

Lauren Coartney

From: JonIsaacs@aol.com
Sent: Thursday, March 03, 2011 9:14 PM
To: ECOSUB; catulewind@blm.gov
Cc: dianne.jacob@sdcountry.ca.gov; tisdale.donna@gmail.com
Subject: Comments: DEIR/DEIS FOR ECO SUBSTATION, TULE WIND & ENERGIA SIERRA
JUARE Isaacs
Attachments: ISAACS~1.DOC

Hello to all:

It has been a long, hard time, reading, researching, thinking, writing, all the while pondering the fate of our corner of East County. If they are approved, the ECO SUBSTATION, TULE WIND & ENERGIA SIERRA JUAREZ GEN-TIE PROJECTS would seem to have major impacts on the communities of Boulevard, Jacumba and the surrounding regions.

The total sum of the impacts is beyond the ability of a single individual to address and so I have chosen to study those that seem most important to me as someone with a home on Jewel Valley Way, a location that would be directly affected by some aspects each of these projects as well as the Jordan project. Some of my concerns are very local, the sound produced by nearby turbines, the possible increase in light pollution and its affect on my astronomical studies. Some are more community wide, property values, the damage to the wonderful vistas. Some are procedural, making sure that the funds for dismantling these turbines are secured for the time when they are no longer operational. And some are county wide, the increased risk of wildfires and the increased difficulty in fighting wildfires.

I have tried to address these issues honestly, from the place of an individual whose life has been and will be changed by whatever decision is made concerning these projects. I have brought my total being to bear on these issues. In some cases I just want to know more, for example, "Are there really 12,000 abandoned wind turbines in the state of California?"

In other cases believe I bring something unique the table. One such case is the measurement and analysis of the sound levels. I have been a researcher in the Engineering Department at UCSD for 24 years, my focus is on making measurements, not just making accurate measurements but also making the right measurements, ones that accurately characterize the conditions. Sound consists of a broad spectrum of acoustic waves of different amplitudes, one number or measurement cannot accurately quantify the sound from operating wind turbines and how it might affect the environment. Fortunately, there is no need make use a single number to quantify the sound levels, the tools and techniques to make the right measurements are well known, the proper equipment exists.

As you read my comments, I hope that my questions are clear, my concerns are clear and my concerns are real to you. I was born in the Oceanside Hospital in 1948 and have essentially lived my entire life in San Diego county. East county has long had a special meaning to me, camping as a child, in my youth tearing around old 80 and 94 on a motorcycle, as a young man, driving a hay truck over the back roads of San Diego county and more recently as an amateur astronomer enjoying the dark skies between the light domes of Mexicali and San Diego.

My wife and I recently purchased a small place in Boulevard with the thought that it would the place we could spend our retirement years in a quiet, peaceful, rural region with dark skies and undisturbed vistas of grand proportions. We are still hopeful that this may still come to pass but clearly we are concerned and wondering what we will do, where we will go if indeed these projects and the others in the planning process are approved.

Best wishes to all from the wonderful dark skies of Boulevard.

Jon Isaacs

This footnote confirms that this email message has been scanned by
PineApp Mail-SeCure for the presence of malicious code, vandals & computer viruses.

California Public Utilities Commission
Attn: Iain Fisher

March 4, 2011

BLM California Desert District Office
Attn: Greg Thomsen
c/o Dudek
605 Third Street
Encinitas, CA 92024

VIA E-MAIL: ecosub@dudek.com, catulewind@blm.gov
RE: DRAFT DEIR/DEIS FOR ECO SUBSTATION, TULE WIND & ENERGIA
SIERRA JUAREZ GEN-TIE PROJECTS

Dear Mr. Fisher, Mr. Thomsen,

Issues of concern regarding the Draft Environmental Impact Statement for the ECO SUBSTATION, TULE WIND & ENERGIA SIERRA JUAREZ GEN-TIE PROJECTS.

Initial Comments:

To someone familiar with this area, the impact of these projects to this panoramic region would be huge. The overall environmental impact to the region would be severe and could not be adequately mitigated. For a scenic area, this is unacceptable. Indeed, the conclusion of this Draft Environmental Impact Statement is that the environmental impact of these projects is severe, that it cannot be mitigated and that the best choice is no action. In a scenic region that is home to a small community and has many wonderful recreation areas, it seems a tragedy to damage this fragile landscape and disturb this community when the environmentally sound choice is to leave it alone.

