

Quartz Hill Town Council

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May 25, 2014

Ms. Thuy Hua
LA County Department of Regional Planning
320 West Temple Street
13th Floor
Los Angeles, CA 90012

Re: Renewable Energy Ordinance – April 2014

Dear Ms. Hua:

On behalf of the Quartz Hill Town Council, I would like to say we appreciate the opportunity to comment on the second Draft of the Renewable Energy Ordinance dated April 2014, especially as it relates to plans and other ordinances that affect our rural community. Regarding this particular ordinance, our primary focus is in the preservation of our rural lifestyle, the scenic and historic areas within our line of sight that are worthy of our preservation, and the symbiotic and interdependent environment we share with the remarkable plants and wildlife found only in this area.

To this end, we are concerned about the:

- The unattractive and unsightly visual effects of industrial scale projects – suited best for industrial areas only;
- The disproportionately high and unhealthful noise levels;
- The injurious air quality caused by all aspects of these projects;
- The proven and unproven production of hazardous waste materials and by-products;
- The degradation of the water quality and accessibility available to residents, animals, wildlife, and crops for ingestion;
- The condition of project equipment and environment once water has been extinguished from the area due to statewide or other emergency drought procedures, the impact of this lack of water availability on the health and well-being of the community, and the impact on near and outlying areas and communities.
- The perilous and damaging effects to local, and valley-wide life forms of all types, in particular human residents at risk including the infirm, the elderly, and children;
- The reduction of property values, the community degradation, the decrease of businesses and corporate exodus, and an increase in criminal activity for all residents living in a “throw-away” community.

All created by industrial and utility-scale, as well as small-scale, projects built in inappropriate and unsuitable areas. We encourage you to please review and act upon our comments attached.

The Quartz Hill Town Council's Position

The Quartz Hill Town Council believes that the Quartz Hill area as well as the entire Antelope Valley's quality of life and conservation values are economic drivers that attract businesses, homeowners, and cultural opportunities to our area. These quality of life and conservation values also attract tourists from around the world, especially to the mountain and open space areas. These tourists and visitors eat in our restaurants, rest and rejuvenate in our lodgings, and buy gas and souvenirs and potentially purchase property, infusing our local economy with millions of dollars annually.

The Quartz Hill Town Council believes that industrial scale renewable energy development will harm scenic vistas, wildlife, open space, clean air, watersheds, free-flowing traffic, small town sense of community and access to recreation--the very elements that support our recreational tourism economy. Finally, the Quartz Hill Town Council is very concerned that industrial scale renewable energy development conflicts with the quality of life in residential neighborhoods, in light of current county regulations.

Additionally, the presence of industrial scale solar projects in Rural Residential Zones in the Quartz Hill Community will jeopardize property values and have an adverse impact on Los Angeles County's tax base. We feel strongly that renewable energy goals for the state and county can be met through distributed solar and wind in the built environment and lands identified by the Environmental Protection Agency without harming conservation lands.

Summary of The Quartz Hill Town Council's Recommendations

General

- We advise that land use planning for renewable energy be consistent with the County General Plan and guided by local Community Plan values. It is also critical that planning documents have clearly articulated enforcement mechanisms and are proactively enforced by Los Angeles County.
- We advise all land use decisions in Los Angeles County are based on unbiased science, informed research, verified data collection, and monitoring.
- We advise all land use decisions should enhance the County Vision, not be compromising to our future.

Summary of Economic Analysis of Industrial Solar Development

- Increase the energy efficiency of the built environment by providing incentives for and prioritizing this measure in County buildings and communities throughout Los Angeles County. Some renewable energy experts say the future of utility-scale solar is far from assured, in part because they believe distributed solar — meaning panels on individual buildings — will become increasingly dominant as the price of PV panels continues to fall ¹

¹ "For Utility-Scale Solar Industry, Key Questions About the Future, Large-scale solar projects are enjoying steady growth in California and the southwestern United States. But will shifting government incentives and mandates slow the

- Require the preparation and consideration of economic studies that examine the impact of industrial scale renewable energy development on regional tourism, giving special attention to cumulative effects, for all proposed projects in Los Angeles County.
- Throughout Los Angeles County, adhere to Environmental Protection Agency recommendations that renewable energy projects be sited preferentially on brownfields, superfund sites, landfills, mining sites, parking lots and residential, commercial and industrial rooftops.

