From:	Schneider, Matthew
To:	David Hochart
Subject:	FW: Blvd PG POD 10-007 EIR comment attachments
Date:	Wednesday, October 13, 2010 2:17:17 PM
Attachments:	Blvd PG to Sec Int wind invest 5-21-10.pdf pic27393.jpg pic06292.jpg pic14962.jpg pic14214.jpg pic12527.jpg pic26807.jpg pic13194.jpg pic08705.jpg pic14713.jpg pic07011.jpg pic18913.jpg pic06693.jpg pic19664.jpg pic26203.jpg pic28995.jpg pic17762.jpg pic14381.jpg

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Matthew Schneider
Land Use/Environmental Planner
County of San Diego, Policy & Ordinance Development
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123
Tel: 858-694-3714 Fax: 858-694-3373

From: donnatisdale@hughes.net [mailto:donnatisdale@hughes.net]
Sent: Monday, October 11, 2010 5:59 PM
To: Schneider, Matthew
Subject: Blvd PG POD 10-007 EIR comment attachments

Hello Matthew,

Here are the attachments for the Boulevard Planning Group's comments on the POD 10-007 EIR:
17 photos of wind turbine accidents / fires and the May 2010 letter to Secretary of Interior
asking for an investigation into the catastrophic failure at Kumeyaay Wind facility.

Thanks,

Donna Tisdale

619-766-4170

BOULEVARD PLANNING GROUP

P.O. BOX 1272, BOULEVARD, CA 91905

May 21, 2010

Ken Salazar, Secretary of Interior

Department of the Interior
1849 C Street, N.W.
Washington DC 20240

RE: REQUEST TO INVESTIGATE CASTASTROPHIC FAILURE AND ACCIDENTS AT KUMEYAAY WIND FACILITY & TO DENY FURTHER CATEGORICAL EXCLUSIONS FOR MET TEST TOWERS NEAR PRIVATE LAND.

Dear Secretary Salazar,

Our group is an elected community land use group advisory to the County of San Diego. The Boulevard Planning Area covers private land surrounding /abutting the Campo tribal lands in eastern San Diego County. Tribal members registered to vote in the area vote in our elections. **With this letter we are requesting three very important actions from you:**

- **Please conduct an investigation into the catastrophic failure and string of accidents at Kumeyaay Wind facility on the Campo Reservation.**
- **Address timely and proper disposal of damaged turbine blades and waste oil.**
- **Please deny further Categorical Exclusions for MET Towers for industrial wind energy projects on tribal lands within at least one mile of private lands.** *MET test towers represent industrial wind turbines. They are controversial and should be subject to the NEPA review process, public notice, and comment.* Six MET towers have been installed on the Campo Reservation by Invenergy Wind with more being planned in close proximity to private land and residences. Industrial wind projects represent negative impacts to public health and safety, quality of life, property values, and more. Impacted residents / property owners have a right to participate in the MET tower location process.

Call to investigate catastrophic failure and accidents at Kumeyaay Wind

Our group voted unanimously to send this letter requesting a formal investigation into the catastrophic failure at the Kumeyaay Wind facility during a significant weather event on December 7, 2009 where winds reached a reported 70 mph. The turbines are located on the Campo Reservation adjacent to Interstate 8. Witnesses driving on I-8 reported seeing a huge

electrical blue light flash that started near the center of the string of 25 Gamesa 1.5 MW turbines that lit up the sky and then arced out to all the turbines in both directions. See the linked articles: http://www.eastcountymagazine.org/node/2734 and http://www.signonsandiego.com/news/2010/jan/13/damaging-blow/ .

Another resident, a Manzanita tribal member who lives near the turbines, witnessed the same blue flash and arcing event from their yard and informed me that the following morning they saw large chunks of blades flopping and dropping as the damaged turbines continued to spin. The witness suspected that the brakes had become inoperable through a systemic failure. Employees were also seen collecting turbine parts. At various times since the 2005 startup of Kumeyaay Wind, witnesses have seen turbine and blade parts being collected from traffic lanes and center divider of adjacent I-8.

We are lucky that the December 7th electrical meltdown did not occur during a dry high-wind event which could have resulted in a catastrophic fire storm in this high fire danger zone. Eastern San Diego County, subject to Santa Ana wind events, suffered massive wildfires triggered by high winds and powerlines in 2003 and 2007. Other historic fires have devastated East County before, burning almost to the coast. Industrial wind turbines are subject to malfunction and to burst into flames spitting flaming debris onto the ground and vegetation around them. We see them as fire ignition sources in a remote area with limited emergency service capabilities.

Kumeyaay Wind facility was inoperable from the December 7th storm through March 2010. After extensive and repeated day and night crane work, the final turbine finally went back on line in late April. We suspect the last turbine, near the center of the string of turbines, may have been involved in the original failure and suffered the most damage. It is still undergoing frequent crane work.

The FAA required red warning lights located atop the 325 foot turbines do not appear to be in full operation. Some do not appear to be operating at all, while some are operating but are much dimmer than they were prior to the December 7, 2009 catastrophic failure event which took them all out. It is our understanding that the entire project has been plagued with problems since that failure which appears to have been electronic in nature.

After Kumeyaay Wind's failure, arguments ensued between insurance carriers, the turbine makers, and the project operators over who was at fault. Was the failure caused by a turbine / blade design flaw, a problem generated during construction / installation, operator error, a combination of problems, or what? There were online reports that the failure had become the topic of risk management conferences due to the incredibly expensive insurance payouts to replace the damaged turbine parts and to pay for the lost power generation**.**

Was /is the site properly grounded? Was / is it wired properly?

The original statement that the turbines had been struck by lightning in the December 7th storm was later denied. It has been speculated that the turbine blades had been turned to the wrong position which may have allowed too much friction to build up on the blades that then discharged creating the blue light ball and arcing. There are also concerns with the grounding of the turbines. It is our understanding that the re-bar in a properly constructed foundation is a key part of the grounding system. Sufficient bonding is required inside the foundation to allow lightning and fault currents to pass.

If bad or damaged wiring is involved it can lead to loss of turbine control and tower collapse. Here is a linked article on the investigation of collapsed wind turbine tower in New York state that was traced back to "questionable" wiring that did not allow the turbine to be properly controlled. http://www.brighterenergy.org/10427/news/wind/noble-environmental-power-faces-questions-over-wind-turbine-collapse/

The investigation into the New York turbine collapse reportedly uncovered *"a number of instances where best practices may not have been followed in terms of monitoring operations and where compliance with quality assurance/quality control measures and manufacturer's recommendations for inspection and maintenance of turbines may not have been fully implemented by Noble".* The New York Public Service Commission stated that, "*We must make sure that those installing and operating wind turbines do so properly"*. We hope you agree.

Where will the damaged blades and waste oil be disposed?

The December 7th storm damage resulted in all 75 blades from all 25 turbines being removed and replaced along with some of the nose cones. The damaged and discarded blades are still littering the ground at the base of the turbines, visible from I-8 and surrounding areas. It is our understanding that due to their composite makeup these multi-ton 150 foot or so long blades cannot be easily recycled and must be disposed of in a special manner. The cost to long-haul these huge blades, one per truck, to a distant special disposal facility must be incredibly expensive. There are also significant amounts of waste oil and hydraulic fluid generated by these enormous wind turbines. Where does it go? What are the waste storage / handling / disposal plans at this and other wind energy projects on the lands under your jurisdiction? Who is in charge of enforcing them? The Kumeyaay Wind facility is located within the federally designated Campo / Cottonwood Sole Source Aquifer which means we are totally reliant on our at-risk groundwater resources. Protection of our shared and priceless water resource is critical.

Kumeyaay Wind accidents

Tuesday, April 19th, several workers were injured by a high-voltage arc flash while inside a turbine nacelle at Kumeyaay Wind. One worker was struck in the face and was airlifted out. http://www.signonsandiego.com/news/2010/apr/20/one-worker-in-campo-accident-remains-hospitalized/

We have also received information that a large wind turbine motor was recently dropped during installation via a heavy duty crane and that a vehicle sitting on the ground below was crushed. Luckily, we heard that no workers were injured in this accident.

Who is responsible for quality control / assurance / oversight & regulation?

Is someone monitoring the accident rates at this and other wind energy projects on federal lands? Can more be done to prevent them? As you know, state and county agencies generally have no authority over operations conducted on tribal or other federal land. Our community cannot go to them for help with this project. Kumeyaay Wind is a private operation, approved through a lease agreement by the Bureau of Indian Affairs. It is located on sovereign tribal land that is held in trust by your agency. The Campo Band has informed us they are not in control of the project, in fact, they reportedly did not even receive any revenue from the project until last year, four years after it went into operation.

Our question to you, sir, is who is ultimately responsible for oversight and regulation of the Kumeyaay Wind energy project and those that are currently under consideration for the Campo, Manzanita and Ewiiapaayp tribal lands, and the Tule Wind project which is proposed on a combination of BLM and tribal lands--all of which fall under your jurisdiction? Does the buck stop with you? Please tell us.

Documentation of concerns

For your information, we have attached a copy of our well-researched letter submitted on February 15th during the formal comment period for the joint NEPA/CEQA review for the ECO Substation, Tule Wind and Energia Sierra Juarez projects. Tule Wind is proposed on both BLM land and tribal land, under your jurisdiction. The Bureau of Indian Affairs is a cooperating agency. A copy was previously provided directly to John Rydzik at the Pacific Regional Office.

Please contact me at 619-766-4170 or donnatisdale@hughes.net with any questions you may have. We thank you in advance to your prompt reply.

