




Matthew Fish

From: Jen Bradford <Jen@tripleoakpower.com>
Sent: Thursday, May 22, 2025 12:30 PM
To: Matthew Fish
Cc: Stu Webster
Subject: Proposed Renewable Energy Ordinance - additional comments/redlines
Attachments: 2025.05.22 5v4 REO top comments.docx

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Hi Matt,

As promised, we've taken a closer look at the proposed RE ordinance and have some additional thoughts, comments and redlines in the attached document.

I will be attending the P&Z meeting on the 28th. Please let me know if there's any additional feedback or assistance we can provide in the meantime.

Thanks again,

Jen Bradford
Senior Director, Project Development

971.323.0349
jen@tripleoakpower.com
tripleoakpower.com



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Revised Utility Scale Renewable Energy Ordinance - Draft 5v4

Draft presented to the Planning and Zoning Commission for review and comment May 1, 2025

436 Utility Scale Renewable Energy Systems

Section 436. Purpose

A. The purpose of this Section is to establish a process, rules, and standards for the construction, siting and operation of Utility-Scale Renewable Energy Systems in order to:

1. Support projects that provide clear benefits to the County, such as revenue generation, job creation, economic, and environmental benefits.
2. Give County residents, leaders, staff, and developers clear direction on the appropriate siting of Utility-Scale Renewable Energy Projects while considering public safety, environmental health and unique permitting conditions for each site and type of utility, and
3. ~~2~~-Promote reliable, clean energy sources by providing clear standards to encourage Utility Scale Renewable Energy Systems that:

- a. Preserve the County's highly valued, intact natural landscapes and protect private lands from fragmentation,
- b. Offer private landholders options for economic diversity and stability,
- c. Mitigate climate change impacts, and
- d. Coordinate with state and wildlife agencies to ensure that projects maintain and protect wildlife populations and corridors, viewsheds, vegetative communities, dark skies, air quality, historic, cultural, and archaeological resources, natural quiet, and

~~3. Support projects that provide clear benefits to the County, such as revenue generation, job creation, economic, and environmental benefits.~~

B. Applicability. Utility-Scale Renewable Energy Systems located in any zoning district require the granting of a Conditional Use permit by the Board of Supervisors.

1. Utility-Scale Renewable Energy Systems include Solar Energy Installations, Wind Energy Installations, Battery Storage Facilities and Biomass Energy Installations intended to generate or store electricity for off-site customers tied into the electrical grid.

2. ~~Zones in which allowed / CUP required -~~
Renewable Energy Generation facilities are allowed only in the A-General and Industrial Zones subject to securing a CUP and to the applicable site development standards set forth herein. The CUP application shall comply with Article 11 of the Apache County Zoning Ordinance with modifications as specified in this Ordinance, and to the policies of the Apache County Comprehensive Plan and applicable adopted Community Plans.

C. Definitions. The following terms are defined as follows for purposes of this section. Other definitions may be found in Article 2.

1. **Utility-Scale Renewable Energy Production Facility** – A Utility-scale energy system used to generate electricity for off-site customers tied into the local electrical grid, with

Commented [A1]: How will this be defined? What is the metric for acceptance?

Commented [A2]: Suggested: Allow landowners to enjoy their property while not unreasonably encroaching on their neighbor's mutual right to enjoy their property.

Commented [A3]: Moved to #1 goal.

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Commented [A4]: Apache County has very limited industrially zoned areas, and those areas would not be suitable in size or location for renewable energy, particularly a wind farm. Wind farms are most often sited in rural agricultural zones and are permitted by conditional use to ensure compatibility with existing 'by-right' activities (including ranching, farming, hunting and recreation). This physical and economic compatibility between wind and agriculture has historically driven their co-location with wind providing steady income that help keep farms intact and operational. Restricting wind to 'industrial' areas would disturb this relationship.

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the actual or planned ability to generate at least one megawatt. The term does not include stand-alone wind, or solar electricity generating systems primarily for on-site residential, institutional, or agricultural use which does not feed residual power into the electrical grid as defined by the Arizona Corporation Commission.

2. **Utility-Scale Solar Energy Project** - An energy generation facility using solar energy from the sun to generate electricity by photovoltaic effect using photoelectric cells, also known as solar panels, to generate electricity for off-site customers tied into the local electrical grid, with the actual or planned ability to generate at least one megawatt. The term does not include stand-alone solar electricity generating systems primarily for on-site residential, institutional, or agricultural use which does not feed residual power into the electrical grid as defined by the Arizona Corporation Commission.

3. **Utility Scale Wind Energy Projects** - An energy generation facility using wind technology and consisting of one or more wind turbines and accessory structures and buildings, including substations, meteorological test towers, anemometers and associated electrical infrastructure, with an actual or planned generating capacity of at least one megawatt. The term does not include stand-alone wind electricity generating systems primarily for on-site residential, institutional, or agricultural use which does not feed residual power into the electrical grid as defined by the Arizona Corporation Commission.

4. **Photovoltaic Cells/Solar Panel** - An electrical system or device that converts the energy from the sun directly into electricity by the photovoltaic effect using photoelectric cells, also known as solar panels.

5. **Project boundary** - The boundary of a Renewable Energy Generation project as set forth in the project site plan and incorporated into the CUP.

6. **Setback distance** - The distance from the edge of a wind turbine, electrical generator, tower foundation or from the edge of a solar photovoltaic system component to (depending on the nature and purpose of the setback) the nearest occupied legal structure, property line, edge of a public road-right-of-way, or railroad right-of-way, third-party transmission line, above-ground pipeline, or communication tower, other structure or other boundary established by Apache County.

7. **Wind turbines (or towers)** - A wind energy system that uses the wind to turn a set of aerodynamic blades or devices attached to an electric generator or turbine. The term does not include small wind turbines used primarily to generate electricity for on-site residential, institutional, commercial, or agricultural use.

8. **Total Turbine Tower Height** - As used herein, "total turbine tower height" means the height as measured from the finished foundation to the top of the structure, including the uppermost extension of any blade (i.e., "straight up").

9. **Preferred Energy Generation Areas** - Primary and secondary areas identified in the Apache County Comprehensive Plan as preferred locations for alternative energy generation uses.

10. **Visual Resource** - The natural and built features of the landscape that contribute to the scenic quality, visual character, and overall aesthetic experience of an area. These can include landforms, vegetation, water bodies, open spaces, viewsheds, and culturally or historically significant sites that are visible to the public. Areas visible from a major state

Commented [A5]: These facilities are included with solar projects, as well as with wind projects and should be included in item #2, above.

Commented [A6]: Any regulatory setbacks need to be clearly established upfront.

Commented [A7]: The proposed concept aims to encourage renewable energy in "primary" and "secondary" "preferred" areas and to discourage USRES in "disfavored" areas. Renewable energy needs to be located where the resource is.