Summary of Conservation Values

- Prioritize the protection of the Significant Ecological Areas, private and public trust lands, and adjacent and connected conservation land's rural character and quality of life.
- Prioritize the protection of viewsheds and night sky resources.
- Prioritize the protection of buffers and separators that maintain distinct community identity, promote compatible adjacent land uses and prevent encroachment on the Significant Ecological areas.
- Prioritize the protection of wildlife corridors and connectivity as identified in the SC Wildlands Reports: A Linkage Network for the California Deserts.² This report has been used extensively by other organizations, agencies, and areas to reject industrial scale solar development and was quoted extensively by the Basin Energy Assessment Team's Renewable Energy Analysis on behalf of Morongo Basin.³

For additional reports outlining the various hazardous and unhealthful side effects, please see Appendix C.

In the face of such a plethora of scientific materials, we hope you will consider and promote our recommendations.

Very truly yours,



Quartz Hill Town Council

Pat Hartford, President

Bruce Thomas, Vice President

Debbie Schmidt, Secretary

James Biddle, Treasurer

Camillia Jones, Councilmember

expansion of this key part of the solar energy industry? Dave Levitan, http://e360.yale.edu/feature/for_utility-scale_solar_industry_key_questions_about_the_future/2713/

²A Linkage Network for the California Deserts, Prepared by Kristeen Penrod, Paul Beier, Emily Garding, Clint Cabanero, <http://www.scwildlands.org/reports/ALinkageNetworkForTheCaliforniaDeserts.pdf> , see Appendix B for preferred citation.

³Basin Energy Assessment Team Renewable Energy Analysis, http://www.drecre.com/526190_final_BEAT_REPORT_10_1_13.pdf

Draft 2, Renewable Energy Ordinance (April 2014) Comments

Section 1

The language is vague and inadvertently allows companies or local government to leave buried metal, concrete, toxic or non-toxic run-off and/or materials, unnamed/unknown materials, and/or chemicals and/or chemical residue behind. Restoration should include all of these aspects, and those that have not been discovered due to the monetary urgency to build. The language also allows for non-mandatory restoration. To be clear, it is common knowledge that all building and/or construction leaves areas that need to be restored.

- Pg 7/21—Table 22.52.1620 A

Temporary Met Towers for Utility-Scale Renewable Energy projects should be required to have a Conditional Use Permit, and the associated public review periods, as opposed to a Site Plan Review. Changing the permitting requirements to minor conditional use permit does not give these precursors to larger projects with the potential to have significant impact to residents and limited review and response periods the full gravity they deserve.

- Pg 7/21

All utility-scale projects, ground-mounted or structure-mounted should require a CUP. In a scenic or recreational area, they could potentially obstruct views.

- Pg 11/21—Table 22.52.1640-A & B

Where are the tables?

- Pg 12-13/21

No setbacks are identified for small scale energy systems. Setbacks should be at least 100 feet to allow for the possibility of disguising fencing and overall aesthetic injuries.

- Pg 13/21—Visual Impact

No small-scale wind system should extend beyond 35 feet tall, regardless of property size. If they are to be allowed; they should be structure mounted or of a style that is visually pleasing.

- Pg 13/21 – Noise.

60 decibels of noise is equivalent to a vacuum cleaner running. Maximum noise at nearest adjacent residence should not exceed “Quiet Rural Area” at 30 dB. See previous stats presented for Draft 1: <http://www.chem.purdue.edu/chemsafety/training/ppetrain/dblevels.htm>

- Pg 15/21—D.

Same question as Draft 1: Exactly what lighting is required for safety and security at unmanned projects? Motion-sensor lighting creates literal sore eyes, going on and off all night long when the wind blows, an animal crosses its path (and most projects bisect frequent wildlife migration routes). Motion-sensor lighting is not recommended under any circumstances and since these projects are unmanned, only remote controlled lighting is, or should be, required.

