECS-N, or SECS-N on the subject property, and the requested modifications would not be contrary to the intent and purpose of this section.



Small Wind Energy Conversion Systems (WECS-S) Development Standards

Los Angeles County Code 22.XX provides a uniform and comprehensive set of standards for the placement of renewable energy facilities within the County. Chapter 22.XX includes the purpose, definitions, applicability, permit requirements, general development standards, additional requirements and required findings. The Chapter includes various types of commercial and noncommercial energy facilities with development standards that apply to each. The following is a recap of the **General Development Standards** that apply to **Small Wind Energy Conversion Systems**. All other applicable Sections of Chapter 22.XX also apply.

Location

- The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.1)
- No tower with an overall machine height of 35 feet shall be located within 1,000 feet of the nearest outer boundary of any designated state or county scenic highway. (22.XX.050.A.3)
- Safe clearance shall be provided between any tower and structures or trees. The safe clearance between any tower and accessory structure shall be six feet. The distance between any tower and trees shall be as required by the Fire Department. (22.XX.050.A.4)
- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.5)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)

Maximum height

- WECS-S maximum tower height shall not exceed:
 - 35 feet above finished grade for parcels less than one acre in size;
 - 65 feet above finished grade for parcels from one acre to less than two acres in size; and
 - 85 feet above finished grade for parcels of two acres or greater in size.(22.XX.050.D.1)

Clearance

- No portion of a WECS-S blade shall extend within 20 feet of the finished grade. (22.XX.050.E.1)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)

- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)
- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Notification Signs

- One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of a tower or generator. The sign shall include a notice of no trespassing, a warning of high voltage or electrical shock from machinery, and the phone number of the property owner to call in the event of an emergency. No brand names, logo or advertising shall be placed or painted on the tower, rotor, generator or tail vane. (22.XX.050.G.1)

Guy wires

- Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. (22.XX.050.H.1)

Over speed controls

- A WECS shall be equipped with manual and automatic over speed controls to limit the blade rotation speed to within the design limits of the WECS. (22.XX.050.I.1)

Climbing apparatus

- All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet. If the tower is constructed so that it can be climbed within the first 12 feet, fencing is required around the tower. The fence shall be a minimum of five feet in height and can be constructed of cement block, woven or welded wire, chain link, wrought iron, metallic panels or similar materials approved by the Director. A barb wire fence or barbed wire wrapped around the base of the tower is not permitted. (22.XX.050.J)

Underground electrical wires

- Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors. (22.XX.050.K)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual Impact

- The top of the overall machine height shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and the project shall be located at least 100 horizontal feet from any adjacent major ridgeline. Ridgelines are as defined in the County's Major Ridgeline Map. (22.XX.050.O.1)
- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from any residence or highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



Los Angeles County

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Temporary Metrological Tower (noncommercial or commercial) Development Standards

Los Angeles County Code 22.XX provides a uniform and comprehensive set of standards for the placement of renewable energy facilities within the County. Chapter 22.XX includes the purpose, definitions, applicability, permit requirements, general development standards, additional requirements and required findings. The Chapter includes various types of commercial and noncommercial energy facilities with development standards that apply to each. The following is a recap of the **General Development Standards** that apply to **Temporary Metrological Tower (noncommercial or commercial)**. All other applicable Sections of Chapter 22.XX also apply.

Location

- The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.1)
- The minimum distance between a tower, excluding guy wires and their anchors, and any on-site residence or accessory structure designed for human occupancy, property line, road right-of-way, public access easements, public trails or railroad right-of-way shall be the distance which is equivalent to one and one-half times the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.2)
- No tower with an overall machine height of 35 feet shall be located within 1,000 feet of the nearest outer boundary of any designated state or county scenic highway. (22.XX.050.A.3)
- Safe clearance shall be provided between any tower and structures or trees. The safe clearance between any tower and accessory structure shall be six feet. The distance between any tower and trees shall be as required by the Fire Department. (22.XX.050.A.4)
- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.5)
- A Tem Met Tower shall be placed on the property for no longer than eighteen months from the date of the permit approval. Any abandoned or obsolete temporary tower shall be removed within 30 days from the cessation of operation at the site. The tower shall be temporary by nature and shall not have permanent foundations. Guy wires may be used as long as the connections to the ground are temporary and the wires are designed to support the wind and ice load of the tower. (22.XX.050.A.6)