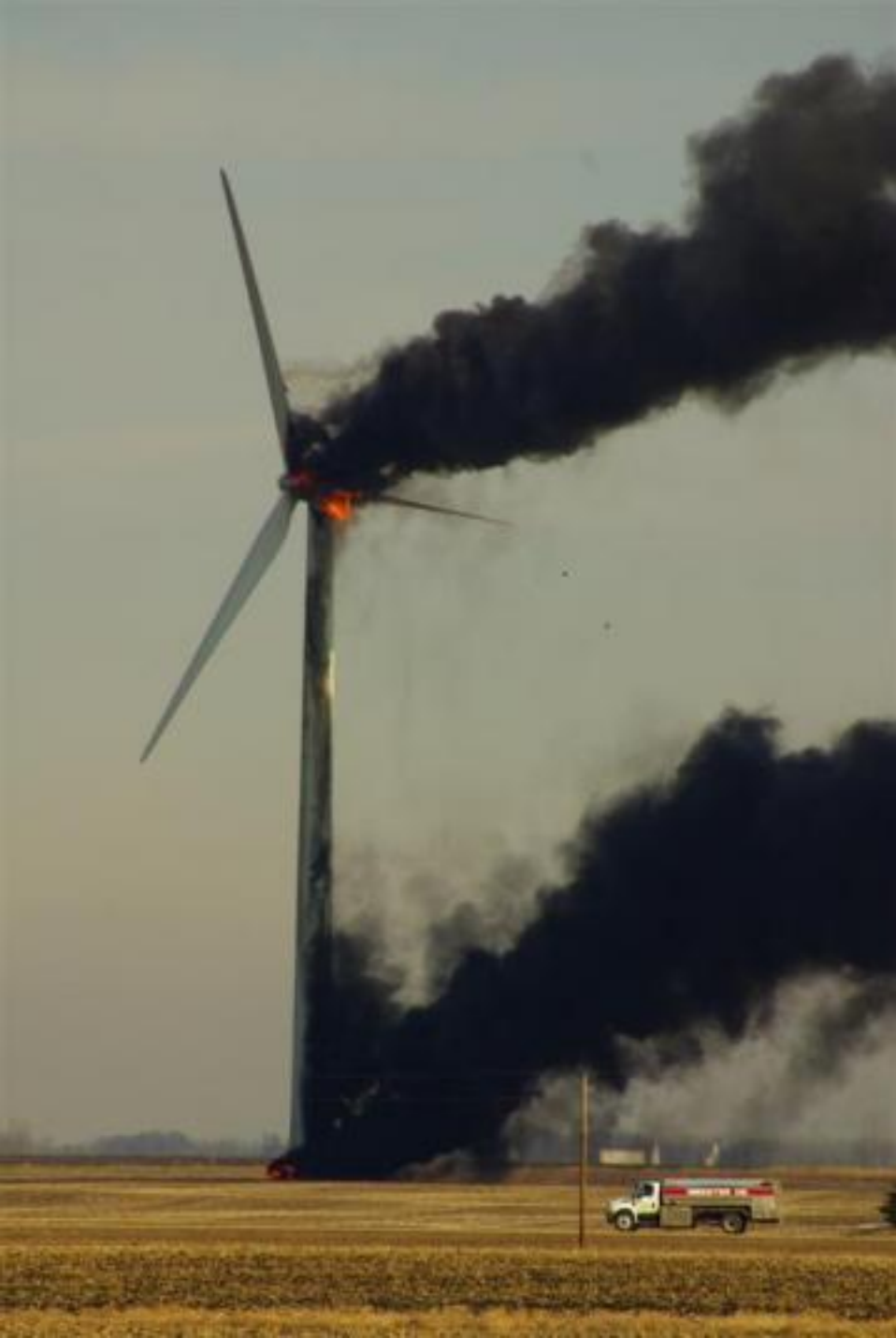
Sincerely,

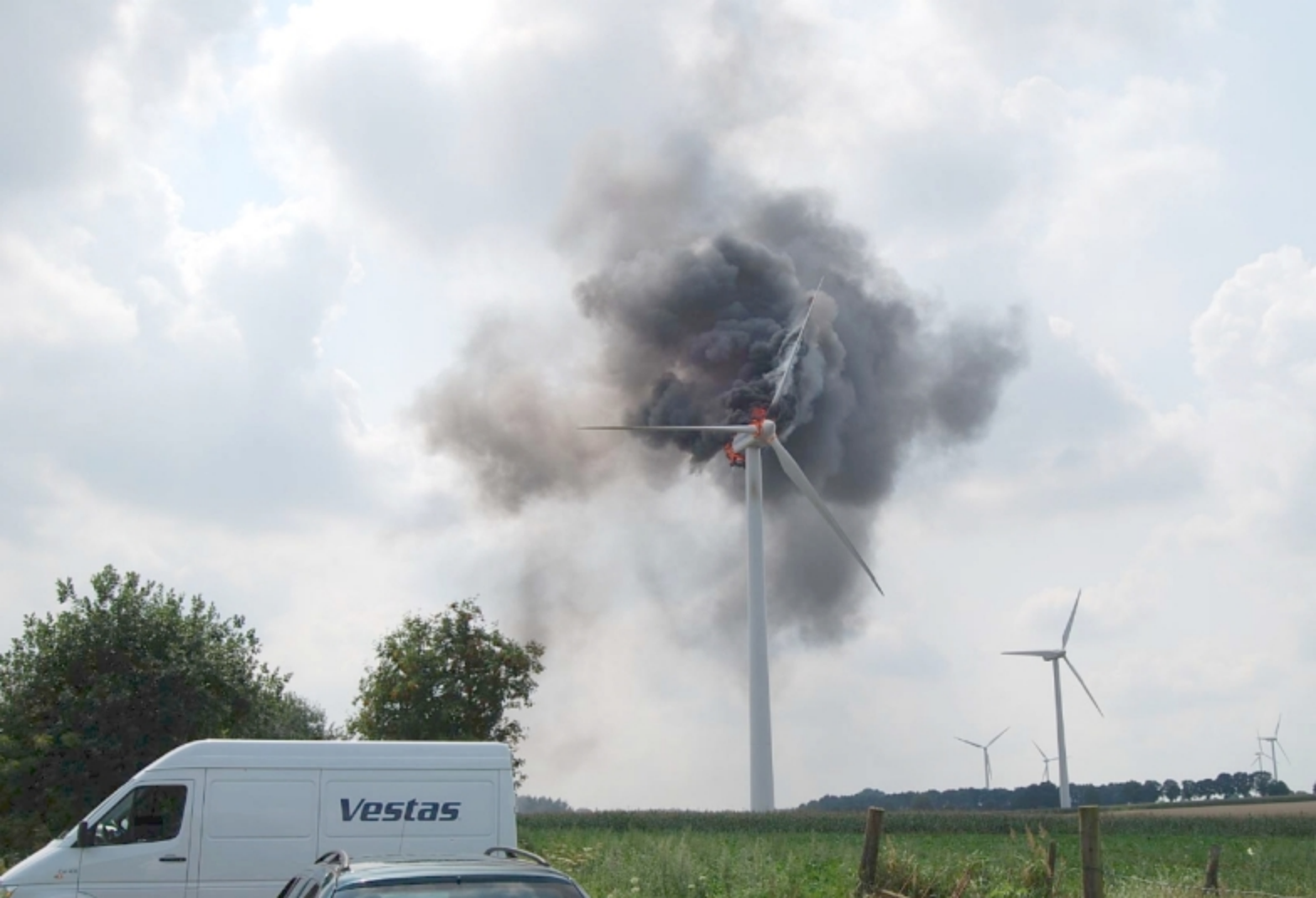
Donna Tisdale, Chair

cc: Dale Morris, Pacific Regional Director

Robert Eben, Acting Superintendent, So Cal Agency

Interested Parties

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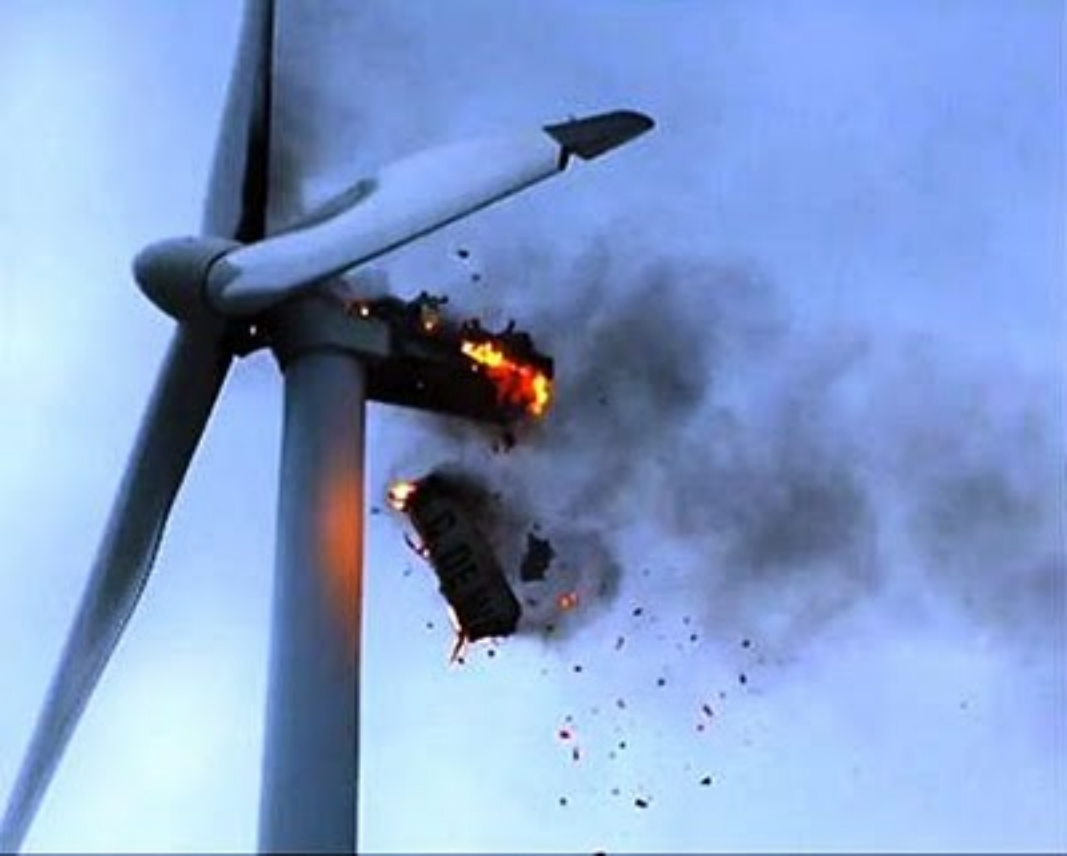

