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Agenda Date: 11/3/2010
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Airport Land Use Commission Board Agenda Letter

TO: Airport Land Use Commission
FROM: John McDowell for Hillary Gitelman - Director
Conservation, Development & Planning
REPORT BY: John McDowell, Deputy Director - 299-1354
SUBJECT: Napa County Small Wind Energy Ordinance (P10-00354-ALUC)

RECOMMENDATION

COUNTY OF NAPA / PROPOSED SMALL WIND ENERGY SYSTEM ORDINANCE - AIRPORT LAND USE CONSISTENCY DETERMINATION # P10-00354-ALUC

Request: Airport Land Use Consistency Determination for a proposed County Ordinance establishing a permitting process and enabling installation of small wind energy power generation systems within unincorporated areas of Napa County including within limited portions of the Airport Influence Areas of both the Napa County Airport and Angwin Airport, Parrett Field. The ordinance will allow systems with an overall height of 80 feet, but does not allow systems within any airport safety zones or to otherwise interfere with navigable airspace.

Staff Recommendation: Find the project consistent with the Napa County Airport Land Use Compatibility Plan.

Staff Contact: John McDowell, 299-1354 or John.McDowell@CountyofNapa.org

EXECUTIVE SUMMARY

Proposed Action:

1. That the Airport Land Use Commission find the Small Wind Energy System Ordinance (P10-00354-ALUC) consistent with the Napa County Airport Land Use Compatibility Plan.

Discussion:

As set forth in State Aeronautics Law (Public Utilities Code 21676), the Airport Land Use Commission (ALUC) must review the proposed Ordinance prior to its consideration by the Board of Supervisors because the proposal involves changes to development regulations within airport influence areas. In its independent capacity, the ALUC is only reviewing the proposal for airport compatibility. As supported in the Background and

Discussion Section of this report, ALUC Staff has reviewed the proposal for consistency with Airport Land Use Compatibility Plan (ALUCP) policies, and recommend that the ALUC find the project consistent with the ALUCP.

On October 20, 2010, the Napa County Planning Commission commenced public hearings on the proposed ordinance. During the hearing, Commissioners expressed interest in getting ALUC feedback concerning ordinance consistency with airport compatibility standards before concluding their deliberations. At the conclusion of the hearing, the Commission voted to continue the item to November 3, 2010 after the ALUC's hearing.

FISCAL IMPACT

Is there a Fiscal Impact? No

ENVIRONMENTAL IMPACT

The County of Napa has prepared a draft negative declaration. The project description, environmental setting and pertinent aviation-related sections of the document are attached to this report. The report finds that the project does not result in potential impacts to aviation.

BACKGROUND AND DISCUSSION

Airport Land Use Consistency Factors:

1. Location - The project involves a new ordinance establishing regulations for small wind energy systems on parcels greater than 2 acres in size in the Agricultural Preserve (AP), Agricultural Watershed (AW), and Industrial (I) zoning districts of unincorporated Napa County. This ordinance will enable one small wind energy tower at up to 80 feet in height per eligible parcel throughout the County, including within the Airport Influence Areas of both Napa County Airport and Angwin Airport, Parrett Field. Attached are maps showing those areas where systems are allowable in proximity to the airports, but the maps have not yet been augmented to include the Federal Aviation Administration's (FAA) airport safety zones where systems will be precluded. The airport safety zones are depicted on Figure 5D of the Airport Land Use Compatibility Plan (ALUCP) which is also attached and generally coincide with Compatibility Zones A, B and C, and substantial portions of Zone D. The main difference between the current allowable area map and the map that is still under development will be the inclusion of the hillside areas east of the Napa County Airport where existing terrain features encroach within navigable airspace (as shown in Figure 5D). Wind energy systems will not be permitted within these penetrations of navigable airspace.

The maps show that zoning would allow wind energy systems in close proximity to some runways and common flight paths, which would be a source of concern without also contemplating ownership of those areas. Fortunately, the vast majority of suitably zoned land in close proximity to sensitive flight paths is either owned by the airport proprietors or a public entity that would not be subject to the proposed zoning regulations. Consequently, the remaining areas that are both privately owned, and outside of airport safety zones are sufficiently distance from sensitive flight paths.

General property ownership surrounding the airports is as follows:

Napa County Airport - West and south of the Napa County Airport, within Zones B, C, D and E, property under the

primary approach/departure paths is almost entirely owned by the State of California. Private property in these areas is either too small (less than 2 acres per parcel) or not zoned for small wind energy systems, with one exception. There are two parcels immediately east of the Zones B and C just south of Green Island Road that are privately owned and sized/zoned for small wind energy systems. Roughly a third of these two parcels lie within an airport safety zone and a small wind energy system will not be permitted. Being that the properties are within Zone D, ordinance section 18.117.050.L would trigger referral of any small wind energy proposal to the Airport Manager, and if there was an question of adverse affect on operations, the project would be subject to ALUC review.