- Do these "preferred" areas have sufficient resources (wind, solar, transmission, constructability) to make all types of USRES commercially feasible?
- Have the "primary" and "secondary" "preferred" areas been fully screened for airspace issues (military training routes, airports, DOD airspace)?
- How will future decisionmakers consider proposals in areas that may simultaneously be defined as "favored" and "disfavored"?
- How is the county considering factors that have led developers of USRES to select areas outside of these "preferred" locations?
- How are landowner property rights being balanced when considering "preferred" and "disfavored" areas?

highways, designated Scenic Highway, Scenic Byway, Scenic Corridor, Scenic Road, Historic Road, National All-American Road, gateway community, National Scenic, historic, or other trails, National, State or County parks and monuments, and ridgelines and other prominent geographic features, are examples of visual resources, or as identified during the application process.

11. **Gen-tie Line** – (Power Generation Tie-in Line) A high voltage powerline, usually overhead, which connects the proposed project's electrical substations to points of power grid interconnection.
12. **Participating Property** – A property located adjacent to a proposed Utility-Scale Renewable Energy Facility whose owner has entered into a formal agreement with the project owner or developer. This agreement may involve granting a lease, easement, or providing written consent for the siting, development, or operation of the facility, typically in exchange for financial compensation.
13. **Non-Participating Property** – A property located adjacent to a proposed Utility-Scale Renewable Energy Facility whose owner has not entered into any agreement with the project owner or developer to provide a lease, easement, or consent for the siting, development, or operation of the facility, and has not received financial compensation.

Commented [A8]: This is an extremely broad and unclear definition of a visual resource. What does it mean to 'protect' a visual resource? Note that one can see the Springerville and Coronado plants from many points across the county. Is the county planning to map these resources and the advised or required setbacks? If the goal is to protect a viewshed from and/or to all these potential 'resources', nothing will be developed in the county.

Section 437. Preferred Facility and Location Criteria for Utility Scale Renewable Energy Systems.

A. **Preferred Installations.** New installations shall use the preferred facility type and location criteria where feasible. Site location and development of installations shall minimize negative impacts to the existing character of the surrounding landscape and / or community. Preferred criteria are intended to guide decisions about the location and siting of Utility Scale Renewable Energy Installations and are not intended to exclude sites that may simultaneously meet disfavored facility criteria.

1. Preferred criteria for all Installations:

- a. ~~A project located within the Preferred Energy Generation Area as designated and delineated in the Apache County Comprehensive Plan.~~
- b. A project site that has minimal visual impact on a Visual Resource, ~~or that is more than 10 miles from a Visual Resource.~~
- c. A project site that uses or is near to existing substations, transmission lines, or points of interconnection, ~~thereby minimizing length of new gen-tie lines required.~~
- d. Project sites that are on previously disturbed land such as brownfield sites, mining sites, sites with low wildlife habitat and vegetation value, or with few cultural resources.
- e. ~~Project sites that retain current and traditional land uses, including ceremonial uses for Native Americans, and allow multiple uses of the land such as ranching, agricultural, and recreational uses, are preferred over single-use projects.~~
- f. ~~Projects using water conservation methods or reclaimed water are preferred over water-intensive systems.~~

Commented [A9]: See comment above on Preferred Energy Generation Areas. These areas are not the best areas for wind in Apache County, and may have other siting issues.

Commented [A10]: It will not be possible for all wind turbines to be more than 10 miles from a visual resource given the broad definition. "Impact" is also not defined.

Commented [A11]: Wind and solar aim to be near the best performing resource.

Commented [A12]: Note that wind energy, by definition, retains current and traditional land uses, and adds revenue to existing (agricultural) revenues.

Commented [A13]: This is not a siting criterion, and should be addressed elsewhere.

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2. Additional preferred criteria for Biomass Energy Installations:

- a. Sites that use an existing Utility Facility, or adaptively reuse existing industrial sites.
- b. Sites that are located near major highway, transportation routes, or railway lines, without impacting Visual Resources.
- c. Projects that directly support local forest management by utilizing locally produced or harvested forest feedstock or by-product from the Four Forest Restoration Initiative footprint or similar projects, or forest feedstock harvested from waste streams within 150 miles of the facility.

Commented [A14]: Why the preference for biomass near highways, but wind (3 miles) from highways?

B. Disfavored Facilities. Disfavored facility sites may be permitted **only** if the applicant presents detailed evidence documenting that the facility will have minimal impact on the environment or that the site is more technically necessary than other locations. Disfavored siting criteria for new Utility Scale Renewable Energy Installations are intended to guide decisions about the location and siting of Utility Scale Renewable Energy Installations. The existence of preferred and disfavored criteria at a single potential facility site are not mutually exclusive. In instances where such co-occurrences exist, the County shall review the application narrative and weigh the presence of favored and disfavored elements to determine overall compliance with the objectives of this ordinance.

Commented [A15]: Undefined: technically necessary.

1. For all Installations:

- a. Sites located outside the Preferred Energy Generation Areas as designated and delineated in the Apache County Comprehensive Plan.
- b. Sites that conflict with or have population-scale potential negative impacts on Special Status Species and their habitats, other special wildlife designations such as Critical Habitat and Important Bird Areas, Wildlife Linkages, Riparian and other areas of known wildlife importance. Areas, and significant topographic features such as ridges.
- c. Any site that impacts eligible archaeological, cultural, and historic resources or sites, heritage areas, or cultural landscapes as formally identified by a designated tribal entity or government.
- d. Any site that requires significant ground disturbance and grading, such as new road construction that does not provide long term benefits to the property owner or community.
- e. Any site that would negatively impact or impair airport operations, such as the release into the air any substance such as steam, dust and smoke, or that produces light emissions, glare or distracting lights that impact dark skies, or increased air turbulence.

Commented [A16]: Suggest this concept be removed. Disfavored sites are defined as anywhere outside of the 'preferred' areas, and will presumably have a higher burden of proof, though the draft ordinance has not outlined why specific areas are favored/disfavored. The "disfavored" areas may actually be more favorable to RE developers due to better wind/solar resource, available land, etc.

Commented [A17]: For wind, this constraint would reduce the amount of county roads that would be improved upon for the purposes of construction, left in a condition typically better than found. The ordinance should direct applicants to negotiate road use agreements with county staff and decision-makers.

Commented [A18]: Security lights at a solar facility or the red FAA safety lighting on tall structures such as communication towers and wind turbines do not impact airport operations.

Commented [A19]: This is inconsistent with section 440 which states that turbines MUST be at least one mile from non-participating residential property boundaries.

Note this criterion would make wind virtually impossible to build in Apache County, and conflicts with private property rights.

2. Additional disfavored criteria for Wind Energy Installations:

- a. Any site that includes a planned turbine location that is within one mile of Nonparticipating residential properties.

b. Sites that may be a hazard to air navigation, as determined by the FAA.

c. Sites that cause interference with telephone, radio or radar signals.

3. Additional disfavored criteria for Biomass Energy Installations:

a. Sites located upwind of communities that could be impacted by exhaust gasses or particulates.