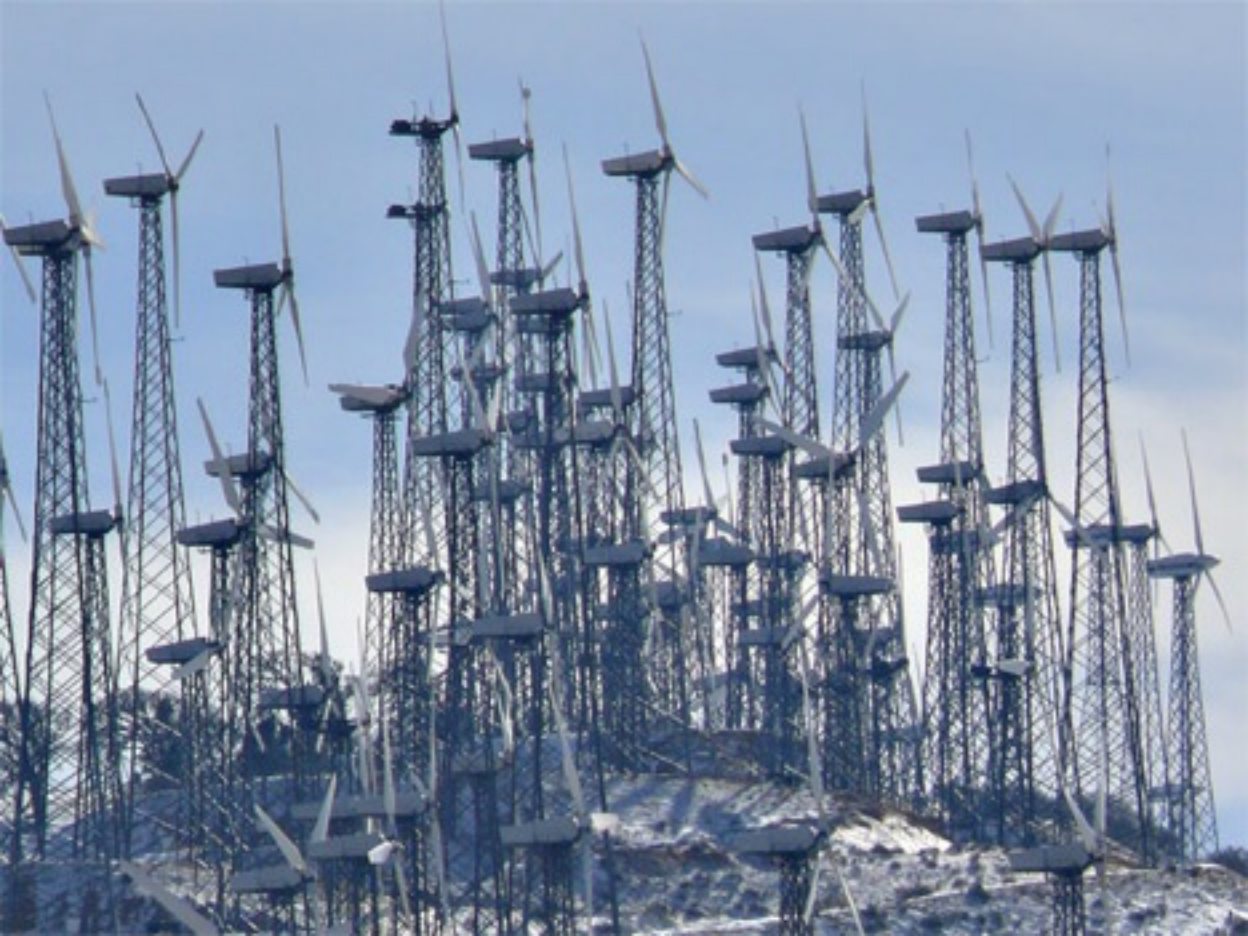

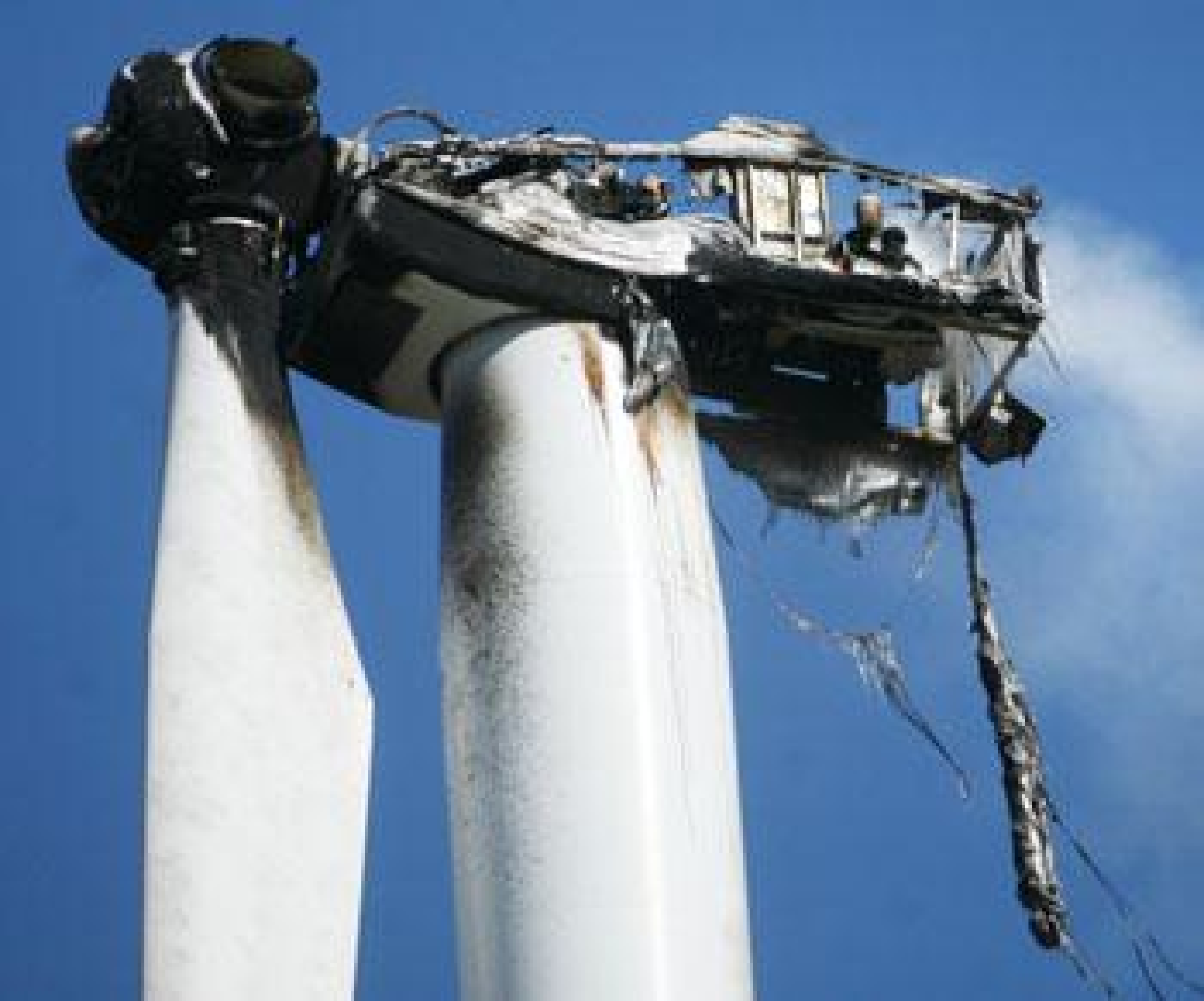

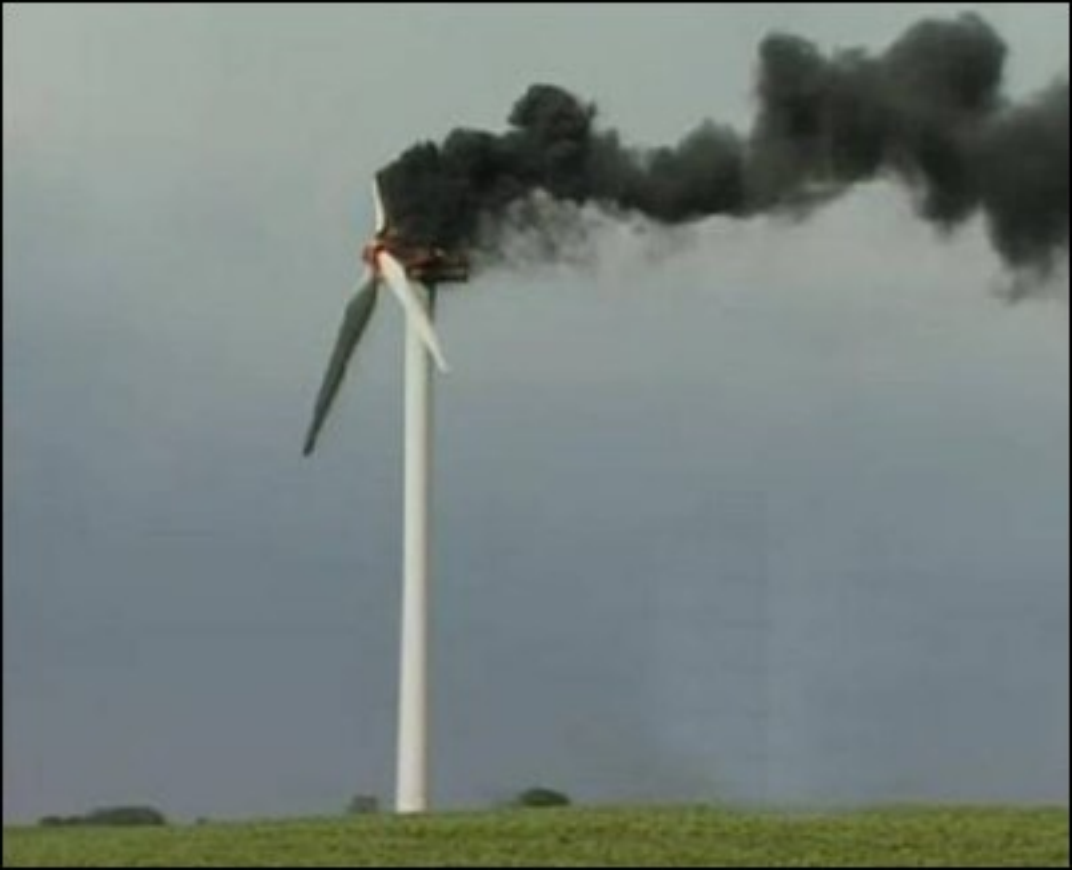

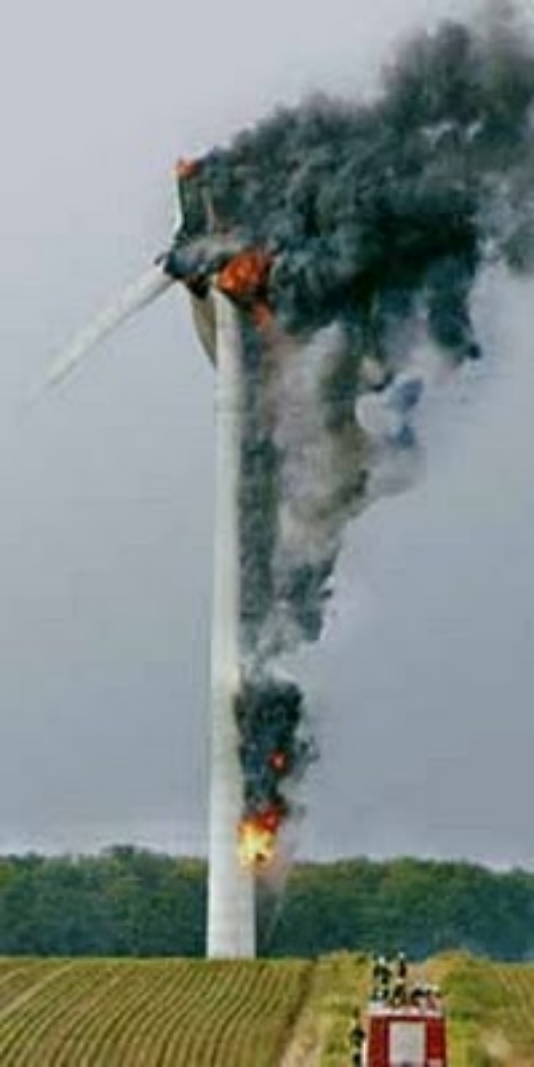

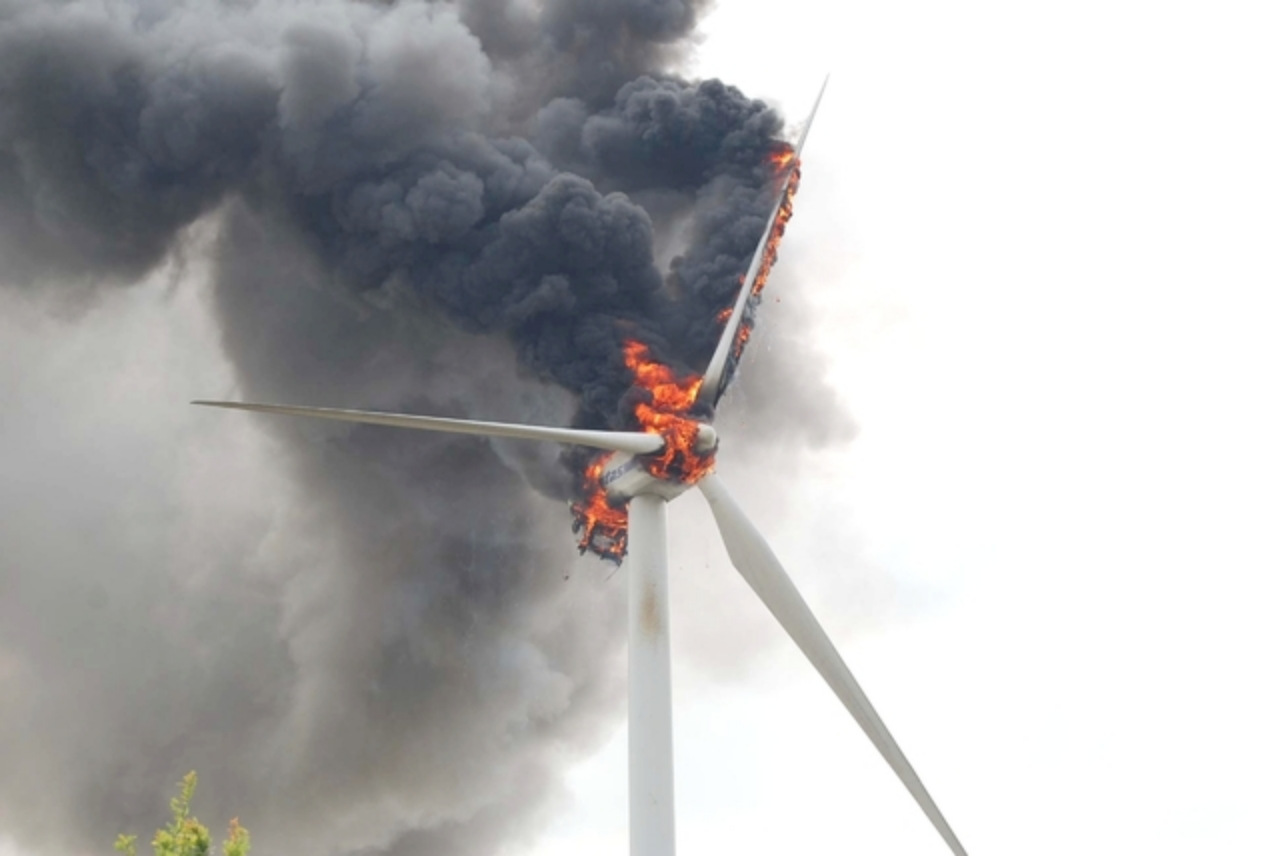

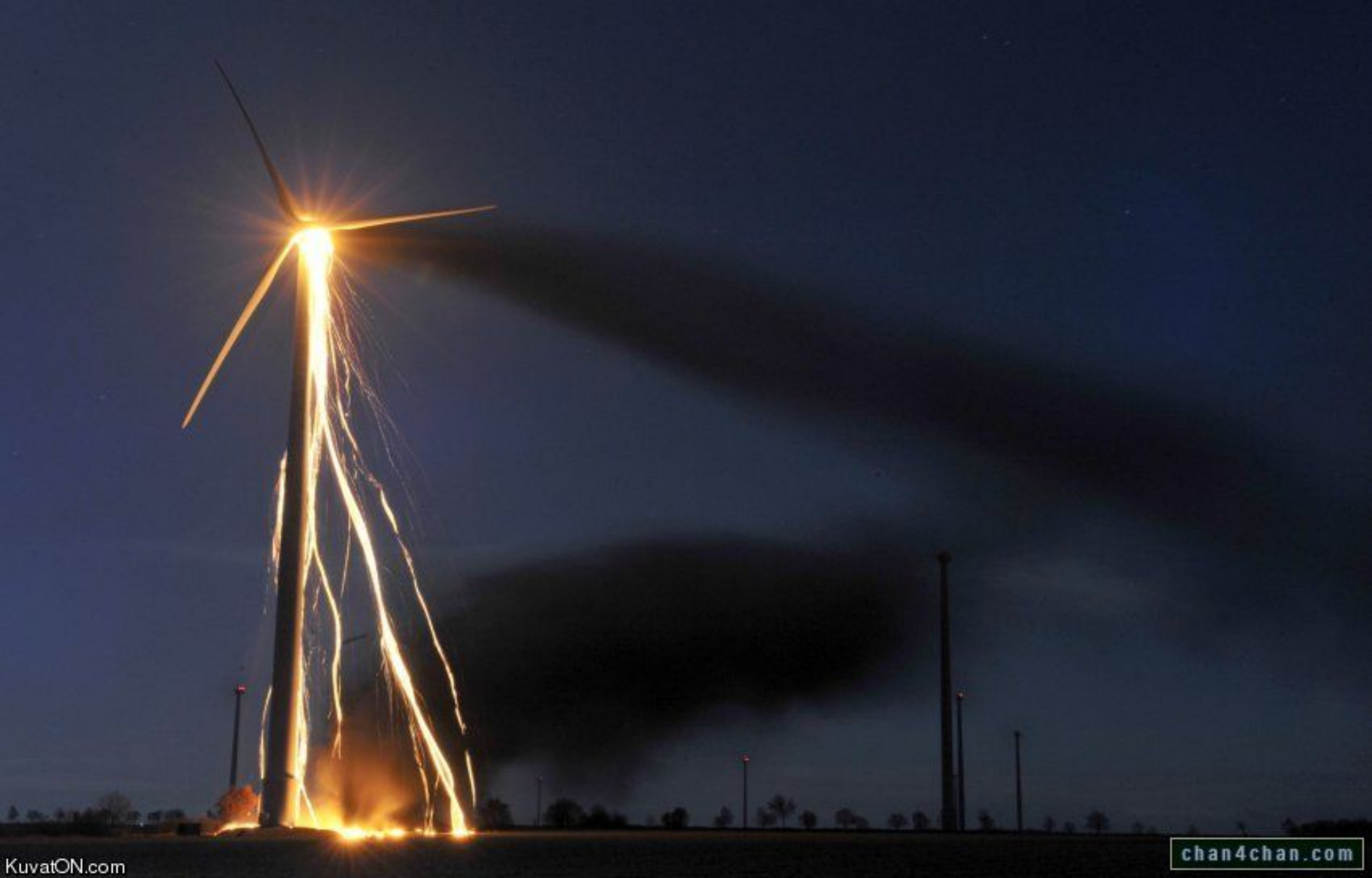
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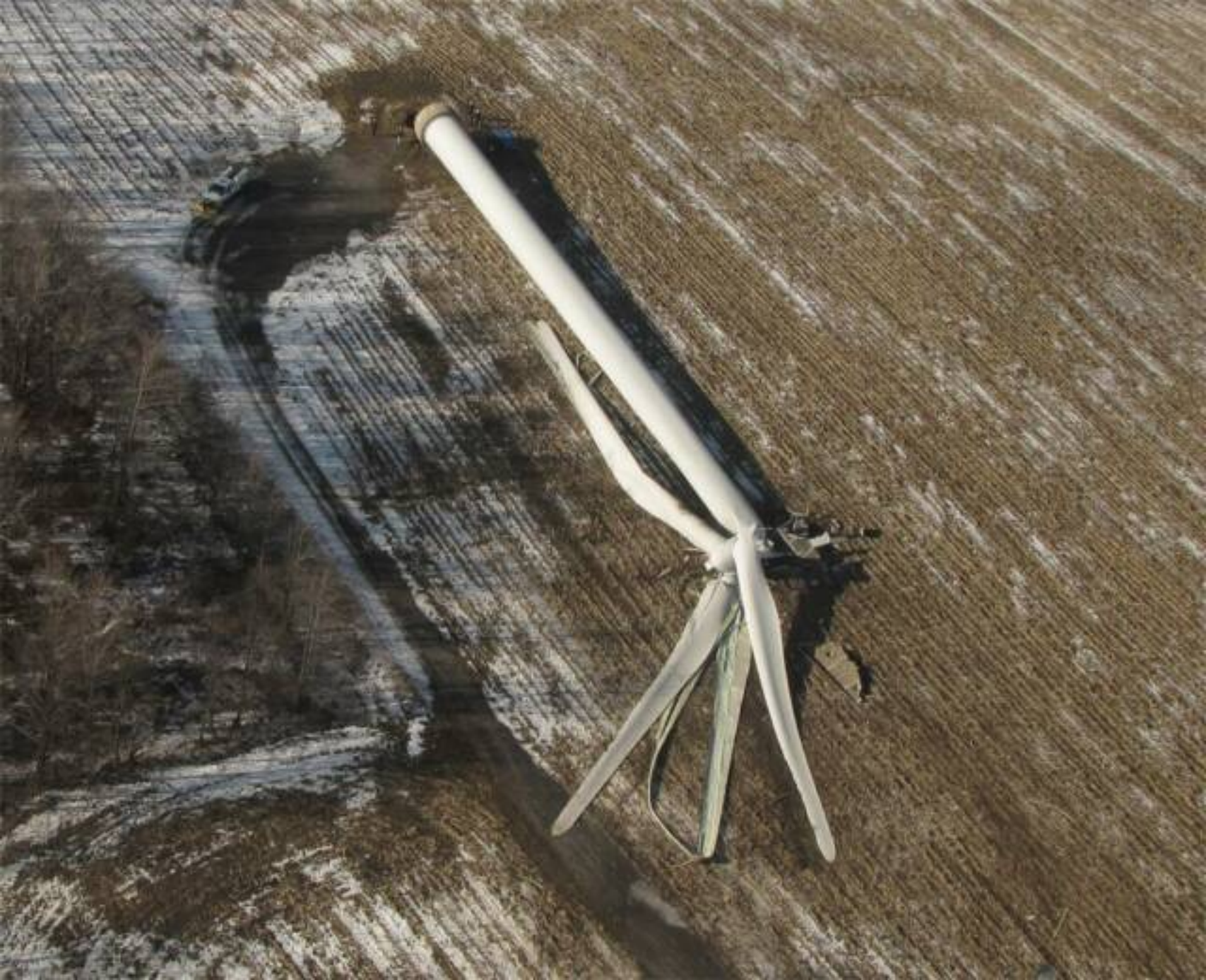