In the process of writing these comments, I became aware of the large number of abandoned wind turbines spread across the state. A view from above, a view of the bigger picture would suggest that these are places to renew and the places to build turbines. The damage in those locations has already been done, new modern wind farms could not only benefit the environment by replacing old machinery with new but also by replacing old environmental practices with new, modern understandings.

Visual:

As a 62-year resident of San Diego County, this east county region has long been special. While we are only recent property owners and part time residents, it is our intention to retire to our home in Boulevard where we can share in the wonders of the California Desert Mountains. I have long been an enthusiastic amateur astronomer and we chose the Boulevard area particularly because it has some of the darkest skies in southern California and because of its proximity to the San Diego Astronomy Associations Tierra Del Sol site and SDSU's Mt. Laguna Observatory. The Dark Sky Ordinances in place in San Diego County were also an important factor. It is important these skies be preserved. It appears that if the ordinance and regulations are followed that the impact can be mitigated.

Unfortunately what cannot be mitigated are the many different ways these turbines, power lines and substations impact the visual environment. Because of the panoramic nature of the area and large open vistas, these 300-500 foot high towers cannot be hidden. Again, just another reason the first choice of the report, take no action, is the appropriate choice and should be followed.

Decommissioning and Restoration:

The life expectancy of the Wind Farm Projects is approximately 30 years. At the end of this period, it is planned that the wind farms will be decommissioned, which involves removal of the turbines and returning the environment to its original condition. In other locations in the state of California, wind farms have been abandoned by the owners and have not been cleared away. In order to avoid this scenario, it seems that the funds necessary to decommission the wind farms and restore the environment should be provided at the start of construction and held by a third party until required. This would guaranty that were the owners of the wind farms to become insolvent or otherwise unable to decommission the wind farms and return the region to its previous condition, this important environmental responsibility could still be met. This is in accord with general environmental policy. When I buy a can of soda pop, I am required to pay up front the cost of recycling the aluminum can, that way it is already paid for and it can be done without further concern. The cost of decommissioning and restoration should be managed in a similar manner; it should be taken care of prior to project approval so that it is guaranteed to be funded.

Sound level, noise measurements:

The possibility for increased background sound from the operating turbines is of great concern to me, to my wife, to my sister and it seems to the community as a whole. The report contains sound level information but very little that is more than numbers and certainly nothing that an individual who may be subject to these sounds can use to understand what they might be facing. The only resources available to get a sense of the sound of operating wind turbines seem to be recordings on the Internet and discussions with individuals such as members of the nearby Indian tribes who have long term experience with the sound of the operating turbines. Without exception, what one hears from both these sources is disturbing and alarming.

Thus, an accurate assessment of the current sound levels and as well as an accurate prediction of the increased sound levels across the full spectrum is critical. This should not only meet the letter of the law, but also be consistent with medical physics and the fundamentals of acoustics and wave propagation. Coming from my background as a researcher in the engineering sciences at UCSD, these are some observations and concerns I have about the DEIS.

- According to this statement, the proponents provided the current sound level data. I believe that such important initial data points that may be used to determine the actual environmental impact of the wind turbine noise should be made by an independent third party.

- In the section concerning the level of increased noise caused by the proposed wind farms, it was stated that the ambient noise measurements as well as the noise added by the various aspects of the wind farm projects were measured using the Db(A) scale.

The use of the dB(A) scale rather than the dB(C) scale seems inappropriate. The dB(A) was developed as a scale to assess peak sound levels, which would and could cause damage to the human ear. The ear is more susceptible to injury in the mid-ranges and less susceptible to injury at both high frequencies and low frequencies and so the dB(A) scale has severe rolloff in its measurements at low frequencies. It is down 50dB at 20Hz; essentially, it does not include these frequencies in the sound level measurements. Many seem to recommend using the dB(C) scale for measuring machinery sound levels, the dB(C) scale is flat down to 100 Hz and then rolls off to about 15 dB at 10Hz.

Looking at the physics as well as listening to the sound of a wind turbine with its long blades cutting through the air, it seems clear that there is a substantial low frequency component to the noise, the very sound that the inappropriate dB(A) scale minimizes. The dB(C) scale would be more accurate in estimating the noise levels of the wind turbines.

From a scientific standpoint, the real difficulty here however, is that both the dB(A) scales and the dB(C) scales are attempts to characterize complex quantity with a single number. To properly understand the sound levels, particularly of the wind turbines themselves, the proper instrument is the spectrum analyzer. A spectrum analyzer measures sound levels as a function of frequency and therefore is capable of a much better representation of the actual sound of a wind turbine.