Section 438. Preliminary Site Investigations for Utility Scale Renewable Energy Systems

A. Preliminary site investigations and inventories of the following resources shall be conducted to guide the project applicant and the County in determining the appropriate siting and design of an installation. Additional pre-construction and post-construction surveys may be required as a condition of the permit. The project applicant shall provide the following to the County during the PreApplication review:

1. Preliminary habitat and wildlife evaluations. Preliminary desk top investigations shall identify potential wildlife issues by determining whether Special Status Species or their habitats may be present, and any other site-specific wildlife concerns. Preliminary site investigations will be of appropriate scope to effectively evaluate potential adverse issues. Appropriate state and federal wildlife-management agencies shall be consulted when conducting preliminary site investigations.

2. Preliminary desk top vegetation evaluations shall include identification of the presence of noxious and/or invasive weeds and Special-status Plant Species.

3. Archaeological, cultural, and historic resource desk top evaluations and preliminary inventories. A site evaluation and preliminary desk-top inventory of on-site archaeological, cultural, and historic resources prepared by a qualified professional shall be conducted. A summary of communication and collaboration efforts, such as a pre-project cultural onsite survey with affected / potentially affected Native American tribes to evaluate cultural and historic resources or sites, heritage areas, or cultural landscapes shall be submitted with the application.

4. Preliminary Visual Resource site identification. Visual Resource, tribal land, and residential or subdivided property located within 10 miles from the project boundary, or a distance as determined by the Community Development Director, shall be identified on a map showing the resource's relationship to and distance from the facility. This information will be used by County staff and the applicant to select the site locations and the number of viewpoints from which the visual impact analysis will be prepared.

5. Preliminary desktop soils/geotechnical survey providing evidence of subsurface stability to withstand blasting or heavy excavation and bedrock's ability to support heavy facility foundations.

6. Water resources. A survey of known water resources both on site and adjacent to the site shall be prepared, and a statement as to impacts or use of those resources for the project shall be provided, including recommendations to protect aquifers from contamination due to project construction and operation.

Commented [A20]: If a site is determined by the FAA to be a hazard to air navigation the project will not be built. Suggest the County have applicants submit the studies to demonstrate these criteria have been met, but no need to mirror federal restrictions in a county code.

Commented [A21]: General comment: Many of these requirements fall beyond the purpose of a pre-application meeting and beyond the scope of preliminary desktop evaluations. The effect of loading studies and requirements this early in a planning process is that developers and county planners won't have an opportunity to communicate overall goals, process and potential concerns early on, which could save both time and effort.

Generally recommend the ordinance direct applicants to follow commonly used guidance (e.g., USFWS Land-based Wind Energy Guidelines for wind and wildlife assessments).

Commented [A22]: Preliminary desktop evaluations will not likely get to this level of analysis/conclusion.

Commented [A23]: Potential confusion here between pre-application requirements and CUP application requirements.

This type of coordination/consultation can take months to carry out, and is typically conducted once a (wind) project has advanced to a mid-stage design.

Overall the ordinance should require that applicants make a good faith effort to engage, but not all affected tribes may choose to engage.

Commented [A24]: The visual resource analysis depends on the location of the turbines, which will not be known until later during the planning phase of the project.

Commented [A25]: The pre-application meeting is too early in the development process to evidence this information. Note that RE developers will not be able to secure financing on unstable surfaces.

The County can set conditions of approval to ensure geotechnical compatible surfaces and subsurfaces.

Commented [A26]: Specific project impacts to water resources are minimized during construction and won't be known at the pre-application phase of a wind project since the turbine locations have not yet been selected.

We know of no instance of an aquifer being compromised due to constructing a renewable energy facility. Most aquifers are well below the typical 12-15' foundation depth.

More importantly, where subsurface resources are so close as to potentially be compromised, here again no financing would be made for a project with such

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7. Lighting Plan. A preliminary exterior lighting plan is required per Article 7 of the Zoning Ordinance.

Commented [A27]: Note that turbine lighting is directed by the FAA Obstruction Evaluation process.

This may be required for a CUP application or as a condition of approval/ministerial permit, but does not make sense as a requirement for a pre-application meeting.

8. Preliminary Emissions Analysis for Biomass Energy Installations. The preliminary analysis shall identify the project location, technologies intended, and potential emissions/particulate components, and be of an appropriate scope to effectively evaluate potential adverse impacts to aviation and the community.

Commented [A28]: This would normally be included in a CUP or permit application, not part of a pre-application package.

9. A description of the current and traditional uses of the project site.

Commented [A29]: To what extent and to what end? This can't be addressed without a detailed site survey which would not be done by the time of a pre-application meeting. Historical and cultural matters will be addressed in that relevant section of the CUP application once the project design has matured.

10. Electronic files of the draft site plan, including the location of all equipment, fencing, transmission lines, substations, construction staging, and temporary and permanent roads, compatible with Geographic Information System (GIS) software.

Section 439. Performance Standards Objectives for Utility Scale Renewable Energy Systems

In addition to the evaluation criteria and general standards for conditional use permits contained in Section 1107 B, the following shall apply:

A. Due to the size, scale and complexity of Utility Scale Renewable Energy Installations, the following performance standards are in addition to applicable Performance Standards required throughout this Ordinance, unless otherwise noted.

Commented [A30]: At the pre-application stage, wind developers likely haven't narrowed turbine locations. This level of detail is likely not available at this stage.

Commented [A31]: A performance standard is defined as an outcome-based policy. Performance standards are intended to provide specific, measurable or quantifiable results to minimize the need for detailed regulatory oversight. This section is a mixture of process, submittal requirements and qualitative goals.

Commented [A32]: Undefined.

Commented [A33]: Is this a criterion for a pre-application meeting or a CUP application submittal?

Commented [A34]: The upside of an ordinance is if setbacks and standards are objectively defined (and therefore can be objectively met) is that a project's investment is less at risk of being rendered fatal flaw by an arbitrary, last minute concession. Well before reaching the end of the CUP process, an applicant needs certainty that the commitments it's making are financeable. A last minute condition (e.g., reducing the proposed generation capacity) can have a negative effect on investment.

Commented [A35]: Guidelines are by definition not designed to be complied with, they describe or define a level of due care when informing decisions. 'Adherence' to the spirit of the due care is an appropriate goal to achieve in consultation with the relevant agencies.

1. Sensitive Area Avoidance. The site plan shall be designed to avoid sensitive areas and to reduce the likelihood of significant adverse effects on current and traditional uses and resources that are identified by the preliminary site evaluations and Pre-Application discussion. A sensitive area map shall be prepared to identify sensitive areas and features such as archaeological, cultural and historic resources or sites, heritage areas, or cultural landscapes, Visual Resource, designated trails, plant and wildlife resources and habitats. Additional siting adjustments may be required as a condition of the permit.