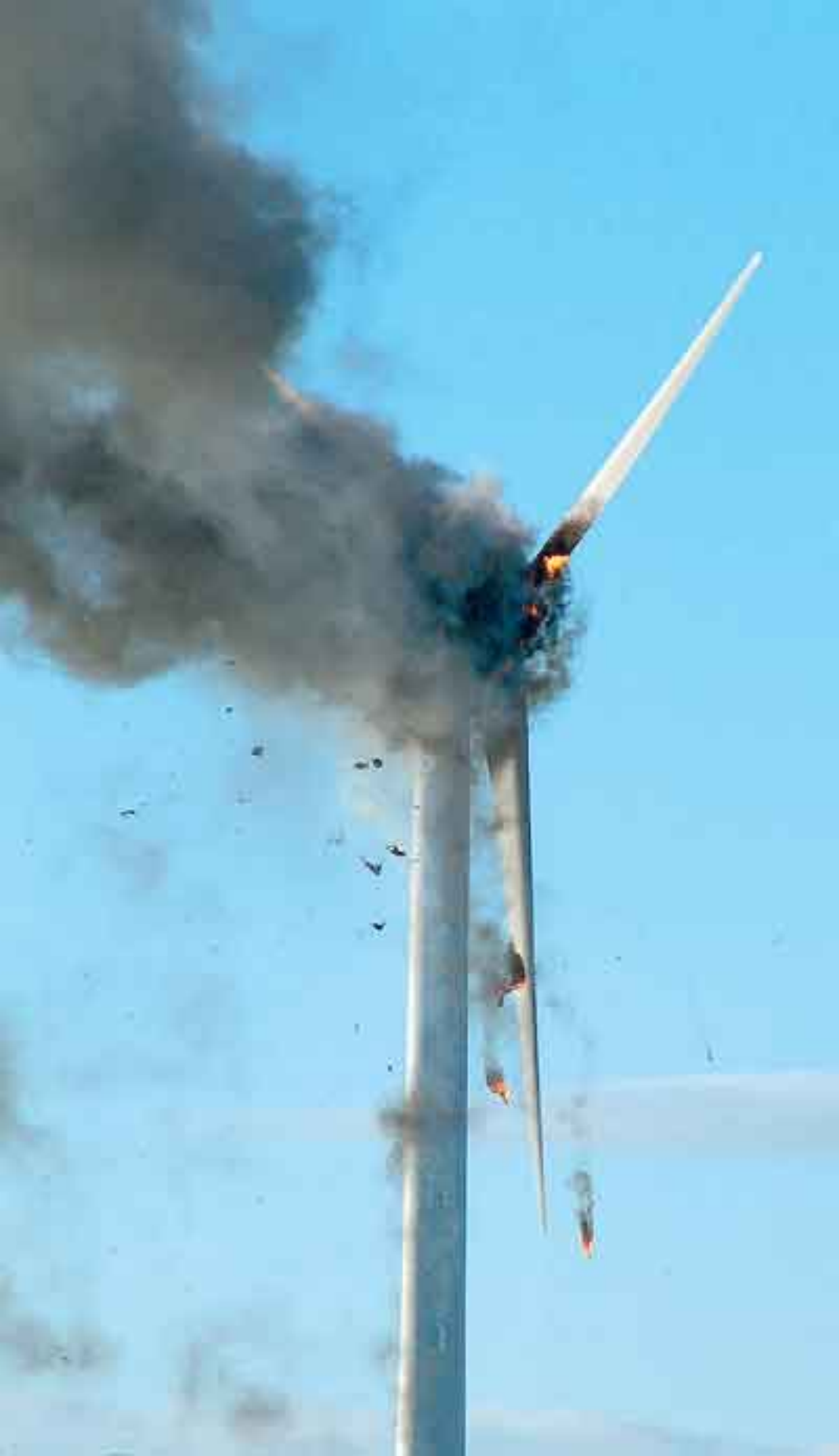

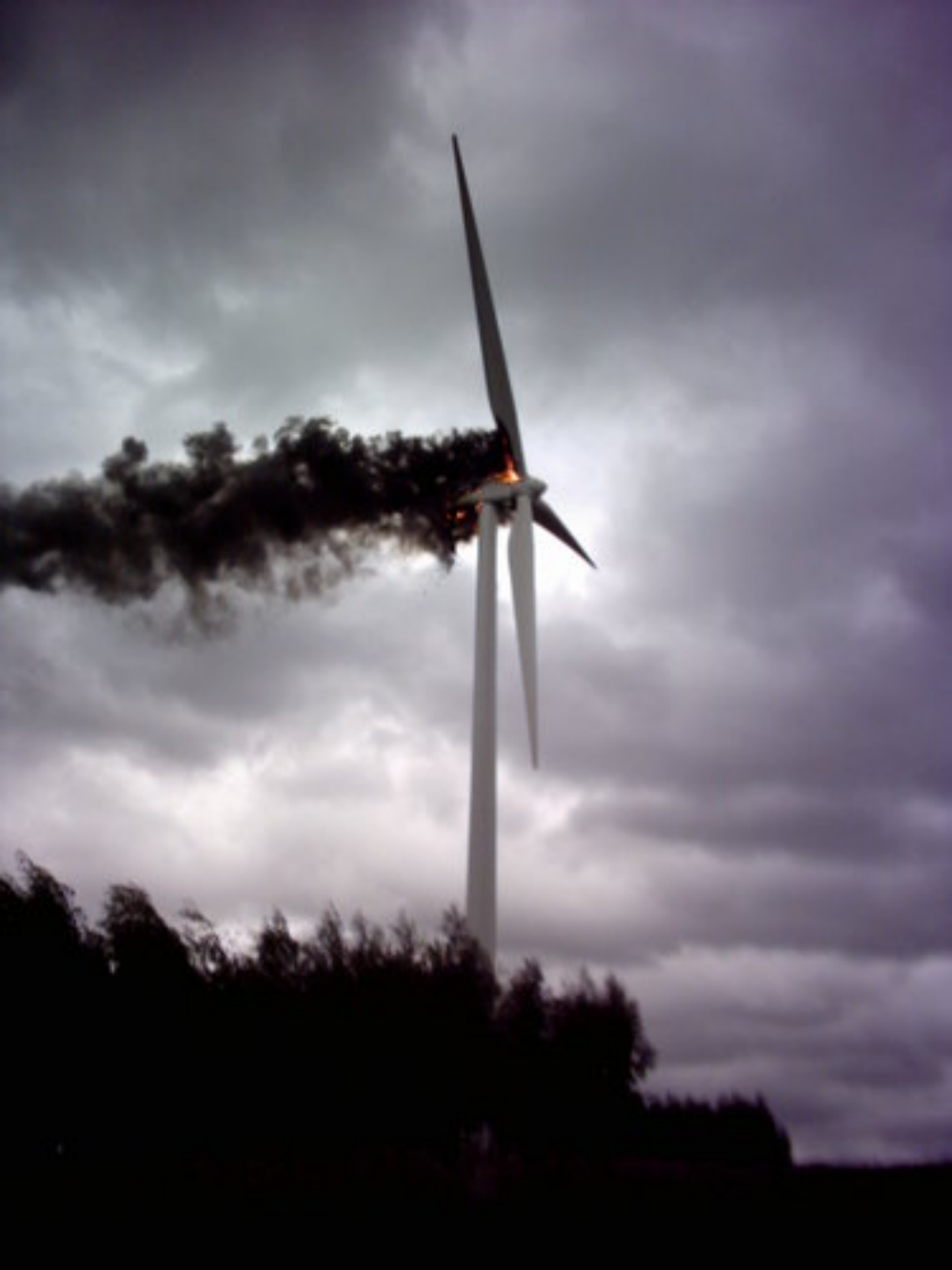

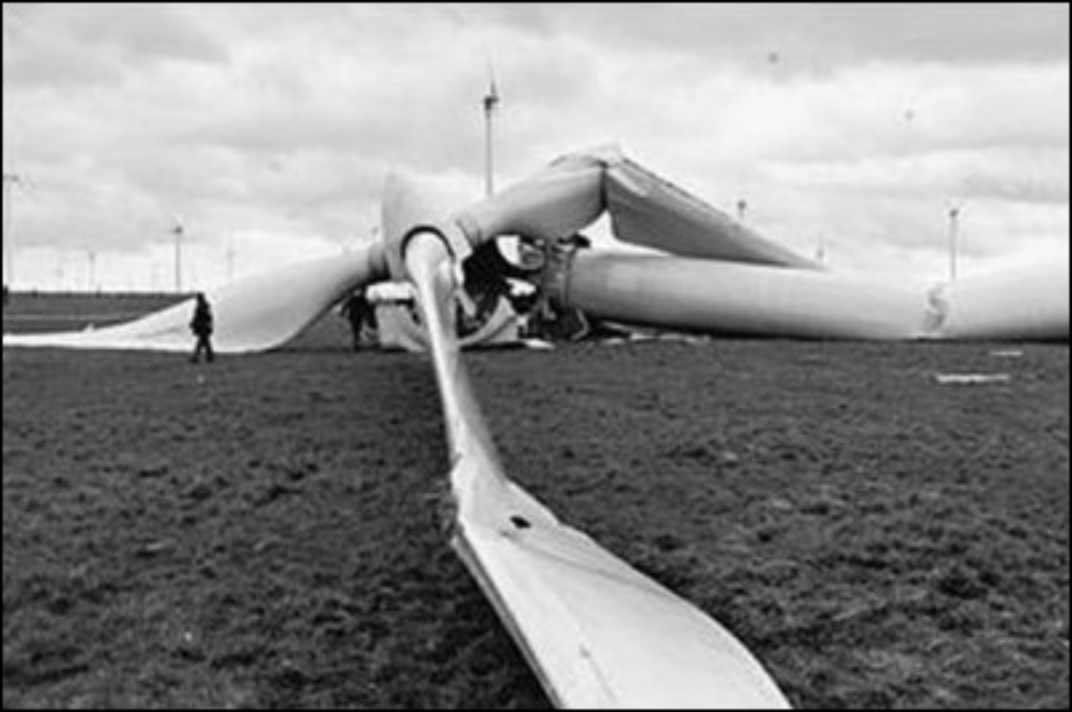

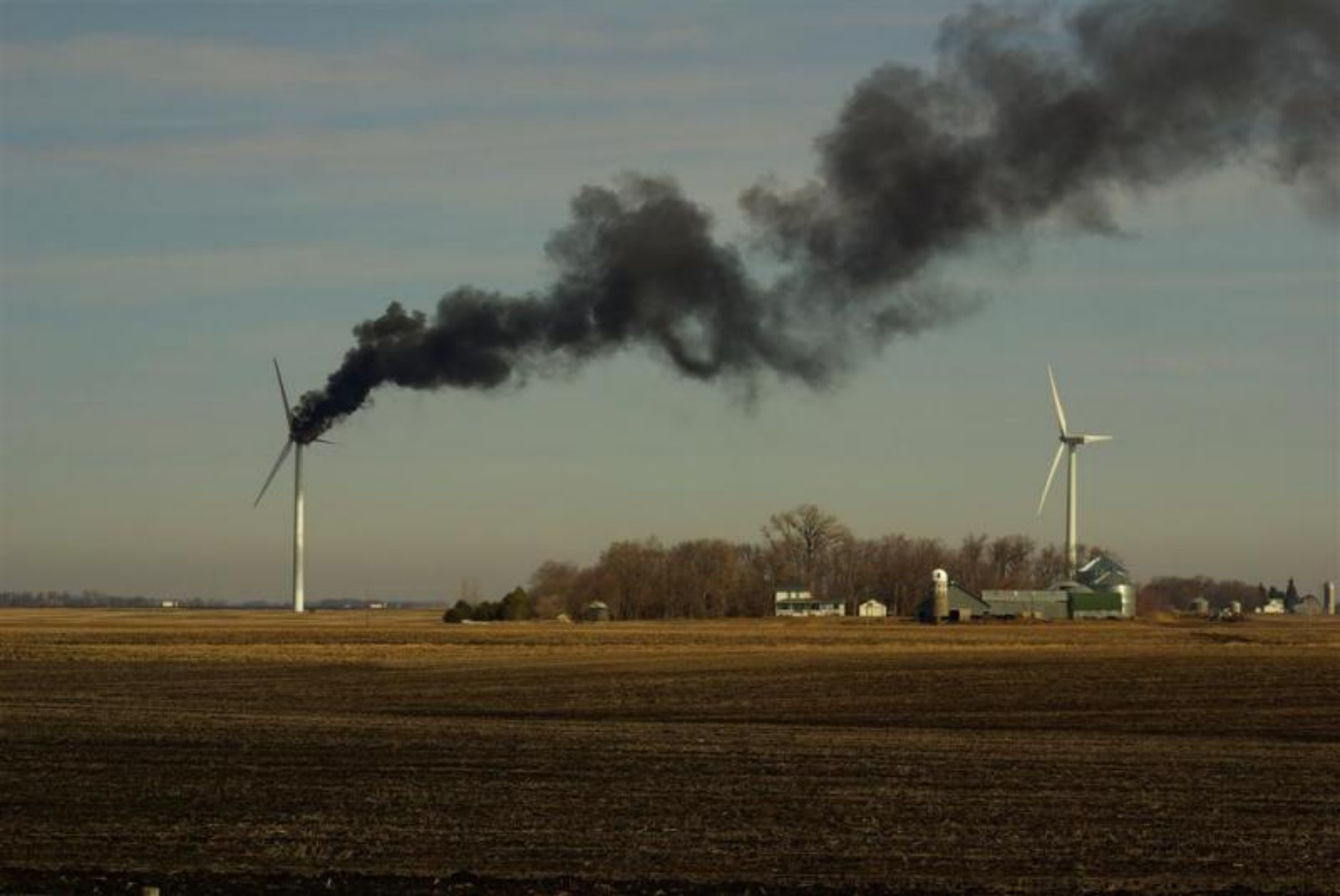

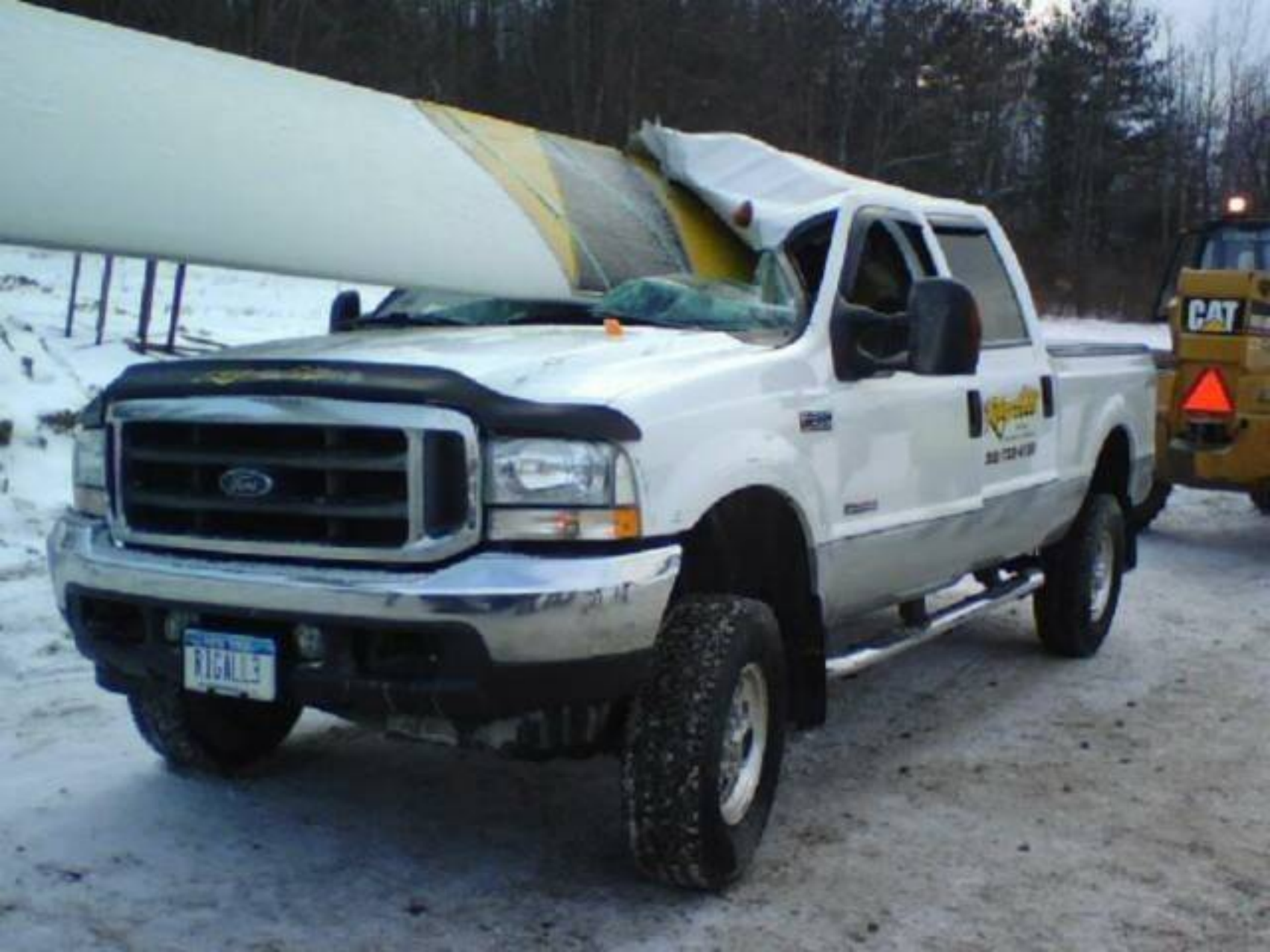
CAT

Schneider, Matthew

From: Dan Silver [dsilverla@me.com]
Sent: Wednesday, September 29, 2010 10:28 AM
To: Stiehl, Carl; Schneider, Matthew
Subject: Notice of Preparation for POD 10-007, WIND ENERGY ORDINANCE

Carl Stiehl
Matthew Schneider
Dept of Planning and Land Use
5201 Ruffin Rd, Suite B
San Diego, CA 92101

RE: POD 10-007, WIND ENERGY ORDINANCE

Dear Mr Stiehl and Mr Schneider:

The Endangered Habitats League appreciates the opportunity to comment on the NOP for this project. EHL supports the development of renewable energy sources, and the EIR provides an opportunity to achieve this goal in a way that avoids and minimizes environmental harm. Our biggest concern is harm to birds and bats. This potential impact should be assessed in the DEIR for turbines of all sizes.

The State of California *Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* should be used in two general ways. First, the guidance should be used to *proactively* identify the most appropriate locations in the County for large turbines, so that concentrations or migratory paths of birds and bats can be avoided. These findings should be distributed to potential wind energy applicants *prior* to their purchasing interests in land or otherwise embarking on project planning. The goal is to integrate wildlife considerations at a point in the process where this information will have the most effect.

Secondly, no project should be approved that does not comply with the *Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* in both siting and construction. This is a critical and feasible mitigation measure.

Also, as another mitigation measure, turbine designs (e.g., vertical) that are inherently more wildlife-friendly should be required for turbines of all sizes when feasible.

Thank you for considering our views, and please keep us on all mailing and distribution lists.

If your receipt of these comments could be acknowledged, that would be appreciated, thank you.

Sincerely,

Dan Silver, Executive Director
Endangered Habitats League
8424 Santa Monica Blvd., Suite A 592
Los Angeles, CA 90069-4267

213-804-2750
dsilverla@me.com
www.ehleague.org

Stephan C. Volker
Joshua A.H. Harris
Shannon L. Chaney
Alexis E. Krieg
Stephanie L. Abrahams
Daniel P. Garrett-Steinman

Law Offices of
STEPHAN C. VOLKER
436 14th Street, Suite 1300
Oakland, California 94612
Oakland, California 94612
Tel: 510/496-0600 ❖ Fax: 510/496-1366
email: svolker@volkerlaw.com

October 11, 2010

VIA EMAIL AND U.S. MAIL

Matt Schneider
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, California 92123-1666
matthew.schneider@sdcounty.ca.gov

Re: Backcountry Against Dumps, the Protect Our Communities Foundation and East County Community Action Coalition's Scoping Comments on the San Diego County Wind Energy Ordinance (POD 10-007)

I. INTRODUCTION

These scoping comments are submitted on behalf of Backcountry Against Dumps ("BAD"), the Protect Our Communities Foundation ("POC") and East County Community Action Coalition ("ECCAC") (collectively "Conservation Groups") in response to San Diego County's (the "County's") Notice of Preparation of an Environmental Impact Report ("NOP") for the proposed Wind Energy Ordinance amendments, POD 10-007 ("Amendments" or the "Project"). Conservation Groups commend the County for deciding to prepare a full Program Environmental Impact Report ("PEIR") and appreciate the opportunity to submit these scoping comments thereon.

As described in detail in these scoping comments, the Amendments would have numerous significant impacts that must be analyzed in the PEIR under the California Environmental Quality Act ("CEQA"), Pub. Res. Code § 21000 *et seq*. These include not only the impacts the County determined, in its Initial Study ("IS"), to be potentially significant, but also impacts on water supply, wildfire and emergency response, and climate change.

Additionally, before the County prepares the PEIR, it should further revise the draft Amendments to clarify and/or improve several of their provisions. Most notably, the County should revise the Amendments to (1) give preference to distributed generation projects in

urbanized or otherwise already developed areas with substantial energy demand and (2) discourage large-scale energy projects on ecologically, culturally, or otherwise sensitive and irreplaceable open space or agricultural land.

II. CONSERVATION GROUPS ARE VITALLY CONCERNED

All three Conservation Groups are directly impacted by the County's proposed Amendments. BAD is a community organization comprising numerous individuals and families residing in the Boulevard region of eastern San Diego County. Members of BAD are directly affected by the County's land use planning and are keenly interested in the proper management of lands within the County in order to maintain and enhance their ecological integrity, scenic beauty, wildlife, recreational amenities, cultural resources, watershed values, and groundwater resources. Some members of BAD rely for their entire domestic, municipal, and agricultural water supply on the vulnerable aquifers of eastern San Diego County that are threatened with contamination and overdrafting by ongoing and proposed land use development. The Amendments present the potential for energy development that could harm the East County's natural resources, and BAD's members.

ECCAC is a coalition of community groups with the common goal of preserving their rural quality of life and the natural resources of eastern San Diego County. ECCAC and its members seek to maintain the ecological integrity, scenic beauty, wildlife, cultural resources, recreational amenities, watershed values, and groundwater resources in eastern San Diego County. ECCAC's members use County lands for aesthetic, scientific, historic, cultural, recreational, and spiritual enjoyment. The Amendments pose the potential to harm the use and enjoyment of these public resources by ECCAC's members as well as the public at large.

POC is a community organization composed of numerous individuals and families residing throughout eastern San Diego County who would be directly affected by projects that might be approved under the Ordinance as amended. POC's purpose is the promotion of a safe, reliable, economical, renewable and environmentally responsible energy future. POC's members use County lands for aesthetic, scientific, historic, cultural, recreational, and spiritual enjoyment. The Amendments and the consequent development of energy development projects and infrastructure it might allow threaten the use and enjoyment of these East County public resources by POC's members.