Access roads

- Temporary access roads utilized for initial installation shall be re-graded and re-vegetated to the pre-existing natural condition after completion of installation. (22.XX.050.B.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)

Maximum height

- WECS-S maximum tower height shall not exceed:
 - 35 feet above finished grade for parcels less than one acre in size;
 - 65 feet above finished grade for parcels from one acre to less than two acres in size; and
 - 85 feet above finished grade for parcels of two acres or greater in size. (22.XX.050.D.1)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)
- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Guy wires

- Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. (22.XX.050.H.1)
- The point of attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in bright orange or yellow covering from three to eight feet above the finished grade. (22.XX.050.H.1)

Over speed controls

- A WECS shall be equipped with manual and automatic over speed controls to limit the blade rotation speed to within the design limits of the WECS. (22.XX.050.I)

Climbing apparatus

- All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet. If the tower is constructed so that it can be climbed within the first 12 feet, fencing is required around the tower. The fence shall be a minimum of five feet in height and can be constructed of cement block, woven or welded wire, chain link, wrought iron, metallic panels or similar materials approved by the Director. A barb wire fence or barbed wire wrapped around the base of the tower is not permitted. (22.XX.050.J)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual Impact

- The top of the overall machine height shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and the project shall be located at least 100 horizontal feet from any adjacent major ridgeline. Ridgelines are as defined in the County's Major Ridgeline Map. (22.XX.050.O.1)
- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



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Wind Energy Conversion Systems (commercial) Development Standards

Los Angeles County Code 22.XX provides a uniform and comprehensive set of standards for the placement of renewable energy facilities within the County. Chapter 22.XX includes the purpose, definitions, applicability, permit requirements, general development standards, additional requirements and required findings. The Chapter includes various types of commercial and noncommercial energy facilities with development standards that apply to each. The following is a recap of the **General Development Standards** that apply to **Wind Energy Conversion Systems (commercial)**. All other applicable Sections of Chapter 22.XX also apply.

Location

- The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.1)
- The minimum distance between a tower, excluding guy wires and their anchors, and any on-site residence or accessory structure designed for human occupancy, property line, road right-of-way, public access easements, public trails or railroad right-of-way shall be the distance which is equivalent to one and one-half times the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.2)
- No tower with an overall machine height of 35 feet shall be located within 1,000 feet of the nearest outer boundary of any designated state or county scenic highway. (22.XX.050.A.3)
- Safe clearance shall be provided between any tower and structures or trees. The safe clearance between any tower and accessory structure shall be six feet. The distance between any tower and trees shall be as required by the Fire Department. (22.XX.050.A.4)
- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.5)

Access roads

- Construction of onsite access roadways shall be minimized. All weather access roadways shall be constructed and maintained to provide access for emergency vehicles as required by the Fire Department. (22.XX.050.B.1)
- Temporary access roads utilized for initial installation shall be re-graded and re-vegetated to the pre-existing natural condition after completion of installation. (22.XX.050.B.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)
- Exterior noise levels generated by a power generation facility shall comply with the County Noise Ordinance, Section 12.08.390 of the County Code. (22.XX.050.C.2)

Clearance

- To prevent harmful wind turbulence from existing structures, the minimum height of the lowest part of any horizontal axis wind turbine blade shall be at least 30 feet above the highest structure or tree within a 250-foot radius. Modification of this standard may be allowed when the applicant demonstrates that a lower height will not jeopardize the safety of the wind turbine structure. (22.XX.050.E.2)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)
- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Notification Signs

One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of a tower or generator. The sign shall include a notice of no trespassing, a warning of high voltage or electrical shock from machinery, and the phone number of the property owner to call in the event of an emergency. No brand names, logo or advertising shall be placed or painted on the tower, rotor, generator or tail vane. (22.XX.050.G.1)

- A freestanding monument sign totaling 60 square feet in sign face area may be located at each project entrance; each freestanding monument sign shall not exceed a maximum height of 15 feet, measured vertically from finished grade at the base of the sign. The facility may have two, but not more than two, freestanding signs if there is more than one entrance to the facility. The sign face area of these signs shall be counted toward the maximum amount of signs permitted on the property, per Section 22.XX of the Code. (22.XX.050.G.2)