2. Vegetative Cover, Weeds, and Landscaping Requirements. The project shall be planned and developed in a way that maintains the local ecosystem by minimizing grading and site disturbance and to maximize retention of native vegetation, topsoil, and landforms. Areas cleared during construction that are not needed for site operations, shall be revegetated with native vegetative cover. For solar operations locating on undisturbed sites, native vegetation shall either be retained or, disturbed areas under the panels shall be stabilized and / or revegetated with native vegetation to the extent practical, as determined by the Community Development Director. A plan to control noxious and / or invasive weeds shall be required for the duration of the permit. Landscaping requirements do not apply to Utility Scale Renewable Energy Installations, unless specifically required for visual impact mitigation.

3. Wildlife Management. Arizona Game and Fish Department's (AGFD) "Guidelines for Reducing Impacts to Wildlife from Wind Energy Development in Arizona" (2012) and "Guidelines for Solar Development in Arizona" (2010), US Fish and Wildlife Service's (USFWS) "Landbased Wind Energy Guidelines" (2012), or current editions, shall be consulted and design recommendations from these documents incorporated into applicable projects. Compliance with these guidelines shall be determined by USFWS, AGFD, and the County.

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a. If the project is located within a Wildlife Linkages area (as identified by the Arizona's Wildlife Linkages Assessment, or by Arizona Game and Fish Department), passage for those species that use the Wildlife Linkages shall be maintained.

4. Stormwater Management. The project shall be planned with low impact development stormwater management techniques, to capture and infiltrate stormwater and rainwater. Biomass Energy Installations shall obtain a stormwater control permit for the facility, including materials stockpiles, from the Arizona Department of Environmental Quality. Additional stormwater controls may be required.

5. Fencing. Proposed fencing shall be designed to minimize visual impacts from and be complementary with scenic corridors and adjacent properties, and to minimize impacts to wildlife and Wildlife Linkages. Security fencing shall be permeable to small animals by leaving a six-inch gap between the bottom of the fence and the ground, exclusive of substation facilities. When feasible, fencing shall be designed around groups or clusters of equipment, as opposed to fencing the entire site. New fencing shall not impact or impede existing easements or legal access to private, State, or public lands.

6. Audible Noise Limits. Audible noise impacts due to project operations shall not exceed the following standards, as measured from each wind turbine and other noise generating activity or infrastructure such as substations, inverters, and biomass facilities, to the property line primary occupied residence of each adjacent non-participating property, and to recreational facilities:

a. Operational noise impacts shall not exceed 4055 dBA. Compliance with this standard shall be demonstrated by a noise analysis prepared by a qualified expert as follows:

i. Background Noise and Noise Forecasts. Sound levels shall be measured and analyzed to determine the baseline for forecasting operational project impacts. A forecast of the post-construction noise impacts shall be conducted to assess compliance with the maximum audible noise limit.

The noise analysis shall consider facility aging and future modifications or technology changes.

ii. Compliance Testing. Operational compliance testing shall be conducted to ensure that the facility meets the required or approved audible noise limit. Testing results shall be reported prior to permit to operate.

iii. Exceptions to noise impacts may be approved by the Board of Supervisors when the applicant demonstrates a significant or substantive need to exceed the noise standards.

7. Setbacks, Height and Performance Standards Between Specific Zones.

A. For Renewable Energy Systems Installations.

1. Turbines located within Wind Energy Installations shall be set back from adjacent Non-participating properties by the following distances. All other non-turbine

Commented [A36]: For equal treatment, given differing parcel sizes and configurations, noise impacts should be measured/ modeled from the affected legally occupied building/structure to the noise emitter. A typical noise standard is 55 dBA for daytime and 50 dBA for evening hours.

Commented [A37]: It is not possible to forecast the future of an equipment's operation.

Commented [A38]: One cannot test compliance on equipment that has not been constructed.

Commented [A39]: Suggest removing (see above).

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structures and buildings shall conform to the setback requirements for the zoning district in which the use or structure is located.

(a) Turbine shall be at least ~~1 mile~~ 110% of total height to non-participating property boundary.

Commented [A40]: A one-mile setback interferes with private property rights of participants and will make wind energy difficult in most parts of the county.

(b) Turbine shall be at least ~~1 mile~~ to residential, subdivided or open space parcel.

Commented [A41]: This category is not clearly defined and could overlap with item (a).

(c) Turbine shall be at least ~~1/4 mile~~ to any other district.

Commented [A42]: Unclear how a district is defined?

(d) Turbine shall be at least ~~1/4 mile~~ to State Land, or public land.

Commented [A43]: Is this intended to mean one mile from the boundary of state or federally owned parcels? What is the purpose of this setback if BLM and ASLD would not normally require it?

(e) Turbine shall be at least ~~150%~~ 110% of total height to overhead utilities for protection from blade throw or ice throw.

(f) Turbine shall be at least ~~150%~~ 110% of total height to public roads, trails for protection from blade throw or ice throw.

Commented [A44]: Should be legally designated/official trails.

(g) Turbine shall be at least ~~3 miles~~ 110% of total height from major highway or Visual Resource.

Commented [A45]: What is the empirical basis for 150%?

(h) Solar panels shall be at least 100 feet from property line.

Commented [A46]: This will make wind difficult to impossible in most parts of Apache County.

(i) Biomass facility shall be at least 100 feet from property line.

Commented [A47]: Why the difference between biomass and wind setbacks? (100 feet vs. one mile)?

2. Height limits are not established for wind turbines, however, with the Conditional Use Permit the County may place reasonable limitations on turbine height if necessary to mitigate impacts to existing adjacent uses or if necessary to address impacts to public safety.

Commented [A48]: A setback of 1.1x tip height meets public safety requirements. More than that limits development opportunities for interested landowners and creates an environment of uncertainty for RE developers.

3. Exceptions to setbacks may be approved by the Board of Supervisors if the County determines a modified setback is necessary to address impacts to existing adjacent uses, as allowed in Section 1107 (B) 11.

B. Setback areas may be used for access within the development but are otherwise to remain in their current vegetative state.

C. The Board of Supervisors may approve a reduction in the setback requirements set forth above in accordance with any or a combination of the following circumstances:

1. The project shares a common property line with another approved Renewable Energy Generation facility.

2. An irrevocable written consent from an affected property owner has been obtained, stating that the owner is aware of the proposed facility and the setback requirements imposed by this section, that consent is granted to allow lesser setbacks than those specified herein, and that such consent will be memorialized in a notice recorded with the Apache County Recorder to notify future owners of the subject property that setbacks are less than those specified herein. In no circumstance should a waived setback be less than 1.1x total turbine height as a suitable buffer for structural fall.

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3. The current use of an adjacent property generates sound more than that permissible for the Renewable Energy Generation facility under the terms of this section.

