

## Public Correspondence

### Item 7- Support

October 8, 2020

San Diego Planning Commission,

My late wife, Frankie Thibodeau, was always a strong advocate of renewable energy and firmly believed in the economic and environmental benefits it will serve for our local community. To that end, I am writing today to continue her legacy and show my support of the Campo Wind clean energy project being proposed by Terra-Gen LLC in partnership with the Campo Kumeyaay Tribe, here in San Diego.

We know that wind energy is clean, renewable, and effective. The Campo Wind project alone will generate enough energy for over 70,000 area residents – a sizeable number that will also help in achieving California’s ambitious renewable energy mandate target by 2045. Further, and equally important, this project will be a significant economic investment in the Campo Tribe and its members. The wind farm will provide the Tribe with a reliable source of income that will elevate their standard of living, create short-and-long-term employment opportunities, as well as generate revenue for local businesses.

We have an untapped opportunity here to make a significant impact on our environment, the Tribe, and the community as a whole. Wind farms make sense to me - they boost local economies and significantly reduce carbon emissions – so I encourage Country officials to carefully consider these benefits and join me in supporting the Campo Wind project.

Regards,

Wayne Thibodeau

39990 Roadrunner Ln  
Boulevard, CA 91905  
(619) 766-9105

Stephen Greifzu  
2405 Sage Drive  
Campo, CA 91906  
619 255 5788

To Whom It May Concern,

I am sending this letter as a show of strong support for the Campo Wind Project being proposed by Terra-Gen, in San Diego.

As a homeowner with solar panels, it goes without saying that I am invested in alternative sources of energy. Our region needs clean, renewable energy and a project like Campo Wind will be a source of such energy to 70,000 residents; not to mention it will also offset greenhouse gas emissions and help our great state meet its renewable energy goals.

I am in full support of this project because Terra-Gen is not only committed to working in partnership with the Campo Kumeyaay Tribe to provide its members numerous economic, educational and social benefits but is also committed to working with the local community to ensure potential environmental impacts are mitigated. The Campo Wind Project will significantly boost the local economy through the creation of numerous employment opportunities, including construction jobs, as well as fueling additional revenue for surrounding businesses.

It's not a matter of should we, but rather we must, look at alternative options for energy to help mitigate further environmental damage. I strongly urge you to consider the immense benefits of diversifying our energy sources both from an environmental and local community perspective.

Regards,

Stephen Greifzu

Alan Ridley. M.A.  
1380 Montera Street  
Chula Vista, CA 91913  
(858) 883-7314  
[weprosper2@hotmail.com](mailto:weprosper2@hotmail.com)

RE: **LETTER OF SUPPORT** FOR THE TERRA-GEN CAMPO WIND PROJECT

Dear San Diego Planning Commissioners,

As a resident of San Diego County, I recognize the environmental and economic benefits that renewable energy will bring to our region. Since much of the transmission is already in place, wind adds diversity to our growing power demands and long-term energy mix without requiring enormous additional transmission costs. For many reasons, I am writing today in support of the Campo Wind project currently proposed by Terra-Gen.

Unlike fossil fuels and many other forms of energy, the source of wind energy is free and can help California reach its renewable energy goals. Approving this project will create more energy independence by limiting our reliance on fossil fuels and other out of state and foreign based energy supplies. Building and using more renewable energy will reduce deadly wildfires in California and elsewhere through the reduction of greenhouse gas emissions.

The Campo Wind project will play a critical role in helping to achieve all of this and it will provide clean renewable energy to more than 70,000 San Diego area homes and residents. It will also generate increased property and other tax revenues for the citizens of the County of San Diego. Further, it will reduce the need for welfare among tribal communities by offering employment for local workers and generate business opportunities in and around the tribal lands of the Campo Band of the Kumeyaay Nation.

As a long-time advocate and supporter of wind energy and other clean technologies and sustainable practices, I am a firm believer that this is the way of the future. It is my understanding that this project has already received approval from the tribal community and tribal authorities so it should be a no brainer.

I support the Campo Wind project and urge the committee to approve the project to give both the Tribe and our community a fighting chance for a cleaner more sustainable future.

Sincerely,

Alan Ridley

To the San Diego Planning Commissioners,

Please accept this letter as a show of my strong support of the Campo Wind project being proposed by Terra-Gen in Boulevard. Above and beyond wind energy being clean and renewable, investing in such projects boast several advantages for our community. A project of this size will create construction jobs, provide important benefits to the Campo Kumeyaay Nation and help our state meet its climate change goals.

The state of California started its transition to clean energy in 2001. Its been nineteen years and we are still not there yet. We need to move faster to meet our goal of being a 100% clean energy state by 2045. The Campo Reservation is an ideal location with ample wind to help achieve this goal. Let's work together to get it done!

I kindly ask you to approve this project and look forward to hearing the outcome of the upcoming meeting.

Sincerely,

William Pape  
PO Box 516  
Jacumba, CA 91934  
Billjacum@aol.com



To the San Diego Planning Commissioners,

I've been an advocate of renewable energy since the 1970s. The efficiency of wind energy is improving, driving down energy costs and dependency on fossil fuels. I've visited similar sites in France, Netherlands, Germany, Texas, and Hawaii and recognize the incredible benefits investing in renewable energy can provide. Wind energy can fill gaps from solar and it isn't as messy as geothermal. Eventually we'll be able to share power with neighboring counties, states, and countries. California desperately needs power and fresh water not hijacked from our farmlands, but rather, harvested from the ocean. I'm praying that the Campo Wind project and others can add value in that direction and not be burdened by over regulation and taxation.

Wind energy is clean, renewable and it will help our state meet its climate change goals. The Campo Wind project would provide construction jobs and important benefits to the Campo Kumeyaay Nation. For all these reasons, please accept this letter of support for the Campo Wind project.

Thank you,

Mike Bateman

[bateman737@cox.net](mailto:bateman737@cox.net)

(760) 458-2818

Dear Chairman Barnhart,

As a property owner in both Santee and Banquet Springs, I strongly feel us San Diegans must do our part to support green power, which is why I am writing to you today to express my support of the Campo Wind project. We must be responsible for our consumption of resources and leave as little damage on earth as possible. Please do not dismiss the importance of this project from an environmental standpoint – we must invest in the long-term for the wellbeing of our planet.

I also understand the Campo Tribe has approved this project to reside on their land, so it seems this is an easy decision to move forward.

Let's stop wasting time and invest in this free and plentiful resource. Please approve the Campo Wind project for a cleaner and healthier San Diego.

Kind Regards,

Philip Villanueva  
10032 Pinewood View  
Santee, CA 92071

Alita Hetland  
5926 Rancho Mission Rd. #94  
San Diego, CA 92108  
619-282-7080  
[alitalalita@yahoo.com](mailto:alitalalita@yahoo.com)

**Letter of Support for the Terra-Gen Campo Wind Project**

Dear Planning Commissioners,

I believe in the indisputable effectiveness of wind power and I have recently come to learn the proposed Campo Wind project will generate clean, renewable energy for more than 70,000 San Diego residents – that’s an impressive number of people that can instantly become less reliant on non-renewable energy once the project is developed. I’m also aware of our state’s ambitious clean energy target, so any project that will help us meet that goal should be approved without question in my opinion.

Above and beyond the environmental benefits of this project, it’s my understanding that the Campo Kumeyaay Nation have already approved this project to be built on their land and that it will provide the Tribe tremendous economic stability. This is yet another undeniable reason (and benefit) why this project should be approved.

For all these reasons, I strongly ask that you approve the Campo Wind project.

Regards,

Alita Hetland

To the San Diego County Planning Commission,

Investing in renewable energy is the right decision for San Diego. If we are to move the needle in reaching our state's energy goals, we need to invest in substantial wind farm projects, such as Campo Wind, to make it happen. I implore you to permit the Campo Wind project to help ensure a pollution-free future.

The time is now to invest in wind energy – not years down the road when it's too late. Wind energy is the solution to curb greenhouse gas emissions and our dependency on fossil fuels. Such projects boost the local economy, generate clean renewable energy and in this case, will provide a sustainable economy for the Campo Tribe members. It seems there are many compelling reasons to move forward with this project.

I firmly believe this project will have an overall positive impact on the San Diego community and I strongly urge you to approve it.

Sincerely,

Bryce Plank  
619 990 3763  
[bryceplank@gmail.com](mailto:bryceplank@gmail.com)

Dear Chairman Barnhart and San Diego Planning Commissioners,

As a resident of San Diego County, I strongly believe that investing in renewable energy is an obvious solution to meet our state's aggressive clean energy goals while also helping save our environment. We need to move forward with alternative power solutions to end our dependency on fossil fuels; investing in developments like the Campo Wind project is the first step to achieving that.

It's also my understanding that the Campo Kumeyaay Nation is in full support of this project on their land which is an even more obvious reason to approve this project. It will bring their Tribe economic stability and create jobs and additional revenue for local businesses – clearly a win-win scenario for everyone.

I support the Campo Wind project and urge you to approve this project. We can't afford any further delays to bringing renewable energy sources to our community.

John W. Winnen

[winnen@cox.net](mailto:winnen@cox.net)



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SUITE 200  
SAN DIEGO, CA 92101  
858-568-7777

cleantechsandiego.org

**MISSION:**

To accelerate clean  
technology innovation  
and promote the equitable  
deployment of sustainable  
solutions across the San Diego  
region for the benefit of the  
economy, the environment,  
and all members of  
the community.

November 3, 2020

San Diego County Planning Commission  
County of San Diego  
Planning & Development Services  
5510 Overland Avenue, Suite 110  
San Diego, CA 92123

**RE: Support for Campo Wind Project with Boulder Brush Facilities**

Dear Commissioners:

On behalf of Cleantech San Diego, please accept this letter of support for the Campo Wind Project with Boulder Brush Facilities.

Planned in accordance with the County Wind Ordinance, the Campo Wind Project with Boulder Brush Facilities consists of up to 60 wind turbines across Campo Kumeyaay tribal lands. When operational, the project will produce nearly 250 megawatts of clean, renewable energy – enough to power 70,000 homes across the San Diego region – and will provide significant economic benefits for the Campo Tribe and the San Diego region. Further, the Project will increase reliability of the grid under normal conditions as well as during either generation or transmission line outages.

Cleantech San Diego is a business organization that positions the greater San Diego region as a global leader in the cleantech economy. Our members include more than 120 local businesses, universities, governments, and nonprofits committed to advancing sustainable solutions for the benefit of the economy, the environment, and all members of the community.

The Campo Wind Project with Boulder Brush Facilities will play a critical role in helping the region meet its renewable energy targets. As cities and public agencies around our region continue to contribute to renewable energy goals with local generation assets, it is important that the County help advance those efforts by supporting local renewable energy projects on unincorporated land, including Tribal Land. These projects will not only benefit our environment, but also our regional economy.

With that, Cleantech San Diego supports the Project and requests you recommend approval of a major use permit for the Boulder Brush Facilities.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Anderson", with a stylized, flowing script.

Jason Anderson  
President and CEO  
Cleantech San Diego

Dear Commissioners,

I am sending this letter as a show of support for the Campo Wind Project being proposed by Terra-Gen, in San Diego.

As a resident of San Diego, I believe renewable energy is critical to meeting our County's growing power demands. We need projects like Campo Wind that will not only generate clean, renewable energy to more than 70,000 area residents but also offset greenhouse gas emissions to help our great state meet its renewable energy goals.

The Campo Wind Project will significantly boost the local economy through the creation of job opportunities and new revenue streams for surrounding businesses. I'm also supportive of this project because Terra-Gen is committed to working in partnership with the Campo Kumeyaay Tribe to provide its members numerous economic, educational and social benefits as well as the local community to ensure potential environmental impacts are mitigated.

We can't afford to delay investing in renewable energy any longer – now it the time to do it. I strongly request you approve the Campo Wind project so people in our community can benefit from this plentiful resource.

Christian McDonald

A handwritten signature in black ink, appearing to read "C. McDonald", with a stylized, flowing script.

858-245-6979

[cxnmcd@gmail.com](mailto:cxnmcd@gmail.com)

RE: **Letter of Support** for the Terra-Gen Campo Wind Project

To the County of San Diego Planning Commissioners,

I am a long-time resident of Campo and have always been a strong supporter of renewable energy and other green initiatives. Wind energy is an abundant natural resource here in the San Diego back country, and in my opinion, our area should be fully utilized for such projects.

I heartily support the proposed Campo Wind Project because it will benefit our community on so many levels. Since the Campo Kumeyaay Nation has approved this development on their land, I see no issues as to why the Project shouldn't be approved. It will be an economic investment in the Tribe, it will undoubtedly generate revenues for local businesses, and will provide clean renewable energy for 70,000 residents in the San Diego region. This Project will play an important role in helping to reduce greenhouse gas emissions and will assist California in meeting its clean energy goals toward saving our environment.

The overall impacts of this project will be overwhelmingly positive. Please approve the Campo Wind project to move forward.

Kind regards,

Stephanie Connolly  
1600 Buckman Springs Road  
Campo, CA 91906  
619-478-2177  
[tipaay2@aol.com](mailto:tipaay2@aol.com)



Dear Planning Commissioners,

As a resident of San Diego who supports green initiatives and renewable energy, please accept this letter of support for the Campo Wind Project being proposed by Terra-Gen and the Campo Kumeyaay Nation.

We can no longer afford delaying investing in renewable energy – now it the time to do it. I strongly request you approve the Campo Wind project.

Kind Regards,

Marie Beatty  
760 765 4720  
[marie@techelectric.net](mailto:marie@techelectric.net)

Dear San Diego Planning Commissioners -

I am a long-time supporter of wind energy because of its ability to produce clean, renewable energy in replacement of fossil fuels that continue to erode the wellbeing of our planet. I feel it's of the utmost importance to invest in new types of energy so we can eventually eliminate fossil fuels altogether; which is why I am writing this letter of support for the Campo Wind project that will produce enough clean energy to power 70,000 area homes while also moving the needle in the right direction for a cleaner future.

Additionally, I believe it could provide economic benefit to the Campo Kumeyaay Nation, but I defer to their community to decide whether they want this emission-free power generation on their land.

As a San Diego resident, I approve of and support any renewable energy project that has passed the appropriate environmental and in the case of this project, Tribal acceptance measures.

Regards,

Eric Hyman  
619-820-2490

RE: Campo Wind Project with Boulder Brush Facilities

Dear Chairman Barnhart,

I am writing with regards to the proposed Campo Wind Project with Boulder Brush Facilities. As a San Diego resident, I strongly believe that we as a community (and nation) must move away from foreign oil and fossil fuels. Investing in renewable energy will play an integral role in that process, which is why I am sending this letter of support for the Campo Wind project.

There are several environmental and socioeconomic benefits of renewable energy in general and specifically to the Campo Wind project that should be considered in your deliberations, including: reduction in greenhouse gas emissions, meeting California's clean energy targets, shifting our reliance on foreign energy to domestic, investment in local labor for construction and post-construction requirements, and finally, the economic benefit this project presents for the Campo Kumeyaay Nation.

For these and many more reasons, I urge you to approve the development of this project.

Sincerely,

Ben Eckold

[Ben.eckold@gmail.com](mailto:Ben.eckold@gmail.com)

Dear Planning Commissioners,

As a long-time resident of San Diego who values preserving the well-being of our planet, please accept this letter of support for the Campo Wind Project with Boulder Brush Facilities being developed by Terra-Gen.

Our every-growing climate crisis is threatening future generations' chance of a livable planet. It's our responsibility to address this issue now – to put viable and sustainable alternative energy options in place to start reversing the adverse damage fossil fuels have had on the environment, wildlife, and our health, and most importantly our planet as a whole.

Investing in renewable energy is the first step in fighting climate change, which is why I'm writing today to show my support for the Campo Wind Project and other renewable energy projects that are proposed for the San Diego region. Let's take advantage of this plentiful natural resource that we can easily harness in our back country and play an important part in helping save our planet.

Very Respectfully,

A handwritten signature in black ink, appearing to read "Gary Skaggs", with a long horizontal flourish extending to the right.

Gary Skaggs  
[garyskaggs@me.com](mailto:garyskaggs@me.com)

RE: Campo Wind Project with Boulder Brush Facilities

Dear San Diego Planning Commissioners,

As a resident of Boulevard and avid supporter of wind energy, I think Terra-Gen's Campo Wind project is a positive investment and will be a huge benefit to our community. Please accept this letter as a show my strong support of this development.

The back country has amply space and is the ideal location to capture wind energy. We must start being more progressive and innovative in our approach to energy production and usage NOW to help solve our growing environmental and energy problems. Investing in renewable energy projects, like Campo Wind, that will serve to generate enough energy for thousands of area residents is the first step to creating a cleaner future. Fossil fuels are antiquated and dangerous to our environment, our health, and forces America to be dependant on foreign producers.

Let's not be short sighted and be swayed by the opposition that merely disregards the many benefits wind energy provides on the basis that turbines are unsightly – this is not a valid reason to jeopardize the well-being of our planet and future generations.

Regards,

Brian Fitzgibbons

Boulevard, CA

619 277 2471

[b\\_fitzgibbons83@yahoo.com](mailto:b_fitzgibbons83@yahoo.com)

To the San Diego County Planning Commission,

Investing in renewable energy is the right decision for San Diego. If we are to move the needle in reaching our state's energy goals, we need to invest in substantial wind farm projects, such as Campo Wind, to make it happen. We implore you to permit the Campo Wind project to help ensure a pollution-free future.

The time is now to invest in wind energy – not years down the road when it's too late. Wind energy is the solution to curb greenhouse gas emissions and our dependency on fossil fuels. Such projects boost the local economy, generate clean renewable energy and in this case, will provide a sustainable economy for the Campo Tribe members. It seems there are many compelling reasons to move forward with this project.

We firmly believe this project will have an overall positive impact on the San Diego community and we strongly urge you to approve it.

Sincerely,

Ed & Bridget Plank

[edbridgetplank@gmail.com](mailto:edbridgetplank@gmail.com)

619-540-3763



**Cody J. Martinez**  
*Chairman*

**Joshua Muse**  
*Vice Chairman*

**Pilar T.A. Pettiford**  
*Secretary*

**LaShunna Davidson**  
*Treasurer*

**Shu Brown**  
*Council Member*

**Alanna Sandoval**  
*Councilwoman*

**Brianna Sandoval**  
*Councilwoman*

November 6, 2020

The Honorable Douglas Barnhart, Chairman  
San Diego County Planning Commission  
5520 Overland Drive  
San Diego, CA 92123

Dear Chairman Barnhart:

Please accept this letter of strong support for Item 7, Boulder Brush Facilities, on your November 13, 2020, agenda.

This application approves a portion of a 250 kiloVolt (kV) generation transmission (gen-tie) line connecting the 60 wind turbines to be located on the Campo Indian Reservation to SDG&E's Sunrise Powerlink. The wind turbines will produce 252 megawatts (MW) of energy, enough to power over 70,000 homes annually.

An EIS has been prepared and certified pursuant to NEPA for the portions of the project located on the federal reservation, and your agenda incorporates and includes the EIS and necessary certifications for CEQA compliance. The BIA has approved the necessary lease with the Campo Tribe.

Obviously, this action will move San Diego and California further along towards energy independence and sustainability. Just as importantly, this project will create numerous temporary construction jobs, as well as provide a needed boost to the economy of the Campo tribal government, allowing for more self-sufficiency and resources for health, education, public safety and job opportunities for tribal members.

All of the possible environmental impacts have been identified and analyzed, and appropriate mitigation has been incorporated, including the necessary statement of overriding considerations. I encourage your support of the applicant's project as proposed; and especially recommend against the undergrounding alternative as this will create substantially more cultural and environmental impacts that cannot be mitigated.

Thank you for your serious consideration of this request, and your support of the Boulder Brush Facilities.

With Warm Regards,

CODY J. MARTINEZ  
Chairman



**Cody J. Martinez**  
*Chairman*

**Joshua Muse**  
*Vice Chairman*

**Pilar T.A. Pettiford**  
*Secretary*

**LaShunna Davidson**  
*Treasurer*

**Shu Brown**  
*Council Member*

**Alanna Sandoval**  
*Councilwoman*

**Brianna Sandoval**  
*Councilwoman*

November 6, 2020

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San Diego County Planning Commission  
5520 Overland Drive  
San Diego, CA 92123

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CODY J. MARTINEZ  
Chairman



Alan Ridley. M.A.  
1380 Montera Street  
Chula Vista, CA 91913  
(858) 883-7314  
[weprosper2@hotmail.com](mailto:weprosper2@hotmail.com)

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I support the Campo Wind project and urge the committee to approve the project to give both the Tribe and our community a fighting chance for a cleaner more sustainable future.

Sincerely,

Alan Ridley

Alita Hetland  
5926 Rancho Mission Rd. #94  
San Diego, CA 92108  
619-282-7080  
[alitalalita@yahoo.com](mailto:alitalalita@yahoo.com)

**Letter of Support for the Terra-Gen Campo Wind Project**

Dear Planning Commissioners,

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For all these reasons, I strongly ask that you approve the Campo Wind project.

Regards,

Alita Hetland

RE: Campo Wind Project with Boulder Brush Facilities

Dear Chairman Barnhart,

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For these and many more reasons, I urge you to approve the development of this project.

Sincerely,

Ben Eckold

[Ben.eckold@gmail.com](mailto:Ben.eckold@gmail.com)

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The state of California started its transition to clean energy in 2001. Its been nineteen years and we are still not there yet. We need to move faster to meet our goal of being a 100% clean energy state by 2045. The Campo Reservation is an ideal location with ample wind to help achieve this goal. Let's work together to get it done!

I kindly ask you to approve this project and look forward to hearing the outcome of the upcoming meeting.

Sincerely,

William Pape  
PO Box 516  
Jacumba, CA 91934  
Billjacum@aol.com

# BOULEVARD PLANNING GROUP

PO Box 1272, BOULEVARD, CA 91905

**DATE:** March 11, 2020

**TO:** Bureau of Indian Affairs, BIA Pacific Regional Office, 2800 Cottage Way, Sacramento, California 95825: via [Harold.hall@bia.gov](mailto:Harold.hall@bia.gov)

**FROM:** Donna Tisdale, Boulevard Planning Group (BPG) Chair, and as an individual: PO Box 1275, Boulevard, CA 91905; 619-766-4170; [tisdale.donna@gmail.com](mailto:tisdale.donna@gmail.com)

## **RE: Campo Wind FEIS comments**

At our regular meeting held on March 5, 2020, our advisory land use Group voted unanimously (1 seat vacant and 2 members absent) to authorize the Chair to submit comments opposing Campo Wind FEIS. ***We prefer the NO PROJECT Alternative that eliminates all potential project-related impacts.*** People live here for the rural community character with open views, clean horizons, fragrant chaparral covered hills, oak filled valleys, and dark skies. We have no desire to live in or next to looming and noisy industrial wind projects with some of the biggest land-based turbines in use, miles of new high-voltage lines, substations and/or switchyards. There is no need for Campo Wind here. Kumeyaay Wind and Tule Wind seem like they are curtailed more and more frequently for days / weeks on end. And Tule Wind II has not even been constructed.

These comments are limited due to having only 30 days to respond after teams of folks working for Terra-Gen and Dudek took 5 months or so to Respond To Comments in the DEIS. Apologies in advance for not having enough time to better edit and format our submission.

Based on our local experience with, and complaints related to, existing wind turbine projects in our own rural communities and adjacent to ours, it is our strong opinion and belief that industrial wind turbines represent the following legal definitions:

- **Public Nuisance:** *Any act, omission or condition which is offensive, which is injurious or dangerous to health, which materially interferes with the ordinary comfort, convenience, peace or quiet of the public or which adversely effects the safety of the public;*
- **Private Nuisance<sup>1</sup>:** *An activity or thing that interferes with the use of property by an individual (or a few individuals) by being irritating, offensive, or obstructive. Nuisances can include everything from noise and illegal gambling to posting indecent signs and misdirecting water on to other property. Conditions that affect an entire community are a public nuisance. Lawsuits may be brought to abate (remove or reduce) a nuisance.*

**The Campo Wind FEIS is inadequate, insufficient, and misleading and the Project should be denied based on but limited to the following admitted significant and unavoidable impacts:**

**Noise: FEIS @ page 95: 4.7.2 Effects Summary Table Socioeconomic Effects and Mitigation:**

<sup>1</sup> [https://www.law.cornell.edu/wex/private\\_nuisance](https://www.law.cornell.edu/wex/private_nuisance)

- Impact SOCIO-4 **Adverse environmental justice effects due to high minority and low income populations on Reservation disproportionately affected by adverse noise and visual effects MM-NOI-1 and MM-VIS-1 through MM-VIS-7 (remains unavoidable adverse effect on Reservation)**
- FEIS @ page I12: 4.10.2 Effects Summary Table Noise Effects and Mitigation Impact NOI-3 Adverse effects relating to operation-related noise at NSLUs. **Operation effects are significant and unavoidable.**

**The American Wind Energy Association website includes the following on community support that has been willfully and negligently ignored by Terra-Gen and GM Gabrych and their Campo Wind – Boulder Brush representatives:**

- **Community support:**<sup>2</sup> “The U.S. wind industry works hand-in-hand with communities to build new projects. Developers gain community support through outreach, engagement and transparency. They should encourage public input and involvement early in the planning process.”

**Our own government is working with / for wind industry interests, over impacted communities, without conducting or investing adequate site specific field research to better understand how these massive turbines impact people living near them:**

- **US Dept of Energy: Working to move wind energy forward**<sup>3</sup>: **partners with** Lawrence Berkeley National Laboratory (LBNL) [ipo.lbl.gov](http://ipo.lbl.gov), National Renewable Energy Laboratory <sup>4</sup>
  - “Flexibility is the key to government-industry collaborations at the National Wind Technology Center (NWTCT), where companies get the support they need and can take full advantage of the center’s facilities and research and development capabilities.”

**A SUPPLEMENTAL EIS IS SUPPORTED AND REQUESTED BASED ON, BUT NOT LIMITED TO THE FOLLOWING NEW INFORMATION/ ERRORS/ AND OMISSIONS:**

- Terra-Gen/Dudek’s use of smaller ‘representative’ turbines for noise, visual and shadow flicker analysis that results in underestimated impacts for all.
- San Diego County and USEPA comments on the Draft EIS recommend larger setbacks and express valid concerns over noise impacts.
- **Failure to disclose “future NICAD footprint” with at least a dozen large-scale battery storage components, in addition to the 20 or so battery containers**, documented on Terra-Gen’s Boulder Brush Facilities Plot Plan on sheet 26 (Control Building Details) of 27 sheets, dated 12/05/19: Major Use Permit Case No. 19-002; Environmental Lot No.PDS2019-ER-19-16-001.
  - The DEIS, the FEIS, and related notices do not include any references to these battery storage components, even though the Boulder Brush Facilities are a connected action project. See the BIA’s Campo Wind NOA posted in the Federal Register on 2/10/20<sup>5</sup>.

<sup>2</sup> <https://www.awea.org/policy-and-issues/project-development>

<sup>3</sup> <https://www.energy.gov/sites/prod/files/2020/02/f71/weto-funding-factsheet-2020.pdf>

<sup>4</sup> [nrel.gov/wind/work-with-us.html](http://nrel.gov/wind/work-with-us.html)

<sup>5</sup> <https://www.federalregister.gov/documents/2020/02/10/2020-02669/final-environmental-impact-statement-for-the-proposed-campo-wind-energy-project-san-diego-california>

- February 6, 2020: IHS Markit article: Aggressive load-shifting could increase battery fire risk-investigators<sup>6</sup> (excerpt) “Raising serious concerns about the safety of battery storage, investigators into the alarming spate of lithium-ion battery fires in South Korea said one of the primary causes was the practice of using nearly the full charging and discharging battery capacity on a daily basis—a pattern that can roughly correspond with plans by U.S. operators to use storage to shift wind and solar generation to the evening periods of peak demand. Last year, South Korean government officials largely halted deployment of new lithium-ion battery systems and urged operators to curtail operations of existing ones after 23 battery fires broke out over a year-and-a-half. Many owners continued operating, however, and in recent months another five battery fires have been reported in South Korea, which had represented the world's largest market for stationary battery storage before the fires cratered new deployments.”
- ***This undated file photo (below) shows firefighters putting out an ESS fire.*** (Yonhap)<sup>7</sup>



- **Tribal petition signed by 65 voting General Council members opposing Campo Wind and calling for a special meeting was handed to Chairman Harry P. Cuero, on January 23, 2020<sup>8</sup>**, by tribal elder Dennis Largo. It was formally announced at San Diego County’s January 23<sup>rd</sup> Campo Wind DEIR meeting and submitted to both San Diego County and the BIA.
- **According to several tribal members who were present, that special meeting was held on February 19, 2019, and Chairman Cuero refused to recognize the multiple motions and seconds on the floor calling for votes to terminate Campo Wind.** And there were enough members present to carry that vote to terminate Campo Wind, far outnumbering those who support Terra-Gen’s controversial Project and the allegedly illegal vote taken on April 3, 2018 to approve Terra-Gen’s lease agreement with only 32 members voting Yes.
- **Campo Wind’s FAA violations were documented in letter to FAA from Law Offices of Stephan C. Volker , dated January 29, 2020:** “The Project’s Wind Turbines Will Encroach Upon Existing Flight Airspace: The FAA Notice identifies approximately 76 wind turbines included in this Project that exceed the FAA obstruction standards outlined in the Code of Federal Regulations, Title 14, Part 77. These turbines will each stand 586 feet tall. Notice at 4-6. Consequently, they will exceed by 87 feet the FAA height limit of 499 feet above ground level. Notice at 6, citing 14 CFR § 77.17(a)(1). Furthermore, at least four turbines will cause the minimum en route altitude and the minimum obstruction clearance altitude to increase by 200 feet, from 7,000 feet to 7,200 feet. Notice at 6. This abrupt increase in minimum flight altitude in this mountainous

<sup>6</sup> <https://ihsmarkit.com/research-analysis/aggressive-loadshifting-could-increase-battery-fire-risk-inves.html>

<sup>7</sup> <https://en.yna.co.kr/view/AEN20190502001000320>

<sup>8</sup>

area will pose aviation burdens on and hazards to military as well as commercial and private aircraft that utilize the air space overlying the Project site. For these reasons, as the Civil Aviation Authority has recognized, “[w]ind turbine developments can have a detrimental effect on military operations.” This hazard would be especially problematic because the Project area is frequently used by the military for training aircraft at low altitudes.”