• Pg. 16/21—G.1-Site Disturbance

Isn't this basically the near entire area? What percentage of uprooted vegetation for each proposed project is necessary to protect the community and surrounding areas from uncontrolled dust, excessive water use/consumption, and resulting soil erosion? What do the experts – actual non-corporate scientists – say? What have other communities learned from their experiences? One environmental scientist reports the following. Please see complete list of authors in Appendix A.:⁴

... A recent analysis of water use by USSE installations in the southwestern US indicates that water for dust control is a major component (60–99%) of total water consumption in both dry cooled CSP and PV installations (Ravi et al., in review), whereas no information is available for other regions where USSE installations are expected to increase in the near future. Even though other cleaning technologies (e.g., electrostatic) exist, most are not yet commercially available, and the impacts of conventional technologies (e.g., cleaning using chemical sprays) on the environment are not completely understood [50] and [65].

In the case of CSP, the water consumption depends on the cooling system adopted—wet cooling, dry cooling, or a combination of the two (hybrid cooling) [108]. Concentrating solar power consumes vast quantities of water in wet cooling (i.e., 3.07 m³/MW h), which is greater than coal and natural gas consumption combined [18] and [108]. The use of dry cooling, which reduces water consumption by 90% to 95%, is a viable option in water-limited ecosystems. Historically, reduced efficiency and higher startup costs have been an economic deterrent to dry cooling [108]. However, Holbert and Haverkamp [53] found that dry cooling startup costs are offset by 87–227% over a 20-year time interval, owing to cost savings in water use and consumption. Global regions already water stressed, such as many arid and semiarid habitats, may be vulnerable to changes in local hydrology [133], such as those incurred by USSE activities. In water-constrained areas, the deployment of USSE projects may also conflict with the use of water by other human activities (e.g., domestic use, agriculture), at least at the local scale [18] and [108]. Ultimately, the choice of dry or wet cooling in a CSP plant can lead to highly divergent hydrological impacts for USSE facilities.

This same report discusses health hazards in Section 2.4. Human Health And Air Quality:

*As with the development of any large-scale industrial facility, the construction of USSE power plants can pose hazards to air quality, the health of plant employees, and the public [122]. Such hazards include the release of soil-borne pathogens [91], increases in air particulate matter (including PM_{2.5}, [46] and [100]), decreases in visibility for drivers on nearby roads, and the contamination of water reservoirs [70]. For example, disturbance of soils in drylands of North and South America, which are places targeted for USSE, aids transmission of **Coccidioides immitis**, a fungus causing Valley Fever in humans [10]. In areas where surface soil contains traces of chemical and radioactive contaminants (e.g., radionuclides, agrochemical residues), increased aeolian transport resulting from soil disturbances increases contaminant concentrations in airborne dust [95].*

⁴ "Environmental Impacts of Utility-Scale Solar Energy," Rebecca R. Hernandez, Environmental Earth System Scientist, <http://www.rebeccarhernandez.com/environmental-impacts-of-utility-scale-solar/> Chapter 2.2 Water Use And Consumption

During the decommissioning phase, PV cells can be recycled to prevent environmental contamination due to toxic materials contained within the cell, including cadmium, arsenic, and silica dust [144] and [145]. In the case of inappropriate handling or damaged cells, these industrial wastes can become exposed, which can be hazardous to the public and environment [144]. For example, inhalation of silica dust over long periods of time can lead to silicosis, a disease that causes scar tissue in the lungs and respiratory decline. In severe cases, it can be fatal [148]. In addition, chemical spills of materials such as dust suppressants, coolant liquids, heat transfer fluids, and herbicides can pollute surface ground water and deep water reservoirs [70] and [126].

On rooftops, solar PV panels have also been shown to reduce roof heat flux, conferring energy savings and increases in human comfort from cooling [31]. In that vein, the insulating properties of rooftop solar PV may serve co-beneficially to mitigate heat wave-related illness and mortality [131]. The fire hazard potential of both rooftop and ground-mounted USSE infrastructural materials (e.g., phosphine, diborane, cadmium), and their proper disposal, presents an additional challenge to minimizing the environmental impacts of USSE facilities [43]. This is particularly true in light of the dramatic increases in the frequency and intensity of wildland fires in arid and semiarid regions of the world as a result of climate change ([134] and [15]).⁵

Furthermore, serious health problems in light of new findings concerning the use of herbicide and pesticide toxins are anticipated with non-native invasive species wherever the ground is disturbed. Subsequent use of herbicides cause harm to humans, plants, and wildlife, especially when these toxins ends up in water. See above.