8. Visual Impact. Projects shall be designed to minimize visual impact by:

- a. Placing all collection lines within the installation underground, including connections to a substation, to the greatest extent practical. Exceptions may be approved by the Board of Supervisors when the applicant demonstrates a significant or commercially substantive need for above ground connections.
- b. Mitigating visual impacts from transmission lines connecting substations to the utility grid to the greatest extent practical.
- c. Designing and locating Utility Scale Renewable Energy Systems in a manner to minimize adverse visual impacts. To the greatest extent feasible the system shall:
 - i. Use wind turbine towers of uniform design and color. The turbine color shall be a neutral color that blends with the environment and complies with FAA standards. Non-reflective gray, beige and white are recommended (unless future research identifies FAA-approved alternative colors to reduce bird impacts).
 - ii. Be screened by natural vegetation, topography, or other means to minimize potentially significant adverse visual impacts on neighboring residential areas.
- d. Utilizing exterior light fixtures that comply with Apache County Ordinance Article 7, Lighting. Projects shall use the motion activated lighting where feasible, and minimum lighting necessary for legally required building safety and security purposes.
- e. Utilizing an FAA-approved radar-activation system for aviation-warning lights when aviation-warning lights are required on wind turbines and Meteorological towers by federal or state law. The FAA has final authority to grant use of such systems on a case-by-case basis.
- f. Using existing substations, or if new substations are needed, minimizing the number.

9. Signs. Signs associated with the project are limited to one project identification, information, interpretive and address sign of not more than 24 square feet located on the project site at each point of ingress and egress. No other signs shall be installed except for required warning and directional signs. Limited logos and/or manufacturer names shall be permitted on the generator housing or hub. Signage shall not be used for advertising. No other advertisements, prominent logos, or other prominent messages are allowed on any tower, blade, generator housing, hub or any other part of any structure. Prior to installation of any signs, the CUP holder shall obtain sign permits from the Community Development Department for all signs for which permits are required. All sign requirements are found in Apache County Ordinance Article 7.

10. Roads and access. Traffic generated by the proposed use and its construction shall be mitigated so as to not burden the traffic circulation system in the vicinity. Existing roads shall be used to provide access to and throughout the site, or if new roads are constructed, the amount of land disturbance shall be minimized. Roads constructed to provide vehicle access for site and equipment maintenance shall be designed and constructed to standards approved by the Apache County

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Engineering Supervisor and the local or nearest fire district or fire department, in coordination with the public safety, fire protection and emergency management plan.

- a. Grading and road construction permits are required prior to site prep or vegetation removal.
- b. Measures to control and mitigate dust, including from use of roads, shall be outlined in a dust control and mitigation plan.

11. Solar panels and wind turbines shall be constructed to minimize concentrated reflections and glare at occupied structures, recreation areas, roads, highways or airport flight landing or takeoff areas.

12. Interference with Communications the operation of the energy project shall not create conditions that unduly reduce or interfere with public or private television, radio, telemetry, or other electromagnetic communication signals. If undue reduction or interference occurs, the applicant must restore reception to the level present before operation of the energy project

13. Additional Performance Standards for Wind Energy Installations:

- a. Turbine towers, pad-mounted transformers and other structures shall be designed to reduce horizontal surfaces in order to limit perching or nesting activities by birds, and to avoid the creation of artificial habitat or shelter for raptor prey.
- b. Guy wires for meteorological test towers shall only be used if necessary and shall contain bird diverters as recommended by Arizona Game and Fish Department or other appropriate state and federal natural resource management agencies.
- c. Above-ground power lines shall comply with the Avian Power Line Interaction Committee standards to prevent avian fatality.
- d. Safety and Shadow Flicker Nuisance. Turbine blades shall be designed so that the closest point of the sweep of the blade is at least 30 feet above finished grade. Shadow Flicker from turbines shall not impact adjacent Non-participating properties or public rights of way by more than 30 hours per year, as shown by a Shadow Flicker evaluation prepared by a qualified expert. Exceptions to Shadow Flicker impact may be approved by the Board of Supervisors when the applicant demonstrates a significant or substantive need to create impacts.

Commented [A49]: Move to earlier section on standards for wind.

14. Air Quality Impacts for Biomass Energy Installations. Biomass Energy Installations shall obtain an air quality permit from the Arizona Department of Environmental Quality and adhere to all applicable Federal and State rules and regulations.

Section 440. Permits and Administration for Utility Scale Renewable Energy Systems Projects

A. The CUP application shall comply with Article 11 of the Apache County Zoning Ordinance, and as modified in this Ordinance.

B. Application Process and Requirements. In addition to the requirements of Section 1107, the following are required:

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1. Prior to the submittal of a Conditional Use permit application the applicant shall schedule a Pre-Application Review with staff of the Community Development Department, and additional experts if such assistance is determined necessary by the Community Development Director.

2. In addition to Section 1106 Citizen Review Process the notification area shall be a minimum of five (5) miles, or a distance determined by staff at the Pre-Application meeting, from the project boundary, and shall include notification to Cities, Towns and homeowner's associations that are nearby but may be beyond the notification distance, shall include a media release sent to local news and radio outlets, and an opportunity for an on-site tour by the public shall be provided by the applicant, in consultation with the Community Development Director.

a. All materials provided during the Pre-Application Review shall be displayed during the Neighborhood and Public Meetings, including all visual simulations.

b. In addition to the requirements of Section 1106, provide the following:

i. A list of all property owners of record within five miles of the project boundary, with current contact mailing address information.

ii. A list of all property owners of record within a minimum of 300 feet of each access route to the project from a public roadway, as well as within 300 feet of each public roadway that requires any improvements in connection with the project, with current contact mailing address information.

iii. Notice by first class mail to all property owners listed under subparagraphs (i) and (ii) above, such notice to include a narrative description of the project, identification of transportation routes, vicinity map showing surrounding properties, and a layout of the proposed facility and accessory buildings indicating setback distances to property lines.

iv. Notice by first class mail to all incorporated and unincorporated community officials within five miles of the project boundary. Officials may include, mayors, city councils, community development, board of supervisors, planning and zoning commissions, and local fire officials.

v. Schedule, publicize and conduct at least two public meetings (in collaboration with the Community Development Director, neighborhood groups and property owner associations, where available) in the project area at least 30 days before the Planning and Zoning Commission hearing as outlined in Apache County Ordinance Article 11.

vi. Establish a web site, linked to the Apache County web site if possible, giving a summary of the project (site plan, context plan and summary description) and applicant contact information before holding the first public meeting as required above.

vii. Provide a mechanism on this site for the submission of public comments. Provide a contact name and telephone hotline, the details of

Commented [A50]: Note that typically a preapplication meeting occurs very early, at least 2-3 years before a CUP application is submitted. It would be more useful to associate these requirements with the CUP submittal rather than the pre-application meeting. Information typically available at the time of a pre-application meeting is high level and is normally expected to change.

which are printed on a prominent sign at each project entrance and maintained on record with the Community Development Department, by which citizens can leave comments suggestions and complaints 24 hours a day for the life of the project. The CUP holder shall take all reasonable efforts to review and address (including returning the call when appropriate) all non-urgent messages within 72 hours and all urgent messages within 24 hours. Provide the County with a monthly summary of complaints and the way they were addressed.

Commented [A51]: This appears to be a requirement to be met during the operational life of the project. Should be in a different section.