Accordingly, Conservation Groups respectfully request your careful attention to their comments which follow.

III. THE PEIR MUST IDENTIFY CUMULATIVE PROJECTS AND THOROUGHLY ANALYZE CUMULATIVE IMPACTS

CEQA mandates that EIRs "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." 14 Cal. Code Regs. ("CEQA Guidelines") § 15130(a). And a project's incremental impact cannot be considered insignificant merely because the project and/or other future projects will "compl[y] with [a] specified plan or mitigation program addressing the cumulative problem." *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 115-16. Further, even where the lead agency determines that a project's incremental effect would not be cumulatively considerable, it must still "describe its basis for [so] concluding." CEQA Guidelines § 15130(a).

Here, the County must thoroughly address the Amendments' cumulative impacts in the PEIR. Further, the County may not rely solely on this Project's and future projects' compliance with the County's land use and other regulations to conclude that the Amendments will not have cumulative impacts. *See Communities for a Better Environment*, *supra*, 103 Cal.App.4th at 115-16; *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 443 fn. 8 (city "cannot . . . avoid [CEQA] responsibility for its decision to amend the general plan and rezone . . . site" to allow development of wetlands on ground another agency would regulate and mitigate wetlands impacts). However, the County frequently makes this error in its cumulative impact analyses in the IS. *See, e.g.,* Initial Study ("IS"), pp. 12 ("Therefore, compliance with the Code ensures that the project will not create a significant new source of substantial light or glare, which would [have a significant impact] on a project or cumulative level"), 24 (because specific future projects would require discretionary permits the significant archaeological resources would then be sufficiently protected such that a project would not contribute to a "cumulatively considerable impact"). The County must bolster its analysis and not make the same mistake in the PEIR.

Additionally, the County must be sure to include in its PEIR cumulative impact analyses existing and planned projects occurring on federal land and Indian reservations within and adjacent to San Diego County, which it fails to do in the IS.[1] Not only will these projects contribute substantially to cumulative impacts, many of them are also subject to County

[1] These projects include the existing Southwest Powerlink transmission line, the Sunrise Powerlink transmission line project, the ECO Substation project, the Energia Sierra Juarez Transmission Line project, the Boulevard Substation expansion, the existing Kumeyaay wind facility, Invenergy's 160 MW Crestwood Wind project, Pacific Wind Development's Tule Wind Energy project, the Esmeralda-San Felipe Geothermal project and Imperial Valley Solar, L.L.C.'s 709 MW Imperial Valley Solar Project, among others.

regulation, something the County should consider in deciding how best to mitigiate cumulative impacts. *California Coastal Commission v. Granite Rock Co.*, 480 U.S. 572, 579-593 (1987)

IV. THE AMENDMENTS WILL HAVE NUMEROUS SIGNIFICANT ENVIRONMENTAL IMPACTS THAT MUST BE ANALYZED IN THE PEIR

It is self-evident from the text of the Amendments that the proposed zoning changes would allow greater development and higher densities of wind energy projects than under the current zoning regulations. To wit, the Amendments would (1) significantly reduce the setback requirements for wind energy projects, (2) substantially increase the allowable wind turbine height for both small and large wind projects, and (3) explicitly allow, for the first time, large wind projects to produce electricity for offsite use. Combined with the planned electricity transmission capacity enhancement projects in the region, including the Sunrise Powerlink transmission line project, the ECO Substation project and others, the changes to existing zoning regulations would make it much more likely that companies and individuals would locate new wind projects, particularly large-scale projects geared towards producing power for offsite use, in San Diego County.[2] The likely increase in the total number of wind projects, combined with the increased allowable height and density of such projects, would pose many potentially significant environmental impacts that must be carefully examined in the PEIR. These impacts include those on visual resources, agricultural resources, air quality, biological resources, cultural resources, fire and emergency response, geological and soil resources, hazards and hazardous materials, hydrology, water supply and quality, land use planning, noise, public services, recreation, and transportation and utilities, among others. Some of the more prominent impacts are discussed below.

A. Impacts on Visual Resources

By explicitly allowing for the development of large wind projects that would produce electricity for offsite use, increasing the allowable height of wind turbines, and reducing the required setbacks (increasing allowable density) for wind energy projects, the Amendments would likely have significant impacts on visual resources. Because wind turbines are generally located on or near ridgelines or in vast open areas, they tend to be extremely visible. For example, the existing Kumeyaay wind turbines on the Campo Reservation in San Diego County are visible from miles around, both during the daytime and at night (due to their blinking red

[2] Two of the biggest impediments to development of renewable energy sources are (1) lack of transmission infrastructure and (2) local and state permitting, which can be both restrictive and costly. Beck, Frederic and Eric Martinot, June 2004, "Renewable Energy Policies and Barriers, in Cutler J. Cleveland (Ed.), 2004, *Encyclopedia of Energy*, Vol. 5, pp. 365-83 (downloadable version available at http://martinot.info/Beck_Martinot_AP.pdf).

night lights and flashing bright white strobe lights). As such, particularly with the increase in the number, density, and height of wind energy projects that can be expected, the Amendments are likely to cause significant aesthetic impacts. This becomes even more apparent when considered alongside the burgeoning development of other energy projects in San Diego County and the nearby region, as discussed above. The combined impacts of existing projects, planned projects and the future projects that can be expected under the Amendments are likely to be cumulatively significant.