- **Cumulative Impact Project not included: 108 MW Energia Sierra Juarez Wind II**, with 26 Vestas V150-4.2 MW turbines is expected to start construction in June/July 2020 with commissioning expected in second quarter of 2021<sup>9</sup>

## FEIS

### 1.1 PURPOSE AND NEED FOR THE PROPOSED ACTION:

- “...Project components and the regulations implementing 25 USC 415 are located in 25 CFR, Part 162. According to Part 162, ***in reviewing a proposed lease, the BIA will defer to the landowners’ determination that the lease is in their best interest to the maximum extent possible.*** In addition, the leasing of tribal trust lands furthers tribal interests, including economic development, revenue, tribal governance, and self-determination. Approval of the proposed lease will satisfy several needs/interests, including improving the economic conditions of the Tribe through lease revenue and job creation, and utilizing the renewable wind resource.”
  - BPG responses: *Petition from 65 voting General Council members, opposing Campo Wind, indicates that they have determined that the lease is not in their best interest.*
  - *Campo Chairman Cuero’s refusal, at Special Meeting held on Feb 19<sup>th</sup>, to recognize motions or call a vote to terminate Campo Wind obstructed the will of and denied the rights of ‘the landowners’.*

### Campo Band regulations: FEIS: RTC-TR-1 & TR-2

- “Under the terms of the Campo Lease between the Tribe and Developer, Tribal laws, including land use and zoning regulations such as those pertaining to the Campo Renewable Energy Zone, ***are limited or made inapplicable to the Project***, and the Tribe agrees to Project development in compliance with the Resource Development Plan approved by BIA under the leasing regulations”
  - **BPG Response:** This appears to be unacceptable to the 65 members who signed the anti-Campo Wind petition, and others who were not previously aware.

### Wind turbines: FEIS prefers Alternative 1- 252 megawatt (MW) with 60 – 4.2 MW wind turbines 586 ft tall.

- Project Description lists rotors up to 460 ft (each blade up to 230 ft) and tower hub height up to 374 ft. ***That equals 604 ft not 586 ft.***
- ***4.2 MW turbines are twice the size and produce twice the energy and related noise and vibrations as the existing 25-2 MW Kumeyaay Wind Turbines and 57-2.3 MW Tule Wind***

<sup>9</sup> <https://www.renewableenergymagazine.com/wind/vestas-wins-108-mw-epc-order-in-20200220/>



turbines. For reference: Kumeyaay Wind turbines are 2 MW and stand about 362 ft tall; a single blade weighs 12,000 pounds.

- **Massive 4.2 MW turbines did not start being installed until sometime in 2019, so none of the FEIS referenced studies apply to Campo Wind turbines because they all appear to be based on turbines that average 1.5-2MW which are about 1/3 to 1/2 the height and amount of power and noise and infrasound vibrations generated.**
- **Larger turbines generate more low-frequency noise<sup>10</sup> that travels further and passes through buildings and human bodies. And the difference is statistically significant<sup>11</sup>.**
- 1/4 mile (1,320) setback from turbines is reported in the FEIS but some turbines appear much closer to homes and offices both on and off-reservation.
- 1/4 mile setback is vastly inadequate and was approved by the Campo Band prior to 4.2 MW turbines being introduced into residential areas.
- **BPG response: Even turbine makers recommend 1640 feet safety setback:**
  - Vestas Wind Turbine Blade Throw Warning 1640 Feet, Vestas Confidential Health and Safety Instruction Manual For a Falmouth MA Wind Farm 1640 Feet (500 Meters)<sup>12</sup>
- **BPG Response:** There is also the issue of wind turbine spacing from each other that can impact efficiency and noise emissions:
  - **The NREL's posted Wind Farm Area Calculator specifically states that "...The "footprint," which is typically around 0.25 acres per turbine, does not include the 5-10 turbine diameters of spacing required between wind turbines... ". The project design does not take into account the recommended spacing between turbines of 10-15 rotor diameter widths, based on 300 ft rotor widths, to reduce wake effect.**
  - **Wind Turbine Separation Distances Matter ; prepared by Peter R Mitchell, AM, BChE June 2014<sup>13</sup> ScienceDaily: Summary (excerpt): "Siting wind turbines too close together has a number of predictable consequences resulting from the turbulent nature of the air exiting turbines and entering adjacent turbines. The consequences include: • increased wear on the turbine components, ultimately increasing early failure rates; • increased audible noise; • increased infrasound and low frequency noise. These predictable and long known consequences of placing turbines too close are frequently ignored by both wind turbine manufacturers and developers; particularly if they are operating in a country with systemic regulatory failure of the wind industry, such as Australia. Evidence is that the manufacturer-recommended separation distances of 7 to 8 rotor diameters for turbines in line with the prevailing wind and 5 rotor diameters for turbines abreast, still allows turbulent air exiting one turbine to retain significant turbulence when entering the next; so the manufacturers' recommended spacings can be considered as an unfortunate compromise and inadequate to contain noise.**
  - "Better turbine spacing for large wind farms."

<sup>10</sup> <https://www.wind-watch.org/documents/wind-turbine-noise-a-simple-statement-of-facts/>

<sup>11</sup> <https://asa.scitation.org/doi/10.1121/1.3543957>

<sup>12</sup> <https://northeastwindmills.com/wp-content/uploads/2013/07/vestas-nordex.pdf>

<sup>13</sup> <http://www.na-paw.org/Mitchell/Mitchell-Wind-Turbine-Separation-Distances.pdf>

- **Better turbine spacing for large wind farms<sup>14</sup>, February 7, 2011, Johns Hopkins University:**
  - **Summary:**  
“Large wind farms are being built around the world as a cleaner way to generate electricity, but operators are still searching for the most efficient way to arrange the massive turbines that turn moving air into power. For maximum efficiency in power generation, operators of large wind farms should space their turbines farther apart, researchers say that which allows the turbines to economically extract the most energy from the wind, has been shown to be some 15 rotor diameters. Most efficient extraction of useful energy will approximately coincide with the least production of waste energy, namely sound and vibration”. Spacing turbines 10-15 rotor diameters apart would also help reduce wake effects, turbulence, and complex emissions of noise, vibrations, and infrasound.”
- ***In addition, local turbulent winds / wind shear have already resulted in the 2009 catastrophic failure at Kumeyaay Wind that could be repeated or even exacerbated with the use of much larger wind turbines:***
  - ***Gamesa | January 2010***

**Highlights: Extreme wind analysis<sup>15</sup>**



“The Kumeyaay Wind farm, located 60 miles east of San Diego on the Campo Indian Reservation, is a 50MW, 25 turbine wind site producing enough power for 32,500 homes.

On December 7, 2009 the Kumeyaay Wind Project experienced an extreme wind which caused catastrophic damage to many of the wind turbine blades. 23 of the 25 turbine were deemed inoperable. Due to the extensive damage, the blades on all the turbines were replaced. Gamesa engaged AWS Truepower to conduct an analysis of the extreme wind event. The analysis was made more difficult by the fact that no SCADA

<sup>14</sup> <https://www.sciencedaily.com/releases/2011/01/110120111332.htm>

<sup>15</sup> <https://aws-dewi.ul.com/about-us/case-study/kumeyaay-wind-project-extreme-wind-analysis-san-diego-california/>

data was available during the event due to a power outage. AWS Truepower bridged this gap using wind data from a nearby tower. The information helped AWS Truepower delineate the climatic conditions at each turbine in order to determine if the conditions exceeded the International Electrotechnical Commission (IEC) design specifications. Each blade was removed from every turbine at this wind farm.

A 10-minute wind speed and turbulence intensity record for each turbine was presented by AWS Truepower. The analysis concluded that in fact the IEC design specifications were exceeded for turbulence, although the maximum wind speed threshold was not."

**Appendix S. Shadow Flicker: FEIS (Dudek) predicts Shadow Flicker out to 6,750 feet (15 x 450ft rotors) (almost 1.3 miles)**

- If the actual Campo Wind turbines are 604 ft tall instead of the reported 586 ft tall, shadow flicker will extend even further than 6,750 ft that the FEIS estimates, which is probably already underestimated.
- ***Only homes existing at time of Record of Decision will be able to complain and they can only do so within the first year of Campo Wind operation. Then, they will only get funds for vastly inadequate vegetation screening or window coverings to block shadow flicker.***
- Approximately 34 Off-Reservations receptors may experience shadow flicker for more than 30 minutes in a given day and approximately 101 Off-Reservations receptors may experience shadow flicker for more than 30 hours in a given year.
- Approximately 72 On-Reservations receptors may experience shadow flicker for more than 30 minutes in a given day and approximately 64 On-Reservations receptors may experience shadow flicker for more than 30 hours in a given year.
- Table 5.1 presents those Off-Reservations receptor locations at which the maximum daily shadow flicker or the total annual shadow flicker may exceed the 30 minutes a day or 30 hours a year (30/30) guideline.
- FIGURE C3 SCENARIO 3: ANNUAL SHADOW FLICKER: This figure includes sections where shadow flicker exceeds 200 hours per year!

**High voltage lines & substation:**

- "Approximately 3.5 miles of the approximately 8.5-mile-long overhead 230 kV gen-tie lines that would transmit the electricity from the Campo Wind Facilities to the Off-Reservation high-voltage substation and switchyard would be constructed within the Boulder Brush Corridor as part of the Boulder Brush Facilities on private land. ***This segment of the gen-tie line would require approximately 32 steel pole structures*** that, in addition to the transmission wires, would accommodate a fiber-optic ground wire attachment for lightning protection and internal communications. ***The height of the steel pole structures would vary by location, up to a maximum height of 150 feet.***"
  - ***BPG responses:*** *This line is proposed to cross the Campo Reservation just west of Live Oak Springs near Williams Road where a staging and laydown yard are proposed, cross*

*I-8, and head northeast into the old Big Country Ranch property on Ribbonwood Road, now owned by GM Gabrych<sup>16</sup>, listed as one of the largest land owners in the US:*

- *This just further degrades the existing visual and generally uncluttered views in the area. And represents additional fire risk potentially sparked by line faults or various forms of collision with the lines/poles/transformers, and more.*
- **Project Substation:** Industry is well aware that along with the potential for electrical pollution to move off-site through the air and ground from wind turbines and substations, there is also the potential for substation noise to leave the site through air and ground pressure waves that can be perceived at distance. In addition to homes in the area, there is also wildlife habitat, trails, and habitat connectivity that must be recognized and addressed.
- **Cautions and recommendations from the Electrical Engineering Portal include the following:** o Substation Noise Sources to take into consideration: Continuous audible sources ; Continuous radio frequency (RF) sources; Impulse sources ; Equipment noise levels ; Attenuation of noise with distance
- **Noise Abatement Methods** to take into consideration: Reduced transformer sound levels ; Low-impulse noise equipment ; RF noise and corona-induced audible noise control; Site location; Larger yard area; Equipment placement ; Barriers or walls; Active noise cancellation techniques

**Water: 173 AF (56.4 million gallons) needed for 14 month construction phase.**

- Approximately 250,000 gallons per day would be required during peak construction demand, which would occur over the first 3 months of construction.
  - **BPG Response:** *Proposed water sources includes the same On-Reservation wells that was pumped dry and impacted springs and other wells during construction of SDG&E' ECO Substation.*
- **Response to Comment (RTC) @ page 41-42 - 2.20 Water Resources:** *"...site-specific well testing was not performed".*
  - **BPG Response:** *It is alarming, dangerous, unprofessional, and unethical to propose extracting over 56 million gallons of water from wells that have not had any site-specific testing performed. This appears to violate professional standards.*
  - **Snyder Geologic's review and opinion (3-9-20) includes the following statement:**
    - *"In summary of the information presented in this report, it seems clear that when presented with valid technical and scientific arguments in our original comment letter dated July 5, 2019, the project proponent ignored the arguments and provided responses that are inadequate, broadly dismissive, and without technical merit. They have relied on data that are not site-specific and made liberal assumptions, and have not conducted further evaluation of the well field and its pumping effects on nearby residential wells."*

**Noise: FEIS @ page 95: 4.7.2 Effects Summary Table Socioeconomic Effects and Mitigation:**

- **Impact SOCIO-4** Adverse environmental justice effects due to high minority and low income populations on Reservation disproportionately affected by adverse noise and visual effects

<sup>16</sup> <https://greenhomebuildermag.com/one-of-the-largest-land-owners-in-u-s-buys-massive-plot-in-rural-indio-for-8m-his-plans-for-it-are-unclear/>

**MM-NOI-1 and MM-VIS-1 through MM-VIS-7 (remains unavoidable adverse effect on Reservation)**

- **BPG Response:** *In addition to the tribal population, the Boulevard area in general should also qualify as environmental justice community. SDG&E has previously claimed us as such when it suited their purposes.*
- **FEIS @ page 112: 4.10.2 Effects Summary Table Noise Effects and Mitigation Impact NOI-3**  
Adverse effects relating to operation-related noise at NSLUs. **Operation effects are significant and unavoidable.**
- **FEIS @ page 118 4.10.4 Conclusions:** “However, effects related to noise would result from the Project build alternatives (1 and 2) where more than one turbine is located in proximity to the 0.25-mile setback from a residence. While consideration of noise effects as part of the selection of the final 60 turbine locations would help reduce adverse effects from operations, it would likely not eliminate all instances. **Therefore, wind turbine operational noise effects would remain adverse and unavoidable**”.
- **RTC-41:** “The 1/4-mile setback is a requirement in the Campo Lease and is also consistent with the setback provisions in the Campo Land Use Code, and has been determined by the Tribe to be an appropriate buffer. As described in the EIS, this setback will avoid, reduce, and/or mitigate various impacts of the Project. **The EIS also explains that the 76 turbine sites that were identified and studied may include turbine positions that conflict with the 1/4-mile setback requirement (see EIS Section 3.10.2, Affected Environment (Noise)).**”
- **RTC-48:** FEIS (Dudek) used smaller wind turbines than the proposed 4.2 MW turbines to model noise impacts.
  - **BPG response:** dBF Associates, Inc’s third party formal review and comments on Campo Wind FEIS (3-9-2020) includes the following statement:
    - “In its current form, the Acoustical Analysis Report and Final Environmental Impact Statement underpredict project noise levels at NSLUs and underreport the severity and extent of project noise impacts.”
- **FEIS (Dudek) used CadnaA modeling for wind turbine noise when that model was never intended to be used for wind turbines<sup>17</sup>:** (excerpt)
  - “Heinrich A. Metzen of DataKustik GmbH[3], maker of CADNA/A confirmed this fact in an e-mail where he stated: "long range propagation including atmospheric refraction is not part of the standards used for (normal, "standard") noise calculations. It is known that atmospheric refraction may cause sound to be refracted downwards again and contributing strongly to the level at long distances. The atmosphere in the standards existing is just homogeneous above height."

**Traffic & Roads: 1,238 vehicle trips per day for Project (Table 2.8-9)**

- 320 trips per day for workers, vendor trucks and haul trucks.

<sup>17</sup> <http://www.windaction.org/posts/32217-the-lie-behind-turbine-noise-models#.XmPcN6hKiUl>

- 934 trips per day for workers, vendor trucks, and haul trucks
- “Existing roads would be improved to accommodate construction equipment delivery and access. It is anticipated that approximately 15 miles of **existing roads would need to be temporarily widened up to 40 feet** during construction and then would be reduced to approximately 24 feet after construction.”
- The Boulder Brush Facilities would be located in the McCain Valley area of the unincorporated County, north of the community of Boulevard and I-8. Regional access would be provided by I-8. **Local access would be provided by Ribbonwood Road.**
  - **BPG Response:** *At the Jan 23<sup>rd</sup> public meeting, County staff indicated that Terra-Gen / SDG&E will be allowed to use eminent domain to widen Ribbonwood Road because of an existing utility easement and the fact that the new high-voltage switchyard will be transferred to SDG&E ownership. This detail was not made apparent in the FEIS.*

**Appendix T – Response to Comments (RTC) PROP-1 @ page 44: 2.21 Socioeconomic Conditions: Property Values: (excerpt-emphasis added):**

- “Over the last 3 years, the number of single-family residences listed for sale annually in the Boulevard area has remained relatively consistent despite the construction of several large-scale energy projects in the area. Of the 57 home sales since 2017, half have closed at the listing price or higher. Boulevard is a unique sub-market, and there is considerable disparity in the square footage of the homes, condition of the property, and associated acreage sold in this period; however, similar to other markets within the broader San Diego market, the sales price per square foot within the Boulevard area has continued to increase annually. **Thus, the data reinforce the large body of literature that supports that the construction and operation of energy projects does not result in a decrease to property values, as suggested by the commenters.**”
  - **BPG Response:** *We all know this misleading response is simply not true. And it has been debunked by the FEIS comments (3-8-2020) submitted by Jeffrey Morrison, real estate agent based in Boulevard, who provided documented evidence describing how existing and proposed wind turbines are adversely impacting property sales and values, showing that Dudek’s response was false and not based in reality.*

**Soil moved: Project includes 2,200 acres of Campo Reservation and several hundred acres of private land.**

- Estimated 1,349,550 Cubic Yards of Fill Soil
- 37,700 cubic yards of concrete required.
  - **BPG Response:** that amount of soil and concrete represent significant amounts of dust generation, water use, related construction vehicle traffic, and noise.

**Explosives-blasting rocks: APPENDIX K-1 Acoustical Analysis Report for the Campo Wind Project Table 20 Anticipated Blasting Characteristics:**

- Total Rock Requiring Blasting (cubic yards) 1,537,480; Total Area Blasted (square feet) 136,786

- Table 20 Rock-Crushing Characteristics: Amount of rock to be processed (cubic yards) 30,770; Total rock processed per day (cubic yards day) 3,077.

**BPG response:** *1.5 million cubic yards of blasted rock added to the 1.3 million cubic yards of fill soil = over 1.8 million cubic yards of disruption and destruction.*

#### **Resource Development Plan:**

- **BPG Response:** The FEIS repeatedly references the Resource Development Plan that must be approved by BIA as part of the Campo Wind Lease Agreement with Terra-Gen.
- This plan should be made available for review and comment *before BIA approval.*

#### **Visual Effects: FEIS at page 119: 4.11.2 Effects Summary Table Visual Resources Effects and Mitigation:**

- Impact VIS-1 Adverse effects MM-VIS-1 through MM-VIS-7 (**unavoidable adverse effects would remain**) Impact VIS-2 Adverse effects MM-VIS-1 through MM-VIS-7 (**unavoidable adverse effects would remain**)
  - **BPG Response:** The NO PROJECT Alternative would eliminate these adverse effects.

#### **FEIS @ page 143: Summary Table Adverse Unavoidable Effects Impact Number Description of Impact Mitigation Effect after Mitigation VIS-1 and VIS-2:**

- *(excerpt-emphasis added)“Each of the build alternatives could have an unavoidable adverse effect on a scenic vista MM-VIS-1 through MMVIS-7 Remains adverse and unavoidable SOCIO-4 Environmental Justice impacts as minority/low-income community is subjected to adverse visual effects MM-VIS-1 through MMVIS-7 Remains adverse and unavoidable”*
  - **BPG Response:** *the NO PROJECT Alternative would eliminate these adverse effects.*

#### **APPENDIX L Visual Impact Assessment Table 2 Key Observation Points (KOP):**

- **BPG Response:** *None of the KOP visual simulations show just how close to, and what turbines would look like from, existing private and tribal homes that would be most significantly impacted.*
- *The simulations appear to have been purposely situated / manipulated to avoid showing tribal or private homes, schools, and work places, thereby significantly misrepresenting and downplaying the real world significant and adverse visual day and night impacts that will be inflicted upon us.*

#### **Appendix P: Mitigation Measures: (inadequate)**

- **MM-NOI-1 Construction Noise Best Management Practices.**
  - **BPG Response:** Where is the noise mitigation for potentially nuisance and health threatening operational noise levels?
  - Recent articles expose wind industry’s liability to impacted homeowners in various parts of the globe<sup>18</sup>.

<sup>18</sup> <https://stopthesethings.com/2020/03/05/settling-up-irish-wind-farm-operator-pays-three-children-e225000-compensation-for-suffering-caused-by-turbine-noise/>



- **PDF-AE-2 Shadow Flicker (Off-Reservation).** “While BIA lacks jurisdiction to impose Project conditions implemented Off-Reservations, the Developer will coordinate with the resident of any existing (existing as of the date of Record of Decision approval) Off-Reservations receptor located within a distance of 15 x Rotor Diameter (i.e. approximately 6,750 feet) of a Project turbine to assess their shadow flicker complaints made within one year from the initial operations date of the Project. This assessment would include possible remedies that the Developer may implement depending upon the level of shadow flicker impacts occurring at the Off-Reservations receptor, including financial assistance for the installation of screening vegetation or window coverings. Requests for assistance can be made through a Project hotline to be established by the Developer and published to the Developer’s website”
  - **BPG Response:** Curtains and bushes won’t stop shadow flicker nuisance that can increase stress, anxiety, and vertigo. It is especially hard on those who pre-existing health conditions.
- **MM-PH&S-4 Wind Turbine Safety Zone and Setbacks.** “Prior to approval of final construction plans and as part of the Health and Safety Program(MMPH&S-2), it is recommended that the Developer demonstrate to the Tribe adequate setbacks for wind turbine generators from residents and occupied buildings, roads, right-of-ways, transmission lines, and other public access areas, consistent with the Campo Lease. Plans detailing the proposed turbine setbacks would be submitted to the Tribe for review and approval prior to construction. Project turbine locations will be included in the Resource Development Plan to be prepared pursuant to 25 CFR, Section 162.563(h).”
  - **BPG Response:** *Where is the Resource Development Plan and map of final turbine locations? It should be made available to public prior to any approvals.*
- **PDF-HYD-1 Groundwater Monitoring:** “Campo Environmental Protection Agency (CEPA) will monitor the depth to groundwater in wells located between existing On-Reservation production wells anticipated to be a source of groundwater supply for Project construction and other nearby On-Reservation production wells. A groundwater level drawdown threshold for On-Reservation monitoring wells should be established to ensure that declines in groundwater levels in On-Reservation wells remain at less than 20 feet resultant from OnReservation pumping for Project construction. Groundwater level monitoring should be conducted at least weekly during Project construction and do not interfere with individual and Public Water System (PWS) wells that provide drinking water to residents and others. Should the groundwater drawdown threshold be exceeded, CEPA will require the cessation of on-site pumping for Project construction, from such production wells as is necessary, until groundwater levels in the monitoring wells rise above the threshold.”
  - **BPG Response:** *Monitoring wells may not access the same water bearing fractures as the wells and springs relied upon by existing adjacent tribal and private homes that were previously impacted during 2013 bulk water sales for construction of the ECO Substation from these same wells. Campo EPA, under leadership at that time, appeared to be part of the problem.*

FEIS at page 1: 1.1 PURPOSE AND NEED FOR THE PROPOSED ACTION



- **Excerpt-emphasis added:** “Prior to approval of any lease, the Secretary of the Interior is required to first determine that adequate consideration has been given to the factors in 25 USC 415(a). Further information regarding Project components and the regulations implementing 25 USC 415 are located in 25 CFR, Part 162. According to Part 162, in reviewing a proposed lease, ***the BIA will defer to the landowners’ determination that the lease is in their best interest to the maximum extent possible***
  - **BPG response:** The recent disclosures by numerous tribal members of their internal struggles to overturn previous Campo Wind lease approvals, that they allege were illegal, and Chariman Cuero’s reported refusal to recognize or hold votes on motions to terminate Campo Wind at their February 19<sup>th</sup> Special Meeting are alarming.
  - ***It would appear that Campo’s ‘landowners’ have already determined that the lease is not in their best interest and the BIA, Terra-Gen, and current leadership need to recognize that determination to terminate Campo Wind.***
  - ***In that regard, where does the Production Tax Credit windfall go?***
  - According to Energy.gov WindExchange: PTC: If construction starts by Dec. 31, 2020, developers will receive 1.5 cents/kwh for the first 10 years (60% of original PTC rate).
  - **Wind and Solar Tax Credits<sup>19</sup>**  
**BY INSTITUTE FOR ENERGY RESEARCH (IER) MARCH 26, 2019**
    - The U.S. Treasury estimates that the Production Tax Credit will cost taxpayers \$40.12 billion from 2018 to 2027, making it the most expensive energy subsidy under current tax law.
    - These tax credits fundamentally distort markets and strain the grid in ways that are economically unsustainable.
    - Backup costs (i.e. the costs of maintaining backup electricity 24/7 to compensate for wind and solar’s intermittency) are not included in estimations of the cost of wind and solar power, leading to gross underestimation of the costs of these energy sources.
- **According our math, here is what Campo Wind PTC value potentially represents**
  - 60 turbines x 4.2 MW =252 MW; 252 MW x 8,760 hours =2,207,529 MW @ 100% efficiency; 2,207,529 x 40% (estimated efficiency) =883,011 MW x \$15 PTC (through 2020) = \$13,245,165 divided by 60 turbines = \$220,753 per turbine per year x10 years =\$2,207,528,000 per turbine over 10 years x 60 turbines =\$132,451,650 total potential Campo Wind PTC.
  - Just how much of that value will be trickled down to actual General Council members?

## 2.2.1 Components Common to Each Design Alternative

<sup>19</sup> <https://www.instituteforenergyresearch.org/renewable/wind-and-solar-tax-credits/>

- **At page 10: G. Water Collection and Septic Systems:** (excerpt) The approximately 210 gpd O&M facility water demand during the Project's operations would be serviced via connection to existing On-Reservation facilities in the vicinity of the proposed O&M facility, generally consistent with the connection and sizing necessary for a single-family home. Additionally, project design feature PDF-HY-1 related to water collection would be implemented as part of Project operations. Full details of this project design feature are located in Appendix P.
  - **BPG Response: *ERROR:*** *There are no 'full details of this project design feature located in Appendix P'- Campo Wind Mitigation Measures, as claimed.*
  - *Where is the water coming from? Where are the referenced 'existing On-Reservation facilities'? Where is the utility connection/easement? They don't show up in any of the Figures in Appendix E.*
- **H. Temporary Concrete Batch Plant for Use during Construction** (excerpt): "... The concrete batch plant would occupy an area of approximately 400 feet by 400 feet, or 3.7 acres, within the Campo Corridor on the Reservation. The concrete batch plant would consist of a mixing plant, areas for aggregate and sand stockpiles, driveways, truck load-out area, and turnaround(s). The concrete batch plant would include cement storage silos, water and mixture tanks, aggregate hoppers, conveyors, and augers to deliver different materials to the mixing plant. The batch plant would be located just off an access road".
  - **BPG Response:** **Where this water is coming from? It is unclear.**

### 3.2.2.2 Groundwater Resources

- **At page 31:** "Transducer measurements noted a decline in water levels of up to 110 feet when pumps were running, and 30 to 50 feet when pumps were shut off. By the end of the 5-year post-construction period, however, groundwater had recovered to near pre-construction levels."
  - **BPG Response:** *What happens between year one and year 5?*
  - *Failure to conduct on-site water tests is contrary to common sense and professional codes of conduct.*
  - **Snyder Geologic's 3rd party FEIS review and opinion includes the following statement:**
    - "In summary of the information presented in this report, it seems clear that when presented with valid technical and scientific arguments in our original comment letter dated July 5, 2019, the project proponent ignored the arguments and provided responses that are inadequate, broadly dismissive, and without technical merit. They have relied on data that are not site-specific and made liberal assumptions, and have not conducted further evaluation of the well field and its pumping effects on nearby residential wells."