Guy wires

- Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. (22.XX.050.H.1)
- The point of attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in bright orange or yellow covering from three to eight feet above the finished grade. (22.XX.050.H.2)

Over speed controls

- A WECS shall be equipped with manual and automatic over speed controls to limit the blade rotation speed to within the design limits of the WECS. (22.XX.050.I)

Climbing apparatus

- All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet. If the tower is constructed so that it can be climbed within the first 12 feet, fencing is required around the tower. The fence shall be a minimum of five feet in height and can be constructed of cement block, woven or welded wire, chain link, wrought iron, metallic panels or similar materials approved by the Director. A barb wire fence or barbed wire wrapped around the base of the tower is not permitted. (22.XX.050.J)

Underground electrical wires

- Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors. (22.XX.050.K)

Fire protection

- Commercial power generation projects shall provide fire prevention measures as required by the County Fire Department. These may include, but are not limited to, fire/fuel breaks, equipment requirements, and design standards. (22.XX.050.L)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual Impact

- The top of the overall machine height shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and the project shall be located at least 100 horizontal feet from any adjacent major ridgeline. Ridgelines are as defined in the County's Major Ridgeline Map. (22.XX.050.O.1)
- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



Roof or Building Mounted WECS (noncommercial) Development Standards

Los Angeles County Code 22.XX provides a uniform and comprehensive set of standards for the placement of renewable energy facilities within the County. Chapter 22.XX includes the purpose, definitions, applicability, permit requirements, general development standards, additional requirements and required findings. The Chapter includes various types of commercial and noncommercial energy facilities with development standards that apply to each. The following is a recap of the **General Development Standards** that apply to **Roof or Building Mounted WECS (noncommercial)**. All other applicable Sections of Chapter 22.XX also apply.

Location

- The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.1)
- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)

Maximum height

- WECS-S maximum tower height shall not exceed:
 - 35 feet above finished grade for parcels less than one acre in size;
 - 65 feet above finished grade for parcels from one acre to less than two acres in size; and
 - 85 feet above finished grade for parcels of two acres or greater in size. (22.XX.050.D.1)
- Roof mounted wind turbines may be located a maximum of 12 inches above the maximum height permitted in the base zone. Additional height may be allowed with the approval of a Minor Use Permit. (22.XX.050.D.2)

Clearance

- No portion of a WECS-S blade shall extend within 20 feet of the finished grade. (22.XX.050.E.1)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All

required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)

- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Notification Signs

- One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of a tower or generator. The sign shall include a notice of no trespassing, a warning of high voltage or electrical shock from machinery, and the phone number of the property owner to call in the event of an emergency. No brand names, logo or advertising shall be placed or painted on the tower, rotor, generator or tail vane. (22.XX.050.G.1)

Guy wires.

- Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. (22.XX.050.H..1)

Over speed controls

- A WECS shall be equipped with manual and automatic over speed controls to limit the blade rotation speed to within the design limits of the WECS. (22.XX.050.I)

Underground electrical wires

- Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors. (22.XX.050.K)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual Impact

- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



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Temporary Metrological Tower (noncommercial or commercial) Development Standards

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Location

- The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.1)
- The minimum distance between a tower, excluding guy wires and their anchors, and any on-site residence or accessory structure designed for human occupancy, property line, road right-of-way, public access easements, public trails or railroad right-of-way shall be the distance which is equivalent to one and one-half times the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.2)
- No tower with an overall machine height of 35 feet shall be located within 1,000 feet of the nearest outer boundary of any designated state or county scenic highway. (22.XX.050.A.3)
- Safe clearance shall be provided between any tower and structures or trees. The safe clearance between any tower and accessory structure shall be six feet. The distance between any tower and trees shall be as required by the Fire Department. (22.XX.050.A.4)
- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.5)
- A Tem Met Tower shall be placed on the property for no longer than eighteen months from the date of the permit approval. Any abandoned or obsolete temporary tower shall be removed within 30 days from the cessation of operation at the site. The tower shall be temporary by nature and shall not have permanent foundations. Guy wires may be used as long as the connections to the ground are temporary and the wires are designed to support the wind and ice load of the tower. (22.XX.050.A.6)