• Pg 16/21—G. 2

Existing water courses should be retained—not restored. Will water in retention basins be required to meet standards that certify no pollutants exist that were not present before the project started?

• Pg 17/21—G.3.

What are “all applicable standards for addressing grading?” Grading plans should be required and provided before the process has been permitted, not after. At no time can the public speak out after a project is underway and a CUP is issued by Regional Planning without deep pockets to retain attorneys to litigate afterthought grading plans.

As also noted previously, destruction of vegetation is increased by airborne soil stabilizers, which have, so far, proved incapable of controlling wind-driven dust events in the Antelope Valley

• Pg 16-17/21—G.4.

Due to a lack of water in California and a drought state declared by the Governor, how do you plan to implement site watering now and in the future? In addition, what are the “suitable methods” determined by Regional Planning and Public Works? Are they suitable for human consumption or suitable for expediency’s sake?

⁵ Environmental Impacts of Utility-Scale Solar Energy,” Rebecca R. Hernandez, Environmental Earth System Scientist, <http://www.rebeccarhernandez.com/environmental-impacts-of-utility-scale-solar/>

Moreover, we are curious as to what methods will maintain root systems and allow native vegetation or grasslands to flourish after being mowed to a maximum of six inches, as required by the Los Angeles County Fire Department.

Using composted wood chips to six inches deep in dry desert areas could create serious and dangerous fire situations.

- Pg 17/21—I. Visual Impact

All utility-scale projects should be excluded from Significant Ecological Areas, and Scenic Highways, current and proposed, by the very nature of their lack of aesthetics. We are interested in knowing how the visual impact of utility-scale wind turbines can be “minimized.”

- Pg 17-18/21— I.3. Visual Impact

The arid and desert areas of Los Angeles County respectfully requests the same consideration as that given to the Coastal Zones: “(i.e., significant ridgeline, scenic route, scenic area, scenic viewpoint) identified in the applicable local plan unless specific provisions for such siting are provided for in the applicable local plan and long-range development plan.” In addition, we are curious as to what methods will maintain root systems and allow native vegetation or grasslands to flourish after being mowed to a maximum of six inches, as required by the Los Angeles County Fire Department.

- Pg 18/21—J. Water Quality Protection

Please add “, scientific findings, and EPA standards for safe water from toxins known and unknown, and due to any practice by the project, run-off of project machinery oils, metals, or other known or unknown toxins due to rain, snow, or other natural or man-made occurrence. Moreover, petroleum based oil from turbine gearboxes leaking into water courses, a variety of maintenance operations leaving residues to be washed into water courses or retention basins, and/or end-of-life tear down or abandonment toxins could attract and harm wildlife, soils, and groundwater and deep water reservoirs.”

- Pg 18-19/21—Table 22.52.1660-A

All utility-scale projects should be excluded from Significant Ecological Areas, and Scenic Highways, current and proposed as stated in Pg 17-18/21 – I.3., above.

- Pg 18-19/21—. Table 22.52.1660-A

Setbacks for all utility scale projects should be at least 500 feet for safety and

- Pg 19/21-- M. Table 22.52.1660A

Setbacks are insufficient to alleviate visual, noise, and air pressure effects generated by wind turbines.

- Pg 19-20/21 – O. Decommissioning

Many questions are left unanswered and reference an unstated “decommissioning plan” or plans. To wit:

- Who will review the land and area for compliance with the above requirements and the determination of toxins in the land, and local and deep water reservoirs?
- What happens in the case of negligence and multiple owner determination litigation?
So many of the current projects have already changed owners twice or more.

- Does the County of Los Angeles and/or the State of California have the funds set aside to litigate these cases in the long-term?
- Has LAC done due diligence in the cases of bankruptcy of other projects in other states and other countries? If escrow funds are always set aside, why are their entire “dead” wind turbine farms in parts of CA?