### 4.13.4 Shadow Flicker

- **At page 137-138: (excerpt-emphasis added):** "Shadow flicker analysis is performed through computer-based mapping and modeling and can be predicted based on specific parameters such as time of day, days of the year, turbine height and rotor diameter, and wind speeds and direction. **According to a study by the U.S. Department of Energy's Lawrence Berkeley National Laboratory, as cited by the American Wind Energy Association (2018), 92% of people living**

**within 5 miles of a wind farm report positive or neutral experiences with the wind farm.**

General setback requirements are typically sufficient to prevent shadow flicker effects on receptors. For purposes of this section and Section 3.13.4 only, “On-Reservations” refers to receptors on the Campo, Manzanita, and La Posta Reservations. The Campo Lease provides that no turbines will be sited within 0.25 miles (or 1,320 feet) of any receptor on the Campo Reservation. No Project turbines will be sited within 1,000 feet of any receptor outside the Campo Reservation.”

- 
- **At page 139-140:** (excerpt) While the anticipated shadow flicker effects are far below health hazard thresholds for flickering light, two Project Design Features (PDF-AE-1 and PDF-AE-2) would be implemented to reduce the potential visual intrusion of shadow flicker above 30 minutes in a given day or 30 hours in a given year. PDF-AE-1 would be implemented to reduce nuisance-level potential shadow flicker effects experienced by On-Reservations receptors within BIA jurisdiction. A similar Project Design Feature would be implemented for Off-Reservations receptors. Full details of these project design features are located in Appendix P.
  - **BPG response:** *Appendix P includes the following vastly inadequate and irresponsible mitigation effort:*
    - **PDF-AE-2 Shadow Flicker (Off-Reservation).** “While BIA lacks jurisdiction to impose Project conditions implemented Off-Reservations, the Developer will coordinate with the resident of any existing (existing as of the date of Record of Decision approval) Off-Reservations receptor located within a distance of 15 x Rotor Diameter (i.e. approximately 6,750 feet) of a Project turbine to assess their shadow flicker complaints made within one year from the initial operations date of the Project. This assessment would include possible remedies that the Developer may implement depending upon the level of shadow flicker impacts occurring at the Off-Reservations receptor, including financial assistance for the installation of screening vegetation or window coverings. Requests for assistance can be made through a Project hotline to be established by the Developer and published to the Developer’s website.”
  - **BPG Response:** *Terra-Gen now refuses to consider curtailing turbines during most offensive hours of shadow flicker that can exceed 30 minutes/day, and 100 hours/per year, with FIGURE C3 SCENARIO 3: ANNUAL SHADOW FLICKER Expected-Case Scenario Off-Reservations Receptors showing some homes located within or on the edge of 100-200 hours per year and even greater than 200 hours per year!*
  - **BPG Response:** While BIA lacks jurisdiction to impose Project conditions implemented Off-Reservations, the Developer will coordinate with the resident of any existing (existing as of the date of Record of Decision approval) Off-Reservations receptor located within a distance of 15 x Rotor Diameter (i.e. approximately 6,750 feet) of a Project turbine to assess their shadow flicker complaints made within one year from the initial operations date of the Project. This assessment would include possible remedies that the Developer may implement depending upon the level of shadow flicker impacts occurring at the Off-Reservations receptor, including financial assistance for the installation of screening vegetation or window coverings. Requests for assistance can be

made through a Project hotline to be established by the Developer and published to the Developer's website.

▪ **BPG Response to Dept of Energy's LBNL 2018 report cited by the American Wind Energy Association<sup>20</sup>:**

- This so-called study is not as rosy as portrayed. Their data is manipulated and diluted. It is just like Hoen/LBNL property value study that falsely claims no impact but saturated the sample with houses that were more miles away.
- Donna Tisdale was personally interviewed for the referenced report but quit participating because the survey questions were biased and did not allow for any deviance from their questions that were designed and intended to reach their predetermined goal to show that people love turbines.
- Other locals expressed similar concerns with the survey and interview being biased.
- **The report includes this Disclaimer that is self-explanatory:**
  - **DISCLAIMER** "This document was prepared as an account of work sponsored by the United States Government. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor The Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or The Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof, or The Regents of the University of California."
  - **Slide 4 of their powerpoint for their Jan 30, 2017 webinar<sup>21</sup> includes the following critical information at the bottom of the slide: "Source: LBNL Baseline Public Acceptance Data; Note: Turbines>364 ft & 1.5 MW"**
  - ***That means their report is based on turbines that are over 225 ft shorter with almost 3 times less energy and noise than the proposed 4.2 MW turbines that generate even more low-frequency noise that travels even greater distances.***
  - ***It also shows that turbines keep getting closer and closer to homes. Showing average of 1. 2 miles in 2004 and dipping down to .4 miles in 2014.***

<sup>20</sup> [https://eta-publications.lbl.gov/sites/default/files/hoen\\_et\\_al.\\_2019\\_attitudes\\_of\\_u.s.\\_wind\\_turbine\\_neighbors.pdf](https://eta-publications.lbl.gov/sites/default/files/hoen_et_al._2019_attitudes_of_u.s._wind_turbine_neighbors.pdf)

<sup>21</sup> [https://eta-publications.lbl.gov/sites/default/files/lbnl\\_webinar\\_attitudes\\_-\\_jan\\_30\\_final\\_013118.pdf](https://eta-publications.lbl.gov/sites/default/files/lbnl_webinar_attitudes_-_jan_30_final_013118.pdf)

- ***Their report fails to disclose just what size turbines, how many, and just how close to those turbines each individual respondent resides.***
- ***Page 12 of their related webinar powerpoint on their study shows local Kumeyaay and Tule Wind turbines as blue dots identified as ‘non-sampled’***
  - ***It also shows that of the “Responses Collected Near 250 Wind Power Projects Across 24 States, From The Full Sample Of 743 Projects, Random sample of residences within 5 miles of a modern wind turbine • >= 364 feet tall • >= 1.5 MW”, only 15 projects were sampled with modeled sound.***
  - ***Slide 27 shows that 62 % of those living within 5 miles responded negative / very negative when asked “do you like the way the wind project looks”?***
  - ***Slide 29 shows that 60% of those living within 5 miles responded negative / very negative when asked “To what extent do you feel annoyed by the sound of the wind project?”***
  - ***Slide 50 appears to show that those living less than ½ mile from turbines were omitted!***
  - ***Slide 54 shows that 45% believed that the wind project affected the value of their property.***
  - ***The actual 2019 report<sup>22</sup> at pdf page 3: “In particular, the large number of turbines being deployed is resulting in many people living near those turbines. Through 2015, almost 1.4 million homes were within 8 km of a U.S. wind project (Fig. 1)—about 1 million more homes than in 2010. In addition, wind turbines were, on average, installed 46 m closer to homes each year between 2004 and 2014 (Fig. 2) (Hoen et al., 2018).”***
  - ***The 2019 report at pdf page 7: “Most of the sample (94%) cannot hear a wind turbine either in their home nor on their property, which is not surprising given a mean distance of 4.78 km; only 1% can hear a wind turbine with the windows closed. Similarly, only 1% perceive shadow-flicker in their home. As for the wind turbines themselves, the mean year of installation was 2010, and the average turbine height is 124 m.”***
  - ***4.78 km = 2.97 miles away from turbines.***
- ***BPG responses: The referenced San Diego County Public Health Position Statement for Human Health Effects of Wind Turbines (2-25-19) was challenged by a majority of the San Diego County Planning Commissioners at their members at their March 22, 2019, meeting as documented in the meeting video posted on the County’s website, starting at around the 44 minutes mark<sup>23</sup>.***
  - ***When asked what the adequate setback requirement was, Dr. Wooten basically said that it was whatever the County decided it was. That did not go over too well. The***

<sup>22</sup> [https://eta-publications.lbl.gov/sites/default/files/hoen\\_et\\_al.\\_2019\\_attitudes\\_of\\_u.s.\\_wind\\_turbine\\_neighbors.pdf](https://eta-publications.lbl.gov/sites/default/files/hoen_et_al._2019_attitudes_of_u.s._wind_turbine_neighbors.pdf)

<sup>23</sup> [https://sdcounty.granicus.com/MediaPlayer.php?view\\_id=12&clip\\_id=2671](https://sdcounty.granicus.com/MediaPlayer.php?view_id=12&clip_id=2671)

*Commissioners' stated concerns prompted Planning Director Wardlaw to present multiple options including making changes to the Wind Energy Ordinance, setbacks, and more, to better protect residents. Unfortunately for us, the item was not agendaized so no vote could be taken.*

- *At their follow-up April 26<sup>th</sup> meeting, Terra-Gen and wind industry hacks, including Kenneth Mundt and Nancy Radar, were there in force to subdue any potential relief recommended for turbine impacted neighbors. However, only 4 members were present and only 3 voted to basically accept the HHS statement. With 7 members, they needed a majority of 4 so the motion actually failed.*
- **BPG Response:** *the referenced Iberdrola 2010 document is outdated and invalid. Tule Wind uses 2.3 MW GE turbines, and they have not conducted post-operation noise monitoring or mitigated numerous complaints over noise, vibrations, shadow-flicker or cell phone interference - they simply deny it:* Iberdrola Renewables. 2010. Applicant's Environmental Document for the Tule Wind Project. Draft. September 2010.  
[https://www.dudek.com/ECOSUB/AEDTule\\_ECOSUB.htm](https://www.dudek.com/ECOSUB/AEDTule_ECOSUB.htm). Iberdrola Renewables. 2011

#### 4.14.2 Cumulative Impact Analysis

- Summary Table Cumulative Impacts
  - Biological
  - Traffic & Transportation
  - Noise – Yes – unavoidable operation, construction mitigation recommended.
  - Yes – unavoidable.
  - **BPG Responses:** *Public Health & Safety does not include just fire and haz mat, it should include actual public health and well being when subjected to 25-38 years or more of the operation of industrial wind turbines allowed far too close to homes, schools, offices, recreation areas and more.*
  - *Making a plan for fire protection does not actually prevent increased fire risk and fire ignition sparked by industrial wind turbines and related infrastructure that also obstructs and impedes fire fighting abilities.*
  - *Choosing the NO PROJECT Alternative eliminates all project related impacts.*

#### 5.1 ANY ADVERSE EFFECT THAT CANNOT BE AVOIDED

- **Summary Table Adverse Unavoidable Effects** Impact Number Description of Impact Mitigation Effect after Mitigation NOI Turbines less than ¼ mile for Off-Reservation residences could have an unavoidable adverse effect to noise None Remains adverse and unavoidable VIS-1 and VIS-2 Each of the build alternatives could have an unavoidable adverse effect on a scenic vista MM-VIS-1 through MMVIS-7 Remains adverse and unavoidable SOCIO-4 Environmental Justice impacts as minority/low-income community is subjected to adverse visual effects MM-VIS-1 through MMVIS-7 Remains adverse and unavoidable.
  - **BPG Response:** *the NO PROJECT Alternative will eliminates all adverse effects/impacts.*
  - *Significantly increasing the turbine setback would also help reduce some of the noise impacts, but we do not believe that the Campo Reservation is wide enough to allow for adequate setbacks that would better protect people and other living things.*



## Appendix B:

- **1.4 Decommissioning at B-38: BPG response:** Does this section include GHG emissions generated during decommissioning and potentially long-hauling blades for disposal that is proving controversial<sup>24</sup>, or to distant recycling facilities that are just starting to use them for stock for fuel or plastic pellets<sup>25</sup>?
- **Reference @ page B-39:** Larwood, S. 2005. Permitting Setbacks for Wind Turbines in California and the Blade Throw Hazard. Prepared for the California Wind Energy Collaborative. June 16, 2005. <https://docs.wind-watch.org/Larwood-bladethrow-paper.pdf>.
  - **BPG response:** Relies on 2005 information that references General Electric GE 1.5s turbines; 1500-kW full rating • 70.5 meter rotor diameter • 65 meter tower height.
  - 70.5 meter rotor = 98 ft blades; 65 m tower = 213 ft.
  - 98+213 = total turbine height of 311 feet almost ½ the size of the proposed 4.2 MW turbines between 586-604 ft tall
  - *It is unclear what this reference was used for but it is obviously outdated and not relevant or applicable to the bulk, scale and blade throw potential from much bigger turbines like the 4.2 MW 586-604 ft tall turbines planned for Campo Wind*

## Appendix S: Shadow Flicker Analysis:

- ***This disclaimer is included in the report:***
  - “NOTICE TO THIRD PARTIES This report was prepared by AWS Truepower, LLC, a UL company (“UL”) and is based on information not within the control of UL. UL has assumed the information provided by others, both verbal and written, is complete and correct. While it is believed the information, data, and opinions contained herein will be reliable under the conditions and subject to the limitations set forth herein, UL does not guarantee the accuracy thereof. Use of this report or any information contained therein by any party other than the intended recipient or its affiliates, shall constitute a waiver and release by such third party of UL from and against all claims and liability, including, but not limited to, liability for special, incidental, indirect, or consequential damages in connection with such use. In addition, use of this report or any information contained herein by any party other than the intended recipient or its affiliates, shall constitute agreement by such third party to defend and indemnify UL from and against any claims and liability, including, but not limited to, liability for special, incidental, indirect, or consequential damages in connection with such use. To the fullest extent permitted by law, such waiver and release and indemnification shall apply notwithstanding the negligence, strict liability, fault, breach of warranty, or breach of contract of UL. The benefit of such releases, waivers, or limitations of liability shall extend to the related companies and subcontractors of any tier of UL, and the directors, officers, partners, employees, and agents of all released or indemnified parties.”

<sup>24</sup> <https://www.bloomberg.com/news/features/2020-02-05/wind-turbine-blades-can-t-be-recycled-so-they-re-piling-up-in-landfills>

<sup>25</sup> <http://altfuelsnow.com/wind/wind-turbine-recycling.shtml>

- **BPG Responses:** *This FEIS Shadow Flicker Analysis readily admits that there are no federal or state or local regulations to protect human receptors from shadow flicker and yet the powers that be keep approving these monster turbines far too close to homes and families and then negligently deny the impacts are real or harmful to people, pets, livestock and wildlife.*
- The Campo Wind Project Description in the FEIS includes the following information under Appendix B Project Description Details 1.1.A Wind Turbines: (emphasis added)
  - Sixty wind turbines, rated approximately 4.2 MW in nameplate capacity per turbine • Multiple tubular steel tower sections forming the towers • Rotor diameter – up to 460 feet (approximately 230-foot-long blades) • Foundation pedestal – approximately 20 feet in diameter and 6 inches above grade • **Hub height – up to approximately 374 feet** • **Total height of turbine (highest point) – up to approximately 586 feet**
- *Appendix S- Figure C3, despite not including any impacted tribal homes, shows many homes located within shadow flicker impact zones of more than 100 and 200 hours per year!*
- **Table 4.1.4 at page 8/34: Specifications for Modeled Facilities & Figure C3 at page C-39 uses “representative turbine” GE 3.83-137 (110 m HH) model turbine to analyze shadow flicker impacts for Campo Wind. 110 m= 360.89 ft**
  - **BPG Response:** And yet it has been formally announced in the DEIS, as documented above, that Campo Wind proposes to use 4.2 MW turbines with a hub height (HH) of 374 ft, rotors up to 230 ft that stand a total of 586 ft (178.6 m) to tip of rotor in upright position.
  - *That means that the so-called professional analysis used “representative turbines” that were over 13 feet shorter than the turbines that Terra-Gen has already documented that they will use for Campo Wind and likely for Torrey Wind, too. 13’ x 15 = at least 195 extra feet of shadow flicker that will impact non-participating properties/receptors.*
  - **The 4.2MW Campo Wind turbines have rotors up to 460 ft diameter x 15 = 6,900 ft NOT 6,750 ft based on 450 ft rotor diameter used in Appx O Table 4.1. Table 4.1: Specifications for Modeled Facilities**
  - **The taller turbines that have already been announced should result in even longer turbine shadows and related shadow flicker impacts.**
  - How professional is that? It should be redone and recirculated in a revised DEIR.

### **Representative Example: Wind Turbine Noise and Shadow Flicker**

- (Fond du Lac County, Wis.; 8 min.) This video is available via You Tube. It was made by Larry Wunsch of Byron, Fond du Lac County, Wisconsin: <sup>26</sup>.

### **Here are several video clips showing noise and shadow flicker:**

- Disturbing Noise of Turbine in Aberdeenshire (Scotland) (2 min.): <https://www.wind-watch.org/video-aberdeenshire.php>

<sup>26</sup> <https://www.wind-watch.org/video-wisconsin.php>



- **Shadow Flicker and Noise (Freedom Maine):** <https://www.wind-watch.org/video-freedom-maine.php>
- **Testimony: Wind Turbine Noise (Vermont):** These are short videos of people who live near – particularly downwind from – industrial wind turbines erected on the ridgelines of Sheffield, Lowell, and Georgia, Vermont. They spoke to the Vermont Public Service Board at the second sound standard investigation in Morrisville, May 13, 2014. The PSB set up a sound standard investigation because of so many complaints from neighbors of wind projects. The videos are here via You Tube by courtesy of [Vermonters for a Clean Environment: https://www.wind-watch.org/video-vermont.php](https://www.wind-watch.org/video-vermont.php)
- **Flashing red night lights video clip at Ocotillo Wind facility:**  
<https://www.facebook.com/OcotilloWindTurbineDestruction/videos/vb.422340074490464/1537636189627508/?type=2&theater>
- **Ocotillo Wind turbine noise and whistling blade video clip:**  
<https://www.facebook.com/OcotilloWindTurbineDestruction/videos/vb.422340074490464/370029317185419/?type=2&theater>

## **00 - Campo Wind Final EIS Jan2020:**

- **BPG Response:** As documented in these and other comments, the flawed FEIS remains vastly inadequate and relies on outdated, inappropriate, and debunked references that have no relation to the installation and operation of 586-604 ft tall industrial 4.2 MW wind turbines that Terra-Gen proposes to use for Campo Wind. None of their references studies address turbines of this size allowed so close to occupied homes and other sensitive receptors. It is dangerous and unconscionable to allow Campo Wind to move forward without buying out impacted property owners and tribal members who need to move in order to protect their health and safety and general well-being—***not that any amount of money can mitigate the significant losses and impacts they will be subjected to against their will.***

## **B - Campo Wind Project Description Details:**

- **1.1 Components: A. Wind turbines:**
  - Excerpts:
    - “...final Project specifications are not available; however, the following is representative for turbines that would be installed on the Campo Wind Project:”
    - Rotor diameter – up to 460 feet (approximately 230-foot-long blades)
    - Hub height – up to approximately 374 feet
    - Total height of turbine (highest point) – up to approximately 586 feet
  - **BPG Response:**
    - 230’ blade length + 374 hub height = up to 604’ NOT 586’ total height figure used throughout Project documents. That is an increase in height of 18’.
    - This error / misrepresentation changes all related FEIS issues that erroneously rely on the 586’ figure.
- **B. Access Roads:**

- Excerpt: On-Reservation access roads would be constructed of native soils with decomposed granite and gravel, or similar suitable materials, to provide access in nearly all weather conditions
  - **BPG Responses:** Potential use of eminent domain for widening Ribbonwood Road for access to Campo Wind -Boulder Brush Facilities and Torrey Wind facilities should not be allowed for a private developer. If allowed to move forward, impacted property owners should be fairly compensated for their damages/losses.
  - BIA Rt 10 should be paved from Hwy 94 south to Tierra Del Sol Road near the border, to reduce dust / air quality impacts on adjacent residents located along BIA-10 both on and off-reservation.
- **High-Voltage Substation:**
  - **BPG Responses:** This section fails to disclose the planned “future NICAD footprint” with a dozen or so components listed in the Boulder Brush Substation Facilities Control Building Details created by Power Engineers Inc, page 26 of 27 of Boulder Brush Plot Plans prepared for Terra-Gen; MUP Case No. 19-002; Environmental Lot No PDS2019-ER-19-16-001.
  - This is a connected action project that should have been disclosed and addressed

## C - Campo Wind Regulatory Settings

### Campo Band regulations: FEIS: RTC-TR-1 & TR-2

- “Under the terms of the Campo Lease between the Tribe and Developer, Tribal laws, including land use and zoning regulations such as those pertaining to the Campo Renewable Energy Zone, **are limited or made inapplicable to the Project**, and the Tribe agrees to Project development in compliance with the Resource Development Plan approved by BIA under the leasing regulations”
- **BPG response:** According to various tribal members, their leadership and Terra-Gen have been less than transparent and have been exploiting their resources without adequate notification, outreach, information, in violation of their civil rights to vote on Campo Wind.

## E - Campo Wind EIS Figures:

- **BPG Response:** The Campo Wind on-reservation well field location should be included on Project Figures, not buried in some technical study.
- **Figure 2-1A: Alternative 1 Project Layout:**
  - **BPG Response:** *There appears to be a new access road planned to cross the existing rail line for the string of 9 turbines planned between BIA 10 and BIA 15. It shows up in other figures as well. Has a permit for this rail crossing been secured?*
- **FIGURE 2-2 Typical Wind Turbine Specifications** shows ‘typical’ 586’ turbine height with typical hub height of 361’ and typical blade length of 224.7’ but Project Description lists rotors up to 460 ft (each blade up to 230 ft) and tower hub height up to 374 ft. ***That equals 604 ft not 586 ft.***

- **Figure 4-1: Cumulative Projects: BPG Response:** This section *fails to include Campo Wind turbine locations and related component including Boulder Brush Substation/switchyard, 108 MW Energia Sierra Juarez Wind II that is expected to start construction June/July 2020, Ocotillo Wind.*

## **Appendix F - Campo Wind Groundwater Resources Evaluation – flawed. SEIS is required to update sole-source groundwater information.**

- **BPG Responses:** The vast majority of the proposed Project and the entire on-reservation well field are located in the USEPA designated Campo-Cottonwood Creek<sup>27</sup>
- **Snyder Geologic’s third party review and opinion on Campo Wind FEIS (3-9-20) includes the following statement:**
  - *In summary of the information presented in this report, it seems clear that when presented with valid technical and scientific arguments in our original comment letter dated July 5, 2019, the project proponent ignored the arguments and provided responses that are inadequate, broadly dismissive, and without technical merit. They have relied on data that are not site-specific and made liberal assumptions, and have not conducted further evaluation of the well field and its pumping effects on nearby residential wells.*
- The use of different ID markers for wells (PD, HG, MW) makes it difficult to review and comment. A table showing which wells use different ID markers is necessary.
- **At page 10:** reliance on the highest rain fall data from the Campo rain gauge, that is located miles to the west of the project, where Campo consistently receives more rain than proposed well field site, adjacent to the Morning Star Ranch, is problematic.
- **Table 3-5 Existing Conditions @ page 16:**
  - **BPG Responses:** Use of outdated 2011 data from Live Oak Springs and reliance on 295 ‘permitted’ private wells, when many existing private wells were drilled prior to permits being required or without applying for permits, is unreliable.
  - Many local wells were drilled prior to any permits being required.
  - **Appendix S: Shadow-Flicker FIGURE** Table 5.1: (Off-Reservations Receptors Anticipated to Experience an Exceedance of either 30 minutes per day and/or 30 hours per year of Shadow Flicker) includes 708 Off-Reservation Receptor ID s. And that does not include on-reservation homes and wells/springs.
  - Failure to produce groundwater use data for Golden Acorn Casino, quick mart and truck stop is negligent and irresponsible. Relying on 2008 prediction of groundwater use should not be allowed
- **Table 3-7 Groundwater Levels for the Southern Portion of Reservation:**
  - **BPG Responses:** Fails to provide depth of production wells 1-4
  - Fails to provide current monitoring well data with most recent levels dated Nov 2013 which is over 7 years ago.
- **Table 3-7 Groundwater Levels for the Southern Portion of Reservation**
  - **BPG Responses:** Depth to groundwater bgs and lack of measurement dates is missing for 7 of 10 wells listed.

<sup>27</sup> <https://archive.epa.gov/region9/water/archive/web/pdf/campo-cottonwood-ssa-map.pdf>

- The remaining date of measurement for 3 of 10 wells is 2004 is over 16 years ago and outdated.
- **BPG Responses:** Figure 7 at page 51 shows the alleged “1,702 acre contributing watershed”, the vast majority of which is located at much lower levels than the proposed 3 hundred acre well field that is located at the top of the headwaters for lower Campo Creek, as indicated in Figure 8 at page 53.
- Figure 9 shows several of our existing neighbors properties as ‘vacant undeveloped’ when in fact they have been occupied for decades.
- Figure 10 shows ‘inactive spring’ locations. Where are the active springs located? Why aren’t the oak groves located along BIA 10 and BIA 15, south of Hwy 94, included in “potential groundwater dependent vegetation”?

## J - Campo Wind and BB Traffic Impact Analysis:

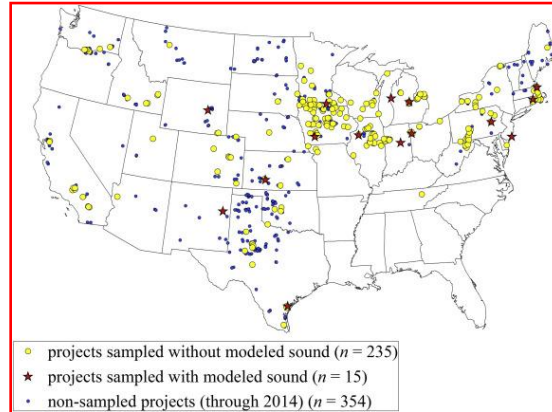
- Several of the access roads are basically single ingress egress routes for the residents that live on those roads including the following: Ribbonwood Road, Church Road, BIA 10, BIA 15, and Kumeyaay Road. Others may have secondary access routes that take them far out of their way and consume more time and gas for folks who are on limited incomes.
- Real traffic control must be informed of how to handle potential emergencies including fire and medical.

## K-1 - Campo Wind Noise Analysis

- **K-1 - 8 REFERENCES (page 57-59): All are outdated and not applicable to 4.@ MW turbines**
  - **BPG Responses:** None of the noise analysis references listed address the use of massive 4.2 MW wind turbines in close proximity to noise sensitive land uses / sensitive receptors.
  - Most were written long before any such use was even contemplated, therefore, they are irrelevant when it comes to analyzing Project generated noise /vibrations, including San Diego County Noise Ordinance (No. 10262), An Ordinance Amending the San Diego County Zoning Ordinance Related to Large Wind Energy Turbines. May 2013.
  - In addition, San Diego County’s Wind Resource Area in their adopted Wind Energy Ordinance was restricted to the upper McCain Valley area (Wind Resources Map) due to the density of homes between I-8 and the US/Mexico border where wind energy was deemed too close to homes. Enel Green Power’s Jewel Valley Wind project, including turbines planned south of I-8, was withdrawn after that County decision was made.
  - Campo Wind is far too close to homes both on and off-reservation and should be withdrawn.
- **NREL Attitudes of U.S. Wind Turbine Neighbors: Analysis of a Nationwide Survey:** BenHoen<sup>a</sup>JeremyFirestone<sup>b</sup>JosephRand<sup>a</sup>DebiElliot<sup>c</sup>GundulaHübner<sup>de</sup>JohannesPohl<sup>de</sup>RyanWiser<sup>a</sup>EricLantz<sup>f</sup>T. RyanHaac<sup>g</sup>KenKaliski<sup>g</sup> <https://doi.org/10.1016/j.enpol.2019.110981><sup>28</sup>

<sup>28</sup> <https://www.sciencedirect.com/science/article/pii/S0301421519305683?via%3Dihub>

- **BPG Responses:** This government funded 'survey' includes homes up to 8km (5 miles) from turbines and over 45% moved in after the turbines were constructed. Not applicable here!
- Figure 3 (below) documents that no local turbine projects (blue dots showing non-sampled projects - Kumeyaay Wind, Tule Wind, Ocotillo Wind) were included in the survey.



- This so-called study is not as rosy as portrayed. Their data is manipulated and diluted. It is just like Hoen/LBNL property value study that falsely claims no impact but saturated the sample with houses that were more miles away.
- Donna Tisdale was personally interviewed for the referenced report but quit participating because the survey questions were biased and did not allow for any deviance from their questions that were designed and intended to reach their predetermined goal to show that people love turbines.
  - **The report includes this Disclaimer that is self-explanatory:**
    - **DISCLAIMER** "This document was prepared as an account of work sponsored by the United States Government. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor The Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or The Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof, or The Regents of the University of California."