Access roads

- Temporary access roads utilized for initial installation shall be re-graded and re-vegetated to the pre-existing natural condition after completion of installation. (22.XX.050.B.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)

Maximum height

- WECS-S maximum tower height shall not exceed:
 - 35 feet above finished grade for parcels less than one acre in size;
 - 65 feet above finished grade for parcels from one acre to less than two acres in size; and
 - 85 feet above finished grade for parcels of two acres or greater in size. (22.XX.050.D.1)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)
- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Guy wires

- Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. (22.XX.050.H.1)
- The point of attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in bright orange or yellow covering from three to eight feet above the finished grade. (22.XX.050.H.1)

Over speed controls

- A WECS shall be equipped with manual and automatic over speed controls to limit the blade rotation speed to within the design limits of the WECS. (22.XX.050.I)

Climbing apparatus

- All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet. If the tower is constructed so that it can be climbed within the first 12 feet, fencing is required around the tower. The fence shall be a minimum of five feet in height and can be constructed of cement block, woven or welded wire, chain link, wrought iron, metallic panels or similar materials approved by the Director. A barb wire fence or barbed wire wrapped around the base of the tower is not permitted. (22.XX.050.J)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual Impact

- The top of the overall machine height shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and the project shall be located at least 100 horizontal feet from any

adjacent major ridgeline. Ridgelines are as defined in the County's Major Ridgeline Map. (22.XX.050.O.1)

- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



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Wind Energy Conversion Systems (commercial) Development Standards

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Location

- The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.1)
- The minimum distance between a tower, excluding guy wires and their anchors, and any on-site residence or accessory structure designed for human occupancy, property line, road right-of-way, public access easements, public trails or railroad right-of-way shall be the distance which is equivalent to one and one-half times the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.2)
- No tower with an overall machine height of 35 feet shall be located within 1,000 feet of the nearest outer boundary of any designated state or county scenic highway. (22.XX.050.A.3)
- Safe clearance shall be provided between any tower and structures or trees. The safe clearance between any tower and accessory structure shall be six feet. The distance between any tower and trees shall be as required by the Fire Department. (22.XX.050.A.4)
- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.5)

Access roads

- Construction of onsite access roadways shall be minimized. All weather access roadways shall be constructed and maintained to provide access for emergency vehicles as required by the Fire Department. (22.XX.050.B.1)
- Temporary access roads utilized for initial installation shall be re-graded and re-vegetated to the pre-existing natural condition after completion of installation. (22.XX.050.B.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)
- Exterior noise levels generated by a power generation facility shall comply with the County Noise Ordinance, Section 12.08.390 of the County Code. (22.XX.050.C.2)

Clearance

- To prevent harmful wind turbulence from existing structures, the minimum height of the lowest part of any horizontal axis wind turbine blade shall be at least 30 feet above the highest structure or tree within a 250-foot radius. Modification of this standard may be allowed when the applicant demonstrates that a lower height will not jeopardize the safety of the wind turbine structure. (22.XX.050.E.2)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)
- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Notification Signs

- One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of a tower or generator. The sign shall include a notice of no trespassing, a warning of high voltage or electrical shock from machinery, and the phone number of the property owner to call in the event of an emergency. No brand names, logo or advertising shall be placed or painted on the tower, rotor, generator or tail vane. (22.XX.050.G.1)
- A freestanding monument sign totaling 60 square feet in sign face area may be located at each project entrance; each freestanding monument sign shall not exceed a maximum height of 15 feet, measured vertically from finished grade at the base of the sign. The facility may have two, but not more than two, freestanding signs if there is more than one entrance to the facility. The sign face area of these signs shall be counted toward the maximum amount of signs permitted on the property, per Section 22.XX of the Code. (22.XX.050.G.2)

Guy wires

- Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. (22.XX.050.H.1)
- The point of attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in bright orange or yellow covering from three to eight feet above the finished grade. (22.XX.050.H.2)

Over speed controls

- A WECS shall be equipped with manual and automatic over speed controls to limit the blade rotation speed to within the design limits of the WECS. (22.XX.050.I)

Climbing apparatus

- All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet. If the tower is constructed so that it can be climbed within the first 12 feet, fencing is required around the tower. The fence shall be a minimum of five feet in height and can be constructed of cement block, woven or welded wire, chain link, wrought iron, metallic panels or similar materials approved by the Director. A barb wire fence or barbed wire wrapped around the base of the tower is not permitted. (22.XX.050.J)