• Pg 20/21—22.52.1670 – Standards for Structure-Mounted Utility-Scale Renewable Energy Facilities—A. & B.—Height

Height limits in commercial, manufacturing, residential, and agricultural zones are restricted to no more than five feet on a building built to maximum height in a residential, commercial, or manufacturing zone. The desert areas respectfully request the same consideration to provide the same measure of protection afforded residential, industrial, and commercial areas in our rural and/or agricultural communities.

Pg 21/21—22.52.1680—Modifications—A. 1.

If physical features are such that compliance substantially and unreasonably interfere with the establishment of the proposed development on the subject property,” then the project should not be built on subject property. This opens the ordinance up to almost anything goes, and no project would be restrained from occurring in sub-optimal conditions.

Pg 21/21—22.52.1680—Modifications—A. 2.

Based on the open-ended requirements and loopholes listed above, it is unclear what the exact purpose of this Part 15 actually is: a common sense shield for the people, communities, and environment that Los Angeles County has a duty to protect, or streamlined, fast-track, hand-shake deals for industrial scale utilities. Please clarify.

At the very least, there should be exclusion of utility-scale renewable energy projects from Significant Ecological Areas, along scenic roads and highways, along Forest Service view shed, and within line-of-sight of public and private trust lands. These badly sited types of projects are adverse to the tourism-based economies prevalent in mountain areas and open space in the Antelope Valley and surround areas.

Appendix A

ENVIRONMENTAL IMPACTS OF UTILITY-SCALE SOLAR ENERGY

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Appendix B

Preferred Citation: Penrod, K., P. Beier, E. Garding, and C. Cabañero. 2012. A Linkage Network for the California Deserts. Produced for the Bureau of Land Management and The Wildlands Conservancy. Produced by Science and Collaboration for Connected Wildlands, Fair Oaks, CA www.scwildlands.org and Northern Arizona University, Flagstaff, Arizona <http://oak.ucc.nau.edu/pb1/>.

Appendix C

Union of Concerned Scientists, Environmental Impacts of Solar Power,
http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/environmental-impacts-solar-power.html

Environment 360, For Utility-Scale Solar Industry, Key Questions About the Future, by Dave Levitan,

The Real Problem With Renewables, Forbes, by Robert Bryce, http://e360.yale.edu/feature/for_utility-scale_solar_industry_key_questions_about_the_future/2713/

Renewable Energy: Economic and Environmental Issues, by David Pimentel, G. Rodrigues, T. Wane, R. Abrams, K. Goldberg, H. Staecker, E. Ma, L. Brueckner, L. Trovato, C. Chow, U. Govindarajulu, and S. Boerke, (Originally published in BioScience -- Vol. 44, No. 8, September 1994)

"The low benefit of industrial wind," by Eric Rosenbloom

a brief summary of documents

(summary in html also available)

- cited by the Blue Ribbon Panel on Development of Wind Turbine Facilities in Coastal Waters, N.J., final report, April 2006)
- featured in *Opposing Viewpoints: Energy Alternatives*, Greenhaven Press, 2006

"Ridden by the Wind," by Eric Rosenbloom

a social activist view

"Not so fast with wind power," by Eric Rosenbloom

editorial: low benefit, high adverse impact

"Exploitation and destruction: some things to know about industrial wind power,"

by Eric Rosenbloom

another social activist view

"Industrial wind, corporate vandalism," by Joanna Lake

a progressive view

"How to fight the big wind onslaught," by Calvin Luther Martin

a matter of conscience

"Wind Turbine Noise - a themed sequence of sonnets," by Gail Atkinson-Mair

a poet's view

"Windmill farms are industrial development," by Martha Frey

a preservationist view

"Questioning the faith of wind power," by David Roberson

an environmentalist view

"Big money discovers the tax breaks," by Glenn Schleede
a fiscal conservative view

"9 days and 7 wind farms," by Sue Sliwinski
a report of the human toll

"Free lunch or Damocles' sword?" by John Etherington
an analysis of big wind's minuscule benefit

"He is not an environmentalist," by Eric Rosenbloom
a critique of Charles Komanoff on wind

"Bluff and bluster," by Eric Rosenbloom
a response to critics