- **Slide 4 of their powerpoint for their Jan 30, 2017 webinar<sup>29</sup> includes the following critical information at the bottom of the slide: “Source: LBNL Baseline Public Acceptance Data; Note: Turbines>364 ft & 1.5 MW”**
- **That means their report is based on turbines that are over 225 ft shorter with almost 3 times less energy and noise than the proposed 4.2 MW turbines that generate even more low-frequency noise that travels even greater distances.**
- **It also shows that turbines keep getting closer and closer to homes. Showing average of 1.2 miles in 2004 and dipping down to .4 miles in 2014.**
- **Their report fails to disclose just what size turbines, how many, and just how close to those turbines each individual respondent resides.**
- **Page 12 of their related webinar powerpoint on their study shows local Kumeyaay and Tule Wind turbines as blue dots identified as ‘non-sampled’**
  - **It also shows that of the “Responses Collected Near 250 Wind Power Projects Across 24 States, From The Full Sample Of 743 Projects, Random sample of residences within 5 miles of a modern wind turbine • >= 364 feet tall • >= 1.5 MW”, only 15 projects were sampled with modeled sound.**
  - **Slide 27 shows that 62 % of those living within 5 miles responded negative / very negative when asked “do you like the way the wind project looks’?**
  - **Slide 29 shows that 60% of those living within 5 miles responded negative / very negative when asked “To what extent do you feel annoyed by the sound of the wind project?”**
  - **Slide 50 appears to show that those living less than ½ mile from turbines were omitted!**
  - **Slide 54 shows that 45% believed that the wind project affected the value of their property.**
  - **The actual 2019 report<sup>30</sup> at pdf page 3:** “In particular, the large number of turbines being deployed is resulting in many people living near those turbines. Through 2015, almost 1.4 million homes were within 8 km of a U.S. wind project (Fig. 1)—about 1 million more homes than in 2010. In addition, wind turbines were, on average, installed 46 m closer to homes each year between 2004 and 2014 (Fig. 2) (Hoen et al., 2018).”
  - **The 2019 report at pdf page 7:** “Most of the sample (94%) cannot hear a wind turbine either in their home nor on their property, which is not surprising given a mean distance of 4.78 km; only 1% can hear a wind turbine with the windows closed. Similarly, only 1% perceive shadow-flicker in their home. As for the wind turbines themselves, the mean year of installation was 2010, and the average turbine height is 124 m.”
  - **4.78 km = 2.97 miles away from turbines.**
  - **Bottom line, None of these references or manipulated studies apply to Campo Wind’s proposed 4.2 MW turbines.**

<sup>29</sup> [https://eta-publications.lbl.gov/sites/default/files/lbnl\\_webinar\\_attitudes\\_-\\_jan\\_30\\_final\\_013118.pdf](https://eta-publications.lbl.gov/sites/default/files/lbnl_webinar_attitudes_-_jan_30_final_013118.pdf)

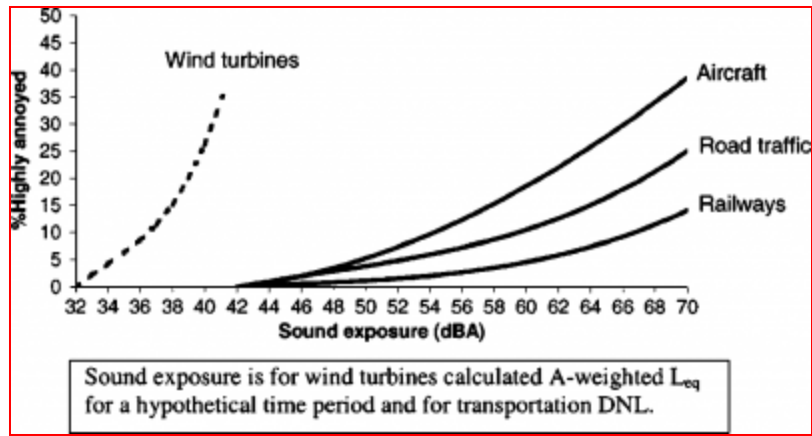
<sup>30</sup> [https://eta-publications.lbl.gov/sites/default/files/hoen\\_et\\_al.\\_2019\\_attitudes\\_of\\_u.s.\\_wind\\_turbine\\_neighbors.pdf](https://eta-publications.lbl.gov/sites/default/files/hoen_et_al._2019_attitudes_of_u.s._wind_turbine_neighbors.pdf)

- ***BPG responses:*** *The referenced San Diego County Public Health Position Statement for Human Health Effects of Wind Turbines (2-25-19) was challenged by a majority of the San Diego County Planning Commissioners at their members at their March 22, 2019, meeting as documented in the meeting video posted on the County's website, starting at around the 44 minutes mark<sup>31</sup>.*
  - *When asked what the adequate setback requirement was, Dr. Wooten basically said that it was whatever the County decided it was. That did not go over too well. The Commissioners' stated concerns prompted Planning Director Wardlaw to present multiple options including making changes to the Wind Energy Ordinance, setbacks, and more, to better protect residents. Unfortunately for us, the item was not agendized so no vote could be taken.*
  - *At their follow-up April 26<sup>th</sup> meeting, Terra-Gen and wind industry hacks, including Kenneth Mundt and Nancy Radar, were there in force to subdue any potential relief recommended for turbine impacted neighbors. However, only 4 members were present and only 3 voted to basically accept the HHS statement. With 7 members, they needed a majority of 4 so the motion actually failed.*
- ***BPg Responses:*** *The referenced Iberdrola 2010 document is outdated and invalid. Tule Wind uses 2.3 MW GE turbines, and they have not conducted post-operation noise monitoring or mitigated complaints over noise, vibrations, shadow-flicker or cell phone interference - they simply deny it:* Iberdrola Renewables. 2010. Applicant's Environmental Document for the Tule Wind Project. Draft. September 2010. [https://www.dudek.com/ECOSUB/AEDTule\\_ECOSUB.htm](https://www.dudek.com/ECOSUB/AEDTule_ECOSUB.htm). Iberdrola Renewables. 2011
- **PROFESSIONAL ENGINEERS ACT (Business and Professions Code §§ 6700 – 6799) INCLUDES AMENDMENTS MADE DURING THE 2019 LEGISLATIVE SESSION (Effective January 1, 2020, unless otherwise noted) CHAPTER 7. PROFESSIONAL ENGINEERS:** (excerpt-emphasis added)
  - **6710.1 Legislative intent – protection of the public:** Protection of the public shall be the highest priority for the Board for Professional Engineers, Land Surveyors, and Geologists in exercising its licensing, regulatory, and disciplinary functions. ***Whenever protection of the public is inconsistent with other interests sought to be promoted, the protection of the public shall be paramount.***<sup>32</sup>
- The K-1 Noise Analysis is the exact same document used in the Campo Wind DEIS and the County's DEIR. It should have been corrected and amended instead of adding the inadequate addendum.
- Wind turbine noise is much more annoying / harmful/ stress inducing/ sleep disrupting than other sources of noise:

<sup>31</sup> [https://sdcounty.granicus.com/MediaPlayer.php?view\\_id=12&clip\\_id=2671](https://sdcounty.granicus.com/MediaPlayer.php?view_id=12&clip_id=2671)

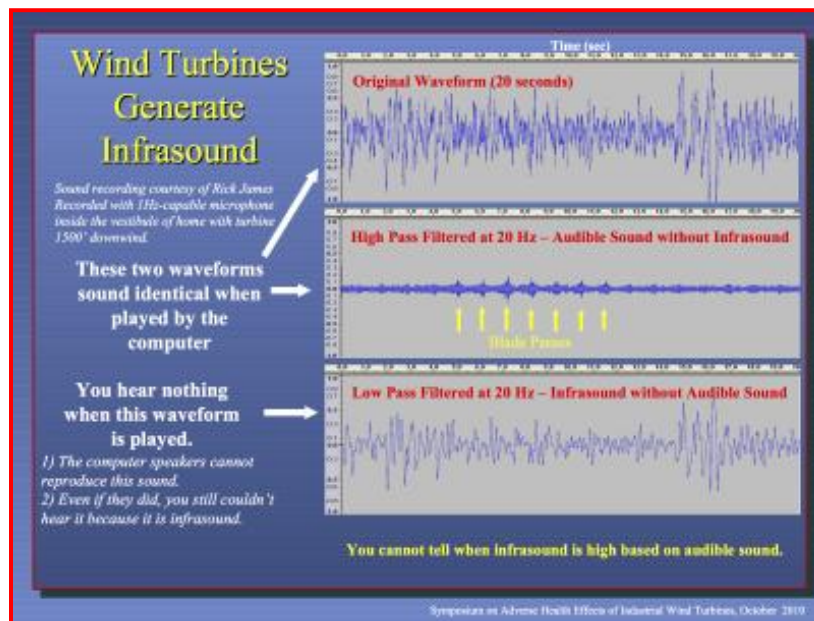
<sup>32</sup> [https://www.bpelsg.ca.gov/laws/pe\\_act.pdf](https://www.bpelsg.ca.gov/laws/pe_act.pdf)





## Comparison between the dose-response relationship for transportation noise and wind turbine noise

Comparison between the dose-response relationship for transportation noise and wind turbine noise ( $L_{eq}$  = average sound level; DNL = day-night average sound level) - Pedersen and Persson Waye, J Acoust Soc Am 2004;116(6)3460<sup>33</sup>



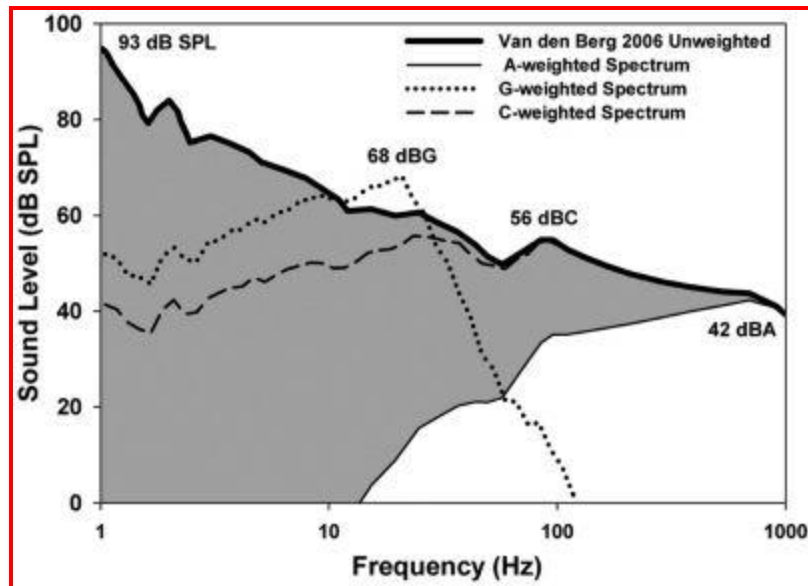
## Wind turbines generate infrasound

Recording and graphs by courtesy of Rick James<sup>34</sup>

<sup>33</sup> <https://wind-watch.org/pix/834> | <http://wndfo.net/P834>

<sup>34</sup> <https://wind-watch.org/pix/773> | <http://wndfo.net/P773>





### How A-weighted sound measurement ignores low frequencies

The shaded area represents the degree of low-frequency part of the spectrum ignored by A-weighting - from Salt & Kaltenbach 2011, Bulletin of Science, Technology & Society 31(4):296-302<sup>35</sup>

## K-2 - Campo Wind Noise Addendum Memo

- 6.1.5 Vibration
  - (Excerpt)"The Project is not anticipated to include post-construction operating equipment or activities capable of producing substantial long-term groundborne vibration or groundborne noise levels. The only ground vibration potential would therefore be associated with the temporary construction phases of the Project."
  - **BPG Response:** WRONG AGAIN! Wind turbine generated groundborne vibrations have already been documented by professionals
    - **Initial study of seismic ground vibration data from mega-watt class wind turbines Interim Technical Report June 2013**<sup>36</sup>
    - Growth and Attenuation of Seismic Noise Generated from a Wayne N. Edwards Canadian Hazards Information Service, Natural Resources Canada, Ottawa, Ontario, Canada, K1A 0Y3 Canadian Hazards Information Service, Natural Resources Canada, Ottawa, Ontario, Canada, K1A 0Y3 Wayne.Edwards@NRCan-RNCan.gc.c<sup>37</sup>
  - **Advanced CFD-MBS coupling to assess low-frequency emissions from wind turbines: Levin Klein Universität Stuttgart; Jonas Gude; Florian Wenz; Thorsten Lutz Universität Stuttgart**  
DOI: 10.5194/wes-2018-51<sup>38</sup>

<sup>35</sup> <https://wind-watch.org/pix/669> | <http://wndfo.net/P669>

<sup>36</sup> [https://www.ctbto.org/fileadmin/user\\_upload/SnT2015/SnT2015\\_Orals/T2.3-O5.pdf](https://www.ctbto.org/fileadmin/user_upload/SnT2015/SnT2015_Orals/T2.3-O5.pdf)

<sup>37</sup> [https://www.ctbto.org/fileadmin/user\\_upload/SnT2015/SnT2015\\_Posters/T2.3-P9.pdf](https://www.ctbto.org/fileadmin/user_upload/SnT2015/SnT2015_Posters/T2.3-P9.pdf)

<sup>38</sup> [https://www.researchgate.net/publication/326267067\\_Advanced\\_CFD-MBS\\_coupling\\_to\\_assess\\_low-frequency\\_emissions\\_from\\_wind\\_turbines](https://www.researchgate.net/publication/326267067_Advanced_CFD-MBS_coupling_to_assess_low-frequency_emissions_from_wind_turbines)

- **Abstract:**
- “The low-frequency emissions from a generic 5MW turbine are investigated numerically. In order to regard airborne noise and structure-borne noise simultaneously a process chain was developed. It considers fluid-structure coupling (FSC) of a computational fluid dynamics (CFD) solver and multibody simulations (MBS) solver as well as a Ffowcs Williams-Hawkings (FW-H) acoustic solver. The approach was applied to a generic 5MW turbine to get more insight into the sources and mechanisms of low-frequency emissions from wind turbines. For this purpose simulations with increasing complexity in terms of considered components in the CFD model, degrees of freedom in the structural model and inflow in the CFD model were conducted. Consistent with literature, it has been found that aeroacoustic low-frequency emission is dominated by the blade-passing frequency harmonics. The tower base loads, which excite seismic emission, tend to be dominated by structural eigenfrequencies with increasing complexity of the model. The main source of aeroacoustic emissions is the blade-tower interaction and the contribution of the tower as an acoustic emitter is stronger than the contribution of the rotor. Aerodynamic tower loads also significantly contribute to the external excitation acting on the structure of the wind turbine.”
- 
- **Table 10 Occurrence of Average Wind Speed over Sample Year of Diurnal Cycles: (excerpt & response)**
  - (excerpt) “**Sources:** Terra-Gen 2019; Dudek 2019. Notes: wind turbine sound power levels are based on General Electric 2.X-127 sound specification, provided via Terra-Gen, for limited purposes of this analysis. \* at wind speeds less than cut-on (4 m/s) velocity, wind turbine rotor will not turn to generate electricity”
    - **BPG Response:** Why are Terra-Gen and Dudek allowed to use wind turbines ½ the size of the 4.2 MW turbines that have already been disclosed?
    - Amplitude Modulation
    - Infrasound
    - Low Frequency Sound
  - “**Non-Turbine Operations:** (excerpt) “Noise would also be generated during Project maintenance and inspections, as well as from activities at the O&M building. Based on information from the Project traffic report (Dudek 2018), the Project would generate minimal vehicle trips associated with these ancillary operations”
    - **BPG Responses:** Any increase of traffic on rural roads should be analyzed differently than other roads, especially for those where there are limited or no alternative routes for locals.
    - The road surfaces also make a difference for noise, whether they are paved or dirt roads.

## Appendix L - Campo Wind Visual Impacts Analysis

- **BPG Responses:** Why is the FEIS Visual Impacts Analysis (Josh Saunders, AICP, Dudek, Oct 2019) only 122 pages when the Boulder Brush Campo Wind DEIR (Josh Saunders, AICP, Dudek Dec 2019) is 182 pages?
- **Table 5 Mountain Empire Subregional Plan Consistency Analysis:**
  - 2. Land Use – General Goal (Policy and Recommendation 1): The landforms of the Subregion are an important environmental resource that should be respected in new development. Hillside grading shall be minimized and designed to blend in with the existing natural contours.
    - **BPG Responses:** Campo Wind is NOT compatible. It will clutter currently clean landforms with 586-ft tall turbines that are incompatible with land south of I-8 where no turbines are currently installed other than 1 at Golden Acorn Casino.
  - 2. Land Use – Industrial Goal (Policy and Recommendation 2) New industrial development should be clean, nonpolluting, and complementary to a rural area.
    - **BPG Response:** Campo Wind is NOT compatible. The new 4.2 MW wind turbines are NOT clean or green as they emit high levels of noise, light and electrical pollution, they are close to 200 ft (20 stories or so) or so taller than existing and they are proposed to be introduced into neighborhoods with no turbines. Our community considers turbines to be an industrial use and included that in our community plan. San Diego County irresponsibly and inexplicably removed it.
  - 2. Land Use – Industrial Goal (Policy and Recommendation 5) New industrial development should consider all views into the property from public streets, adjacent properties, and residences on nearby hills
    - **BPG Response:** the KOPs are not representative of the views that most local residents enjoy from their homes. Turbines are planned much closer than the KOP locations disclose.
  - 6. Conservation – Environmental Resources (Policy and Recommendation 4) The dark night sky is a significant resource for the Subregion and appropriate steps shall be taken to preserve it.
    - **BPG Response:** This section states that lights will comply with FAA requirements but the letter from Volker Law Offices to the FAA disclose that most if not all the Campo Wind turbines themselves violate FAA height limits.
  - 6. Conservation – Environmental Resources (Policy and Recommendation 5) Development shall not adversely affect the habitat of sensitive plant and wildlife species or those areas of significant scenic value.
    - **BPG Response: NOT CONSISTENT:** Proposed mitigation does not begin to address the loss to local resources and our residents and visitors who enjoy those resources and the wildlife who rely on them. Visual resources WILL be impacted by the introduction of 586-604 ft tall turbines where none currently exist. It is a total invasive, disruptive, and dominant intrusion into currently open and distant viewsheds.
    - ***There are more NOT CONSISTENT / incompatible issues to list but time simply ran out.***

- **The Renewable Energy Landscape: Preserving Scenic Values in our Sustainable Future.** Edited by Apostol, Dean, Palmer, James, Pasqualetti, Martin, Smardon, Richard, and Sullivan, Robert. xxiii and 286; illus., index. Abingdon, U.K., and New York: Routledge, 2017:

Barry D. Solomon First published: 09 September 2017; <https://doi.org/10.1111/gere.12283><sup>40</sup>:

#### **Section 2.6.2: Landbased windfarm impact at page 34: (excerpts)**

- “Wind facilities judged to be major foci of visual attention up to 12 miles and unlikely to be missed by casual observer for up to 20 miles”.
- “Recommended appropriate radius for wind energy facility visual impact analysis would be 30 miles in western landscapes”
- “(turbine) lights are even more noticeable (and annoying) in dark sky areas”
- “...wind turbine visibility study (2012b) found lighting on wind turbines to be plainly visible at a distance of 36 miles”.
  - **BPG Response:** We are well aware of this reality. Wind turbines are highly visible and visually intrusive and dominant day and night!

### **N - Campo Wind Cumulative Scenario Impacts**

- Terra-Gen / Cogency Global Inc registered Campo Wind I, LLC with the California Secretary of State on August 7, 2019.<sup>41</sup> And filed a Statement of Information (12-digit file # 201922610577) on November 27, 2019<sup>42</sup>
- **Using the name Campo Wind I, LLC, seems to imply there will be a Campo Wind II which can translate into a reasonably foreseeable project.**
- Errors in Table 1 Cumulative – Reasonably Foreseeable, Approved, and Pending Projects:
  - **Energia Sierra Juarez II (ESJ II) has been approved but is not included as cumulative project. ESJ II is expected to start construction in June / July 2020 and operation in late 2020 or early 2021<sup>43</sup>.**
    - **26-Vestas V150-4.2 MW turbines have been contracted. With a hub height of 344 ft plus blade length of 241 ft = total of 585 ft total height**, skylined on highly visible Energia Sierra Juarez ridgelines with flashing red night lights.
    - NADBank has approved a \$78 million loan for ESJ II and SDG&E have a Power Purchase Agreement for the energy produced
    - Vestas provides the following information on their Vestas V150-4.2 MW turbines: V150-4.2 MW™ at a glance<sup>44</sup>: With the V150-4.2 MW™ Vestas leads onshore wind power to new heights. With 73.7 meter long blades and the industry’s tallest steel tower, the V150-4.2 MW™ stretches nearly a quarter of a kilometer into the air and is one of the highest producing onshore low wind turbines in the industry. Combined with a leading capacity factor in low wind conditions, the turbine delivers a 21 percent increase in annual energy

<sup>39</sup> <https://onlinelibrary.wiley.com/doi/abs/10.1111/gere.12283>

<sup>40</sup> <https://onlinelibrary.wiley.com/doi/abs/10.1111/gere.12283>

<sup>41</sup> <https://businesssearch.sos.ca.gov/Document/RetrievePDF?Id=201922610577-26722726>

<sup>42</sup> <https://businesssearch.sos.ca.gov/Document/RetrievePDF?Id=201922610577-27270896>

<sup>43</sup> <https://renews.biz/58732/vestas-to-deliver-108mw-energia-sierra-juarez-2/>

<sup>44</sup> <https://www.vestas.com/en/products/4-mw-platform/v150-4-2-mw#!at-a-glance>

production compared to the V136-3.45 MW® while achieving a sound power level of only 104.9 dB(A) to serve sound sensitive regions.

- The two photos below show construction and location of ESJ 1<sup>45</sup> that demonstrate just how high on the horizon the existing ESJ turbines are just how more visually and acoustically intrusive the much larger ESJ II turbines will be—cumulative impacts on our views, day and night, and acoustic pressure waves that travel unimpeded in our open landscape.



- ***Boulder Brush Substation Future NICAD Battery Storage components are documented on the Boulder Brush substation plot plans at sheet 25 of 26, but are not disclosed, addressed, or mitigated in the Final EIS.***
  - ***Boulevard Solar is listed as 9 miles from Project when in fact it is located on Tierra Del Sol Road approximately 1.2 miles east of Southeastern corner of Campo Wind's 7 turbines, O&M, laydown yard and batch plant planned along BIA 10, just north of the old rail road tracks.***
  - ***Rugged Solar is listed as UC, under construction, when it NOT.*** Soitec Solar sold that undeveloped project and it is currently undergoing extended MUP Modification review: 74 MW RUGGED SOLAR: PDS2017-MUP-12-007W1 MAJOR USE PERMIT MODIFICATION
  - ***The Torrey Wind Project reference in Table 1 was conveniently changed from "needs" to "utilizes" the new substation and switchyard that would be constructed as part of this project to support the false claim that it is not a connected action project.***
- **2.10 Noise**
    - ***"Effects related to noise (On- and Off-Reservation) would result from the Project build alternatives (1 and 2) where more than one turbine is located in proximity to the 0.25-***

<sup>45</sup> <https://www.burnsmcd.com/projects/energia-sierra-juarez-wind-farm>

***mile setback from a residence. Adverse operational noise impacts from the Project combined with nearby applicable cumulative projects, which would be similar in type and generation of noise, would be collectively adverse.***

- “The northeastern edge of the Project and the southern edge of the proposed Torrey Wind project each share a boundary with private lands within the County of San Diego. Several verified and unverified noise-sensitive receptors within this area may be exposed to potential cumulative noise effects due to concurrent construction and/or operation of these two wind turbine generator projects.”
  - **BPG Responses:** We will repeat that none of the Campo Wind FEIS reference documents relate to or address impacts generated from 4.2 MW wind turbines like those planned for Campo Wind.
  - Terra-Gen and Dudek are well aware of the devastating noise impacts related to their Campo Wind and other similar projects.
  - Using 4.2 MW turbines just increases the harm, damages, and liabilities.
  - **We also repeat the following summary from dBF Associates, Inc’s 7-page review and opinion of Campo Wind FEIS:**
    - *“In its current form, the Acoustical Analysis Report and Final Environmental Impact Statement underpredict project noise levels at NSLUs and underreport the severity and extent of project noise impacts.”*
    - *dBF Associates, Inc have conducted multiple noise/ low-frequency noise monitoring sessions independently and with Wilson Ihrig. They know what is really happening at homes near turbines and are not afraid to honestly report the facts.*

- **2.11 Visual Resources**

- **Excerpts:** “The Project, in combination with relevant cumulative projects, would contribute to an ongoing change in the visual character of the I-8 viewshed and change in scenic views available from recreational lands in the Jacumba area. Therefore, implementation and development of the Project and cumulative projects considered in this analysis would result in a cumulatively adverse impact on the existing visual character and quality of the I-8 viewshed.”
- The Project wind turbines would be painted a standard off-white matted color to minimize glint and glare potential. With the exception of SR-94, roads in the vicinity of the Project tend not to be directly aligned or perpendicular to wind turbine locations. Wind turbines are proposed on a ridge to the west of SR-94 and would be aligned toward the roadway near Live Oak Spring Road. However, the presence of existing oak trees (*Quercus* spp.) in the area would generally block potential blade glint from the view of motorists. As such, effects from glare would not result in a cumulatively adverse impact
  - **BPG Response:** There are no oak trees located along westbound Hwy94 that would obstruct the views of turbines between Kumeyaay Road and the railroad trestle west of Church Road.
  - **BPG Response:** From east bound Hwy 94, there would be generally open views of the turbines from Campo Valley to the railroad trestle east of BIA 15.



- **The influence of wind turbine visibility on the health of local residents: a systematic review** Published: 23 January 2019<sup>46</sup>, Alice Freiberg, Christiane Scheffer, Janice Hegewald & Andreas Seidler *International Archives of Occupational and Environmental Health* **volume 92**, pages609–628(2019)Cite this article
  - **Abstract: Purpose:** The health effects of visible wind turbine features on residents were investigated. Further, it was examined, if visual annoyance has an influence on residents' health, and if wind turbine visibility impacts residents' health independently of or in combination with acoustical aspects.
  - **Conclusions :** In interpreting the results, the differing methodological quality of the included studies needs to be considered. Direct and indirect wind turbine visibility may affect residents' health, and reactions may differ in combination with noise. Further, annoyance by wind turbine visibility may interact as mediator between visual exposures and the health of local residents. To confirm the results, more high-quality research is needed.

## 2.12 Public Health and Safety (excerpts & response)

- **Excerpt:** "The Project and cumulative projects would be in compliance with applicable Federal Aviation Administration rules and regulations and would not result in adverse impacts associated with airport hazards. "
  - **BPG Response:** See letter to FAA from Law Offices of Stephan C. Volker that details the FAA violations and related aviation hazards of the Project.
- **Excerpt:** "Increased activity and ignition sources on the Project site have the potential to increase wildfire hazards during the Project's and cumulative projects' construction, operation, and decommissioning activities. With the enforcement of Applicant defined fire standards, Public Health and Safety, of the EIS, cumulative impacts on public health and safety as a result of wildfire risks would not be adverse".
  - **BPG Responses: Fire Protection Plans don't actually stop wildfires** that can be deadly. The 2012 Shockey Fire that burned through the Campo Wind site and onto private property in the Tierra Del Sol area, destroyed homes and killed one resident.
  - **Public Health & Safety should include adverse health impacts related to Project** generated noise, electrical and light pollution, shadow flicker, and more that can extend miles from the Project site. Fire ignition is a major issue in an area where fire insurance can already be hard to get and keep.
- **N-3. References: CAISO (California Independent System Operator).** 2010. Revised Catalogue of Market Design Initiatives. Prepared by Market and Infrastructure Development. October 18, 2010<sup>47</sup>.
  - **BPG Response:** *Appendix N includes just one reference but the link for that reference is dead which makes it hard to determine if it is a valid reference:*

<sup>46</sup> <https://link.springer.com/article/10.1007%2Fs00420-019-01403-w>

<sup>47</sup> <http://www.caiso.com/Documents/Revised2010Catalogue-MarketDesignInitiatives.pdf>.