B. Impacts on Biological Resources

The Amendments would have many significant biological impacts that must be analyzed in the PEIR. For one, there are numerous threatened, endangered or special status species that inhabit eastern San Diego County lands proposed for energy development, including the Quino checkerspot butterfly and the Peninsular bighorn sheep. Both of these species have suitable, inhabited, and/or designated critical habitat that already overlaps with or is adjacent to existing and currently proposed energy project sites. When these current and future encroachments are considered alongside those that would likely be caused by projects approved under the Amendments, there is a high risk of substantial cumulative impact.

As a specific example of a potentially cumulatively significant impact to threatened and endangered species, the Peninsular bighorn sheep are already threatened with being cut off from their most important migration corridor due to the Sunrise Powerlink project and the proposed La Rumorosa wind projects and their associated transmission facilities. As currently planned, those projects would be located directly adjacent to (and perhaps overlap with) the Peninsular Ranges of Mexico, an area which the U.S. Fish and Wildlife Service views as "the *only* possible route for a natural connection with other bighorn sheep populations for the [distinct population segment of sheep] in the U.S." 74 Fed. Reg. 17288, 17311 (2009) (emphasis added). By further impeding the sheep's access to this genetically important route, projects approved under the Amendments would be contributing to a significant cumulative impact. Additionally, the Tule Wind project in the McCain Valley threatens to degrade bighorn sheep designated critical habitat as well as extensive occupied habitat in the area. These projects, combined with the projects that the Amendments will facilitate, will cumulatively and significantly affect bighorn sheep in ways that have not been studied in any environmental review.

Another likely significant impact of the Amendments is avian injury and mortality, including impacts on both special status birds (such as the California condor) and others (such as the golden eagle, which is protected by the Bald and Golden Eagle Protection Act and United States Fish and Wildlife Service's ("FWS'") regulations thereunder, Federal Register 74:46836-46879, September 11, 2009). There is already clear evidence from the Altamont Pass area and

elsewhere that wind turbines kill thousands of birds (as well as bats and other flying creatures) each year.[3] Because projects approved under the Amendments would invariably contribute to them, the impacts of wind turbines, power lines and noise and light pollution from energy projects on flying creatures must be described and analyzed in the PEIR. Furthermore, in line with FWS' recent recommendations for wind energy projects, the County should add an additional amendment to the Ordinance requiring a minimum six-mile buffer between any proposed wind turbine and a golden eagle nest.[4]

The Amendments would also threaten the significant impact of habitat fragmentation. Habitat fragmentation is the breaking up of contiguous natural habitats into small patches that are isolated from intact areas of habitat. Through the construction, staging and building of access roads and structures, the energy developments approved under the Amendments, particularly the large projects that would produce energy for offsite use, would likely result in direct loss of habitat, division of the remaining habitat into isolated patches, and reduced size of habitat patches. These fragmentation impacts, when spread across a large area, are almost invariably accompanied by localized extirpation of species. Local species sensitive to the developed or altered edge and species that have large area requirements are among the first to disappear from habitat fragments, triggering cascading impacts to ecological communities. The fragmentation of habitats inhibits movement of species and disrupts necessary interactions among species. These adverse impacts decrease the viability of species in the area and degrade habitat value as species become more isolated in contained areas. These impacts must be fully analyzed in the PEIR.

Finally, it bears repetition that the potential for additional regulation by federal agencies such as the Forest Service and the Bureau of Land Management does not displace the County's vital regulatory authority and responsibility. *California Coastal Commission v. Granite Rock Co.*, *supra*, 480 U.S. at 579-593.
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[3] Smallwood, Shawn K., 2008, "Bird Mortality in the Altamont Pass Wind Resource Area, California," *The Journal of Wildlife Management* 2008-00-00, 215-223**;** Klinkenborg, Verlyn, 2008, "Our Vanishing Night," *National Geographic* 214(5), 102-123 (discussing general impacts of light pollution on wildlife); Malakoff, D., 2001, "Faulty towers," *Audubon* 103(5), 78–83 (discussing the severe impacts, including death, of brightly lit tall buildings on migrating birds; similar impacts can be expected with illuminated wind turbines).

[4] United States Fish and Wildlife Service, September 20, 2010, Letter to the Oregon Department of Energy re: Request for Comments on the Application for Site Certificate for the proposed Summit Ridge Wind Project, Wasco County, Oregon, p. 3 (attached to these comments as Exhibit 5).

C. Noise Impacts

As described below, there is substantial evidence that the secondary noise impacts of the Amendments would be significant. First, the Amendments set the maximum height of small wind turbines at 100 feet and require a minimum setback equal to the height of the turbine. While small wind projects are sometimes quieter, have fewer vibrational impacts and would thus require a lower setback than larger projects, it is also the case that some smaller turbines can be very noisy due to faster blade rotational speeds. As such, it is likely that small wind projects approved under the Amendments would have significant noise impacts on nearby residents, property owners and wildlife.

Second, there is substantial evidence that wind turbine noise causes both health and ecological impacts and thus that the County's 600 to 1,000 foot setback standard is insufficient. For example, based on her peer-reviewed research on the impacts of wind turbine noise, Dr. Nina Pierpont has identified a so-called "wind turbine syndrome" in people living near wind turbines, which is characterized by sleep problems, dizziness, headaches and other negative health symptoms.[5] Relatedly, the Society for Wind Vigilance released an analysis supporting Dr. Pierpont's basic conclusions and criticizing the American/Canadian Wind Energy Association's Wind Turbine Sound and Health Effects report, which downplayed the health impacts of wind turbine noise.[6] More recent studies also corroborate Dr. Pierpont's conclusions that wind turbine noise can cause substantial health impacts.[7]

To avoid the negative health impacts from wind turbines, Dr. Pierpont recommends setbacks from large wind projects of at least *1.25 miles*. A similar setback has been called for by the French National Academy of Medicine.[8] In his report for the Academy, Claude-Henri Chouard writes:

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[5] Pierpont, Nina, 2009, *Wind Turbine Syndrome: A Report on a Natural Experiment*, K-Selected Books: Santa Fé, NM.

[6] The Society for Wind Vigilance, January 2010, *Wind Industry Acknowledgment of Adverse Health Effects: An Analysis of the American/Canadian Wind Energy Association Sponsored "Wind Turbine Sound and Health Effects: An Expert Panel Review, December 2009*, available at http://www.windvigilance.com/awea_media.aspx.

[7] *See, e.g.,* Punch, Jerry, Richard James & Dan Pabst, 2010, "Wind-Turbine Noise: What Audiologists Should Know," *Audiology Today*, July/August 2010, pp. 20-31 (attached to these comments as Exhibit 1); *see also* Nissenbaum, Michael A., March 2009, *Mars Hill Wind Turbine Project Health Effects: Preliminary Findings*, presentation to the Maine Medical Association (attached to these comments as Exhibit 2).

[8] Chouard, Claude-Henri, 2006, *Rapport: Le Retentissement du Fonctionnement des Éoliennes sur la Santé de l'Homme*

> The harmful effects of sound related to wind turbines are insufficiently assessed . . . . The sounds emitted by the blades being low frequency, which therefore travel easily and vary according to the wind, . . . constitute a permanent risk for the people exposed to them. . . . The Academy recommends halting wind turbine construction closer than 1.5 km from residences.[9]

In addition to the scientific evidence of health impacts from wind turbine noise, there is anecdotal evidence from residents of rural San Diego County that wind turbine noise impacts are significant. The Boulevard Planning Group's comments on the earlier solar and wind energy ordinance amendments, proposed in March 2010, state that in "Boulevard, off-reservation residents within several miles of the existing Kumeyaay Wind project complain of frequent noise and vibration impacts." Boulevard Planning Group's March 11, 2010 Comment Letter re: Solar Wind Energy Zoning Ordinance Amendment (POD 09-006) ("BPG Comments") (attached as Exhibit 3), p. 13. Another Boulevard resident was quoted in a KPBS news story as confirming that "[t]here is a noise problem and also there's a – what's called wind turbine syndrome. . . . You can hear noise 24 hours a day. It sounds like a large truck on the freeway that never goes away; it's just constant."[10]

In sum, there is substantial evidence that the Amendments would have potentially significant secondary noise impacts via the wind projects approved under its auspices. These impacts must be fully analyzed in the PEIR. And to reduce some of these impacts, Conservation Groups recommend (1) that the setback standard be increased, and (2) that noise level measurements be taken at the nearest property line, rather than the nearest residence.

D. Climate Change Impacts

While the County's IS concludes that the Amendments would have a less than significant impact on climate change (IS, pp. 30-33), the IS fails to even mention several signficant sources of greenhouse gas emissions to which the Amendments will contribute. These sources must be fully analyzed in the PEIR.

First, there are fugitive emissions of SF6 – a potent greenhouse gas with a global warming potential of 23,900. These would result from the operation of the transmission line equipment used for the projects that would likely be approved under the Amendments, as well as any associated substations. These SF6 emissions would pose cumulatively significant impacts when combined with the emissions of the substantial existing and planned transmission-related infrastructure in and around San Diego County.

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[9] *Id*.

[10] http://www.kpbs.org/news/2010/jan/27/community-opposition-proposed-energy-projects/

Additionally, recent studies show that undisturbed alkaline desert areas, such as the Mojave Desert, eastern San Diego County and western Imperial County, sequester carbon-dioxide in surprising quantities.[11] Any large-scale wind projects approved under the Amendments would disturb and open up vast stretches of currently untrammeled desert lands to large-scale industrial development. These huge desert areas may do more good in reversing global warming if left alone than if they are fully developed into renewable energy generation facilities. This is particularly true where, as here, distributed photovoltaic energy production sited near the energy demand centers could eliminate or substantially reduce the need for the remote projects approved under the Amendments. A complete analysis of this indirect adverse impact of the Amendments, as well as the project-level and cumulative SF6 emissions impacts, must be conducted prior to the County's approval of the Amendments.

E. Wildfire and Emergency Response

Projects approved under the Amendments would likely increase fire risk and impede emergency response to a significant degree. And as such, these impacts must be fully analyzed in the PEIR. The magnitude of such risks is illustrated by the fire history in San Diego County. For example, San Diego Gas & Electric ("SDG&E") recently sought permission from the California Public Utilities Commission to turn off electrical power in the area of the ECO and Boulevard substations when fire dangers are high, a drastic measure from any perspective. If existing lines are so dangerous that SDG&E wants to shut off the power to thousands of people on windy days (potentially causing school shutdowns, disrupting emergency alert systems, and disabling hospital operations), the construction of even *more* energy projects, including any necessary substations and transmission lines, is very likely to have a significant impact on fire danger.

Furthermore, not only would the projects approved under the Amendments present fire hazards as new ignition sources, they would impede firefighters' efforts to combat wildfires. For example, any projects approved under the Amendments would require transmission and/or distribution lines that would create a substantial hazard for low-flying spotter and bomber aircraft that apply aerial retardant or water. It would be impossible to see those power lines in smoke filled canyons, and either pilots would be forced to risk their lives by flying when the lines are not clearly visible or aerial fire suppression would be stymied. Furthermore, in some cases the project-related transmission lines would need to be de-energized before firefighters could enter certain areas, giving the fire more time to spread.

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[11] Stone, Richard, "Ecosystems: Have Desert Researchers Discovered a Hidden Loop in the Carbon Cycle," *Science*, vol. 320 (5882), June 13, 2008, *available at*: http://www.ecostudies.org/press/Schlesinger_Science_13_June_2008.pdf (attached to these comments as Exhibit 4).

Clearly, the fire dangers presented by the Amendments and the projects that would be approved under them are significant and must be subjected to a full and accurate analysis in the PEIR.

F. Water Supply Impacts

Compounding the fundamental problems caused by geographical, seasonal, and interannual disjunctions, California's water supplies have become increasingly strained by continued population increases, global warming's significant impairment of the state's ability to capture and store mountain runoff, and reduced allocations from the major water sources including the Colorado River and State Water Project. As a result, it is essential that land use planning and development in the state be conducted in conjunction with water supply planning, and that developments be disallowed where sufficiently certain water sources are not available to serve them.

Indeed, as the California Supreme Court has recognized, CEQA imposes such a duty. In *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* 40 Cal.4th 412, 431 (2007), the Court articulated four main principles related to analysis of water supplies: (1) EIRs "cannot simply ignore[] or assume[] a solution to the problem of supplying water to a proposed land use project;" (2) water supply analyses for large multi-phase projects cannot be limited to the first phase or first few years of development; (3) the water supplies relied on in an EIR must have a likelihood of actually becoming available – "speculative sources and unrealistic allocations ('paper water') are insufficient bases for decisionmaking under CEQA;" and (4) when, despite a full discussion, uncertainty remains regarding future water supplies, CEQA requires that the EIR acknowledge the uncertainty and discuss reasonably foreseeable replacement sources or alternatives.

In light of the constraints on the state's water supply and the *Vineyard* decision, it is surprising that the County's Initial Study barely discusses water supply at all. In total, the IS devotes less than a page to the issue, and even then only to groundwater supplies. While the County concludes that "[m]ost wind energy systems are not expected to use any groundwater for any purpose," its contention contradicts common wind energy production practices. Initial Study, p. 43. According to the American Wind Energy Association, a 1.5 MW turbine operating at a 100% capacity factor for a full year would require 13,140 gallons of water per year, meaning a 100-turbine wind farm could use upwards of *1,314,000 gallons per year*, which is nearly 4 acre-feet per year. *See* BPG Comments, p. 12. In such an arid area, this quantity of water use is quite substantial and would likely have significant water supply impacts, whether on local aquifers or distant surface water sources. Thus, in contrast to the County's conclusion in the IS that the water supply impact would be less than significant, the Amendments' water supply

impact is likely to be quite significant. As such, the County must fully analyze the Amendments' secondary water supply impacts in the PEIR.

V. THE LANGUAGE OF THE ORDINANCE AND THE PROPOSED AMENDMENTS THERETO SHOULD BE CLARIFIED AND THEIR PROVISIONS SHOULD BE IMPROVED

Before preparing the PEIR on the Amendments, the County should clarify the language of the Ordinance and the Amendments and improve some of their provisions. First, as to clarifications, the County should amend the Ordinance's stating that large wind turbine systems may be located on parcels of "at least five acres." Given the required setbacks for large wind systems, a 5 acre parcel would not even support one large wind turbine.