Underground electrical wires

- Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors. (22.XX.050.K)

Fire protection

- Commercial power generation projects shall provide fire prevention measures as required by the County Fire Department. These may include, but are not limited to, fire/fuel breaks, equipment requirements, and design standards. (22.XX.050.L)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual Impact

- The top of the overall machine height shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and the project shall be located at least 100 horizontal feet from any adjacent major ridgeline. Ridgelines are as defined in the County's Major Ridgeline Map. (22.XX.050.O.1)
- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



Roof or Building Mounted WECS (noncommercial) Development Standards

Los Angeles County Code 22.XX provides a uniform and comprehensive set of standards for the placement of renewable energy facilities within the County. Chapter 22.XX includes the purpose, definitions, applicability, permit requirements, general development standards, additional requirements and required findings. The Chapter includes various types of commercial and noncommercial energy facilities with development standards that apply to each. The following is a recap of the **General Development Standards** that apply to **Roof or Building Mounted WECS (noncommercial)**. All other applicable Sections of Chapter 22.XX also apply.

Location

- The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.1)
- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)

Maximum height

- WECS-S maximum tower height shall not exceed:
 - 35 feet above finished grade for parcels less than one acre in size;
 - 65 feet above finished grade for parcels from one acre to less than two acres in size; and
 - 85 feet above finished grade for parcels of two acres or greater in size. (22.XX.050.D.1)
- Roof mounted wind turbines may be located a maximum of 12 inches above the maximum height permitted in the base zone. Additional height may be allowed with the approval of a Minor Use Permit. (22.XX.050.D.2)

Clearance

- No portion of a WECS-S blade shall extend within 20 feet of the finished grade. (22.XX.050.E.1)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All

required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)

- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Notification Signs

- One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of a tower or generator. The sign shall include a notice of no trespassing, a warning of high voltage or electrical shock from machinery, and the phone number of the property owner to call in the event of an emergency. No brand names, logo or advertising shall be placed or painted on the tower, rotor, generator or tail vane. (22.XX.050.G.1)

Guy wires.

- Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. (22.XX.050.H..1)

Over speed controls

- A WECS shall be equipped with manual and automatic over speed controls to limit the blade rotation speed to within the design limits of the WECS. (22.XX.050.I)

Underground electrical wires

- Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors. (22.XX.050.K)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual Impact

- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



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Roof or Ground Mounted Solar Array (commercial) Development Standards

Los Angeles County Code 22.XX provides a uniform and comprehensive set of standards for the placement of renewable energy facilities within the County. Chapter 22.XX includes the purpose, definitions, applicability, permit requirements, general development standards, additional requirements and required findings. The Chapter includes various types of commercial and noncommercial energy facilities with development standards that apply to each. The following is a recap of the **General Development Standards** that apply to **Roof or Ground Mounted Solar Array (commercial)**. All other applicable Sections of Chapter 22.XX also apply.

Location

- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.5)

Access roads

- Construction of onsite access roadways shall be minimized. All weather access roadways shall be constructed and maintained to provide access for emergency vehicles as required by the Fire Department. (22.XX.050.B.1)
- Temporary access roads utilized for initial installation shall be re-graded and re-vegetated to the pre-existing natural condition after completion of installation. (22.XX.050.B.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)
- Exterior noise levels generated by a power generation facility shall comply with the County Noise Ordinance, Section 12.08.390 of the County Code. (22.XX.050.C.2)

Maximum height

- Flat-plate and stand-off mounting of solar panels are permitted. Solar panels may be located a maximum of 12 inches above the maximum height permitted in the base zone. Additional height may be allowed with the approval of a Minor Use Permit. (22.XX.050.D.3)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)
- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Notification Signs

- A freestanding monument sign totaling 60 square feet in sign face area may be located at each project entrance; each freestanding monument sign shall not exceed a maximum height of 15 feet, measured vertically from finished grade at the base of the sign. The facility may have two, but not more than two, freestanding signs if there is more than one entrance to the facility. The sign face area of these signs shall be counted toward the maximum amount of signs permitted on the property, per Section 22.XX of the Code. (22.XX.050.G.2)