## O - Campo Wind References Cited

- American Wind Energy Association. 2018. “New Study: 92 Percent of Wind Project Neighbors Positive or Neutral toward Turbines.” Into the Wind: The AWEA Blog. January 29, 2018<sup>48</sup>.
  - **BPG Response:** See response to 4.13.4 Shadow Flicker at pages 12-14 of these comments.
- Dames & Moore. 1992. Alternative Site Study for the Proposed Campo Landfill Project with a Preliminary Geologic and Hydrogeologic Evaluation of the Preferred Site, Final Report. January 15, 1992.
  - **BPG Response:** The referenced 1992 document is outdated and no longer applicable. Water levels and storage have changed significantly since that year which was during El Nino years with very high groundwater levels that no longer apply after significant drought years in between and more people, including Mexico, relying on less groundwater resources.
- Dead link for Campo Reservation Fire apparatus: <https://crfpd.info/apparatus.html>
- **Health Canada Study:**
  - **BPG Response:** *There are numerous qualified rebuttals that discredit the referenced Health Canada Study.*<sup>49 50 51</sup>

## P - Campo Wind Mitigation Measures

- **APPENDIX P Mitigation Measures for the Campo Wind Project MM-BIO-1 General Avoidance and Minimization Measures.**
  - (h)Fire Protection. To minimize the potential exposure of the Project to fire hazards, a Boulder Brush Fire Protection Plan (FPP) shall be prepared and **a Fire Protection Plan for the Campo Wind Facilities shall be prepared to the satisfaction of CRFPD.** The FPPs shall be implemented in conjunction with development of the Project.
    - **BPG Response:** Now, they do not plan to curtail wind turbines over shadow flicker impacts even though some homes / properties will admittedly be impacted over 30 minutes per day and over one hundred hours per year!
    - The proposed mitigation of vegetation screening and window coverings is insulting and basically useless, especially for those of us who enjoy being outside and viewing sunsets and sunrises over our currently uncluttered horizons.
  - **PDF-AE-2 Shadow Flicker (Off-Reservation).** (excerpt) While BIA lacks jurisdiction to impose Project conditions implemented Off-Reservations, the Developer will coordinate

<sup>48</sup> <https://www.aweablog.org/new-study-92-percent-wind-project-neighbors-positiveneutral-toward-turbines/>

<sup>49</sup> <https://waubrafoundation.org.au/wp-content/uploads/2014/11/NAPAW-9-11-14-MCMURTRY-NEW-STATEMENT.pdf>,

<sup>50</sup> <https://waubrafoundation.org.au/resources/wolfe-d-health-canada-industrial-wind-turbine-noise-study-comments/>

<sup>51</sup> <https://waubrafoundation.org.au/resources/ambrose-s-rebuttal-another-perspective-health-canada-study/>



with the resident of any existing (existing as of the date of Record of Decision approval) Off-Reservations receptor located within a distance of 15 x Rotor Diameter (i.e. approximately 6,750 feet) of a Project turbine to assess their shadow flicker complaints made within one year from the initial operations date of the Project. This assessment would include possible remedies that the Developer may implement depending upon the level of shadow flicker impacts occurring at the Off-Reservations receptor, including financial assistance for the installation of screening vegetation or window coverings. Requests for assistance can be made through a Project hotline to be established by the Developer and published to the Developer's website

- **BPG Response:** *Turbines must be curtailed during nuisance shadow flicker events. To deny that protection to residents over economics is the height of greed and disregard for your fellow man. CEPA should not allow it. Curtains and bushes are not adequate to protect people from the increased stress induced by shadow flicker. It does not have to trigger epilepsy to be deemed harmful to health.*
- **MM-PH&S-2 Health and Safety Program:** *this section should include public health and safety related to project generated annoyance, nuisance and adverse health impacts from noise, low-frequency noise, pressure waves, and vibrations, electrical and light pollution.* This issue was also raised in San Diego County's DEIS comments (7/8/19).
- **MM-PH&S-4 Wind Turbine Safety Zone and Setbacks.** (excerpts) "Prior to approval of final construction plans and as part of the Health and Safety Program(MMPH&S-2), it is recommended that the Developer demonstrate to the Tribe adequate setbacks for wind turbine generators from residents and occupied buildings, roads, right-of-ways, transmission lines, and other public access areas, consistent with the Campo Lease. Plans detailing the proposed turbine setbacks would be submitted to the Tribe for review and approval prior to construction. Project turbine locations will be included in the Resource Development Plan to be prepared pursuant to 25 CFR, Section 162.563(h)"
  - **BPG Response:** *This section should mandate and not just recommend refer to the Tribe's General Council making final determinations of*
  - **PDF-HYD-1 Groundwater Monitoring:** "Campo Environmental Protection Agency (CEPA) will monitor the depth to groundwater in wells located between existing On-Reservation production wells anticipated to be a source of groundwater supply for Project construction and other nearby On-Reservation production wells. A groundwater level drawdown threshold for On-Reservation monitoring wells should be established to ensure that declines in groundwater levels in On-Reservation wells remain at less than 20 feet resultant from On Reservation pumping for Project construction. Groundwater level monitoring should be conducted at least weekly during Project construction and do not interfere with individual and Public Water System (PWS) wells that provide drinking water to residents and others. Should the groundwater drawdown threshold be exceeded, CEPA will require the cessation of on-site pumping for Project construction, from such production wells as is necessary, until groundwater levels in the monitoring wells rise above the threshold."

- **BPG Responses:** This section fails to address monitoring / potential drawdown at on-reservation springs that some residents may rely upon and that were reportedly impacted during bulk water sales from same wellfield during ECO Substation construction.
- Nor does it address potential for drawdown at existing off-reservation domestic wells that may also be negatively impacted.
- **We refer to Snyder Geologic’s review and opinion on Campo Wind FEIS that includes the following important statement:**
  - *“In summary of the information presented in this report, it seems clear that when presented with valid technical and scientific arguments in our original comment letter dated July 5, 2019, the project proponent ignored the arguments and provided responses that are inadequate, broadly dismissive, and without technical merit. They have relied on data that are not site-specific and made liberal assumptions, and have not conducted further evaluation of the well field and its pumping effects on nearby residential wells.”*

## Q - Campo Wind Consultation and Coordination

- **(excerpt):** “Required review will be completed by CEPA. As stated in Chapter 1, CEPA was formed to protect the health, environment, and property of the Tribe on the Campo Indian Reservation from degradation and pollution. CEPA is governed by three commissioners who are appointed to staggered 3-year terms by the Tribal Chairperson; these are subsequently ratified by the General Council.”
  - **BPG Response:** *Based on past experience with CEPA and their basic promotion of the controversial Campo Landfill project, Shu’luuk Wind and disastrous bulk water sales for SDG&E’s ECO Substation it is difficult to believe that much has changed or that CEPA will actually act to ‘protect the health, environment, and property of the Tribe on the Campo Indian Reservation from degradation and pollution’.*
  - Wind turbines represent one of the most destruction and harmful forms of energy and CEPA has done nothing that we are aware to protect their people or others who are already adversely impacted by the Kumeyaay Wind Turbines that are only have the size and power of the proposed Campo Wind turbines.

## R - Campo Wind List of Preparers

- **BPG Responses:** What is Michael Connolly’s position with the Campo Band? He is just listed as a ‘tribal member’ who was contacted. Was he or his company, Laguna Resource Services, Inc, paid for their ‘consultation’? Does he have a conflict?
- Was Harry Paul Cuero, Jr, the current Chairman, contacted? If so, why is he not listed?
- #3 at page 3 of The General Council Resolution NO-04-03-2018-02, Terra-Gen Wind Lease Agreement, April 3, 2018, states that only Ralph Goff and Harry Paul Cuero shall be authorized, acting alone or together, to execute and deliver the wind lease agreement substantially in the

form presented to the General Council, including execution of renewals, extensions, or amendments as may be necessary.

- Is Ralph Goff still authorized even though he resigned from his position?
- The County's Campo Wind – Boulder Brush project manager, Nicholas Koutoufidis, was not contacted. Why not?

## S - Campo Wind Shadow Flicker Study

- **At page 12/34: Table 5.1: Off-Reservations Receptors Anticipated to Experience an Exceedance of either 30 minutes per day and/or 30 hours per year of Shadow Flicker:**
  - **BPG Responses:** This table lists estimates that at least 100 off-reservation receptors that would receive between 30 and 123:20 hours of shadow flicker per year AND that does not include on-reservation receptors!
  - **The 'representative turbines' used in the Study are 18 ft shorter than the up to 604 ft turbine height that results when you add the Project's wind turbine description of 230' blade length + 374 hub height = up to 604 ft.**
  - **Turbines must be curtailed when they create a nuisance and adversely impact people's health and well being. To deny that relief over economics is callus to say the least.**

## T - Campo Wind Response to Public Comments

- **Excerpt:** EMF: 2.15 Public Health and Safety: Electromagnetic Fields (EMF)/Electromagnetic Radiation (EMR) Furthermore, the County recently developed and held hearings on the Public Health Position Statement for Human Health Effects of Wind Turbines issued by the County on February 25, 2019 (County of San Diego 2019b). The Public Health Position Statement states that "based on the weight of evidence, it is not expected that EMF from wind turbines is likely to be a causative agent for negative health effects in the community" (County of San Diego 2019b).
  - **BPG Response:** We strongly disagree with the County's Public Health Position Statement and refer to the March 2019 Planning Commission meeting where the Commissioners listened to testimony from turbine-impacted residents and wanted to make changes.
  - ***The County's statement is biased towards industry and towards protecting public health and safety. We refer to public documents filed with San Diego County Planning Commission by the BPG, Backcountry Against Dumps and others during the March and April meetings.***
- **Fire: 2.17 Public Health and Safety: Fire and Fuels Management**
  - **BPG Response:** See Figure 5 of SDG&E San Diego Gas & Electric Company Wildfire Mitigation Plan report<sup>52</sup>:
  - "Figure 5: Initiative Mapping and Estimation of Wildfire and PSPS Risk-Reduction Impact The image above shows the fire size potential for any ignitions that are initiated during

<sup>52</sup> [https://www.sdge.com/sites/default/files/regulatory/SDG%26E%202020%20Wildfire%20Mitigation%20Plan%2002-07-2020\\_0.pdf](https://www.sdge.com/sites/default/files/regulatory/SDG%26E%202020%20Wildfire%20Mitigation%20Plan%2002-07-2020_0.pdf)

one of the PSPS events that occurred in October 2019. This brings situational awareness of the wildfire potential and the risk reduction if PSPS is implemented in these areas. “

**Fire-sparking wind turbine facilities are inexplicably and negligently allowed to operate during dangerous red flag high wind Public Safety Power Shut-Off (PSPS) events when local neighborhoods are shut off to allegedly prevent fires. San Diego Gas & Electric says it is not their call. The Campo Band, the Bureau of Indian Affairs, San Diego County, the CPUC and others need stop increasing fire risk by allowing wind turbines in our fire-prone back country, they also need to step up and make sure we are protected by mandating these fire-ignition sources be shut-off during PSPS events.**

***Wind turbines and related infrastructure / construction have been documented as the ignition source for substantial wildfires covering up to 30 square miles, destroying properties, and killing hundreds of domestic livestock:***

**Here is some related evidence:**

- **Jan 19, 2020 Wind turbine bursts into flames near Germany’s Bodenwerder:** <sup>53</sup>Credit: Timo Schriegel via Storyful [uk.news.yahoo.com](https://uk.news.yahoo.com) ~~

A fire in a wind turbine in Germany’s Lower Saxony on January 18 prompted warnings from local authorities to keep windows and doors closed in nearby areas while authorities tackled the blaze. A photo (below) released by local police shows the blaze 100 meters up at the top of the tower supporting the turbine near Bodenwerder.



- **8/26 2019: (Texas) Taylor Co. wind turbine fire sparks bigger blaze,** By Joey Hollingsworth | KTAB/KRBC | Posted: Aug 26, 2019 ~~Several fire crews are working to contain and extinguish a large fire in Taylor County. According to a Facebook post made by the View Volunteer Fire

<sup>53</sup> <https://www.wind-watch.org/news/2020/01/20/wind-turbine-bursts-into-flames-near-germanys-bodenwerder/>

Department, (VVFD), Mulberry Canyon VFD, Ecca VFD, Blackwell VFD, Merkel VFD, Nolan VFD, and the Texas Forest Service are all on hand fighting the fire that was sparked from a wind turbine fire earlier Monday. The Texas Forest Service says the fire is estimated at 100 acres and is currently 10% contained, according to a social media post. Many of the volunteers went straight to the fire from work, and are in need of food and water donations, which can be made at Elm Valley Volunteer Fire Department near Highway 277 and FM 89. They can be reached at (325) 572-3980. <https://www.bigcountryhomepage.com/news/taylor-co-wind-turbine-fire-sparks-bigger-blaze/>



Flames from the Rhodes Ranch 3 Fire burn near wind turbines on Monday. (Photo: Courtesy Texas A&M Forest Service)

- **7/21/19: KEPRTV: Witnesses say broken wind turbine caused several hundred acre fire** by Megan Magensky: (excerpt): KLICKITAT COUNTY, Wash. — KLICKITAT COUNTY, Wash.<sup>54</sup>. — “The fire is mostly burning in the Pine Creek Drainage area south of Bickleton, WA. As of Sunday evening, the fire has burned 242 acres. 39 structures are threatened by the fire but no structures have burned. The Pine Creek Drainage area is under a level three evacuation...”
- **4/1/19: Wind turbine catches fire in Huron County (below)** By ABC12 News Team | WJRT | [www.abc12.com](http://www.abc12.com) (excerpt) ~ “A wind turbine in Huron County caught fire and dropped flaming debris to the ground Monday afternoon<sup>55</sup>. The fire was reported around 5:30 p.m. on Elkton Road near Berne Road in Oliver Township. The wind turbine involved is located about a half mile off the road, so a witness said fire crews are having trouble accessing it”.



56

<sup>54</sup> <https://keprtv.com/news/local/witnesses-say-broken-wind-turbine-caused-several-hundred-acre-fire>

<sup>55</sup> <https://www.wind-watch.org/news/2019/04/02/wind-turbine-catches-fire-in-huron-county/>

<sup>56</sup> [https://www.eastoregonian.com/news/local/wind-turbine-sparks-grass-fire/article\\_c8471827-bf9b-5a07-9f40-d4c2f540b8fd.html](https://www.eastoregonian.com/news/local/wind-turbine-sparks-grass-fire/article_c8471827-bf9b-5a07-9f40-d4c2f540b8fd.html)



- **8/13/18: (Above):** East Oregonian reported: Wind turbine sparks grass fire near Arlington that burned about 2,000 acres<sup>57</sup>.
- **7/24/18:** Massive Ontario (Canada) Parry Sound 33 fire sparked by wind farm construction, workers allege, during extreme fire ban. Fire spread to almost 30 square miles, forcing many to evacuate (photo below)<sup>58</sup>



The Parry Sound 33 forest fire began at a massive wind farm construction site on the northeastern shore of Georgian Bay on July 18. The blaze burned out of control until late August. (Warren Wright)

- **9/10/17:** Fox 13 Salt Lake City: Cowboy Fire sparked by wind turbine burning on 1,592 acres near Evanston, WY<sup>59</sup>:

<sup>57</sup> [https://www.eastoregonian.com/news/local/wind-turbine-sparks-grass-fire/article\\_c8471827-bf9b-5a07-9f40-d4c2f540b8fd.html](https://www.eastoregonian.com/news/local/wind-turbine-sparks-grass-fire/article_c8471827-bf9b-5a07-9f40-d4c2f540b8fd.html)

<sup>58</sup> <https://www.cbc.ca/news/canada/ontario-forest-fire-wind-farm-construction-1.4758864>; <https://www.wind-watch.org/news/2018/12/05/this-could-have-been-avoided-wind-farm-work-sparked-blazes-before-parry-sound-33-wildfire/>



- 1/17/17: The Currandooley Bushfire ripped across the southern Tablelands of New South Wales (NSW) Australia.** The blaze started at Infigen's Capital Wind Farm off Taylors Creek Road, near Tarago on the morning of January 17. **It tore through 3384ha (8,400 acres),** fanned by strong winds and fuelled by high heat and dry conditions. It destroyed a house at Mount Fairy, 80ha of crops, eight sheds, 10.5km of windbreaks, cattle yards, stock water tanks and over 150km of fencing, Local Land Service figures revealed. A total 230 animals died and 110 were destroyed on welfare grounds. A NSW Rural Fire Service investigation found that a bird struck a high-voltage power line transferring electricity from Infigen's Woodlawn wind farm to a substation at the Capital wind farm. The bird caught fire, dropped to the ground, sparking the blaze<sup>60</sup>. In January 2017, Infigen reported that they had reached a settlement in the related class action lawsuit, filed by 33 impacted property owners, was settled<sup>61</sup>.



Mount Fairy grazer Fred Kuhn was devastated by the loss of some of his stock in the Currandooley Bushfire. Photo: Karleen Minney

- 12/13/13: Kumeeyaay Wind turbine fire in Boulevard, CA, sparked a small brush fire (below).** Luckily, the fire occurred just one day after a Santa Ana wind event. See 3 photos below.



<sup>59</sup> <https://fox13now.com/2017/09/10/cowboy-fire-sparked-by-wind-turbine-burning-on-1592-acres-near-evanston/>

<sup>60</sup> <https://www.goulburnpost.com.au/story/4637807/firm-launches-class-action-over-currandooley-fire/>

<sup>61</sup> <https://www.infigenenergy.com/about-us/news/currandooley-bushfire/>



- **8/27/13: Texas: Wind turbine north of Hamby catches fire, starts grass fire (below):** *Credit:* By Maggie Contreras | KTXS | August 27, 2013 | [www.ktxs.com](http://www.ktxs.com) ~~HAMBY, Texas – A wind turbine north of Hamby sparked a small grass fire after going up in flames. Firefighters estimate the grass fire to be six to eight acres<sup>62</sup>.



- **8/20/12: (below) Report on wind turbine fire sparking grass fire in Tehachapi area, included the photo below( taken by Donna Moran)<sup>63</sup> :**



- **6/17/12: Cal Fire Incident Report #12-CARRU 059775: 367 acre wildland fire sparked by 'windmills on fire' off I-10 in San Bernardino<sup>64</sup>:**

<sup>62</sup> <https://www.wind-watch.org/news/2013/08/27/wind-turbine-north-of-hamby-catches-fire-starts-grass-fire/>

<sup>63</sup> <https://www.eastcountymagazine.org/node/10602>



## 2014 report: Overview of Problems and Solutions in Fire Protection Engineering

**of Wind Turbines**<sup>65</sup>: FIRE SAFETY SCIENCE-PROCEEDINGS OF THE ELEVENTH INTERNATIONAL SYMPOSIUM pp. 983-995 COPYRIGHT © 2014 INTERNATIONAL ASSOCIATION FOR FIRE SAFETY SCIENCE/ DOI: 10.3801/IAFSS.FSS.11-983

- (excerpt pages 984-5/ emphasis added) “ ***The fire problem in wind turbines arises as a result of large amounts of highly flammable materials (hydraulic oil and lubricants, composite materials, insulation, and polymers) contained within the nacelle of the wind turbine and packed in close proximity to potential ignition sources such as overheated mechanical components (hot surfaces) and electrical connections that could fail*** [8-12]. Once a fire is ignited in a wind turbine, the situation rapidly escalates because the high wind favoured by turbine locations enhances the supply of oxygen and, hence, the fire growth. In over 90% of wind turbine fires reported, a total loss of the wind turbine, or at least, a severe structural failure of the major components (blades, nacelle, mechanical or electrical components) has been reported [8]. Moreover, even in the case of rapid detection, the fire brigade cannot intervene because of the turbine height [9, 10, 12], and for offshore wind turbines it is impractical to send response teams to fight the fire [9]. ***Under high wind conditions, burning debris from the turbine may fall on nearby vegetation and start forest fires or cause serious damage to property*** (see Fig. 4) [10].”
- (Excerpt page 987): “Ardrossan, Ayrshire, UK, 2011 ***On 8th December 2011, a wind turbine caught fire during a heavy storm in North Ayrshire despite being non-operational. The wind turbine was completely burnt out and burning debris were scattered across a long distances due to the strong wind*** (see Fig. 5).



- “Fig. 5. Wind turbine fire at Ardrossan wind farm [17]. The cause of the fire was said to have been a lightning strike to the turbine. The turbine was completely destroyed. ***Secondary ignition of nearby vegetation and property was avoided due to timely fire service intervention.*** The wind farm lost about 1,210 MWh of energy in the weeks after the fire due to downtime. This fire

<sup>64</sup> <https://www.eastcountymagazine.org/sites/eastcountymagazine.org/files/2012/July/ViewFire%20report.pdf>

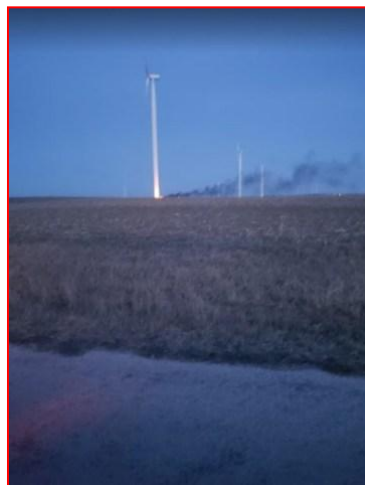
<sup>65</sup> [http://www.iafss.org/publications/fss/11/983/view/fss\\_11-983.pdf](http://www.iafss.org/publications/fss/11/983/view/fss_11-983.pdf)

got a lot of attention and received some strong criticism especially from those who were already against wind energy, one of which was Sir Bernard Ingham, secretary of the Supporters of Nuclear Energy group, who said: "They are no good when the wind doesn't blow and they are no good when the wind does blow" [18]."

- "This article has highlighted the unique nature of the fire problem faced by the wind energy industry, as well as the paucity of available information about such fires in the public or scientific domains.*** There are numerous examples of accidents reported in the popular press, all of which highlight the significant impact and ensuing downtime due to fires. These fires result in financial loss, power loss (which is especially Fire Conversion of energy Thermal energy Radia5on UV Visible Flame detectors IR Convec5on Laminar flow Turbulent flow Heat detectors Conversion of maAer Residual Suspension Gaseous Gas combus5on detectors Aerosol Invisible Visible Smoke detectors problematic in remote locations where the wind turbines are a major source for electricity), as well as secondary damage, for example through road closures or ignition of wild fires in rural areas. ***There is however very little scientific information available publically from which to evaluate the problem critically, since much of this information is proprietary. What is known and apparent, however, is that because of the nature of wind turbines, fire-fighting is difficult.*** The nacelles are significantly elevated above ground level, beyond the reach of most fire-fighting appliances. Turbines are often located in remote rural areas, increasing response time. Yet the environment inside of a wind turbine nacelle may lead to increased likelihood of ignition because of the choice or design of the components, and to increased difficulty in detection or suppression since the favoured environment requires high flow of air around the nacelle and through it in the case of some designs. ***Therefore, where fires do occur there is - in the majority of cases - a 100% loss of the turbine structure and the only recourse of fire-fighters is often to attempt to limit the spread of the fire to other areas."***

### Jan 2020 Turbine transformer fire at ground level:

- January 16, 2020: Wind turbine transformer fire at InvEnergy project located southwest of Collison Illinois. See photo below<sup>66</sup>:**



<sup>66</sup> <https://edgarcountywatchdogs.com/2020/01/wind-turbine-transformer-caught-fire/>

## 2.18 Visual Resources: Shadow Flicker

- “The Draft EIS explained that “all turbine software would include programming to reduce or shut off turbines during times of shadow flicker potential to avoid any concerns regarding adverse effects on nearby receptors due to flicker from turbine blades.” Upon further consideration, it was determined that this design feature would significantly impact the economic benefits of the Project to the Tribe, thereby undermining the key purpose of the Project. It is also not a cost-effective measure to address effects that would only amount to a temporary visual disruption for certain receptors, if at all.”
- **PDF-AE-2 Shadow Flicker (Off-Reservation).** “While BIA lacks jurisdiction to impose Project conditions implemented Off-Reservations, the Developer will coordinate with the resident of any existing (existing as of the date of Record of Decision approval) Off-Reservations receptor located within a distance of 15 x Rotor Diameter (i.e. approximately 6,750 feet) of a Project turbine to assess their shadow flicker complaints made within one year from the initial operations date of the Project. This assessment would include possible remedies that the Developer may implement depending upon the level of shadow flicker impacts occurring at the Off-Reservations receptor, including financial assistance for the installation of screening vegetation or window coverings. Requests for assistance can be made through a Project hotline to be established by the Developer and published to the Developer’s website.”
  - **BPG Response:**
  - *FEIS @ page 13: Scenario 3 (Baseline + Project + Cumulative) : Approximately 72 On-Reservation receptors may experience shadow flicker for more than 30 minutes in any given day and approximately 64 On-Reservation receptors may experience shadow flicker for more than 30 hours in a given year and MORE!*
  - *See FEIS Appendix S-Shadow Flicker FIGURE C3 SCENARIO 3: ANNUAL SHADOW FLICKER for a better understanding of what Terra-Gen and Campo Wind consider acceptable corporate behavior which is truly UNACCEPTABLE.*
  - *Campo Wind Draft EIR posted on the County website includes even more alarming shadow-flicker details that were inexplicably excluded from the FEIS Shadow Flicker Analysis Appendix-S*

## 2.19 Turbine siting:

- **RTC-41: (excerpt-emphasis added)** “The 1/4-mile setback is a requirement in the Campo Lease and is also consistent with the setback provisions in the Campo Land Use Code, and has been determined by the Tribe to be an appropriate buffer. As described in the EIS, this setback will avoid, reduce, and/or mitigate various impacts of the Project. ***The EIS also explains that the 76 turbine sites that were identified and studied may include turbine positions that conflict with the 1/4-mile setback requirement (see EIS Section 3.10.2, Affected Environment (Noise)).***”
  - **BPG Response:** *Why was/is this allowed? ¼ mile is already vastly inadequate, especially for unstudied 4.2 MW turbines that Terra-Gen plans to use. The USEPA’s comments on Campo Wind’s DEIS recommended ½ mile setback that is still far too close!*

## 2.20 Water Resources:

- “Section 3.2.2.2, Affected Environment (Groundwater Resources), in the EIS discusses the environment of the Cottonwood Creek aquifer, which is further discussed in Appendix F. Impacts to the aquifer’s supply and quality were found to not be adverse, and capacity was determined to be sufficient. As a sovereign government, the Campo Band of Diegueño Mission Indians has historic federal water rights that they would sustainably exercise during implementation of the Project, as permitted under the Winters Doctrine (Winters v. United States 1908). In exercising these water rights, the Campo Environmental Protection Agency will monitor groundwater production and groundwater levels at on-site and on Reservation wells during Project construction to ensure that construction activities would not adversely affect wells on the Reservation. As the magnitude of groundwater level decline in the aquifer is proportional to the distance from on Reservation production wells, monitoring groundwater levels at on-Reservation wells will be implemented to reduce potential indirect impacts to off-Reservation wells.”
  - **BPG Responses:** *Off-reservation monitoring is not included in Mitigation Measures*
  - **We refer to Snyder Geologic’s 9-page third party review and opinion on Campo Wind FEIS (3-9-20) that includes the following statement:**
  - *“In summary of the information presented in this report, it seems clear that when presented with valid technical and scientific arguments in our original comment letter dated July 5, 2019, the project proponent ignored the arguments and provided responses that are inadequate, broadly dismissive, and without technical merit. They have relied on data that are not site-specific and made liberal assumptions, and have not conducted further evaluation of the well field and its pumping effects on nearby residential wells.”*
  - *Local experience with CEPA, over the years, leads to significant lack of trust, especially regarding Campo Landfill, Shu’luuk Wind, and controversial and well draining bulk water sales during construction of SDG&E’s ECO Substation, including use of false location of source wells in approval documents.*

## 2.21 Socioeconomic Conditions: Property Values

- “Over the last 3 years, the number of single-family residences listed for sale annually in the Boulevard area has remained relatively consistent despite the construction of several large-scale energy projects in the area. Of the 57 home sales since 2017, half have closed at the listing price or higher. Boulevard is a unique sub-market, and there is considerable disparity in the square footage of the homes, condition of the property, and associated acreage sold in this period; however, similar to other markets within the broader San Diego market, the sales price per square foot within the Boulevard area has continued to increase annually. Thus, the data reinforce the large body of literature that supports that the construction and operation of energy projects does not result in a decrease to property values, as suggested by the commenters.”
  - **BPG Response:** the references cited for this section only includes the following: Zillow 2019. *Campo, California: Property search for recently sold homes.*  
[https://www.zillow.com/homes/recently\\_sold/Campo-CA/23931\\_rid/globalrelevanceex\\_sort/32.821903,-116.291485,32.580667,-116.680127\\_rect/11\\_zm/](https://www.zillow.com/homes/recently_sold/Campo-CA/23931_rid/globalrelevanceex_sort/32.821903,-116.291485,32.580667,-116.680127_rect/11_zm/).