3. In addition to requirements of Section 1107, Conditional Use Permits, the following shall be provided:

a. Written narrative. The narrative submitted with the application shall include the following:

- i. Why the proposed site has been chosen based on the preferred/disfavored criteria
- ii. How the facility provides clear economic and environmental benefits to the County
- iii. How the facility's design and operational procedures apply current best practices and technologies
- iv. A detailed description of the how project meets each of the required Performance Standards in Section 439 and 1107
- v. Detailed results of the Preliminary Site Evaluations required in Section 438. For archaeological, cultural, and historic resource desk top evaluations and preliminary inventories, the narrative shall document how the site was inspected for culturally and historically significant resources and include the name and details of the professional(s) conducting the study
- vi. Additional information requested at the Pre-Application review.

C. Electronic files of the site plan, including the location of all equipment, fencing, transmission lines, substations, construction staging, and temporary and permanent roads, compatible with Geographic Information System (GIS) software.

D. Architectural drawings shall include elevations of all proposed Structures, connection lines, electric energy storage units, equipment, and storage yards.

E. Facility Specifications for Wind Projects to include at a minimum:

- 1. Turbine information – size, type, height, rotor material, rated power input, performance safety, noise characteristics, tower and electrical transmission equipment
- 2. Scaled drawings of each turbine model, including tower and foundation

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3. Computer simulation or drawing showing the site fully developed with all proposed wind turbines and accessory structures
4. Ice throw calculations
5. Blade failure analysis
6. Catastrophic tower failure analysis
7. Foundation design for all proposed structures
8. Projected useful life of facility

Commented [A52]: To our knowledge, there are no established methods for evaluating these.

F. Visual Impact Analysis. A visual impact analysis of impacts to Visual Resource, cultural resources, tribal land, and residential or subdivided property located within 10 miles from the project boundary shall be provided, or at the distance determined by the Community Development Director at the Pre-Application meeting. The visual impact analysis shall demonstrate with photo simulations the true visual and cumulative impacts of the facility on the surrounding environment and include a written description of the impacts and proposed mitigations. The visual impact analysis shall utilize key observation point photographs taken from Visual Resources, cultural resources, and residential properties identified during the Pre-Application meeting to the proposed site location to create scaled photo simulations of the proposed facility from visually impacted locations. Scenic simulations shall illustrate the proposed facility including wind turbines, solar arrays, combustion and conversion units, structures, substations, overhead transmission lines, and equipment facilities. The photos' locations shall be identified and labeled on a map demonstrating the visual line of sight from the resource to the facility.

G. A traffic impact study or analysis:

1. Demonstrating how vehicles will access the site and describing the impacts of the proposed project on the local and regional road system, traffic conditions and safety on all public roads from which there is access to or from the project, within 5 miles, during construction and operation.
2. A traffic inventory and repair plan to inventory existing road conditions before construction begins and to repair any damage caused during the course of construction, to be prepared by a registered engineer independent of the project.

H. A cultural resources management plan, based on the archaeological and historic resource studies, prepared by a qualified professional to protect and mitigate impacts to any known or discovered archaeological, historical or cultural sites or artifacts found on the site.

Commented [A53]: This is redundant with paragraph H.

I. A public safety, fire protection and emergency management plan for construction and post construction operation of the facility, including plans for ongoing management of forest and fire fuels, wildfire prevention and response, and Battery Storage System fire prevention and response. The plan shall include provision for (a) traffic control during construction, (b) fire protection during construction and upon completion of the facility, (c) blasting and explosion, (d) in the event of lightning strikes to the facility, and (e) proper signage during the life of the facility to warn of electrical shock or high voltage. The plan shall be reviewed and approved by the local fire management agencies, districts, and fire departments. Additional mitigation may be required if requested by the local or nearest fire district or fire department to support response capabilities.

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J. A wildlife protection plan, based on the results of the Preliminary Site Evaluations and formal site surveys as recommended by AGFD, USFWS, and the County, detailing how direct and Cumulative Impacts to wildlife, birds, bats, and Wildlife Linkages will be avoided to the extent practical through project design, and evaluation, monitoring, and mitigation strategies.

K. A list of proposed permit conditions related to wildlife, such as timing restrictions and survey requirements, and instructions notifying operators how to proceed in the event cultural resources are encountered during construction or grading, shall be included on construction documents.

Commented [A54]: Addressed under paragraph G.

L. Preliminary erosion control, conceptual grading plan demonstrating areas of cut, fill, grading disturbance, and construction staging, site maintenance, noxious weed control and management, and native plant revegetation plans shall be submitted with the application. Prior to issuance of construction or grading permits final plans shall be submitted based on the permit requirements. The native plant revegetation plan shall address road shoulders and any areas disturbed by construction, operation, or decommissioning of the project. The revegetation plan shall describe preconstruction conditions, including any invasive weed populations present, describe methods to be used to restore disturbed areas, describe monitoring and treatment which will occur throughout the life of the project and during decommissioning, and shall list success standards. The noxious weed plan shall include provisions for controlling and preventing the spread of noxious weeds during construction, throughout project operation and post operation restoration.

Commented [A55]: Suggest the county simply direct applicant to work on a plan with relevant county, state and federal agencies. The details of each plan will differ by project, based on possible impacts.

M. Compliance confirmation, lease agreements and Participating Property Owner documentation. Prior to issuance of construction or grading permits, the following approvals shall be confirmed: Decision document from a representative agency of the Federal Government if applicable, approval of the Arizona Corporation Commission for the transmission line and the interconnect with the high voltage line, operating permits by the Arizona Department of Environmental Quality, if applicable, right of way and/or lease granted by the Arizona State Land Department for roads and turbine locations, if applicable, other lease agreements required to demonstrate legal authority for the facility, and confirmation of consent and agreement to siting impacts by Participating Property Owners.

N. Decommissioning Plan and Financial Securities.

Any utility scale renewable energy system or component that has reached the end of its useful life or has been abandoned shall be removed. A utility scale renewable energy system or component shall be considered abandoned when it fails to operate for 12 consecutive months. A decommissioning plan shall be submitted to include but not be limited to the following:

1. Details for removal of all aboveground and underground equipment, structures, fencing, and foundations - as specified by the Board of Supervisors.
2. Details for removal, restoration, and revegetation of disturbed and graveled areas and access roads other than those identified by the property owner as being retained. Restoration shall include regrading and placement of like kind topsoil and revegetation with native seed mixes and plant species, and yearly noxious weed

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monitoring and removal for three years after restoration is completed. The site shall be restored to its original condition within five years of decommissioning and removal of the project.

3. Remediation and disposal of any hazardous or toxic materials used, generated by or left on site by the Utility Scale Renewable Energy System.