Underground electrical wires

- Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors. (22.XX.050.K)

Fire protection

- Commercial power generation projects shall provide fire prevention measures as required by the County Fire Department. These may include, but are not limited to, fire/fuel breaks, equipment requirements, and design standards. (22.XX.050.L)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual impact

- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



Solar Thermal Electric Power Plant (commercial) Development Standards

Los Angeles County Code 22.XX provides a uniform and comprehensive set of standards for the placement of renewable energy facilities within the County. Chapter 22.XX includes the purpose, definitions, applicability, permit requirements, general development standards, additional requirements and required findings. The Chapter includes various types of commercial and noncommercial energy facilities with development standards that apply to each. The following is a recap of the **General Development Standards** that apply to **Solar Thermal Electric Power Plant (commercial)**. All other applicable Sections of Chapter 22.XX also apply.

Location

The minimum distance between a tower, excluding guy wires and their anchors, and any property line, any on-site residence or accessory structure designed for human occupancy, or road right-of-way, shall be the distance which is equivalent to the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.1)

- The minimum distance between a tower, excluding guy wires and their anchors, and any on-site residence or accessory structure designed for human occupancy, property line, road right-of-way, public access easements, public trails or railroad right-of-way shall be the distance which is equivalent to one and one-half times the overall machine height, provided that the required distance shall also comply with any applicable fire setback requirements pursuant to section 4290 of the Public Resources Code. No part of any facility shall be located within or over drainage, utility, or other established easements. (22.XX.050.A.2)
- No tower with an overall machine height of 35 feet shall be located within 1,000 feet of the nearest outer boundary of any designated state or county scenic highway. (22.XX.050.A.3)
- Safe clearance shall be provided between any tower and structures or trees. The safe clearance between any tower and accessory structure shall be six feet. The distance between any tower and trees shall be as required by the Fire Department. (22.XX.050.A.4)
- More than one WECS or solar tower or array (or a combination of both) may be located on the same property if all of the location requirements can be met for each tower. (22.XX.050.A.5)

Access roads

- Construction of onsite access roadways shall be minimized. All weather access roadways shall be constructed and maintained to provide access for emergency vehicles as required by the Fire Department. (22.XX.050.B.1)
- Temporary access roads utilized for initial installation shall be re-graded and re-vegetated to the pre-existing natural condition after completion of installation. (22.XX.050.B.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)
- Exterior noise levels generated by a power generation facility shall comply with the County Noise Ordinance, Section 12.08.390 of the County Code. (22.XX.050.C.2)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)
- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Notification Signs

- One sign, limited to 18 inches in length and one foot in height, shall be posted at the base of a tower or generator. The sign shall include a notice of no trespassing, a warning of high voltage or electrical shock from machinery, and the phone number of the property owner to call in the event of an emergency. No brand names, logo or advertising shall be placed or painted on the tower, rotor, generator or tail vane. (22.XX.050.G.1)
- A freestanding monument sign totaling 60 square feet in sign face area may be located at each project entrance; each freestanding monument sign shall not exceed a maximum height of 15 feet, measured vertically from finished grade at the base of the sign. The facility may have two, but not more than two, freestanding signs if there is more than one entrance to the facility. The sign face area of these signs shall be counted toward the maximum amount of signs permitted on the property, per Section 22.XX of the Code. (22.XX.050.G.2)

Guy wires

- Safety wires shall be installed on the turnbuckles on guy wires of guyed towers. Anchor points for any guy wires for a tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. (22.XX.050.H.1)
- The point of attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in bright orange or yellow covering from three to eight feet above the finished grade. (22.XX.050.H.2)

Climbing apparatus

- All climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet. If the tower is constructed so that it can be climbed within the first 12 feet, fencing is required around the tower. The fence shall be a minimum of five feet in height and can be constructed of cement block, woven or welded wire, chain link, wrought iron, metallic panels or similar materials approved by the Director. A barb wire fence or barbed wire wrapped around the base of the tower is not permitted. (22.XX.050.J)

Underground electrical wires

- Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors. (22.XX.050.K)

Fire protection

- Commercial power generation projects shall provide fire prevention measures as required by the County Fire Department. These may include, but are not limited to, fire/fuel breaks, equipment requirements, and design standards. (22.XX.050.L)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual impact