- *The map pulled up on that referenced Zillow link only includes one property that is actually located in the Boulevard Planning Area (50 acre vacant parcel on Tierra Real Road that sold for \$145,000 in 2011). The rest of the listings are actually located in Campo or Pine Valley Planning Areas that are further away from the existing Kumeyaay and Tule Wind turbines and have distant restricted views or no views of those turbines.*
- *In fact, the vacant Boulevard parcel that sold is actually 50 acres and is now back on the market since the 2018 buyer quit making property payments to the Tisdales and failed to pay property taxes to the County. And it sold below list price in 2018.*
- *We refer to the Campo Wind FEIS comments on this issue, submitted to the BIA by Jeff Morrison on March 8, 2020, that totally debunk and discredit the false statements /claims used in the FEIS. See attached Morrison comments.*
- *This is just one more example of Dudek making dishonest and misrepresentative statements about Boulevard property values when they are only looking at properties listed as Campo?*

• **Property value impacts: a rebuttal** <sup>67</sup> **Author: McCann, Michael**

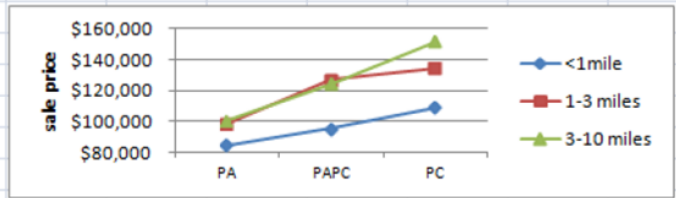
- The new LBNL value report has been placed with many media outlets, as part of the follow-up public relations campaign to dismiss value impacts as a mere “concern”, while doing little to address the very real problem. I have received many requests for comment on the latest LBNL effort. A thoughtful review of the claims stated therein is warranted, and my preliminary remarks follow.
- First, the August 2013 LBNL report conclusions should not be relied on for any purpose other than showing that statistics can be used to support any biased position they choose, but it is far from being an empirical value study. There was certainly enough data to perform a study that incorporated the accepted methodology of paired sales and/or resale analysis, with careful analysis of marketing times and other value influencing factors. But LBNL once again ignored the primary data source for residential values; the Multiple Listing Service (MLS) active in any given study area. (Marketing times do not show in Assessor data)
- Once you bother to read through all the scientific sounding discussion and internally supported citations (Hoen citing Hoen, for example), I recommend that you refer to the last sentence of paragraph 2 on report page 5, wherein the authors disclose an apparent bias as follows: “Therefore for the purposes of this research we will assume 3-4% is a maximum possible effect.”
- Review of Table 7 arrays the data and reveals impact on a factual basis. The empirical evidence is presented on Table 7 before the sale price data was “crunched” to obtain the stated results. On a side note, the focus is on claims of statistical significance; not upon value impact.
- **Regardless of terminology or focus, the fact is that the raw data shows a post**

<sup>67</sup> <https://www.wind-watch.org/documents/property-value-impacts-a-rebuttal/>

construction negative impact of 28% for homes < 1 mile from turbines vs. homes in the 3-10 mile range, as follows:

**Table 7: Dependent and Independent Variable Means**

Sale Price	<1mile	1-3 miles	3-10 miles
PA	\$ 84,830	\$ 98,676	\$100,485
PAPC	\$ 95,223	\$127,054	\$124,532
PC	\$109,133	\$134,647	\$151,559



## 2.23 Noise: Turbine Proximity to Homes

- **RTC-48: excerpt:** “The exact height of the turbines included in Epsilon Associates’ study was not noted in the report; therefore, the elevation of the turbines in comparison to the residences cannot be determined. Although Project wind turbines are expected to be larger than the models studied in the Epsilon Associates report conducted for the Tule Wind Project, and thus may produce more low-frequency sound, the results in the Epsilon Associates study indicate there is considerable compliance margin with respect to several of the studied standards. For example, margins of over 20 decibels (dB) were reported over the infrasound range of frequencies with respect to the ISO 226 + Watanabe audibility standard at distances between 920 and 1,060 feet. Such large margins would suggest that infrasound from 4.2 MW wind turbines would likely also comply with this standard at the same distance range.”
  - **BPG Responses:** *Failure by Terra-Gen and Epsilon to include the repeated declared turbine height of 586 ft and the 604 ft that the Project Description figures actually add up to, is significant and unacceptable.*
  - *Claiming that the elevation of turbines in comparison to the residents cannot be determined is simply a false statement, because the turbine elevations were included in Terra-Gen’s Campo Wind submission to the FAA that included all of the wind turbine heights with maps showing exact proposed locations. Alternatively, Terra-Gen could have provided false or inaccurate elevation information to the FAA.*
  - **Here is the link to the FAA page with Campo Wind’s documentation:**  
<https://oeaaa.faa.gov/oeaaa/external/searchResults.jsp?action=searchInterimCases&pageNum=2>
  - From that FAA link, click on Interim cases - 60 days and go to page 2 for all the Campo Wind turbine elevations with ID numbers
  - We again refer to the multiple Campo Wind DEIS, DEIR, FEIS and related third party reviews and opinions submitted by dBF Associates, Inc.
  - **dBF Associates, Inc’s 7-page FEIS opinion (3-10-20) includes the following statement:**
    - *“In its current form, the Acoustical Analysis Report and Final Environmental Impact Statement underpredict project noise levels at NSLUs and underreport the severity and extent of project noise impacts.”*



## 2.24 Noise: Low Frequency

- LF-1 “Concerns were raised by commenters regarding human exposure to low-frequency sound and infrasound.”
  - BPG response: This RTC totally ignores the evidence we provided regarding low-frequency noise and infrasound impacts on health and well being and uses old biased information in an attempt to discredit what we provided. Here is some of our evidence again:
    - **New 2020 study on homes abandoned due to turbine impacts:**
      - Krogh, C.M., McMurtry, R.Y., Dumbrille, A., Hughes, D. and Gillis, L. (2020) Preliminary Results: Exploring Why Some Families Living in Proximity to Wind Turbine Facilities Contemplate Vacating Their Homes—A Community-Based Study. Open Access Library Journal, 7: e6118.<sup>68</sup>
    - **Health Effects of Wind Turbines: Testimony of Ben Johnson versus MidAmerican Energy (Madison County, Iowa)**<sup>69</sup> By Sherri Lange -- August 23, 2019
      - *“The annoyance of sight and the heard pulsating wind turbulence creates indirect adverse health effects. This combined with the direct effects of sleep disturbance may activate the body’s autonomic nervous system to increase sympathetic-mediated responses with endocrinological consequences.”*  
*“Increasingly activated, risk factors that promote adverse cardiovascular consequences may then promote/facilitate/enhance cardiovascular disease – most easily named as hypertension, arteriosclerosis, ischemic heart disease and stroke.”*  
*– Ben Johnson, Testimony before the Madison County Board of Health, Madison Country, Iowa.*
- **Wind power - Jammers for the heart: Mainz researchers investigate the consequences of infrasound** Allgemeine-Zeitung - Michael Bermeitinger - March 5, 2018<sup>70</sup>

### Impact on People Germany

*A working group of the Department of Cardiothoracic and Vascular Surgery of Medicine caused a stir at the congress of the professional society with their research on the impairment of the heart muscle by wind turbine infrasound. In this interview, the lead researcher explains that wind turbine infrasound can reduce the force of cardiac muscle contractions, under certain conditions, by up to 20 percent.*

<sup>68</sup> <https://doi.org/10.4236/oalib.1106118>

<sup>69</sup> <https://www.masterresource.org/wind-turbine-noise-issues/health-effects-of-wind-turbines-testimony-of-ben-johnson-versus-mid-american-energy-project-in-madison-country-iowa/>

<sup>70</sup> [https://www.allgemeine-zeitung.de/lokales/mainz/nachrichten-mainz/windkraft-storsender-furs-herz-mainzer-forscher-untersuchen-folgen-des-infraschalls\\_18566513](https://www.allgemeine-zeitung.de/lokales/mainz/nachrichten-mainz/windkraft-storsender-furs-herz-mainzer-forscher-untersuchen-folgen-des-infraschalls_18566513); <http://www.windaction.org/posts/48039-wind-power-jammers-for-the-heart-mainz-researchers-investigate-the-consequences-of-infrasound#.Xk8IFWhKiUk>

MAINZ - The wind energy euphoria is still continuing in politics and industry, but local residents find this energy generation highly controversial. Landscaping is one aspect, but also the harmfulness of inaudible infrasound. And here there is more and more support from research. For example, a working group of the Department of Cardiothoracic and Vascular Surgery of Medicine caused a stir at the congress of the professional society with their research on the impairment of the heart muscle by infrasound. We spoke with the initiator of the work, HTG Director Professor Christian-Friedrich Vahl.

**Professor Vahl, how did you come up to this topic?**

A friend of mine, the artist Cyrus Overbeck, had a house in Ostfriesland near a large wind farm. And he increasingly complained of difficulty concentrating and sleeping - symptoms that are described all over the world in the vicinity of wind turbines.

**And the connection between sound and heart disease?**

The impact of audible sound is indeed being researched by the working group around Professor Münzel in an exemplary way. I myself examined the effects of high-frequency vibrations on the development of muscle strength in physiology Hamburg. The assumption that even inaudible sound, ie infrasound, has effects on vessels is not new either.

**What kind are these effects?**

When the aortic valve, which regulates the flow of blood from the heart to the body, is calcified and constricted, the bloodstream and thus the flow changes. For example, it is being discussed whether this altered sound is involved in the formation of dangerous sagging after constrictions.

**What is infrasound and how does it work?**

The audible sound ranges from 20 to 20,000 Hertz, below 20 Hz it is no longer audible, but it is physically perceptible at high sound pressure - possibly with corresponding consequences. Wind turbines convert 40 percent into energy and 60 percent into infrasound.

**But there is noise protection ...**

Infrasound has a long range and is not dampened by windows or masonry. It would take 30 meters high and eight meters thick walls to protect against the usual infrasonic frequencies. And with ever-increasing wind turbines of up to 200 meters and rising power, naturally, the infrasound load will be higher.

**What question did you ask yourself about infrasound?**

We simply wanted to know qualitatively whether the direct application of infrasound to the heart muscle tissue has an effect on the development of strength.

**And how was that measured?**



To test whether infrasound has a direct effect on force development, we've connected a speaker to a heart muscle piece. The loudspeaker is a special industrial vibrator that transmits the smallest monophosphere vibrations in the infrasound range to the specimen. But also the preparation itself was prepared.

### **In what way?**

We have used an established but complicated technique to eliminate all membrane-bound processes and measure them only on the isolated contractile apparatus. This ensures the contraction of the heart muscle.

### **How big can you imagine the preparation?**

It is about three millimeters long, 0.2 millimeters wide and is fixed between speaker and force gauge. The preparation was activated, then the loudspeaker was switched on.

### **And what effect did the infrasound have?**

At the given time it is safe to say that infrasound under the conditions of measurement reduces the force developed by the isolated cardiac muscle, under certain conditions up to 20 percent is lost. The fundamental question of whether the infrasound can affect the heart muscle is answered.

### **What's next?**

The next step, of course, are measurements on the living specimen.

### **What conclusion do you draw from the previous results?**

We are at the very beginning, but we can imagine that long-term impact of infrasound causes health problems. The silent noise of infrasound acts like a jammer for the heart.

WORKING GROUP: Department of Cardiothoracic and Vascular Surgery (HTG) of the University Medical Center Mainz

- Dr. Rayan Chaban
- Dr. Ahmed Ghazy
- Hazem El Beyrouti
- Dr. Katja Bushman
- Dr. Lena Brendel
- Prof. Christian-Friedrich Vahl

Translation into English completed using Google Translate.

**Rapley et al. Case Report: Cross Sensitisation to Infrasound & Low Frequency Noise** 12th ICBEN Congress on Noise as a Public Health Problem; 18-22 June, 2017 Zurich, Bruce Rapley, Huub Bakker, Mariana Alves-Pereira, Rachel Summers<sup>71</sup>

**ABSTRACT**

This Case Report describes an episode experienced by two noise-sensitised individuals during a field trip. Exposed to residential infrasound and low frequency noise due coal mining activities, the subjects reacted suddenly, strongly and unexpectedly to pressure pulses generated by a wind farm located at a different town, approximately 160 km by road from their residence. Simultaneous physiological data obtained in one subject and subjective sensations occurring during the episode are reported. Acoustical evaluations of the location of the episode are also reported. The possibility of a nocebo effect as an etiological factor for their bodily reactions is cogently eliminated. The degree of cross-sensitisation to acoustical phenomenon depends on prior exposure histories, and on the temporal characteristics of the acoustical phenomenon.

**Vibroacoustic Disease More Than a Hearing Problem**<sup>72</sup>, Billings, Bart P. PhD, COL (Ret)The Hearing Journal: August 2019 - Volume 72 - Issue 8 - p 6: doi: 10.1097/01.HJ.0000579560.07056.13

**Author Information** Dr. Billings has been working in the fields of mental health, human services, and management for over 48 years. He served in the U.S. Army for 34 years, and founded and directed the International Military and Civilian Combat Stress Conference. He received the 2014 Human Rights Award from Citizens Commission on Human Rights International and the Frank O'Hara Award from the University of Scranton in 2016.

In the late 1990s, I was working with some professional audio sound technicians, and had the opportunity to experience the sound system for a major concert prior to the show. When they turned on the sound system, it took me only seconds to yell out, "Turn it off, it hurts!" The sound didn't only hurt my ears but my whole body. That's when I first realized that high-intensity/low-frequency (HI/LF) sound vibration could be dangerous to one's overall health.

At the time, I was in the U.S. Army Reserve and the Medical Service Corps, where I served as a clinical psychologist, a general hospital commanding officer, and a special projects officer, among others. Earlier in my military career, I was also a combat engineer, where I experienced loud explosions (blast waves) and weapons that emitted HI/LF vibrations. These experiences motivated me to look into the effects of HI/LF sound on the human body, particularly vibroacoustic disease (VAD). Fortunately for me, I discovered that medical specialists in Europe had already done research in this area. As early as 1956, Professor Eugenia Andreeva-Galanina developed a classification of hand-arm vibration-induced pathology, followed by more medical research (*Aviat Space Environ Med.* 1999 Mar;70[3 Pt 2]:A32-9). The article that made the strongest impact on me was "The Vibroacoustic Disease—An Emerging Pathology" by N.A.A. Branco Castelo and Lopez E. Rodriguez (*Aviat Space Environ Med.* 1999; 70[3, Suppl]:A1-6).

<sup>71</sup> <https://waubrafoundation.org.au/resources/rapley-et-al-case-report-cross-sensitisation-infrasound-low-frequency-noise/>

<sup>72</sup> [https://journals.lww.com/thehearingjournal/Fulltext/2019/08000/Vibroacoustic\\_Disease\\_More\\_Than\\_a\\_Hearing\\_Problem.2.aspx?sid=5d39849a-a632-4f44-8124-8721b503a77e](https://journals.lww.com/thehearingjournal/Fulltext/2019/08000/Vibroacoustic_Disease_More_Than_a_Hearing_Problem.2.aspx?sid=5d39849a-a632-4f44-8124-8721b503a77e)

In 2001, an occupational physician in the U.S. Navy who attended the Civilian Combat Stress Conference, which I founded and directed, asked me if I had an idea why even experienced sailors would walk off the deck or in front of jet engine intakes while working on aircraft carriers. Noting my previous research, I told him that when a person feels sound waves from HI/LF vibrations, every cell in his or her body is being damaged. When this happens, the body automatically dumps adrenaline and endorphins into the blood stream in an effort to survive (AKA fight-or-flight response to injury). This, in turn, causes disorientation, confusion, and an overall lack of awareness, which can result in accidents. This is similar to the classic tale of an Olympic marathon runner who, after running over 26 miles with a massive amount of endorphins in his system, gets confused and runs the wrong way at the finish line.

As a military veteran, I am concerned that when soldiers return from combat, VAD is rarely diagnosed and most often overlooked as PTSD. For example, I had a patient who had many classic symptoms of VAD but was diagnosed with PTSD. He was inappropriately given brain-altering drugs with black box warnings for many years before he finally realized he needed to stop the medications.

Patients with hearing loss from exposure to HI/LF sounds should also be evaluated for VAD. I saw a patient with 20 body system problems, which no one realized were from VAD until I explained what occurred when he was handling a machine eight hours a day for eight years. His symptoms were in line with those described by Castelo and Rodriguez (*Aviat Space Environ Med*. 1999; 70[3, Suppl]:A1-6).

High-intensity, low-frequency sounds not only produce auditory and vestibular symptoms, but may also impact the overall status and functions of neurological, muscular, or even cardiovascular systems. The impact of high-intensity, low-frequency sounds is underappreciated. The diagnosis and treatment of their associated symptoms need to be improved.

## REFERENCES

1. Castelo Branco NA. The clinical stages of vibroacoustic disease. *Aviat Space Environ Med*. 1999 Mar;70(3 Pt 2):A32-9.
2. Castelo Branco NAA, Rodriguez Lopez E. The vibroacoustic disease-An emerging pathology. *Aviat Space Environ Med* 1999; 70(3, Suppl):A1-6.

**INFRASOUND AND LOW FREQUENCY NOISE** – informative video presentation on related health impacts by Dr. Mariana Alves Pereira - Ljubljana 2018<sup>73</sup>

**2-24-20: The Irish Times: Siblings who became ill next to wind farm settle case by Aodhan O'Faolain**<sup>74</sup>

- (excerpt) Three siblings who claimed they became ill and their family had to leave their Co Cork home as a result of a nearby wind farm have secured €225,000 under a settlement of their High Court damages claims. The settlements, made without admission of liability and achieved

<sup>73</sup> <https://www.youtube.com/watch?v=ZXCZ3OyklrE>

<sup>74</sup> <https://www.irishtimes.com/business/energy-and-resources/siblings-who-became-ill-next-to-wind-farm-settle-case-1.4184636>

following mediation, were made in cases brought by Laura Kelleher (15) and her brothers David (17) and Jack (10). The siblings claimed they and their parents had to leave their family home at Gowlane North, Donoughmore, Co Cork, in late 2016 several months after a 10 turbine wind farm went into operation.

- They claimed the noise, vibrations and shadow flicker from the turbines, located some 700m from their family farm, resulted in them suffering from various illnesses.
- These included nosebleeds, ear aches, skin rashes, swollen and painful hands, loss of power in their limbs, sleep disturbance and headaches.

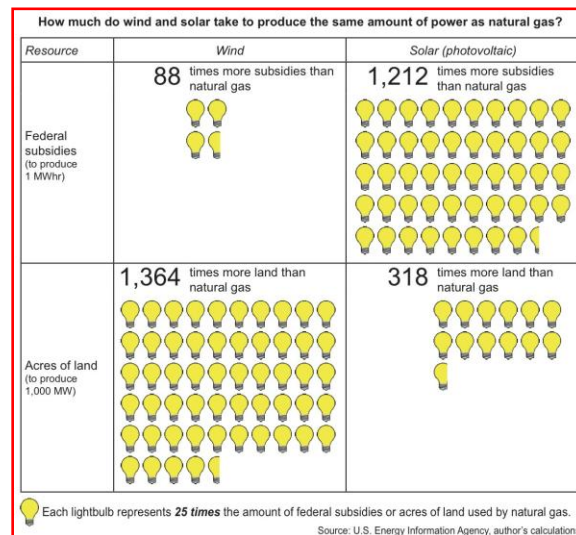
## 2.25 Tribal Approvals and Land Use Regulations

- **(excerpts-emphasis added) 2.25 Tribal Approvals and Land Use Regulations Comment Numbers: G-49, G-60, 1-16, I-72, I-78, I-89, I-159, I-163, 27-3, 34-23, 34-76, 34-92, 34-94 TR-1 Campo Lease Approval.** Several comments identified concerns with the Campo Lease, focusing on either the Tribe's General Council vote to approve the lease or the process by which the lease is reviewed by BIA. The leasing of Indian lands is subject to federal law. Leasing is authorized under 25 USC 415, which requires the approval of the Secretary of the Interior, as implemented by BIA under regulations at 25 CFR, Part 162. Those regulations require BIA approval of a lease of Indian land. BIA is producing the EIS to comply with NEPA as part of its review process of the Campo Lease between the Tribe and Developer. ***The validity of the Campo General Council resolution approving the Campo Lease is a matter of Tribal law and is unrelated to the adequacy of the environmental analysis in the EIS; therefore, BIA has no obligation to address comments regarding the validity of the Tribe's approval of the Campo Lease.*** TR-2 Tribal Land Use Regulations. Several commenters suggest the EIS is deficient for failure to adequately describe Tribal land use regulations. Other commenters suggest the Project is impermissible under Tribal land use regulations. The application of Campo Tribal Laws is not directly relevant to the NEPA decision or the environmental impacts analysis of the project. Nevertheless, under the terms of the Campo Lease between the Tribe and Developer, the applicability of Tribal laws is limited. Although not directly applicable to the Project, summaries describing the Tribe's land use and environmental authorities are provided for reference, including the Campo EPA statutes, the Campo Band of Diegueño Mission Indians Land Use Code, and the Campo Band of Diegueño Mission Indians Land Use Plan. The Campo Renewable Energy Zone is discussed in Appendix C: Regulatory Settings, Section 3.8.2. Under the terms of the Campo Lease between the Tribe and RTC-52 Developer, Tribal laws, including land use and zoning regulations such as those pertaining to the Campo Renewable Energy Zone, are limited or made inapplicable to the Project, and the Tribe agrees to Project development in compliance with the Resource Development Plan approved by BIA under the leasing regulations.
  - **BPG Response:** Wow. How dismissive of Campo Tribal members' rights for fair and equal protection under the law. It does not seem legal to allow a private developer to override and ignore the Campo Band's regulations that were reported intended to protect

- *It is our understanding that the Land Use Code includes the following objective:  
“Promote the health, safety, and welfare of the residents of the Reservation and to develop and maintain adequate standards for diversity of land use and building patterns on Reservation “*
- *The internal conflict, as reported in the East County Magazine article dated Feb 14, 2020 indicates that a majority of Campo’s General Council members oppose the Campo Wind Project: CAMPO TRIBAL MEMBERS PLEAD FOR LEGAL HELP, ALLEGE RIGHTS VIOLATED IN WIND PROJECT APPROVAL: PETITION SEEKS REVOTE ON CONTROVERSIAL PROJECT<sup>75</sup>*
- *It is also our understanding, from several of those present at the Special Meeting at the Campo Tribal Hall called by Chairman Cuero on February 19<sup>th</sup>, that about 70 members were present and that Chairman Cuero refused to recognize or call a vote to terminate Campo Wind despite several motions on the floor to do so.*
- *If accurate, the current lack of accountability and failure of the current Campo leadership is alarming and generates concerns for the safety and well being of all involved.*
- *The Bureau of Indian Affairs does have trust responsibilities for Campo members, and their resources ,who are apparently being exploited by Terra-Gen and their current leadership, through no fault of their own.*

**Harvard studies: Wind power needs so much land, it’ll cause warming by Jon Sanders:  
October 5, 2018<sup>76</sup>:**

- Two new research papers from Harvard University scientists find that wind power contributes to global warming. The more wind is brought online to replace traditional energy sources, the more land use it will require. As we’ve discussed here before, **doing the math** on renewable energy sources such as wind and solar has to include their **huge land requirements**.
- And wind requires a **tremendous amount of land** to produce energy equivalent to efficient, readily dispatchable traditional sources (when the wind blows, that is):



<sup>75</sup> <https://www.eastcountymagazine.org/print/32791>

<sup>76</sup> <https://lockerroom.johnlocke.org/2018/10/05/harvard-studies-wind-power-needs-so-much-land-itll-cause-warming/>

Here's a snippet from a [news article](#) on the studies from The Harvard Gazette:

*In two papers — published today in the journals [Environmental Research Letters](#) and [Joule](#) — Harvard University researchers find that the transition to wind or solar power in the U.S. would require five to 20 times more land than previously thought, and, if such large-scale wind farms were built, would warm average surface temperatures over the continental U.S. by 0.24 degrees Celsius.*

*“Wind beats coal by any environmental measure, but that doesn’t mean that its impacts are negligible,” said David Keith, the Gordon McKay Professor of Applied Physics at the Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS) and senior author of the papers. “We must quickly transition away from fossil fuels to stop carbon emissions. In doing so, we must make choices between various low-carbon technologies, all of which have some social and environmental impacts.”*

**As opposed to the apparent lack of care and concern demonstrated by the current Campo leadership for their own peoples’ health and safety, as related to us, here are some examples of what other jurisdictions, agencies, and elected officials are doing to protect and defend their constituents and resources from the harms inflicted by the installation and operation of industrial wind turbines allowed far too close to homes and other sensitive receptors:**

### **Feb 20, 2020: St. Joseph Missouri: Planning and Zoning propose commercial wind turbine ban**

- Credit: By Clayton Anderson | News-Press NOW | St. Joseph News-Press | Feb 19, 2020 | [www.newspressnow.com](http://www.newspressnow.com) ~<sup>77</sup>

The Buchanan County Planning and Zoning Commission proposed a total commercial ban for wind turbines in a meeting Wednesday night.

This was proposed after discussions regarding potential restrictions, and what would be the setback for the wind turbines, which initially was between a half-mile and a mile. Steven Reardon of Marion Township proposed a motion for a total ban on wind turbines in the county. After further discussion, the proposal was put to a vote. The commissioners voted in favor, 8-4.

Reardon said he was going to want to make adjustments to each line of the potential restrictions and thought after the public hearings that most were in favor of a commercial ban.

“I just thought it would make it easier to have a simple, declarative statement that wind turbines are banned Buchanan County,” Reardon said. “Local government in the way that it responds to people’s wishes is why this is the best way America works.”

<sup>77</sup> [https://www.newspressnow.com/news/local\\_news/planning-and-zoning-propose-commercial-wind-turbine-ban/article\\_d220990e-5321-11ea-ad1a-8fd1f7c5d734.html](https://www.newspressnow.com/news/local_news/planning-and-zoning-propose-commercial-wind-turbine-ban/article_d220990e-5321-11ea-ad1a-8fd1f7c5d734.html)

Reardon said that he represents the township that was targeted by NextEra (the Florida company that wanted to install turbines), and that he did not hear from one person in past public hearings that was in favor of the wind turbines.

“There was no one that spoke for them (turbines),” Reardon said. “We are a fairly urban county, which would make adding wind turbines difficult.”

The proposal is going to the County Commission for a vote. If the commissioners vote against the proposal, it will go back to the Planning and Zoning Commission to make restrictions.

The vote from the Planning and Zoning Commission resulted in applause from the audience at the Buchanan County Courthouse.

**Source:** By Clayton Anderson | News-Press NOW | St. Joseph News-Press | Feb 19, 2020 | [www.newspressnow.com](http://www.newspressnow.com)

**Neighbours take Bald Hills wind farm to court over health complaints** *Credit: By Graham Lloyd, Environment Editor | The Australian | Tuesday, February 18, 2020 | [www.theaustralian.com.au](http://www.theaustralian.com.au) ~~*

- Excerpt: Australia’s first group legal action for noise and health impacts from a wind farm has been lodged in the Victoria Supreme Court against the 106 megawatt Bald Hills project in Gippsland. A judge and jury in the coalmining centre of Morwell will be asked to hear the complaint about health and financial impacts and a failure by the wind farm’s owner to take action to stop it. A group of 12 residents is seeking orders from the court to have the development curtailed or shut down, and for its owners to pay them compensation. Bald Hills Wind Farm is expected to lodge its defence next month, with a directions hearing due in April. A trial could take place later this year. The complainants are from four properties – the Fairbrother, Jelbart, Uren and Zakula residences. The group’s statement of claim says the wind farm has caused them “to experience great discomfort, distress, inconvenience, disturbance and upset including headaches, earaches, neck aches, tinnitus, unpleasant pulsing sensations, - disturbed sleep, stress and annoyance, and have rendered the affected properties unhealthy and uncomfortable to live and work in. They also claim the value of their properties has been affected by the wind far.”

**Massachusetts: Feb 13, 2020: Plymouth board declares wind turbines a nuisance<sup>78</sup> (excerpt)**

- **By Beth Treffeisen**, Posted Feb 13, 2020 at 8:56 PM, Updated at 6:27 AM
- “Neighboring Bourne residents have complained of ill effects for years. PLYMOUTH — After years of running into roadblocks, residents who live near Future Generation Wind made some headway Wednesday night when the Plymouth Board of Health unanimously voted to declare the four turbines along Route 25 a nuisance. “We want to do justice to this and to all the parties

<sup>78</sup> <https://www.capecodtimes.com/news/20200213/plymouth-board-declares-wind-turbines-nuisance>



involved,” board Chairwoman Birgitta Kuehn said. The board also unanimously voted to take action on the turbines within a reasonable time...”