Section 441. Financial Securities. Prior to the issuance of building permits for the project, the project owner/operator shall provide an estimate of the salvage value of equipment, and a separate estimate of the cost to decommission, remove all equipment and restore the site, as estimated by a licensed Professional Engineer registered in the State of Arizona that is independent of the project owner/operator. The estimate of the cost to decommission shall be used as a basis for the project owner/operator to provide a financial security that provides sufficient financial ability for the County to contract an expert to oversee salvage and decommissioning operations that will restore the land to its original condition. At all times over any project's operable life, financial securities provided under this Section shall be structured to survive the bankruptcy, dissolution, insolvency, or other termination of the project owner/operator as a legal entity.

1) A second financial security shall be submitted no later than the 5th anniversary of commercial operations to provide the County sufficient financial security to cover the cost of decommissioning the project and restoring the land to its original condition. The financial security shall be based on the total cost of decommissioning and restoring the site to its original condition, less the salvage value of the equipment, as estimated by a licensed Professional Engineer registered in the State of Arizona that is independent of the project owner/operator. The financial security shall be re-evaluated every five years to ensure that the estimate reflects current decommissioning costs and salvage value, and to include the cost of inflation to the end of project, as estimated by a licensed Professional Engineer registered in the State of Arizona that is independent of the project owner/operator. A financial security shall be a bond or other security approved by the County Attorney's Office to ensure removal of all equipment and restoration of the land to its original condition.

2) The applicant shall bear all responsibility for assuring that the assurance bond is sufficient to cover the cost of decommissioning. The instrument shall be transferable to cover the activities of any other entity which may have acquired the project prior to its decommissioning. Return of the financial assurance shall be subject to County verification that the site has been restored to its original condition within five years of decommissioning.

Section 442. Modifications to Performance Standards. The Board of Supervisors may approve waivers to the performance standards in this Section for Audible Noise, underground placement of collection lines, and Shadow Flicker, in addition to the property development and performance standard waivers allowed Section 1107 (B) 11. In addition to addressing how the requested waiver meets the required findings, the applicant shall demonstrate a significant or substantive need for the waiver and provide detailed rationale for why the standards must be modified, the specific type and extent of the modification, and why the design cannot accommodate the affected standard.

Section 443. Request for Agency Review and Comment

A. For each agency review required, the Community Development Director shall submit a request for review to the agency or County Department on such form as is prescribed by the County Community Development Department.

B. Due to the complexity of the methodology or analysis required to review an application for a Utility Scale Renewable Energy System Conditional Use permit, the Director may require a technical review by a third-party expert. If a technical review is determined necessary the costs of this review shall be borne by the applicant, and payable prior to scheduling the CUP for any public hearing. Ongoing or post-construction third-party technical review payments shall be paid by project owner within 30 days of receipt of notice of billing sent from the County. The expert review may include, but is not limited to, the following:

1. The accuracy and completeness of the submissions;
2. The applicability of analysis techniques and methodologies;
3. The validity of conclusions reached;
4. Whether the proposed Utility Scale Renewable Energy System complies with the applicable criteria set forth in these regulations; and
5. Monitoring of Conditions of Approval, and Other matters deemed by the Community Development Director to be relevant in determining whether a proposed Utility Scale Renewable Energy System complies with the provisions of these regulations.

C. Review and comment shall be requested by the County from the following state agencies for the reasons noted for each:

1. State Historic Preservation Office of the Arizona State Parks Department, to determine if the project site will affect or impact cultural properties, national registered historic districts, archaeological sites and unmarked burials.
2. Soil Conservation District located within Apache County, to determine whether the applicant can furnish terrain management sufficient to protect against flooding, inadequate drainage and erosion.
3. The Arizona Game and Fish Department, to determine whether the project will affect adversely any endangered or threatened species, species of special conservation concern, and species of economic importance, or the habitat of such species.
4. The Arizona Department of Transportation, to determine whether the project will have any impact and effect on traffic conditions and safety on any state roads from which there is access to or from the project, or which exist within 3 miles of the project site.
5. Various Apache County Departments, including Engineering for the same determination as noted in the immediately preceding Subparagraph, as concerns any State or county roads.
6. Any affected Indian Tribes as determined by the Community Development Director or the State Historic Preservation Officer.

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7. The Federal Aviation Administration, to determine if the proposed project site is within a FAA-designated civilian airport clear zone or runway protection zone, based upon information from the local or regional airport manager.

8. The office of the State Geologist, ~~ADEQ, or other applicable agency~~ to determine from the information submitted, whether the project will affect or have any impact on underground aquifers, and recommended measures to protect aquifers.

Commented [A56]: FAA will only engage with submitted ASNs to their review system, a process undertaken by a project proponent. Suggest striking this as there is no other avenue for a party to engage with the FAA.

Section 444. Use of CUP, terms, and conditions.

A. Any Renewable Energy Generation facility that is granted a CUP shall be developed in accordance with the schedule for development and stipulations set forth in the CUP.

B. A CUP for a Renewable Energy Generating facility will need to be reviewed every 60-months, additional reviews shall be at the Community Development Directors' discretion. The fee may be waived so long as the CUP issued has not expired.

C. A CUP for a Renewable Energy Generation facility shall be granted in the name of the applicant and may be transferred or assigned to a new holder with notification to the Community Development Department. The new holder shall be obligated to agree to all existing conditions and shall provide adequate bond as outlined herein to demonstrate that the new holder assumes the financial obligations and the financial ability to fulfill the obligations as specified in the CUP.

Section 445. CUP Suspension and Revocation

A. Any CUP issued pursuant to this section may be suspended or revoked in whole or part by the Board of Supervisors for material non-compliance with the requirements of this section or the stipulations set forth in the CUP. A CUP shall be subject to suspension or revocation at a duly noticed public hearing only if the CUP holder has failed to cure the material non-compliance after no less than 30 days' written notice of such non-compliance from the Community Development Director.

B. If a Renewable Energy Generation facility becomes unsafe or inoperable, the CUP is likewise subject to suspension or revocation by the Board of Supervisors as follows:

1. An "Inoperable Renewable Energy Systems Facility" is one that does not generate at least one megawatt of electricity for 360 consecutive days, unless such non-generation is due to an act of nature, declared emergency or other cause beyond the reasonable control of the CUP holder or unless the CUP holder demonstrates that modernization, rebuilding, or repairs are in progress or are planned and will be diligently completed in a timely manner.

2. An "unsafe Renewable Energy Generation facility" is one that has been found by a state or federal administrative agency or a court of competent jurisdiction to have materially violated applicable health or safety laws, unless the CUP holder demonstrates that measures to cure such violations are in progress or are planned and will be diligently completed in a timely manner.

3. Every unsafe or inoperable Renewable Energy Generation facility is hereby declared to be a public nuisance per se which shall be subject to abatement by all available legal and equitable remedies.

4. Upon a complaint to the Community Development Department that a Renewable Energy Generation Facility is inoperable or unsafe, the Board of Supervisors shall convene a public hearing as soon as possible after written notice to the CUP holder. Pending a final determination that the facility is inoperable or unsafe, the Board may suspend the CUP in whole or part or impose such conditions as may be appropriate to protect the public health, safety, and welfare. Upon a final determination that the facility is inoperable or unsafe, the Board may suspend or revoke the CUP in whole or part or impose such conditions as may be appropriate to protect the public health, safety, and welfare.