- The top of the overall machine height shall be located at least 25 vertical feet below the top of any adjacent major ridgeline, and the project shall be located at least 100 horizontal feet from any adjacent major ridgeline. Ridgelines are as defined in the County's Major Ridgeline Map. (22.XX.050.O.1)
- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)



Los Angeles County



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Cogeneration and Power Generating Plant (commercial) Development Standards

Los Angeles County Code 22.XX provides a uniform and comprehensive set of standards for the placement of renewable energy facilities within the County. Chapter 22.XX includes the purpose, definitions, applicability, permit requirements, general development standards, additional requirements and required findings. The Chapter includes various types of commercial and noncommercial energy facilities with development standards that apply to each. The following is a recap of the **General Development Standards** that apply to **Cogeneration and Power Generating Plant (commercial)**. All other applicable Sections of Chapter 22.XX also apply.

Access roads

- Construction of onsite access roadways shall be minimized. All weather access roadways shall be constructed and maintained to provide access for emergency vehicles as required by the Fire Department. (22.XX.050.B.1)
- Temporary access roads utilized for initial installation shall be re-graded and re-vegetated to the pre-existing natural condition after completion of installation. (22.XX.050.B.2)

Noise

- Noise from a facility shall comply with Section 12.08.390 of the County Code as measured at the closest neighboring inhabited dwelling, except during short-term events such as utility outages and severe windstorms. (22.XX.050.C.1)
- Exterior noise levels generated by a power generation facility shall comply with the County Noise Ordinance, Section 12.08.390 of the County Code. (22.XX.050.C.2)

Aviation Safety

- The Director shall distribute copies of the proposed site plan, elevation plan, and location map to aviation-related regulatory agencies and facilities with flight operations in the vicinity, as determined by the director, such as the Federal Aviation Administration (FAA), County Forester and Fire Warden, County Sheriff, Edwards Air Force Base, and Air Force Plant 42. Any comments received within 30 days of distribution will be considered in establishing conditions. (22.XX.050.F.1)
- All structures that have an overall machine height of 200 feet above grade or exceed the height limit established by the County's Airport Land Use Plan shall comply with the Federal Aviation Agency's (FAA) requirements. (22.XX.050.F.2)
- A safety light that meets FAA standards shall be required for all facilities that have an overall machine height of 200 feet above grade. A safety light may be required on shorter towers. All required lights shall be shielded from adjacent properties; no other lights shall be placed on the tower. (22.XX.050.F.3)
- An energy project shall not be located adjacent to or within the Runway Protection Zone (RPZ) of any airport, as defined in the County's Airport Land Use Plan. (22.XX.050.F.4)

Notification Signs

- A freestanding monument sign totaling 60 square feet in sign face area may be located at each project entrance; each freestanding monument sign shall not exceed a maximum height of 15 feet, measured vertically from finished grade at the base of the sign. The facility may have two, but not more than two, freestanding signs if there is more than one entrance to the facility. The sign face area of these signs shall be counted toward the maximum amount of signs permitted on the property, per Section 22.XX of the Code. (22.XX.050.G.2)

Underground electrical wires

- Onsite electrical wires associated with the system shall be installed underground except for "tie-ins" to a public utility company and public utility company transmission poles, towers and lines. This standard may be modified by the review authority if the project terrain is determined to be unsuitable due to reasons of excessive grading, biological impacts, or similar factors. (22.XX.050.K)

Fire protection

- Commercial power generation projects shall provide fire prevention measures as required by the County Fire Department. These may include, but are not limited to, fire/fuel breaks, equipment requirements, and design standards. (22.XX.050.L)

Maintenance

- Facilities shall be maintained in an operational condition that poses no potential safety hazards. (22.XX.050.M)

Colors

- The colors used in the construction materials or finished surface shall be muted and visually compatible with surrounding development. (22.XX.050.N)

Visual impact

- Any energy project that is placed within the viewshed of a designated Major, or Scenic Highway shall be assessed for its visual effects, and appropriate conditions relating to siting, buffers, and design of the facility shall be applied. (22.XX.050.O.2)
- The placement of an energy project shall not obstruct views of the ocean from a Scenic Highway, and shall otherwise conform to the policies and standards of any applicable Local Coastal Plan. (22.XX.050.O.3)