## **Humboldt County, CA: After marathon meetings, supervisors vote 4-1 to deny Terra-Gen’s wind energy project<sup>79</sup>**

- By **SHOMIK MUKHERJEE** | [smukherjee@times-standard.com](mailto:smukherjee@times-standard.com) | Times-Standard; PUBLISHED: December 17, 2019 at 3:42 p.m. | UPDATED: December 18, 2019 at 1:15 p.m.
- “The Humboldt County Board of Supervisors on Tuesday voted 4-1 to deny the Terra-Gen wind energy project, rejecting a widely controversial plan to build wind turbines on the Bear River and Monument ridges above Scotia”.

## **Tehacapi, CA: Terra Gen pulls the plug on Pahnamid project By Carin Enovijas, News Editor; Jun 29, 2011<sup>80</sup>**

- Excerpt: “Terra-Gen Power announced last week that it is withdrawing its rezoning application for the controversial 7,106-acre Pahnamid Wind Energy project in the Tehachapi Mountains. Kern County issued a Notice of Preparation for the project on April 6, and opposition to the proposed project spread like the wind throughout the mountain communities. “After consulting with Supervisor Scrivner, the County Planning Department, and relevant agencies, Terra-Gen is withdrawing the rezoning application for Pahnamid,” a statement issued June 23 by Randy Hoyle, Vice President and head of wind development, from the San Diego office of Terra-Gen Power, LLC.”

## **March 6, 2020: Matteson passes wind turbine control law by Don Reid; The Daily Reporter (excerpts from article and imbedded Madison Township memo)<sup>81</sup>:**

“The large crowd of those who supported the law gave both the township and planning boards an ovation. Matteson becomes the second, after Sherwood Township, to enact a wind turbine law which requires special use permits, in the four township area targeted by DTE for a major wind farm...”.

“...the Matteson Township board unanimously passed a [planning ordinance amendment to regulate wind turbines](#)”<sup>82</sup>:

- Impose the following standards on Utility Grade Wind Energy Systems:
- Maximum Height: 328 feet, measured to the top of the blade at its highest height.
- Required setback from an Occupied Dwelling: Four times of the height of the tower.
- Required setback from a Local or County Road: Four times of the height of the tower.

<sup>79</sup> <https://www.times-standard.com/2019/12/17/supervisors-deny-terra-gens-appeal-for-wind-energy-project/>

<sup>80</sup> [http://www.tehachapinews.com/news/terra-gen-pulls-the-plug-on-pahnamid-project/article\\_eb75534e-1d4c-5a1a-a4ba-7035c62eca4b.html](http://www.tehachapinews.com/news/terra-gen-pulls-the-plug-on-pahnamid-project/article_eb75534e-1d4c-5a1a-a4ba-7035c62eca4b.html)

<sup>81</sup> <https://www.thedailyreporter.com/news/20200306/matteson-passes-wind-turbine-control-law;>

<sup>82</sup> <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxtYXR0ZXNvb3Rvd25zaGlwfGd4OjM5Yjk5NDZjNmY0OGUyYTQ>



- Required setback from a gas line: Four times of the height of the tower.
- Required setback from specific bodies of water listed in Ordinance: Half mile from Matteson
- Required Setback from other Wind Turbines: 200% of the height of the taller of the two turbines.
- o Required Setback from a Parcel without a Wind Energy Lease (an “unpooled” parcel) Four times of the height of the tower, or 1.25 miles, whichever is greater.
- Minimum Lot Size: None, so long as all setback requirements are met.
- Minimum Ground Clearance: 50 feet of clearance over and above any structure and a minimum of 100 feet of clearance above the ground.
- Maximum Noise: 45 db(A) or 55 db(C), measured at the property line
- Shadow Flicker: Shall not occur on adjacent properties, unless those properties have lease agreements with the tower owner.
- Must be painted a neutral, non-reflective color
- Required fire suppression system
- Required braking system.
- Safety, Security, Construction, Fluid Containment, and Decommissioning Requirements

**December 18, 2019: After marathon meetings, supervisors vote 4-1 to deny Terra-Gen’s wind energy project: Hundreds spoke over two days, many in opposition to plan | By Shomik Mukherjee | Redwood Times | December 17, 2019 | [www.redwoodtimes.com](http://www.redwoodtimes.com)<sup>83</sup> ~~(excerpt)**

- “The Humboldt County Board of Supervisors on Tuesday voted 4-1 to deny the Terra-Gen wind energy project, rejecting a widely controversial plan to build wind turbines on the Bear River and Monument ridges above Scotia”.
- “...After the meeting, Terra-Gen officials declined to immediately comment on the vote’s outcome. The company had agreed not to bring a lawsuit against Humboldt County in the event of a denial.”

**December 17, 2019: Omaha World Harold: Nebraska county rejects wind towers, calls for more research on potential health effects: By Jeff Bahr / World-Herald News Service<sup>84</sup> (excerpt):**

- “AURORA, Neb. – By a unanimous vote Monday, the Hamilton County Board rejected a plan for a wind power generation facility in the county.

<sup>83</sup> <https://www.redwoodtimes.com/2019/12/17/supervisors-deny-terra-gens-appeal-for-wind-energy-project/>

<sup>84</sup> [https://www.omaha.com/news/state\\_and\\_regional/nebraska-county-rejects-wind-towers-calls-for-more-research-on/article\\_79538816-7939-5fa0-a042-68b0ce33a358.html](https://www.omaha.com/news/state_and_regional/nebraska-county-rejects-wind-towers-calls-for-more-research-on/article_79538816-7939-5fa0-a042-68b0ce33a358.html)

All five board members voted to deny a conditional-use permit for the project. The permit was sought by Hamilton County Wind, which is a wholly owned subsidiary of Bluestem Energy Solutions.

Hamilton County Wind proposed building four GE 2.82 megawatt towers, which together would have produced a total of 11.28 megawatts.

Each tower would have been 292 feet tall. From the ground to the tip of the blade, the total height of each structure would have been 497 feet. “That’s pretty tall,” County Commission Chairman Rich Nelson said after Monday’s meeting.

The wind farm would have been built south and west of the Interstate 80-Highway 14 interchange.

As part of the motion that passed, the board created a moratorium on the building of wind turbines until county staff members can research the impact of wind farms on people’s health.

Board member Roger Nunnenkamp said he felt the burden was on Bluestem to show the wind farm wouldn’t be harmful to people’s health. “And I did not feel that they met the burden,” Nunnenkamp said after the meeting”.

**December 17, 2019: Pennsylvania: Hegin Twp. Zoning board denies wind variance:**

***Credit: Vicki Terwilliger | Republican Herald | <sup>85</sup> (excerpt)***

- “VALLEY VIEW – The Hegin Township Zoning Hearing Board on Monday unanimously denied the use variance for a Waverly energy developer wanting to erect wind turbines in the township.
- Meanwhile, Clean Air Generation LLC is unsure if it will appeal the board’s decision, according to the firm’s attorney.
- Board chairman, Larry Umholtz; member, Todd Bixler; and alternate member, Steve Klinger, voted to deny the use variance CAG had requested in a continuance from the board’s Nov. 21 public hearing.
- The company has proposed building a wind energy farm, with a maximum of 75 to 80 wind turbines total; up to 40 possible in Hegin Township and the remaining in Porter, Tremont and Frailey townships.
- Hegin Township has its own zoning hearing board, while Schuylkill County oversees the zoning for the other townships.
- CAG wants to erect the proposed turbines on the ridge tops in the Bear Mountain area on approximately 12,672 acres that CAG acquired through a land lease and wind easement agreement with Rausch Creek Land LP, Valley View.

<sup>85</sup> <https://www.republicanherald.com/news/hegin-twp-zoning-board-denies-wind-variance-1.2572311>

- Nicholas Cohen, CAG principal, and the firm's attorney, Charles B. Haws, of Reading, told the board they had nothing else to add, other than the memorandums already submitted.
- Umholtz said the board considered the memos submitted by all of the attorneys in the case. That included solicitor Donald G. Karpowich, Drums, representing Hegin Township supervisors; Bruce Anders, of Wilkes-Barre, representing Kris Wetzel and Rocky Slope Inc., objectors with adjacent property; and attorney Martin J. Cerullo, of Pottsville, representing the Schuylkill County Airport Authority. Anders said CAG had not met its burden of proof and showed no hardship.
- The board Monday also recognized an attorney representing the state Department of Military and Veterans Affairs.
- DMVA representatives commented Nov. 21 about the negative impact the proposed turbines could have on training. They are within the northern training area for Army aviators from all 50 states, who fly between Muir Airfield at Fort Indiantown Gap and Schuylkill County Joe Zerbey Airport, Mount Pleasant, according to the DMVA."

## Here is a list of reported victories for residents fighting to defend hearth and home from wind turbines and those who blindly support them

The referenced list<sup>86</sup> below is posted and you can click on the individual items for source documents:

- **Holland hopeful Dairy Air Wind is 'dead'**  
March 6, 2020 • Vermont
- **PSC rejects permit for wind farm over lighting issues**  
March 5, 2020 • North Dakota
- **PSC rejects siting permit for the Ruso Wind Project**  
March 5, 2020 • North Dakota
- **Plans refused for huge wind turbine development in Offaly countryside**  
February 28, 2020 • General News
- **Right of way rejected for county Cork windfarm**  
February 27, 2020 • Ireland
- **Locals win windfarm battle near Terelton**  
February 25, 2020 • Ireland
- **Wind farm plans rejected for third time in nine years**  
February 18, 2020 • Scotland
- **Planning officers reject windfarm proposals at Sorbie Dairy Farm**  
February 15, 2020 • Scotland

<sup>86</sup> <https://www.wind-watch.org/news/tag/victories/?titles=on>

- **Third time unlucky for Gilston Hill wind farm scheme**  
February 7, 2020 • Scotland
- **Plans for eight-turbine wind farm near Heriot given the thumbs-down**  
February 6, 2020 • Scotland
- **Plans for wind energy development thrown out by inspector**  
January 31, 2020 • England
- **House votes to block Grain Belt line**  
January 30, 2020 • Missouri
- **Grain Belt Express power line gets thumbs down in Missouri House**  
January 28, 2020 • Missouri
- **No large wind projects are under consideration in Vermont for the first time in years**  
January 28, 2020 • Vermont
- **Seneca Co. wind farm project put on hold indefinitely**  
January 24, 2020 • Ohio
- **Seneca Wind project suspended**  
January 22, 2020 • Ohio
- **Dairy Air Wind in Holland announces halt to development activity**  
January 17, 2020 • Press releases, Vermont
- **Developer shuts down Dairy Air Wind**  
January 17, 2020 • Vermont
- **Proposed Vermont wind project halts development, citing hostile political environment**  
January 17, 2020 • Press releases, Vermont
- **Grafton voters again reject industrial wind**  
January 16, 2020 • Vermont
- **Baden-Württemberg: Genehmigungen für Windräder sind rechtswidrig**  
January 10, 2020 • Germany
- **Commission rejects wind farm applications at first 2020 meeting**  
January 10, 2020 • Wyoming
- **Dodge county wind farm project put on hold**  
January 10, 2020 • Minnesota
- **Objectors welcome rejection of proposed wind farm near Hawick**  
January 8, 2020 • Scotland

- **Commission rejects wind farm applications at first 2020 meeting**  
January 8, 2020 • [Wyoming](#)
- **Energy company drops wind farm lawsuit against Clinton County**  
January 7, 2020 • [Missouri](#)
- **High Court shoots down windfarm**  
December 30, 2019 • [Ireland](#)
- **Refused: Windfarm turned down by Kildare County Council**  
December 27, 2019 • [Ireland](#)
- **Energy company nixes planned wind farm east of Muskegon**  
December 25, 2019 • [Michigan](#)
- **Casnovia Township wind farm project called off**  
December 24, 2019 • [Michigan](#)
- **Cork-Kerry wind farm permission quashed over impact on hen harrier**  
December 21, 2019 • [Ireland](#)
- **Nebraska county rejects wind towers, calls for more research on potential health effects**  
December 18, 2019 • [Nebraska](#)
- **NCORPE board tables renewable energy plan with Invenenergy**  
December 18, 2019 • [Nebraska](#)
- **Why the supes denied Terra-Gen's wind project, despite a series of 11th hour concessions from the company**  
December 18, 2019 • [California](#)
- **Board of Supes sinks Terra-Gen wind farm on 4-1 vote, following days of hearings**  
December 18, 2019 • [California](#)
- **Divided board votes down wind project**  
December 18, 2019 • [California](#)
- **Hegins Twp. zoning board denies wind variance**  
December 17, 2019 • [Pennsylvania](#)
- **Hamilton County rejects wind project**  
December 16, 2019 • [Nebraska](#)
- **Supreme Court overturns permission for Cork windfarm**  
December 12, 2019 • [Ireland](#)
- **Ontario cancels nearly built \$200M wind farm over threat to bat populations**  
December 10, 2019 • [Ontario](#)

## Some but not all of the Errors & Omissions that were noticed:

- Failure to disclose ‘Future NICAD Footprint’ energy storage components in the FEIS that are documented in the Boulder Brush Facilities Substation Plot Plan – Building Details at sheet 26 of 27 that shows dozens of related energy storage components—making energy storage reasonably foreseeable cumulative impact / direct action project.
- Failure to include 109 MW Energia Sierra Juarez Wind II, with 26 V150-4.2 MW (some delivered in 4 MW mode) as cumulative project even though it is scheduled to start construction in June/July 2020<sup>87</sup>
- FEIS used smaller allegedly ‘representative turbines’ for acoustic, visual, and shadow flicker analyses that do NOT accurately or fairly represent the real world impacts related to 60-90 4.2 MW wind turbines that Terra-Gen proposes for Campo Wind and Torrey Wind.
  - Appendix B @ page B-2: Project Description admits to turbine hub height of up to 374 ft (114 m) and • Rotor diameter – up to 460 feet (approximately 230-foot-long blades). When added together they total up to 604 ft, not the 586 ft stated. That is at least an 18 ft difference which represents almost two stories of additional height.
  - Appendix S: Shadow Flicker Study includes the following statement at page 5/34:
    - Page 5/34: 4. Turbine height and rotor diameter: A larger turbine rotor diameter will cast a larger shadow, meaning a larger area would be prone to incidences of shadow flicker
    - Page 6/34: UL has not conducted a site visit to confirm locations of the receptors provided for this analysis. Off-Reservations receptor locations are provided in the figures contained within Appendix C. In order to respect tribal resident privacy, locations/coordinates of On-Reservations receptors are not disclosed in this report.
      - Failure to include tribal residences in the report does not protect their privacy, it restricts their ability to understand if their own home, or their family’s homes are impacted and to what degree.
    - Page 6/34: There are no federal regulations under the National Environmental Policy Act (NEPA) applicable to shadow flicker for receptors located on Reservations. However, and in accordance with the lease agreement between the Campo Tribe and Terra-Gen (Campo Lease), no Project turbines will be sited within 0.25-mile (or 1,320 feet) of any receptor on the Campo Reservation. Based on the current 76- turbine layout, no Project turbines are sited within 1,000 feet of any receptor outside of the Campo Reservation.
    - Page 6/34: In addition, there are no state or local regulations under the California Environmental Quality Act (CEQA) applicable to shadow flicker for receptors located Off-Reservations on private land. The County of San Diego suggested application of the shadow flicker guideline used in the Final Program Environmental Impact Report (EIR) for the Altamont Pass Wind Resource Area Repowering (Repower), in Alameda County, California to evaluate potential shadow flicker generated from the Repower

<sup>87</sup> <https://www.renewableenergymagazine.com/wind/vestas-wins-108-mw-epc-order-in-20200220/>

- Page 8/34: 4.1.4 Turbine Height and Rotor Diameter Turbine specifications for each facility were modeled in this analysis as follows: • Project: 76 GE 3.83-137 turbines at a hub height of 110 m (representative turbine).
- **RTC41-42 – 2.20 Water sources** “...site specific well testing was not performed.” No current groundwater pumping/ production tests for proposed well field!
- **FEIS 2.2.1 Components Common to Each Design Alternative At page 10: G. Water Collection and Septic Systems:** *There are no ‘full details of this project design feature located in Appendix P’- Campo Wind Mitigation Measures, as claimed in this section:*
  - *Where is the water coming from? Where are the referenced ‘existing On-Reservation facilities’? Where is the utility connection/easement? These components don’t show up in any of the Figures in Appendix E-Campo Wind EIS Figures*
- Failure to include all referenced plans:
  - Campo Land Use Plan
  - Campo Zoning Plan
  - Campo Renewable Energy Zone
  - Campo Resource Development Plan
  - Campo Reservation Fire Protection Plan
- Failure to show where electric, phone, and water lines will be connected to serve O&M, batch plant, and laydown yard proposed on BIA 10. Where are the easements? Will wireless cell system be setup and where? Where are those project details/ impacts disclosed? See Figure 2-4 Possible O&M Building Locations; Figure 2-6: Staging and Laydown Yards and other related figures.

## Attachments:

1. Campo Tribal Members Plead for Legal Help, Allege Rights Violated in Wind Project Approval: Petition seeks to revote on controversial project: East County Magazine 2-14-20
2. Graphic comparing Campo Wind turbine height with One America Plaza, etc.
3. FEIS comments from real estate agent, Jeff Morrison, dated 3-8-20

RE: Campo Wind Project with Boulder Brush Facilities

Dear San Diego Planning Commissioners,

As a resident of Boulevard and avid supporter of wind energy, I think Terra-Gen's Campo Wind project is a positive investment and will be a huge benefit to our community. Please accept this letter as a show my strong support of this development.

The back country has amply space and is the ideal location to capture wind energy. We must start being more progressive and innovative in our approach to energy production and usage NOW to help solve our growing environmental and energy problems. Investing in renewable energy projects, like Campo Wind, that will serve to generate enough energy for thousands of area residents is the first step to creating a cleaner future. Fossil fuels are antiquated and dangerous to our environment, our health, and forces America to be dependant on foreign producers.

Let's not be short sighted and be swayed by the opposition that merely disregards the many benefits wind energy provides on the basis that turbines are unsightly – this is not a valid reason to jeopardize the well-being of our planet and future generations.

Regards,

Brian Fitzgibbons

Boulevard, CA

619 277 2471

[b\\_fitzgibbons83@yahoo.com](mailto:b_fitzgibbons83@yahoo.com)



To the San Diego County Planning Commission,

Investing in renewable energy is the right decision for San Diego. If we are to move the needle in reaching our state's energy goals, we need to invest in substantial wind farm projects, such as Campo Wind, to make it happen. I implore you to permit the Campo Wind project to help ensure a pollution-free future.

The time is now to invest in wind energy – not years down the road when it's too late. Wind energy is the solution to curb greenhouse gas emissions and our dependency on fossil fuels. Such projects boost the local economy, generate clean renewable energy and in this case, will provide a sustainable economy for the Campo Tribe members. It seems there are many compelling reasons to move forward with this project.

I firmly believe this project will have an overall positive impact on the San Diego community and I strongly urge you to approve it.

Sincerely,

Bryce Plank  
619 990 3763  
[bryceplank@gmail.com](mailto:bryceplank@gmail.com)



## California Wind Energy Association

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November 10, 2020

San Diego County Planning Commission  
5510 Overland Avenue, Ste. 110  
San Diego, CA 92123  
Via Secretary Ann Jimenez ([Ann.Jimenez@sdcounty.ca.gov](mailto:Ann.Jimenez@sdcounty.ca.gov))

Re: Support for Campo Wind Project and Boulder Brush Facilities

Dear Planning Commission:

The California Wind Energy Association (CalWEA) is a 20-year-old trade association representing wind energy and related companies focused on the California market, primarily including owners, operators and developers of wind energy projects located in California.

When considering the Campo project and related facilities, CalWEA urges the Planning Commission to consider the critical role that wind energy will play in meeting California's climate change mitigation goals. Wind energy is particularly valuable because it complements the production profile of solar energy. A study performed for the California Energy Commission looking at means of achieving California's ambitious energy-decarbonization goal<sup>1</sup> shows that dramatic growth in wind energy will be required to achieve that goal most affordably while ensuring the reliability of the grid.<sup>2</sup> The California Public Utilities Commission's resource plans for 2031 include between 3,200 megawatts (MW) and 5,200 MW of wind energy delivered to the Cal-ISO grid without major system transmission upgrades – nearly doubling the amount of wind energy generation currently operating in California.<sup>3</sup> The 250-MW Campo Wind Project, including its Boulder Brush Facilities, would tap some of California's relatively limited remaining commercial-grade

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<sup>1</sup> SB 100, signed into law in September 2018, establishes as state policy that zero-carbon resources are to supply 100% of California retail sales by December 31, 2045.

<sup>2</sup> California Energy Commission, "Deep Decarbonization in a High Renewables Future," at Figure 14. CEC-500-2018-012. June 2018. (Available at: <https://www.energy.ca.gov/2018publications/CEC-500-2018-012/CEC-500-2018-012.pdf>.) This study shows that, absent a large amount of wind energy from within or outside of the state to balance solar resources, decarbonization will come at an added cost of nearly \$20 billion per year.

<sup>3</sup> California Public Utilities Commission, Ruling Seeking Comments on Portfolios to Be Used in the 2021-22 Transmission Planning Process, Attachment B, Figures 2 and 4 (October 20, 2020).

wind energy resources and therefore represents an essential part of achieving the state's clean energy goals.

Realizing the state's clean energy goals, of which in-state wind energy is a critical component, will require counties to recognize in their permitting decisions that wind energy projects must be part of the solution to the most pressing environmental problem of our time.

Sincerely,

A handwritten signature in black ink, appearing to read "Nancy Rader". The signature is fluid and cursive, with the first name "Nancy" written in a larger, more prominent script than the last name "Rader".

Nancy Rader  
Executive Director



## CAMPO TRIBAL MEMBERS PLEAD FOR LEGAL HELP, ALLEGE RIGHTS VIOLATED IN WIND PROJECT APPROVAL: PETITION SEEKS REVOTE ON CONTROVERSIAL PROJECT



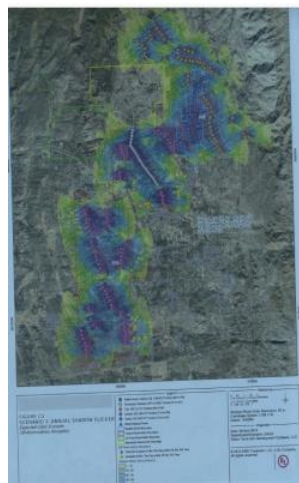
*"Our reservation is in dire financial condition. We have really nothing to give our youth...All we have are false promises." – Denis Largo, tribal elder who delivered a petition calling for a vote to overturn wind project approval*

By Miriam Raftery

Photo: Tribal elder Dennis Largo

**February 14, 2020 (Campo)**—Whistleblowers in the Campo band of Mission Indians claim that their tribal leadership pushed through approval of a massive wind project during an improperly noticed meeting. They have now collected enough signatures to overturn that approval with a revote. But despite the Feb. 13th deadline to notify tribal members of a meeting to revote on the controversial project, several tribal members say they have not received any such notice.

The proposed Campo Wind project would allow 60 turbines built by Terra-Gen on the reservation. Each would be 586 tall, the tallest wind turbines ever built on land, according to Donna Tisdale, chair of the Boulevard Community Planning Group, which also opposes the project.



A map of the reservation is filled with red dots representing the proposed turbine locations, far closer to homes than is permitted at many other wind projects. Some homes will have turbines on multiple sides. The turbines will be far bigger than those at the existing Kumeyaay Wind Farm nearby – a project that has generated complaints from many residents who say noise, infrasound, flashing lights and blade flicker have caused headaches, sleep disruption, drops in property values, and fears that a growing number of cancers may be linked to stray voltage from the turbines.



Yet no adequate mitigation of those impacts has been done, and documents for the new project proposed reveal that the tribal leadership denies any problems with the existing wind turbines – despite well documented complaints including a [medical study](#) at California State University, San Marcos on area residents which found two-thirds suffered sleep disruption and measurements taken by an expert who found [stray voltage 1,000 times higher than normal](#) in some homes on the neighboring Manzanita Indian reservation close to the turbines.

Existing turbines in Campo have also exploded and caused brush fires, as ECM has documented, putting homes at risk. (Photos, left)

Residents fear the new project, far larger and much closer to homes on multiple sides, will render their homes uninhabitable. For tribal members, who are not allowed to sell their home or land, that means losing everything – their health, their land, and their children's future.

Yet another wind project is planned just off the reservation nearby, adding to residents' concerns.

"We'll be surrounded," says one tribal member who asked to remain anonymous for fear of retaliation. In the past, tribal members who have opposed the will of the leadership have been threatened with job losses, disenrollment, and even physical violence, according to the whistleblowers. The member notes that after one contentious tribal election, a winning candidate was hit over the head and hospitalized, later obtaining restraining orders against multiple assailants. Court records document the latter.

Another tribal member says he doesn't want his grandchildren to grow up in poverty. "All of our land will be taken," he says in a voice heavy with sorrow.

Whistleblowers told ECM that current tribal Chairman Harry Paul Cuero Jr. has violated their tribal constitution, which requires that tribal general council meetings be held monthly. Instead, after the 2012 election, no such meetings were held for six years, the tribal members state. The new leadership fired the tribal lawyer and disbanded the tribal police department, leaving little recourse for those seeking protection from alleged abuses of power. No taping of tribal meetings is allowed, nor are members allowed to bring witnesses such as attorneys or media members, a former tribal council member told ECM.

On April 3, 2018, the tribe did convene a meeting for tribal members to meet with Terra-Gen in what members say was described as an “informational” meeting. Though the sign-in sheet reportedly had 60 names, “half the people left disgusted” believing no vote would be taken, and there was no quorum, members who stayed that night now state. They claim that after most opponents left, leaders brought in supporters, including many family members, to push through an unannounced vote 34-14 to approve the Campo Wind project.

“I heard about it [the meeting] through the wind,” one tribal member said. “It was an illegal vote.”

Two concerned young women in the tribe started a petition to call for a new vote, recalling that a few years back, another unpopular wind project, Shulu’uk Wind, was approved and later overturned in a revote.

Supporters have argued that the project would generate revenues for a tribe in which many members live below the poverty line. But opponents say the tribal leadership, which does not live on this reservation, is pursuing “dollar signs” at the expense of those who live here. They say tribal members have not shared in any significant revenues from the already existing wind project – and further contend that the leadership has not disclosed casino revenues, which is required under state law.

“I’m the tribal elder that delivered the petition to Mr. Cuero personally in his office on January 23<sup>rd</sup>,” says Denis Largo, a U.S. Navy veteran who served about the USS Midway in Vietnam. A cancer survivor, he is concerned about the health impacts the project could pose and the process “that takes away our rights as a tribe.”

He adds, “Our reservation is in dire financial condition. We have really nothing to give our youth, nothing to pass down. All we have are false promises. These windmills are supposed to bring us some glimmer of hope, but all they’ve brought us are despair.. This administration has just kept us in the dark – and it’s time to bring some light to it.”

Others fear loss of artifacts and cultural heritage, noting that an ancient village was bulldozed in nearby McCain Valley, according to a witness who spoke under condition of anonymity. “This will be worse,” the whistleblower said, noting that tribal leadership already turned a blind eye when Caltrans destroyed the signature “Indian rock” on their reservation.

Some tribal members have tried to bring federal attention to their plight. In 2016, one member wrote to the Bureau of Indian Affairs to complain of the cessation of general council meetings and more. In 2019, she wrote again with corruption allegations. But no action has been taken.

Tisdale says she emailed Bureau of Indian Affairs representative Dan Hall to ask what happens if the petition is ignored, but she had not received a response by our press deadline for this article. ECM contacted the BIA’s regional office in Riverside, and no one responded. ECM has also reached out to Congressman Juan Vargas, whose district includes the Campo reservation, for comments and to ask if his office will request that the BIA provide oversight to assure a fair revote process. So far, no comments have been received from Vargas, though a staffer suggested concerned tribal and community members request a form to seek constituent services help.

**Update:** On Feb. 15, after this article was published, Tisdale notified ECM, “After I talked to you, the BIA did respond that the vote is an internal tribal matter that they have no role in.”

ECM called Chairman Cuero on February 13, the deadline to notice tribal members about a revote meeting. Asked if he had received the petition seeking a revote on Campo Wind, he replied, “We did receive the petition.” Asked when a meeting would be convened for a revote, he stated, “I don’t know that date yet,” then added, “I have no comments on that” and hung up on our editor.

Several tribal members on Feb. 13 and 14 said they had not received any notices of a new meeting. One said some other members received notice of an upcoming meeting described merely as “elections” with no mention of the petition or wind project. Tisdale, who is not a tribal member, said she has seen a

tribal agenda listing a meeting on Feb. 19 at 5:30 p.m. with “response to petition” listed on the agenda. But those entitled to vote are concerned that lack of notification is another attempt to prevent the 65 members opposed to what they view as the effective destruction of their reservation from being able to exercise their rights to stop the project.