North of the State owned lands and west of the airport and Napa River is where the majority of private property zoned for small wind energy systems is located under the common flight path. Navigable airspace is approximately 150 ft. above ground level in this area, and flights below 300 ft. are uncommon. Typical overflights in this area consist of extended departure paths and the downwind approach leg for aircraft circling to land on the main runway. This is a high traffic area. Small wind energy systems could be up to 80 ft. in height in this area. This height should be considered compatible with airport operations for the following reasons: 1) it is at least 70 ft. below what is defined as navigable airspace and several hundred feet below the height of typical overflight; 2) there are numerous trees and other man made features presently existing in the area that are 80 ft. or more above ground level.

Angwin Airport - As the Commission is aware, Angwin Airport features a single-sided approach/departure path. Aircraft circle to land east of the airport, and essentially all of the land under the downwind, base and final legs of this approach path is owned by the airport proprietor. Land in other private ownership is generally south and east of the airport located off of Las Posadas Road. Small wind energy systems in these areas pose no compatibility concern because the overall terrain in this area is approximately 100 ft. to 150 ft. below the height of the runway. Overflights in this area will generally be at least 500 ft. above ground level.

2. Land Use – This proposal involves establishing regulations for wind energy generation as an accessory component to existing land uses. The County's General Plan and Zoning ordinance, and the allowed land uses contained within those documents, have previously been found by the ALUC to be consistent with airport compatibility requirements. This ordinance does not affect the overall consistency of the County's General Plan and Zoning with the ALUCP.

3. Concentration of People – The ordinance will enable one unmanned small wind energy system per parcel in association with with a residence on the parcel. These facilities will not result in changes to population densities.

4. Building Height – The County's building height remains 35 ft. for occupied structures and 50 ft. from unoccupied space, fully consistent with ALUCP standards. This ordinance will allow wind energy systems to a height of 80 ft., but prohibits systems within airport safety zones (Section 18.117.050.M) and requires Airport Manager review for systems in Zones A-D (Section 18.117.050.L). ALUCP Policy 3.3.3 limits overall structure height within Zones A-C to 35 ft., and in outlying zones limits structures to 35 ft. when penetrating navigable airspace. The proposed ordinance is consistent with this policy because wind energy systems will be prohibited within Zones A-C and within outlying areas (Zones D and E) where terrain featur penetrate navigable airspace. The ordinance also establishes a process where the Airport Manager can allow a tower within one of these areas but only upon finding that it will not adversely affect airport operations.

It is worth noting that there are several other design requirements included in the ordinance which are clearly intended as aesthetic measures, but will have a side benefit of insuring airport/aircraft compatibility. The ordinance will prohibit such structures from being installed on ridgelines or to other be silouetted against the skyline. Towers will need to generally conform to the heights of nearby trees and terrain features. Visual sumulations are required as part of the permitting process to ensure compatibility with these requirements, which by consequence, will insure that a flight hazard will not result over a ridgeline or a tower won't otherwise protrude significantly above terrain.

- 5. Lighting and Glare** – Sections 18.117.070.D and F of the proposed ordinance contain design standards prohibiting light and glare impacts. Section F.2 contains specific language addressing lighting needs to assure safety for agricultural aircraft operations (crop dusters). These sections insure compatibility with aircraft flight safety.
- 6. Communications** – Section 18.117.070.E of the proposed ordinance prohibits small wind energy systems from creating electronic interference. This requirement insures compatibility with airport communication needs.
- 7. Building Materials** – The ordinance contains several design requirements addressing building materials and placement (see ordinance section 18.117.070). Although these requirements are geared more toward aesthetic appearance, they also assure that tower designs do not result in aviation hazards. Of special note is section, 18.117.050.M, which prohibits any tower that would be placed in a fashion necessitating obstruction marking under FAA standards.
- 8. Overflight Easement** – The County requires overflight easements for all projects located within airport influence areas. No changes to this long established requirement will occur as part of this ordinance, and County regulations remain consistent with the ALUCP.
- 9. Caltrans Aeronautics** – Caltrans Division of Aeronautics staff has been sent copies of attached background information and environmental document. No comments have been received regarding the project.
- 10. Processing** – ALUCP Policy 2.1.9 requires referral of a project to the ALUC prior to the local governing body's final action to allow the local jurisdiction to consider the ALUC's finding prior to acting on a project. The purpose of this policy is to allow the local government and ALUC flexibility in the event that the ALUC has a compatibility issue to be addressed. The application was reviewed by the County Planning Commission on October 20, 2010, and the Planning Commission continued the item until November 3, 2010 to occur after the ALUC reviews the item. The Board of Supervisors will commence review upon conclusion of hearings by the Planning Commission and are anticipated to occur in late November. The County has complied with Policy 2.1.9.

SUPPORTING DOCUMENTS

- A . Proposed County Small Wind Energy System Ordinance
- B . CEQA Document Project Description and Aviation Related Analysis
- C . Wind Energy Allowable Areas Map
- D . Napa County Airport Wind Energy Allowable Areas Map
- E . Angwin Airport Wind Energy Allowable Areas Map
- F . Compatibility Plan Figure 5D

Airport Land Use Commission: Approve

Reviewed By: John McDowell