I believe for this environmental impact assessment to accurately reflect the actual level and effect of the sound on the environment, additional measurements and information is required:

1. Initial sound level measurements conducted by independent parties under the direction of independent parties that report directly to Dudek and/or the BLM. These should include both dB(A) and dB(C) levels for future use.
2. The report should include detailed data and analysis of the actual sound spectrum of an operating wind turbine under a variety of operating conditions including those associated with "high mileage" units and how this compares to background sound levels. With access to a wind farm and appropriate recording equipment, the measurements and analysis should be straightforward.
3. With the proper spectrum and spatial data, modeling of the propagation and sound should be possible including any additive effects that might result from multiple sources.

While I am aware that in many instances the dB(A) scale is mandated by law, it is also clear that it is poorly characterizes machinery noise and that to complete this impact

statement with scientific accuracy rather than just meeting the legal requirements, further efforts are necessary.

Wind Turbine Size:

The actual size of the turbines needs to be established. Mention is made of various units including units as large as 500 feet. Before the impact to the environment, particularly the visual environment, can be properly determined, actual sizes need to be known. For comparison, Mount Soledad is about 800 feet above sea level at the cross.

Fire:

Table D.15-9 lists Significant and Unmitigable Impacts regarding the impact of the Eco Substation, the Tube Wind and the EDJ Gen-Tie. Each project has serious, class 1 unmitigable impacts, all of them seriously increase the probability of a wild fire and each one will reduce the effectiveness of firefighting.

Each of these is serious and should be evaluated in light of the recent history of wildfires in San Diego County. One of the largest fires in California history, the Witch Creek Fire, was determined to have been caused by lax maintenance of their power lines by San Diego Gas and Electric and SDG&E was later fined \$17,000,000 for their lax maintenance for this and two other fires. Clearly the cost of fighting these new fires and the resulting damage far exceeded this amount.

After these fires, SDG&E petitioned the PUC to allow them to cut off the power to regions of East County during periods of high winds. This was met by resistance from the community, as it would leave them vulnerable and without power during periods when water and electricity could be critical in saving homes and lives.

The significance of this proposed action is that it appears to be an admission by SDG&E that they are unable to maintain their power lines so that they do not represent a serious fire risk. It seems contradictory to allow new high voltage power facilities to be installed in a vulnerable environment when the regional supplier of electric power who has been responsible for major fires, still believes they are unable to manage the situation.

For the county taxpayers and for those who reside in the Boulevard-Jacumba region, two issues seem apparent.

- First, given this history, it should be determined whether adding more high voltage transmission lines in a high fire risk area makes sense.
- The second issue is that if it is decided that indeed this is a risk worth taking, what will be done to ensure that the owners and operators of these projects will assume the costs associated with an increased probability of wildfires. These would include increased home insurance costs for those living near the projects, the costs of increasing the level of fire protection, the costs of fighting any fires that may result from these projects as well as the damage to property and the environment.

Since the “Take No Action” was recommended as the most environmentally sound choice, it would seem those making this choice are aware of the difficulties associated with wildfires. However, if for some reason a less environmentally sound alternative is chosen, then it is mandatory that adequate safeguards be in place prior to the beginning of actual construction so that if a fire does occur, the tax payers and property owner affected can be confident that the entities involved will be held accountable and that sufficient funds are present to take care of all costs.

Property Values:

For the small property owner whose lifetime of work and toil may well be represented by the land and structures that is called home, changes in the property value and salability of their home is of great importance. This may represent their entire life’s work and the inheritance they hope to pass on.

When major projects invade previously peaceful, sleepy towns like Boulevard and Jacumba, it is a very scary thing; there are many questions and few answers. Proponents of the projects may maintain that there will be no effect on property values but common sense says otherwise. The salability of our Boulevard home has already been affect by these proposed projects, the mere existence of these projects, including the Jordan Project must be disclosed to any purchaser in the discovery phase. Prospective buyers looking for the same peace and quiet we had hoped to enjoy would clearly choose another location. The word of the day seems to be mitigation; can this be mitigated? If so, how?

In this case, if the NO ACTION recommendation is not followed, then home values in the area may decrease. Since a decrease could be directly linked to the construction of these projects and it directly affects the members of the community, then the loss of value should be born by the proponents of the project. The most obvious solution to this quandary is a “good faith” property value guaranty. If the property values do not drop, then no one is out any money. If they do decline, then those benefiting from the project can step up to the plate and take responsibility.