Second, there are many improvements that the County should make to the Amendments. As discussed, the County should increase the required setbacks for wind energy projects. In addition, it should take noise level measurements from the nearest property line instead of the nearest residence. Further, the County should create and add to the Ordinance a minimum required buffer between any proposed wind turbine and a golden eagle's nest of at least six miles, per FWS' aforementioned guidance.

Most importantly, however, the County should emphasize distributed generation over wind projects that produce energy for offsite use. The County should adopt a policy that ranks renewable energy projects in a manner that gives preference to or otherwise incentivizes distributed generation projects in urbanized areas that have substantial existing infrastructure to be served by the locally produced electricity. Large-scale energy projects intended to produce electricity for offsite use should be discouraged, particularly in areas of ecologically or otherwise valuable open space or agricultural areas.

Not only would distributed generation have fewer environmental, health, safety, public utilities and other impacts, it is eminently feasible, arguably cheaper and has the potential to produce significant amounts of energy. For example, the California Energy Commission has determined that there are up to 60,929 MW of potential rooftop, photovoltaic, distributed generation in the state, not including commercial parking lots.[12] In San Diego County alone there are an estimated 2,600 MW of potential photovoltaic capacity on existing structures and already disturbed lands.
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[12] Public Interest Energy Research Program, California Energy Commission, *Distributed Renewable Energy Assessment: Final Report*, August 11, 2009, pp. 10 and 43.

VI. CONCLUSION

Conservation Groups commend San Diego County for deciding to prepare a full PEIR on the Amendments. Nonetheless, the preparation of an EIR in and of itself will not be enough to satisfy CEQA's requirements and ensure that the Wind Energy Ordinance is as environmentally beneficial as possible. The County must fully analyze the slew of significant impacts the Amendments would likely have, including those discussed in these scoping comments. And as part of its analysis, the County must account for the substantial number of other existing and proposed energy projects whose impacts are likely to combine with those of the projects approved under the Amendments to create cumulatively significant impacts. Furthermore, there are clarifications and improvements the County should make to the Amendments before preparing the PEIR, to both reduce the Amendments' environmental impacts and make the amended Ordinance more comprehensible.

Thank you for considering our comments on this important matter.

Respectfully submitted,

/s/ Stephan C. Volker

Stephan C. Volker
Attorney for Backcountry Against Dumps,
The Protect Our Communities Foundation, and
East County Community Action Coalition

SCV:taf

LIST OF EXHIBITS

1. Punch, Jerry, Richard James & Dan Pabst, "Wind-Turbine Noise: What Audiologists Should Know," *Audiology Today*, July/August 2010, pp. 20-31.

2. Nissenbaum, Michael A., *Mars Hill Wind Turbine Project Health Effects: Preliminary Findings*, presentation to the Maine Medical Association, March 2009.

3. Boulevard Planning Group, Comment Letter re: Solar Wind Energy Zoning Ordinance Amendment (POD 09-006), March 11, 2010.

4. Stone, Richard, "Ecosystems: Have Desert Researchers Discovered a Hidden Loop in the Carbon Cycle," *Science*, vol. 320 (5882), June 13, 2008.

5. United States Fish and Wildlife Service, Letter to the Oregon Department of Energy re: Request for Comments on the Application for Site Certificate for the proposed Summit Ridge Wind Project, Wasco County, September 20, 2010.

Stephan C. Volker
Joshua A.H. Harris
Shannon L. Chaney
Alexis E. Krieg
Stephanie L. Abrahams
Daniel P. Garrett-Steinman

Law Offices of
STEPHAN C. VOLKER
436 14th Street, Suite 1300
Oakland, California 94612
Oakland, California 94612
Tel: 510/496-0600 ❖ Fax: 510/496-1366
email: svolker@volkerlaw.com

November 24, 2010

VIA EMAIL AND U.S. MAIL

Matt Schneider
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, California 92123-1666
Matthew.Schneider@sdcounty.ca.gov

Carl Stiehl
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, California 92123-1666
Carl.Stiehl@sdcounty.ca.gov

Re: Backcountry Against Dumps, the Protect Our Communities Foundation and East County Community Action Coalition's Comments on San Diego County's Proposed Changes to the Wind Energy Ordinance amendments (POD 10-007) and the EIR Process Thereon

I. INTRODUCTION

These comments are submitted on behalf of Backcountry Against Dumps ("BAD"), the Protect Our Communities Foundation ("POC") and East County Community Action Coalition ("ECCAC") (collectively "Conservation Groups") in response to San Diego County's ("the County's") proposed changes to the Wind Energy Ordinance amendments, POD 10-007 ("Amendments" or the "Project") and the Programmatic Environmental Impact Report ("PEIR") thereon.

Conservation Groups have been informed that the County intends to make two major changes to the Amendments and the California Environmental Quality Act ("CEQA"), Pub. Res. Code section 21000 *et seq.*, review process thereon:

(1) Bifurcate the environmental review process for the Amendments by conducting a full programmatic EIR only for the amendments related to large wind turbines, and preparing a negative declaration for the amendments related to small wind turbines;

(2) Reduce the maximum height of small wind turbines from 100 feet, as currently

proposed, to 80 feet, which is still 20 feet higher than allowed under section 6156(z) of the ordinance now in effect.

As discussed in detail in these comments, Conservation Groups prefer – and CEQA requires – that both the large and small wind turbine amendments be analyzed in the PEIR. Further, merely preparing a negative declaration for the amendments related to small wind systems would be inadequate in any case. Conservation Groups also recommend that the County reduce the maximum height for small wind turbines even further, to 65 feet or less, which would significantly reduce environmental impacts and comport with the height of most existing small wind turbines in the area.

Additionally, Conservation Groups take this opportunity to (1) comment on the County's compliance with AB 45, (2) urge the County to analyze in the PEIR the likely increase in meteorological towers ("MET towers") due to the Amendments, and (3) reiterate and add to their prior suggestions that before the County prepares the PEIR, it should further revise the draft Amendments to clarify and/or improve several of their provisions.

II. CONSERVATION GROUPS ARE VITALLY CONCERNED

All three Conservation Groups are directly impacted by the County's proposed Amendments. BAD is a community organization comprising numerous individuals and families residing in San Diego and Imperial counties. Members of BAD are directly affected by the County's land use planning and are keenly interested in the proper management of lands within the County in order to maintain and enhance their ecological integrity, scenic beauty, wildlife, recreational amenities, cultural resources, watershed values, and groundwater resources. Some members of BAD rely for their entire domestic, municipal, and agricultural water supply on the vulnerable aquifers of eastern San Diego County that are threatened with contamination and overdrafting by ongoing and proposed land use development. The Amendments present the potential for energy development that could harm the East County's natural resources, and BAD's members.

ECCAC is a coalition of community groups with the common goal of preserving their rural quality of life and the natural resources of eastern San Diego County. ECCAC and its members seek to maintain the ecological integrity, scenic beauty, wildlife, cultural resources, recreational amenities, watershed values, and groundwater resources in eastern San Diego County. ECCAC's members use County lands for aesthetic, scientific, historic, cultural, recreational, and spiritual enjoyment. The Amendments pose the potential to harm the use and enjoyment of these public resources by ECCAC's members as well as the public at large.

POC is a community organization composed of numerous individuals and families residing throughout eastern San Diego County who would be directly affected by projects that might be approved under the Ordinance as amended. POC's purpose is the promotion of a safe, reliable, economical, renewable and environmentally responsible energy future. POC's members use

County lands for aesthetic, scientific, historic, cultural, recreational, and spiritual enjoyment. The Amendments and the consequent development of energy development projects and infrastructure it might allow threaten the use and enjoyment of these East County public resources by POC's members.

Accordingly, Conservation Groups respectfully request your careful attention to their comments which follow.

III. THE COUNTY SHOULD NOT BIFURCATE ITS CEQA REVIEW OF THE AMENDMENTS

Conservation Groups note that large wind turbines likely have a greater potential than small wind turbines to cause significant environmental impacts. Thus, the County's current proposal to address large wind turbines in the PEIR is an improvement over its initial proposal, as described in the September 9, 2010 Notice of Preparation Documentation for the PEIR, to only analyze the impacts of small wind turbines. Nonetheless, it is essential – and required by law – that the County address *both* large and small wind energy system projects in the PEIR.

CEQA prohibits agencies from "piecemealing" projects by splitting them into two or more segments and analyzing each in a separate CEQA document. The purpose of this requirement is to ensure "that environmental considerations not become submerged by chopping a large project into many little ones, each with a potential impact on the environment, which cumulatively may have disastrous consequences." *Burbank-Glendale-Pasadena Airport Authority v. Hensler* (1991) 233 Cal.App.3d 577, 592. Thus, in *Arviv Enterprises, Inc. v. South Valley Area Planning Commission* (2002) 101 Cal.App.4th 1333, the court held that a local agency properly required a developer of a 21-unit housing development to evaluate the impacts of the entire project even though it required submission of numerous separate building permit applications. The court's rational was that the potentially substantial impacts of the overall project "may be disguised or minimized by filing numerous, serial applications." *Id.* at 1346.

Here, the Amendments should be addressed as a single project in the same EIR. Just as in *Arviv Enterprises, Inc., supra*, 101 Cal.App.4th at 1346, while the amendments relating respectively to small and large wind energy systems could be done separately, their combined impacts are likely to be "disguised or minimized" if they are not reviewed in the same CEQA document. By describing and analyzing only the large wind energy system amendments in a full EIR, the compounding visual, noise, biological and other impacts of the small wind system amendments and the cumulative impacts of both large and small systems would be improperly trivialized or ignored altogether.

Furthermore, even if the County were to proceed with its proposed bifurcated review, it would not save either time or money since the PEIR must in any event address the cumulative impacts of the large wind energy system amendments. *See* 14 Cal. Code Regs. ("CEQA Guidelines") § 15130(a) (EIRs must "discuss cumulative impacts of a project when the project's

incremental effect is cumulatively considerable"). Thus, the County would be required to discuss the small wind energy system amendments and their impacts *anyway*.

Lastly, merely preparing a negative declaration for the amendments related to small wind systems would be inadequate in any case. As elucidated in Conservation Groups' March 26, 2010 letter on the County's draft negative declaration for the San Diego County Solar and Wind Energy Zoning Ordinance Amendment (attached to these comments as Exhibit 1), there is more than a "fair argument" that the small wind energy system amendments would have a significant environmental impact, most notably by substantially increasing the maximum allowable height of small wind turbines and substantially reducing their required setbacks. Among other things, the reduced setback would cause a significant increase in noise pollution and associated health risks. While small wind projects may be quieter, have fewer vibrational impacts and would thus require a smaller setback than larger projects, other smaller turbines can be very noisy due to faster blade rotational speeds. Thus, it is likely that small wind projects approved under the Amendments would have significant noise impacts on nearby residents, property owners and wildlife, such as the health impacts described in recent studies.[1]

IV. THE COUNTY SHOULD FURTHER REDUCE THE MAXIMUM ALLOWABLE HEIGHT FOR SMALL WIND TURBINES

Conservation Groups support the County's proposed reduction in maximum allowable height for small wind turbines from 100 feet to 80 feet, but urge the County to reduce the height limits further. Under section 6156(z) of the County's presently effective zoning ordinance, the maximum allowable height for small wind turbines is 60 feet. It is unclear why the County wishes to increase this height limit, especially given that many wind turbines substantially under 60 feet in height are already successfully operating in San Diego County. For example, many property owners have successfully installed 30-foot high Windspire turbines in the area.[2] In addition, Helix Wind has a test site in Boulevard for an array of 35-foot high wind turbines.[3] The viability and durability of these small turbines is illustrated by the fact that they were essentially undamaged by the severe storm in 2009 that wreaked havoc on the much larger turbines of the

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[1] *See, e.g.,* Punch, Jerry, Richard James & Dan Pabst, 2010, "Wind-Turbine Noise: What Audiologists Should Know," *Audiology Today*, July/August 2010, pp. 20-31 (attached to these comments as Exhibit 2); *see also* Nissenbaum, Michael A., March 2009, *Mars Hill Wind Turbine Project Health Effects: Preliminary Findings*, presentation to the Maine Medical Association (attached to these comments as Exhibit 3). For a general primer on the health impacts of industrial wind turbines, *see* Society for Wind Vigilance, March 2010, *A Primer on Adverse Health Effects and Industrial Wind Turbines* (attached to these comments as Exhibit 4).

[2] For more information on Windspire Energy's turbines, go to http://windspireenergy.com/.

[3] For more information on Helix Wind's small wind turbine designs, go to http://www.helixwind.com/en/whyHelixWorks.php.

Kumeyaay Wind Power Project. Therefore, Conservation Groups recommend that the County reduce the maximum allowable height for small wind turbines to 65 feet at most.

V. THE COUNTY MAY IMPOSE GREATER RESTRICTIONS THAN THOSE SET FORTH IN AB 45

The County has stated that one of the main impetuses for the Amendments is to comply with AB 45, passed in 2009. AB 45 enables small-scale wind energy development throughout the state. However, it imposes limits on the restrictions that local governments can place on wind energy systems, which Conservation Groups believe are not appropriate in many cases. Nonetheless, because the County has had a wind energy ordinance of the type contemplated in AB 45 since the 1980s, it is likely "exempt" from those limitations. Gov. Code § 65895(a). Therefore, the County should not weaken its noise, setback, height and other restrictions solely in an attempt to comply with AB 45.

VII. THE COUNTY SHOULD ANALYZE IN THE PEIR THE LIKELY INCREASE IN MET TOWERS

MET towers are rarely used for the purely benign purpose of collecting weather data for research or public disclosure. More frequently, they are used to assess the viability of an area for wind (or sometimes solar) energy production and thus constitute precursors to the development of wind energy facilities. Given this fact, and the likelihood that the Amendments will spur new wind energy projects, there will likely be a concomitant rise in the number of MET towers proposed. Because this increase in MET towers is reasonably foreseeable and would "result in part from the project analyzed in the EIR," i.e. the Amendments, the PEIR "should . . . discuss [its] impacts." CEQA Guidelines § 15130(a)(1).