C. No later than 30 days after the revocation or expiration of the CUP, the decommissioning plan shall be implemented, and decommissioning shall proceed diligently to completion. The time for decommission shall be determined by a Professional Engineer registered in the State of Arizona. If decommissioning has not started within 30 days of revocation or expiration of the CUP Apache County may seek redress of the bond.

D. Process for Suspension or Revocation for non-compliance with CUP

1. If the project owner fails to comply with any term, condition or requirement set forth in the conditional use permit by which the project is granted, said permit is subject to suspension and revocation as herein provided.

2. The County shall give written notice of non-compliance to the owner, specifying which conditions are in default, and upon the owner's failure to cure the default within 30 days from receipt of said notice, the County may seek suspension or revocation of the conditional use permit, in whole or in part.

3. Written notice to suspend or revoke the conditional use permit, specifying the reasons therefor, shall be delivered to the owner, by registered mail, return receipt requested, and the Board of Supervisors shall hold and conduct a hearing on said notice, and issue a decision of suspension or revocation, after the notice and hearing requirements set forth in Section 1107 of this Ordinance.

4. Any person aggrieved by the decision of suspension or revocation made by the Board of Supervisors may appeal the same to District Court.

5. Nothing contained herein shall preclude the County from seeking injunctive, or other equitable or legal remedy from the District Court for any violation by the owner of the terms, conditions and requirements of the conditional use permit granted for a project.

Section 446. Indemnification

Apache County shall not grant a conditional use permit for a project until applicant submits to the County an indemnity bond or other assurance approved by the County Attorney which shall:

1. Indemnify and hold harmless Apache County, its elected and appointed officers, agents, and employees, from and against any and all claims, demands or causes of action, of whatsoever kind or nature, and the resulting losses, costs, expenses, reasonable attorney fees, liabilities, damages, orders, judgements or decrees sustained by Apache County or any third party, arising out of or by reason of utility renewable energy project, component or

Commented [A57]: Process should confirm compliance/non-compliance in writing, notify project owner in writing, provide reasonable opportunity to demonstrate intent to cure and/or cure with timeline depending on the item requiring cure (30 days may be insufficient) and confirm course of achieving compliance prior to any further action by county.

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equipment failure or collapse or arising from the negligent acts, errors or omissions of any and all project owners, operators, officers, employees or agents; and

2. Provide that the assurances, covenants and representations relating to the indemnification shall survive the term of any agreement and continue in full force and effect for the life of the project, and that the same will be binding upon all successors and assigns of the applicant.

Section 447. Liability Insurance

1. A conditional use permit of a project shall not be granted until the applicant or owner provides proof that it has secured and maintains for the project and project site general liability insurance, as follows:

2. Commercial general liability covering personal injuries, death and property damage: \$1,000,000 per occurrence; \$2,000,000 aggregate. Shall specifically include the County and its officers, employees, agents and assigns as additional named insured.

3. Automobile coverage: \$1,000,000 per occurrence, \$2,000,000 aggregate.

4. Worker's compensation and disability: statutory amounts.

5. Insurance policies shall contain an endorsement obligating the insurance company to furnish the County with at least 30 days prior written notice in advance of the cancellation of the insurance.

6. Liability insurance shall be maintained throughout the life of the project, including decommissioning.

Section 448. Commencement and Operation, Expiration, Extension of Time

The construction of a project for which a conditional use permit has been issued, shall be commenced not later than 2 years after the conditional use permit is issued, and shall be completed and in operation not later than 3 years after the conditional use permit is issued, or such other time as may be determined by the County; and upon failure of project commencement or completion as aforesaid, the conditional use permit shall expire, and re-application shall be required.

Section 449. Removal

A. Any project facility that is not in continuous and uninterrupted operation for 12 consecutive months, shall be deemed non-operational and abandoned, and upon written notice thereof by the County to the owner/operator, such owner/operator shall within 30 days of receipt of such notice advise the County that such project facility will be removed, and the estimated time for said removal.

B. Removal of the project shall include removal of the entire facility, including all towers, foundations, buildings, accessory structures, fences, transmission lines, and all other appurtenances of and relating to the facility.

C. Decommission of the project site shall be in accordance with the Decommission and Removal Plan submitted by the applicant and approved by the County, to include remediation to the natural state of the premises, as provided in this Ordinance.

Commented [A58]: A standard for the wind industry is to remove down to 3 feet below the surface.

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Section 450. Penalty

Any person, firm or corporation, whether as principal, agent or employee, who violates or causes a violation of this Ordinance, or any part hereof, or the conditions of approval of the CUP, shall upon conviction by the Board of Supervisors or a court of law, be punished for each violation, by a fine not exceeding \$300.00 or by imprisonment not exceeding 90 days in the county jail, or by both such fine and imprisonment, which penalty is the maximum allowed by [AZ State Law – section]. Each day the violation occurs shall constitute a separate offense and shall be punishable as provided herein.

Section 451. Notification to County of Change of Ownership

When a project owner conveys, transfers, assigns or otherwise divests itself of the project, written notice of such conveyance, transfer, assignment or other divestiture shall be given to the County Community Development Director, by registered mail, return receipt requested forthwith, and not later than 30 days from the effective date of said conveyance, transfer, assignment or other divestiture.

Section 452. Compliance, Monitoring, and Mitigation Requirements for Utility Scale Renewable Energy Systems

A. Monitoring plans and compliance reporting shall be provided in yearly or other specific increments based on a reporting schedule required by the Conditional Use Permit requirements. Monitoring plans and compliance for post construction and operational impacts shall include but not be limited to wildlife, sensitive plant species, noxious weed control, cultural resource protection, and audible noise limits. Modification of facility maintenance and operations may be required based upon impacts identified by monitoring reports, such as takings of listed species or an unanticipated mortality rate of birds, bats or wildlife. The methodology of monitoring and compliance reporting shall be performed by qualified experts working with the Director.

1. Required modifications to the facility or facility operations shall be determined on a case by case basis and based on existing or new technologies shown to be effective at mitigating impacts. Changes to wind turbine operations shall be limited to the minimum time necessary to mitigate the impact, not to affect more than 0.05 percent of total annual Wind Facility Hours.
2. The County Board of Supervisors may require off-site mitigation of like kind and similar extent for projects creating impacts to wildlife and habitat.
3. Noncompliance with terms of the Conditional Use Permit shall also be addressed as an enforcement matter under Section 13 of the Apache County Zoning Ordinance.

Specific project impacts to water resources are minimized during construction and won't be known at the pre-application phase of a wind project since the turbine locations have not yet been selected.

We know of no instance of an aquifer being compromised due to constructing a renewable energy facility. Most aquifers are well below the typical 12-15' foundation depth.

More importantly, where subsurface resources are so close as to potentially be compromised, here again no financing would be made for a project with such underlying conditions. The scale of investment assures safe and reliable operations for 25-30 years.