In this case, mitigation appears to be simple. There is no need to argue whether mitigation will be necessary, one can wait and see. What is important, is to have a plan for mitigation in place and agreed upon prior to construction. If the property values do not decline, everybody wins. If they do, those responsible can take the burden.

How These Three Projects Affect the Surrounding Communities:

There are many ways these projects will affect the communities of Boulevard and Jacumba. There has been a serious attempt to quantify how these projects would affect the environment, this includes the wildlife, the land, the geology, the history, the physical health of the people, and many aspects of the environment.

But what it has not been addressed are the most obvious effects: what will become of the once rural communities of Boulevard, Jacumba, Manzanita and the surrounding rural regions, if these three projects that are the primary focus plus the three that are waiting in

the wings are built. It doesn't require much imagination to envision what these massive projects would do to this once wholesome region.

Driving around the state of California via the World Wide Web, one can see horrific photos of abandoned wind farms. One report mentions 14,000 abandoned turbines in California. I am not in a position to verify these numbers, rather....

I am in a position to ask that this impact statement include data concerning the number of abandoned wind turbines in the state of California.



http://www.americanthinker.com/2010/02/wind_energys_ghosts_1.html

The question this raises is an obvious one.

“If there really are a significant number of abandoned wind turbines across the state of California, why subject this unique and relatively undisturbed environment to irreparable damage when there are other locations that have already suffered at the hands of the wind power industry?”

Summary: Some Final Thoughts and Comments.

In order to make this report more complete and provide an Impact Statement the gives a clearer picture of how these projects would affect this area, I see the following action items as mandatory:

-Decommissioning: The plans for decommissioning and environmental restoration of the whole wind farm region must be in place prior to approval. Prior to construction, the funds necessary to decommission all the wind farms must be in place and under the control of a third party. Like aluminum cans, computer monitors and televisions, decommissioning costs should be paid up front. Decommissioning should require disassembly and removal of all components and structures.

Sound/Noise: A more extensive measurement and analysis of the turbine noise is necessary. The data should be collected independently of the interested parties and should include not only the measurements of dB(A) and of dB(C) but also more importantly a spectrum analysis of the actual acoustic vibrations that the turbines produce. Given the complicated nature of the turbines, the acoustic vibrations we normally think of as sound almost certainly consist of a broad spectrum that cannot be properly characterized by a single weighted number.

Increased Fire Risks: The report is clear that there would be increased fire risk from each of these projects; each would make fire more likely and each would make fighting any fire more difficult. This must be mitigated at any cost. A repeat of the fires of 2007 could devastate large areas of East County and indeed the county as a whole. The cost of increased fire protection as well increased fire insurance costs for the community are the responsibility of the proponents. The mitigation measures already proposed in the project hardly seem adequate. Not one single new fire station is proposed in spite of the construction of this enormous industrial complex.

Property Values: Taken as a whole, it seems likely that these projects will result in a decrease in the local property values. This can be mitigated with a simple “good faith” agreement by the proponents of these projects to take responsibility for their projects.

Abandoned Wind Farms: This impact statement needs to include accurate information about the number of abandoned wind farms across the state of California and the southwest. Not only would this data be important in determining whether impacting the Boulevard-Jacumba region is truly necessary, but it would also provide some information as to the likelihood of failure of these proposed projects.

One last request:

When it is complete, this Environmental Impact Statement should accurately reflect the many ways in which this remote region of San Diego County would be affected by these major projects. Those who prepared this document worked long and hard and spent many hours in the field getting to know the region. The recommendation of those who prepared this document is that the best choice environmentally is the NO ACTION choice.

For those who will be deciding the fate of this region, I hope that you do more than read this document.

I hope that you too take some time to visit these areas, to stand next to a wind turbine flailing away in the wind, to travel to the remote regions of McCain Valley, to get to know these communities, to join me on a wonderfully dark and quiet night gazing at the

dark sky flooded with stars, to understand the vistas that will be forever changed, to imagine for yourself the increased fire risks, and to imagine for yourself just how this region would be changed forever.

To anyone who does take this time to get a “gut feeling” about the impact to this region, I think it would be clear that indeed “NO ACTION” is the right action.



Jon Isaacs
Senior Development Engineer/Researcher
Center of Excellence for Advanced Materials
Department of Mechanical and Aerospace Engineering
University of California, San Diego

Homeowner
Amatuer Astronomer

39745 Jewel Valley Way
Boulevard, CA, 91095

5125 Constitution Rd
San Diego, CA 92117

Jisaacs@ucsd.edu
Jonisaacs@aol.com

858-945-4782