VII. THE LANGUAGE OF THE ORDINANCE AND THE PROPOSED AMENDMENTS THERETO SHOULD BE CLARIFIED AND THEIR PROVISIONS SHOULD BE IMPROVED

Before preparing the PEIR on the Amendments, the County should clarify the language of the Ordinance and the Amendments and improve some of their provisions. First, as to clarifications, the County should amend the Ordinance's language that large wind turbine systems may be located on parcels of "at least five acres." Given the required setbacks for large wind systems, a five-acre parcel would not even support one large wind turbine.

Second, there are many improvements that the County should make to the Amendments. For one, the County should increase the required setbacks for wind energy projects in accordance with the recent research on the health impacts of wind turbine noise. With respect to larger wind turbines, the research suggests that they should be set back by more than one mile. Based on her peer-reviewed research on the impacts of wind turbine noise, Dr. Nina Pierpont recommends

setbacks from large wind projects of at least *1.25 miles* to avoid negative health impacts.[4] A similar setback has been called for by the French National Academy of Medicine.[5] In his report for the Academy, Claude-Henri Chouard writes:

> The harmful effects of sound related to wind turbines are insufficiently assessed . . . . The sounds emitted by the blades being low frequency, which therefore travel easily and vary according to the wind, . . . constitute a permanent risk for the people exposed to them. . . . The Academy recommends halting wind turbine construction closer than 1.5 km from residences.[6]

In addition to increasing the setbacks for wind turbines, the County should take noise level measurements from the nearest property line instead of the nearest residence. Furthermore, in line with the United States Fish and Wildlife Service's recent recommendations for wind energy projects, the County should add an additional amendment to the Ordinance requiring a minimum six-mile buffer between any proposed wind turbine and a golden eagle nest.[7]

Aside from the wind turbines themselves, the County should also further amend the Ordinance to require MET tower applicants to obtain full use permits, under section 7350 *et seq.* of the zoning ordinance, rather than just the administrative permit now required by section 6123. This would help ensure that (1) the MET towers and the wind energy projects they generally precede are not hastily constructed, (2) the County is informed at an early stage of any plans for wind system development, and (3) neighbors and other affected persons are given a fuller chance to comment on and participate in wind system planning and approval process. Further, there is precedent for requiring use permits for MET towers, as they were mandated by the zoning ordinance until February 25, 2009. Such a requirement is also imposed by the current zoning ordinance for large wind systems, which have many similar impacts as MET towers given their comparable heights, and would continue to be required under the Amendments.

However, the most important improvement the County should make to the Ordinance is to emphasize distributed generation located within energy demand centers over remote industrial-

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[4] Pierpont, Nina, 2009, *Wind Turbine Syndrome: A Report on a Natural Experiment*, K-Selected Books: Santa Fé, NM.

[5] Chouard, Claude-Henri, 2006, *Rapport: Le Retentissement du Fonctionnement des Éoliennes sur la Santé de l'Homme*

[6] *Id.*

[7] United States Fish and Wildlife Service, September 20, 2010, Letter to the Oregon Department of Energy re: Request for Comments on the Application for Site Certificate for the proposed Summit Ridge Wind Project, Wasco County, Oregon, p. 3 (attached to these comments as Exhibit 5).

sized wind projects that produce energy for offsite use. The County should adopt a policy that ranks renewable energy projects in a manner that gives preference to or otherwise incentivizes distributed generation projects in urbanized areas that have substantial existing infrastructure to be served by the locally produced electricity. Large-scale energy projects intended to produce electricity for offsite use should be discouraged, particularly in areas of ecologically, scenically or otherwise valuable open space or agricultural use.

Not only would distributed generation have fewer environmental, health, safety, public utilities and other impacts, it is eminently feasible, arguably cheaper and has the potential to produce significant amounts of energy. For example, the California Energy Commission has determined that there are up to 60,929 MW of potential rooftop, photovoltaic, distributed generation in the state, not including commercial parking lots.[8] In San Diego County alone there are an estimated 2,600 MW of potential photovoltaic capacity on existing structures and already disturbed lands.

VII. CONCLUSION

Conservation Groups appreciate being informed of the County's proposed changes to the Amendments and the CEQA process thereon. Conservation Groups respectfully request your careful attention to their comments.

Thank you for considering our comments on this important matter.

Respectfully submitted,

Stephan C. Volker
Attorney for Backcountry Against Dumps,
Protect Our Communities Foundation, and
East County Community Action Coalition

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[8] Public Interest Energy Research Program, California Energy Commission, *Distributed Renewable Energy Assessment: Final Report*, August 11, 2009, pp. 10 and 43.

LIST OF EXHIBITS

1. BAD, POC and ECCAC, Comment Letter re: San Diego County Solar and Wind Energy Ordinance Amendment and Draft Negative Declaration thereon, State Clearinghouse No. 2010021070, March 26, 2010.

2. Punch, Jerry, Richard James & Dan Pabst, "Wind-Turbine Noise: What Audiologists Should Know," *Audiology Today*, July/August 2010, pp. 20-31.

3. Nissenbaum, Michael A., *Mars Hill Wind Turbine Project Health Effects: Preliminary Findings*, presentation to the Maine Medical Association, March 2009.

4. Society for Wind Vigilance, *A Primer on Adverse Health Effects and Industrial Wind Turbines*, March 2010.

5. United States Fish and Wildlife Service, Letter to the Oregon Department of Energy re: Request for Comments on the Application for Site Certificate for the proposed Summit Ridge Wind Project, Wasco County, September 20, 2010.

WIND ENERGY ORDINANCE
POD 10-007

NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT
PUBLIC REVIEW PERIOD
September 9, 2010 through October 11, 2010

PUBLIC SCOPING MEETING COMMENT SHEET

Tuesday, September 21, 2010
Department of Planning and Land Use Hearing Room
5201 Ruffin Road, Suite B
San Diego, CA 92123

WRITTEN COMMENT FORM

Please see the attached letter dated October 15th 2010.

(Attach additional pages as needed)

[signature] 10/15/10
Signature Date

Jennifer R. Purczynski
Print Name

7777 Fay Ave., Ste. 200
Address

La Jolla, CA 92037
City State Zip Code

MAIL, FAX or E-MAIL FORMS TO:

Matt Schneider
County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123
Phone#: (858) 694-3714
Fax #(858) 694-3373
e-mail: matthew.schneider@sdcounty.ca.gov

COMMENTS MUST BE RECEIVED BY 4:00 PM, October 11, 2010

Green Power

Padoma Wind Power, LLC
A subsidiary of Enel North America, Inc
7777 Fay Ave, Suite 200, La Jolla CA 92037
Tel: 858-731-5001 Fax: 858-731-5049

October 15, 2010

Mr. Matt Schneider
Land Use/Environmental Planner III
County of San Diego Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123
MS O-650

Re: Scoping Comments on Wind Energy Ordinance (POD 10-007)

Dear Mr. Schneider:

Thank you very much for the opportunity to comment on the scope of San Diego County's proposed Wind Energy Ordinance, POD 10-007. As you know, tapping into sources of renewable energy is critical for a number of reasons. Not only will clean power improve quality of life by reducing air pollution and creating green jobs, it will help meet the State of California's aggressive RPS goals and targets for cutting greenhouse gas emissions. We applaud the County's commitment to achieving these goals by updating and streamlining requirements for small and large wind energy systems. This effort represents a positive step toward cleaner energy and a sustainable future.

We are pleased to submit the following comments on the scope of the new ordinance and the environmental document. Our company, Enel Green Power, is proposing a wind and solar energy facility in the unincorporated community of Boulevard. We plan to submit an application to install MET facilities at the site later this month and eventually may pursue a Major Use Permit (MUP) through the County. As such, our comments are primarily focused on establishing reasonable guidelines for utility-scale wind projects, rather than systems smaller than 50 kilowatts (KW).

Enel Green Power (EGP) is a subsidiary of Enel, Italy's largest power company and a worldwide leader in renewable energy production. EGP operates in 16 countries and has an installed capacity of more than 5,700 megawatts (MW) – enough to cover the energy consumption of 7.8 million families. Approximately 800 MW of that electricity is located in North America. EGP is currently operating and developing hydro, wind, geothermal and biomass facilities in 20 U.S. states and three Canadian provinces.

In early 2010, EGP purchased San Diego-based Padoma Wind Power. Our team has expertise in developing, operating and owning wind farms. We have worked on more than 45 projects worldwide and installed roughly 1,300 MW of wind in the U.S. This extensive experience has provided us with a strong knowledge of industry standards and best practices on which we have based our scoping comments.

I. Evaluate large wind energy systems during the MUP approval process

Because utility-scale wind projects will be fully analyzed in individual Environmental Impact Reports (EIR) during the MUP approval process, which includes extensive county and public input, we believe it is unnecessary to establish height limits, minimum setbacks or other baseline criteria in the Wind Energy Ordinance. Assessing proposals on a case-by-case basis will provide wind developers with flexibility to respond to advances in technology. Placing limitations on large wind energy projects in the ordinance could hinder future renewable energy development.

II. Establish setbacks on a case-by-case basis during the MUP approval process

Since the 1980s, wind turbines have grown considerably in size, capacity, efficiency and cost effectiveness. For example, wind turbines installed at Altamont Pass in Alameda County in the early 1980s had a rotor diameter of 17 meters and produced 100 KW of energy Today, turbines with rotors exceeding 100 meters in diameter are capable of generating 2.5 MW or more. Although it is unlikely that we will continue to see the same rate of growth in turbine size that we experienced during the last 20 years, it is possible that newer, more advanced designs, which may include taller towers and larger rotors, will continue to be available in the future.

Due to the technological advancements discussed above, establishing minimum setbacks based on turbine height is constraining and could hinder opportunities for project layout optimization to maximize efficiency. Wind energy projects could also be prevented from moving forward, which would be a direct conflict with one of the purposes of the new ordinance, which is to develop additional renewable resources to meet the state's RPS goals. We recommend the County not establish turbine heights in the Wind Energy Ordinance and instead evaluate projects on a case-by-case basis during the required CEQA and environmental review process.

Should the County establish minimum setbacks for large wind energy systems in the new ordinance, we recommend maintaining the provision that allows significant setback reductions with the written consent of surrounding property owners. Further, strong consideration should be given to eliminating setbacks from property lines if adjacent parcels are part of the same project.

III. Evaluate noise for large wind energy systems in individual project EIRs

Noise levels vary depending on site-specific conditions, such as topography and vegetation. Turbine models and the direction and magnitude of the winds also influence sound propagation. As a result, noise should be analyzed for individual projects based on the local winds and topography. Any maximum decibel levels established by the County should be analyzed using the existing CEQA guidelines.

IV. Turbine description in MUP application

Because wind turbine technology is constantly evolving, we believe the County should not require large wind energy system developers to include the turbine manufacturer, model, power rating and blade dimensions, or tower manufacturer in the MUP application. As you know, the environmental review and approval process can take several years. This requirement would prevent developers from utilizing the most up-to-date, efficient and cost-effective turbines at the time of construction. The new ordinance should allow applicants to provide a general description of the proposed turbines that includes ranges for height, blade dimensions and capacity. The exact model and manufacturer would be finalized prior to the certification of the Final EIR.

V. **Assess biological impacts in individual project EIRs**

Biological impacts depend largely on specific sites. Vegetation and animal species may vary from one location to the next. Analysis of these issues should fall under the purview of project EIRs during the MUP process, rather than the County's more comprehensive study. Biological impact assessments should follow the County's already established, CEQA-supported guidelines.

VI. **Maintain additional standards in current ordinance**

We support the County's current standards for fencing, signs, visual, non-operational wind turbines and removal surety. Therefore, we respectfully ask that your EIR analyze the guidelines found in the existing ordinance.

Thank you very much again for the opportunity to submit these comments on the Wind Energy Ordinance EIR. We sincerely appreciate your efforts to streamline the process for renewable energy projects in San Diego County. Should you need any assistance in the future, please don't hesitate to contact us.

Sincerely,

Jennifer Purczynski
Senior Manager, Project Development

Prodígeo Corp.
a consultancy & holding company

The major classification the wind ordinance needs to be categorized is onsite versus offsite:

Offsite - Any offsite/exportation of renewable electricity should be considered an administrative permit and only subject to public and cursory environmental studies if deemed necessary. Some may argue that this is not enough, but due to the imminent need for our civilization to go to a renewable solution coupled with the rare and precious renewable resource that pockets of San Diego have, as the risk for impact locally will be made up for many-fold with the reduction of greenhouse gases, acid rain, global warming. Wind power risks do not have the ability to affect ecosystems and therefore the macro-effect should only be considered.

Onsite - If a renewable technology exists for a commercial/residential use that would enable it to be off the grid, then all barriers to execution should be lifted and a "by right" designation to be given. There is no way this solution could be abuse as they would need to show electrical analysis for the requirement of the end product. Stipulations can be instituted if necessary for the permit to be a bi-annual renewal where owners are required to provide actual metering reports to validate that all power required needed by facility is being produced and used onsite. This would be a better solution than any regulation that would put roadblocks in the way of supporting sustainable energy production.

Wind (Current 50kw limit) versus Solar (Currently unlimited):

The baseline payback period for solar is roughly 10 - 15 years, when the payback for wind is 4 - 6. This is because wind is more than twice as efficient as solar and half of the price. Therefore, wind (or any other renewable resource) needs to be treated equally like solar, if there is a wind resource, it is a waste not to use it.

Major facts and fallacies with regard to wind turbines over the last 20 years since the last regulations were developed:

* - Turbines move slower thus easier for birds/bats to navigate.
* - Turbines are quieter (equivalent to a refrigerator at the loudest)

Prodígeo Corp.

a consultancy & holding company

The variables that are important for consideration when drafting wind energy guidelines (in order of importance):

1. Output – Any onsite use needs to be unlimited and should not favor any particular technology. If there is a natural gas, water, wind, or solar resource on the property and the owner has the ability, (s)he should be encouraged so take any measure required to be sustainable and should not be prohibited/limited in doing so.
2. Height - So long as the GPS coordinates are gathers to inform FAA requirements, height should never be a restriction. If HAM radio towers are allowed, then certainly technology to reduce the carbon footprint.
3. Setbacks - Setbacks should not be required for non-residential structures. (Setbacks arguable should not be required for residential as well as if a structure falls, which rarely happens, the negligence is in the installation as the engineering is designed to withstand wind pressure.
4. Visual Impact - Wind Turbines have become the marquee technology for the Green Energy movement, to some they are majestic and others an industrial eye-sore.

Regardless, the bottom line is that wind energy is in the top tier of efficiency for renewable along with hydro and geothermal,