They want the BIA to intervene and provide oversight to assure that their rights are protected. In addition to a new vote on the wind project, they want a forensic audit and investigation of questionable financial actions, including a re-lease of existing wind turbines signed in the name of tribal leaders—not the entire tribal council.

The Native Americans who live on the reservation where the wind turbines are set to be built say that they are full-blooded tribal members, resented by non-full blooded members who live elsewhere. “They are jealous. They call us “Muhti-hei, or new ground,” one member explains.

If a revote is thwarted, construction could begin soon, once a public comment period is over. A final Environmental Impact Statement notice was posted this week in the Federal Register at [www.campowind.com](http://www.campowind.com): <https://www.govinfo.gov/content/pkg/FR-2020-02-10/pdf/2020-06669.pdf>. The deadline for public comments ends on March 11<sup>th</sup>.

Tisdale, who reviewed the EIS, says the proposed mitigation measures are “basically useless.” The turbines slated on the reservations would also line a hill behind Tisdale’s home. The nonprofit Backcountry Against Dumps, founded years ago by Tisdale to oppose a landfill project on tribal land, plans to pursue legal action against once again if the tribal members are not able to stop the project internally, she told ECM.

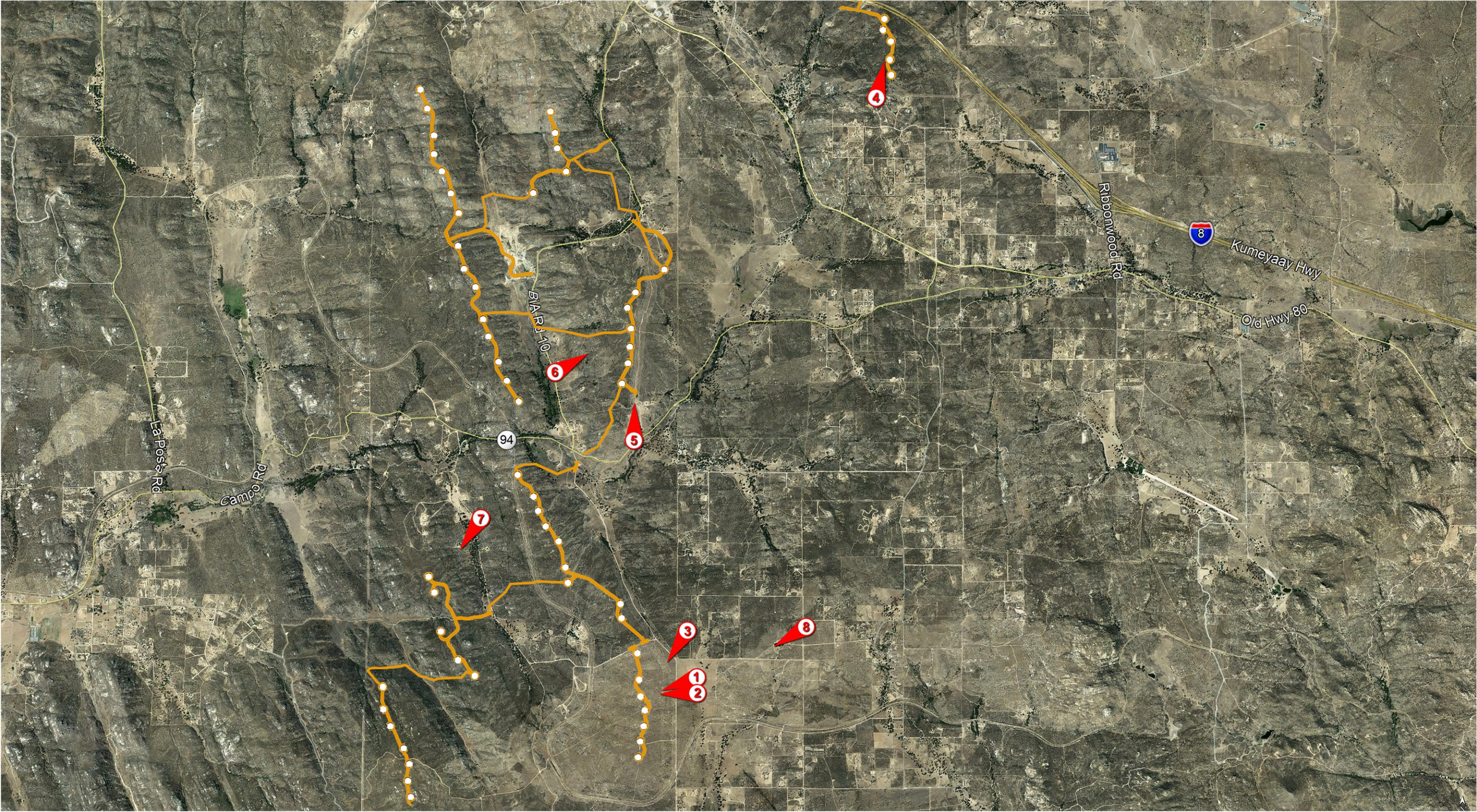
Tisdale has submitted [comments](#) voicing concern that among other issues, acoustical studies on potential noise and infrastructure impacts of the project relied on smaller wind turbines than the goliath turbines set to be built at Campo Wind-- larger than any ever built on land, according to Tisdale. She contends the local residents will be “guinea pigs” subjected to dangerous conditions.

The petition, signed by 65 tribal members who seek to undo the project earlier approved by just 34 votes, sums up the problems this way:

We firmly believe no amount of income from any wind turbine project is worth the substantial losses it will create for our future.”

Source: <https://www.eastcountymagazine.org/campo-tribal-members-plead-legal-help-allege-rights-violated-wind-project-approval-petition-seeks>





TERRA-GEN'S CAMPO WIND

Key Map





Existing View



Proposed View





Existing View



Proposed View





Existing View



Proposed View





Existing View



Proposed View





Existing View



Proposed View





Existing View



Proposed View





Existing View



Proposed View





Existing View



Proposed View





Existing View



Proposed View



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**Campo Wind FEIS comments**

1 message

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**Jeffrey Morrison** <eastcountyproperty@yahoo.com>  
Reply-To: Jeffrey Morrison <eastcountyproperty@yahoo.com>  
To: "harold.hall@bia.gov" <harold.hall@bia.gov>

Sun, Mar 8, 2020 at 7:56 PM

Mr. Hall,

Below is my comment on one of the items in the Campo Wind FEIS. Please read.

**RTC-45-47: 2.21 Socioeconomic Conditions: Property Values**

- **PROP 1:** (excerpt): "Over the last 3 years, the number of single-family residences listed for sale annually in the Boulevard area has remained relatively consistent despite the construction of several large-scale energy projects in the area. Of the 57 home sales since 2017, half have closed at the listing price or higher" "...Thus, the data reinforce the large body of literature that supports that the construction and operation of energy projects does not result in a decrease to property values, as suggested by the commenters."

I am a Real Estate Agent. Here is the real information. Went back exactly 3 years from today. 54 homes sold. 29 sold for less than asking price and 24 sold for at asking price or a bit higher. So, less than half sold for the asking price. Also, the average days on the market have been 43 with one home being on the market for 184 days. Note, many of the homes that sold for "asking price" only sold AFTER their prices were reduced!

Personal experience with one of the sales. 39544 Clements St., 2.5 miles from closest wind turbine, Originally listed for \$480k, beautiful home, sellers accepted full price offer. After disclosure of the possibility of more wind turbines going in, the property fell out of escrow. This happened to the sellers TWICE! Sellers were able to sell for \$470k after it sat on the market for 95 days.

Of the 3 homes that have sold this year (that's right, only 3 home have sold) and two of them sold under asking price and the third sold for \$200k as a fixer. The wind turbines are keeping homes on the market longer and people are not getting their asking prices. The citizens are only getting their asking prices after a price reduction or when agents list their homes under market values.

This project **WILL KILL** the real estate market out here and **WILL** decrease values. Ribbonwood road was the premier location that everyone wanted to live in. The homes for sale on Ribbonwood Road have been on the market 164 days, 272 days, 124 days, and 37 days. All of these homes are not overpriced and have only one or two showings.

Please feel free to call me.

Please see attachment.

**Jeff Morrison**  
**Regional Realty & Investments**  
Cell 619-701-4408  
Fax 619-858-3074



LAST THREE YEARS, HOMES SOLD LESS THAN ASKING = #29  
 SOLD AT ASKING 24  
 OR JUST ABOVE

LISTING COUNT: DAYS ON MARKET:  
 TOTAL HIGH LOW AVG MED  
 54 184 0 43 24

Area (Minor)=91905 AND Class=RE AND Listing Date=03/08/2017-06/06/2019 AND Status=SOLD

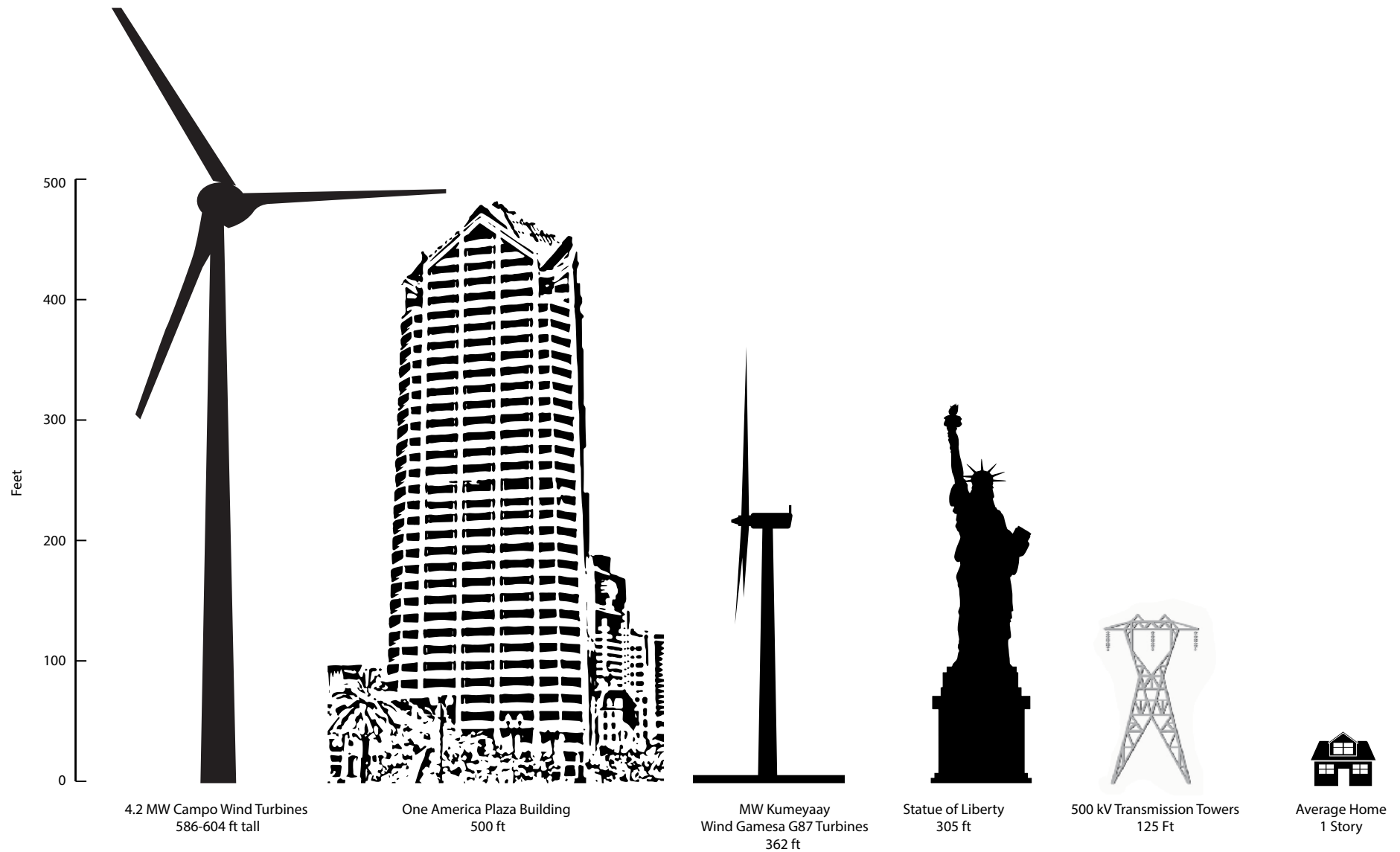
PROPERTY SYSTEM GRID

MLS #	Status	Full Address	Zip	Communi	Beds	TotB	EstSF	YrBlt	DOML	ListPrice	Lst Date	Sold Price	COEDate
170020599	SOLD	38526 High Horse	91905	BLVD	3	2	1,152	1989	21	\$174,900	4/24/2017	\$170,000	6/5/2017
170017314	SOLD	2171 Dorothy Avenue	91905	BLVD	2	2	829	1953	52	\$49,900	4/6/2017	\$45,500	6/8/2017
170022815	SOLD	560 Shasta Way	91905	BLVD	4	2	2,280	2003	7	\$325,000	4/29/2017	\$320,000	6/30/2017
SW171214	SOLD	1237 Tierra Real Lane	91905	BLVD	3	2	1,866	2005	13	\$249,900 - \$269,900	5/31/2017	\$245,000	6/30/2017
170023850	SOLD	37813 Clover Trl	91905	BLVD	2	2	936	1935	19	\$165,000	6/8/2017	\$165,000	8/4/2017
170037567	SOLD	860 Tierra Del Sol Road	91905	BLVD	2	2	1,626	1958	21	\$399,000	7/18/2017	\$385,000	9/25/2017
170048338	SOLD	39376 Opalocka Rd	91905	BLVD	3	3	2,800	2005	14	\$490,000 - \$549,000	9/14/2017	\$545,000	10/23/2017
170011478	SOLD	37817 Royal	91905	BLVD	2	1	850	1929	184	\$79,900	3/8/2017	\$79,900	10/25/2017
170026458	SOLD	2039 Jewel Valley Rd	91905	BLVD	3	2	1,557	2001	118	\$309,000	5/22/2017	\$300,000	10/30/2017
170050378	SOLD	2011 Rancho Manzanita	91905	BLVD	3	2	1,621	2007	0	\$350,000	8/28/2017	\$350,000	11/1/2017
170046918	SOLD	39201 Opalocka Rd	91905	BLVD	3	2	2,700	2005	41	\$389,000	9/6/2017	\$389,000	11/20/2017
170056308	SOLD	40147 Old Hwy 80	91905	BLVD	3	2	1,152	1978	8	\$225,000	10/31/2017	\$225,000	12/29/2017
170054365	SOLD	2579 Lilac	91905	BLVD	2	2	1,186	2017	57	\$100,000 - \$110,000	10/15/2017	\$95,000	1/5/2018
170030154	SOLD	38870 Old Hwy 80	91905	BLVD	3	2	1,664	1995	173	\$345,900	6/9/2017	\$340,000	1/10/2018
170060515	SOLD	2564 Angel Dr	91905	BLVD	4	3	1,924	1988	8	\$324,500	11/30/2017	\$324,500	1/11/2018
170051116	SOLD	1122 Tierra Del Sol Rd	91905	BLVD	3	2	1,980	2004	48	\$429,900	9/29/2017	\$400,000	1/17/2018
170037718	SOLD	38292 highway 94	91905	BLVD	3	2	1,512	2001	106	\$299,000	6/29/2017	\$299,000	2/2/2018
170061451	SOLD	1361 Tierra del Sol	91905	JAC	2	1	1,076	1978	27	\$100,000	12/6/2017	\$87,000	2/5/2018
170058538	SOLD	1643 Jewel Valley Road	91905	BLVD	3	3	1,740	2006	18	\$359,000	11/13/2017	\$370,500	2/9/2018
180004338	SOLD	38860 Hi Pass Rd	91905	BLVD	2	3	1,386	1983	0	\$399,900	1/1/2018	\$345,000	2/22/2018
180002080	SOLD	2125 Ruby Ave	91905	BLVD	2	1	992	1940	4	\$208,000	1/11/2018	\$208,000	3/5/2018
170055369	SOLD	2521 Live Oak Trl	91905	BLVD	2	1	767	1930	111	\$165,000	10/25/2017	\$155,000	3/9/2018
170057653	SOLD	38220 Tierra Real Rd	91905	BLVD	3	2	1,920	2006	72	\$284,900	11/6/2017	\$284,000	3/19/2018
180005644	SOLD	940 Tierra Del Sol Rd	91905	BLVD	1	1	720	2005	14	\$179,000 - \$199,000	2/1/2018	\$180,000	4/2/2018
180002591	SOLD	1435 Vista De La Sierra	91905	BLVD	1	1	600	9999	102	\$125,000	1/14/2018	\$120,000	5/14/2018
180019918	SOLD	37710 Old Highway 80	91905	BLVD	2	2	1,482	1928	17	\$339,000	4/17/2018	\$321,000	6/6/2018
180022978	SOLD	37573 Old Hwy 80	91905	BLVD	3	3	1,996	1983	8	\$435,000	5/1/2018	\$410,000	6/27/2018
180025902	SOLD	2582 Live Oak Trl	91905	BLVD	2	1	690	1930	31	\$179,500	5/15/2018	\$162,000	7/20/2018



180023472 SOLD	2520 Tecate Divide Rd	91905	BLVD	3	2	1,839	2003	22	\$429,000 - \$459,000	5/3/2018	\$459,000	8/16/2018
180039732 SOLD	2450 Manzanita Trl	91905	BLVD	2	1	711	1931	26	\$129,000	7/19/2018	\$115,000	9/4/2018
180053517 SOLD	2490 Manzanita	91905	BLVD	2	1	1,080	1937	5	\$140,000	9/22/2018	\$125,000	10/9/2018
180056302 SOLD	39375 Clements St	91905	BLVD	3	2	1,548	1998	11	\$275,000	10/8/2018	\$285,000	11/8/2018
180029974 SOLD	39567 Avenida De Robles Verdes	91905	BLVD	2	2	1,920	1980	105	\$299,000	5/30/2018	\$275,000	12/13/2018
180063945 SOLD	2577 Arroyo Poco Ln	91905	BLVD	3	2	1,492	2006	4	\$280,000	11/17/2018	\$290,000	1/30/2019
180061163 SOLD	38150 Old Highway 80	91905	BLVD	1	2	1,482	1976	74	\$165,000	11/1/2018	\$155,000	3/8/2019
180064469 SOLD	1613 Jewel Valley Road	91905	BLVD	2	2	1,173	2003	72	\$327,000	11/20/2018	\$315,000	3/18/2019
190008543 SOLD	1647 Jewel Valley Rd	91905	BLVD	2	2	1,067	1957	5	\$230,000	2/13/2019	\$249,000	3/22/2019
190009516 SOLD	1696 Mary Joe Ln	91905	BLVD	5	2	1,866	2003	33	\$385,000	2/19/2019	\$385,000	4/30/2019
190009658 SOLD	576 Tierra Del Sol Rd.	91905	BLVD	4	3	2,026	2005	0	\$389,000	2/20/2019	\$389,000	4/30/2019
190012304 SOLD	2170 Dorothy	91905	BLVD	2	1	1,215	1954	33	\$199,000 - \$229,000	3/6/2019	\$215,000	4/30/2019
190020440 SOLD	40011 Old Highway 80	91905	BLVD	2	1	1,056	1975	12	\$249,900	4/16/2019	\$250,000	5/28/2019
180061328 SOLD	2483 RIBBONWOOD ROAD	91905	BLVD	3	2	1,773	1981	164	\$339,000 - \$358,000	11/2/2018	\$350,000	5/31/2019
190003593 SOLD	37416 Old Highway 80	91905	BLVD	3	2	2,500	1979	78	\$750,000	1/17/2019	\$730,000	6/3/2019
190018382 SOLD	2605 Angel Drive	91905	BLVD	3	2	1,551	2018	23	\$339,999	4/5/2019	\$339,000	6/5/2019
190013505 SOLD	38645 Worthington Rd	91905	BLVD	3	2	1,283	1938	80	\$319,500	3/13/2019	\$315,000	6/24/2019
190030685 SOLD	2481 Live Oak Trl	91905	BLVD	3	2	1,150	1935	27	\$249,000	6/4/2019	\$255,000	7/8/2019
190013789 SOLD	39544 Clements St.	91905	BLVD	3	2	1,680	1999	95	\$470,000	3/14/2019	\$470,000	7/24/2019
190033809 SOLD	2552 Alta Viva Ln	91905	BLVD	3	2	1,501	2002	7	\$299,900 - \$325,000	5/30/2019	\$310,000	7/26/2019
190024348 SOLD	2579 Lilac Trail	91905	BLVD	2	2	1,186	2018	56	\$255,000	5/2/2019	\$255,000	8/16/2019
190037647 SOLD	2526 Lilac Trl	91905	BLVD	3	2	1,350	1995	10	\$329,500	7/9/2019	\$325,000	9/23/2019
190057188 SOLD	38151 Highway 94	91905	BLVD	3	2	1,568	1995	20	\$299,950 - \$329,950	10/17/2019	\$309,000	12/22/2019
190064540 SOLD	37839 MOON VALLEY ROAD	91905	BLVD	3	2	1,176	1998	0	\$200,000	12/1/2019	\$200,000	1/3/2020
190065285 SOLD	2340 Tierra Heights	91905	BLVD	3	3	2,963	2005	0	\$425,000	12/13/2019	\$409,000	2/4/2020
190060830 SOLD	1370 TIERRA DEL SOL	91905	BLVD	3	2	1,979	1959	30	\$649,000	11/9/2019	\$600,000	2/5/2020

©CHRLS and ©SMLS. Information is believed to be accurate, but shall not be relied upon without verification. The accuracy of square footage, lot size, and other information are not guaranteed. Please be advised some properties may be sold as-is.



Dear Commissioners,

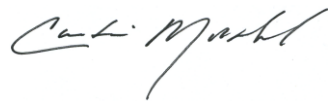
I am sending this letter as a show of support for the Campo Wind Project being proposed by Terra-Gen, in San Diego.

As a resident of San Diego, I believe renewable energy is critical to meeting our County's growing power demands. We need projects like Campo Wind that will not only generate clean, renewable energy to more than 70,000 area residents but also offset greenhouse gas emissions to help our great state meet its renewable energy goals.

The Campo Wind Project will significantly boost the local economy through the creation of job opportunities and new revenue streams for surrounding businesses. I'm also supportive of this project because Terra-Gen is committed to working in partnership with the Campo Kumeyaay Tribe to provide its members numerous economic, educational and social benefits as well as the local community to ensure potential environmental impacts are mitigated.

We can't afford to delay investing in renewable energy any longer – now it the time to do it. I strongly request you approve the Campo Wind project so people in our community can benefit from this plentiful resource.

Christian McDonald

A handwritten signature in black ink, appearing to read "C. McDonald", written in a cursive style.

858-245-6979

[cxnmcd@gmail.com](mailto:cxnmcd@gmail.com)

Christine Mello  
3974 Richmond Street  
San Diego, CA 92103  
619-778-3415

Chairman Barnhart and Commissioners,

I am a resident of San Diego and urge you to approve the Campo Wind project. I believe that renewable energy is critical to meeting San Diego's growing power demands and long-term energy concerns and since wind power is plentiful and free, I think it's a smart decision to be tapping into this resource to mitigate the energy crisis.

I am in full support of this project because Terra-Gen is not only committed to ensuring any potential environmental impacts are mitigated but is also working in partnership with the Campo Kumeyaay Tribe to provide its members numerous economic, educational and social benefits. The Campo Wind project will significantly boost the local economy through the creation of numerous employment opportunities, including construction jobs, as well as fueling additional revenue for surrounding businesses.

I urge the committee to approve this project as the impacts to our environment and community will be far greater if this does not move forward.

Kind regards,

Christine Mello



**From:** [noreply@granicusideas.com](mailto:noreply@granicusideas.com)  
**To:** [Jimenez, Ann](#); [Slovick, Mark](#); [Smith, Ashley](#); [Armstrong, Jacob](#); [Flannery, Kathleen](#); [Barnhart, Douglas](#); [Pallinger, David](#); [Calvo, Yolanda](#); [Seiler, Michael](#); [Woods, Bryan](#); [Beck, Michael](#); [Edwards, Michael \(LUEG\)](#)  
**Subject:** New eComment for Planning Commission Hearing  
**Date:** Wednesday, November 11, 2020 1:09:20 PM

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[SpeakUp](#)

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## New eComment for Planning Commission Hearing

Jason Anderson submitted a new eComment.

Meeting: Planning Commission Hearing

Item: 7. Boulder Brush Facilities; PDS2018-MUP-19-002; Boulevard Community Plan Area. If you would like to speak on this item call (619) 343-2539 and use ID 748 871 484#

eComment: Cleantech San Diego supports the Campo Wind Project with Boulder Brush Facilities as it will play a critical role in helping the region meet its renewable energy targets. As cities and public agencies around our region continue to commit to renewable energy goals with local generation assets, it is important that the County help advance those efforts by supporting local renewable energy projects on unincorporated land, including Tribal Land.

[View and Analyze eComments](#)

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To the San Diego County Planning Commission,

Investing in renewable energy is the right decision for San Diego. If we are to move the needle in reaching our state's energy goals, we need to invest in substantial wind farm projects, such as Campo Wind, to make it happen. We implore you to permit the Campo Wind project to help ensure a pollution-free future.

The time is now to invest in wind energy – not years down the road when it's too late. Wind energy is the solution to curb greenhouse gas emissions and our dependency on fossil fuels. Such projects boost the local economy, generate clean renewable energy and in this case, will provide a sustainable economy for the Campo Tribe members. It seems there are many compelling reasons to move forward with this project.

We firmly believe this project will have an overall positive impact on the San Diego community and we strongly urge you to approve it.

Sincerely,

Ed & Bridget Plank

[edbridgetplank@gmail.com](mailto:edbridgetplank@gmail.com)

619-540-3763

Dear San Diego Planning Commissioners -

I am a long-time supporter of wind energy because of its ability to produce clean, renewable energy in replacement of fossil fuels that continue to erode the wellbeing of our planet. I feel it's of the utmost importance to invest in new types of energy so we can eventually eliminate fossil fuels altogether; which is why I am writing this letter of support for the Campo Wind project that will produce enough clean energy to power 70,000 area homes while also moving the needle in the right direction for a cleaner future.

Additionally, I believe it could provide economic benefit to the Campo Kumeyaay Nation, but I defer to their community to decide whether they want this emission-free power generation on their land.

As a San Diego resident, I approve of and support any renewable energy project that has passed the appropriate environmental and in the case of this project, Tribal acceptance measures.

Regards,

Eric Hyman  
619-820-2490

Dear Planning Commissioners,

As a long-time resident of San Diego who values preserving the well-being of our planet, please accept this letter of support for the Campo Wind Project with Boulder Brush Facilities being developed by Terra-Gen.

Our every-growing climate crisis is threatening future generations' chance of a livable planet. It's our responsibility to address this issue now – to put viable and sustainable alternative energy options in place to start reversing the adverse damage fossil fuels have had on the environment, wildlife, and our health, and most importantly our planet as a whole.

Investing in renewable energy is the first step in fighting climate change, which is why I'm writing today to show my support for the Campo Wind Project and other renewable energy projects that are proposed for the San Diego region. Let's take advantage of this plentiful natural resource that we can easily harness in our back country and play an important part in helping save our planet.

Very Respectfully,

A handwritten signature in black ink, appearing to read "Gary Skaggs", with a long, sweeping horizontal line extending to the right.

Gary Skaggs  
[garyskaggs@me.com](mailto:garyskaggs@me.com)



2159 INDIA STREET  
SUITE 200  
SAN DIEGO, CA 92101  
858-568-7777

cleantechsandiego.org

**MISSION:**

To accelerate clean  
technology innovation  
and promote the equitable  
deployment of sustainable  
solutions across the San Diego  
region for the benefit of the  
economy, the environment,  
and all members of  
the community.

November 3, 2020

San Diego County Planning Commission  
County of San Diego  
Planning & Development Services  
5510 Overland Avenue, Suite 110  
San Diego, CA 92123

**RE: Support for Campo Wind Project with Boulder Brush Facilities**

Dear Commissioners:

On behalf of Cleantech San Diego, please accept this letter of support for the Campo Wind Project with Boulder Brush Facilities.

Planned in accordance with the County Wind Ordinance, the Campo Wind Project with Boulder Brush Facilities consists of up to 60 wind turbines across Campo Kumeyaay tribal lands. When operational, the project will produce nearly 250 megawatts of clean, renewable energy – enough to power 70,000 homes across the San Diego region – and will provide significant economic benefits for the Campo Tribe and the San Diego region. Further, the Project will increase reliability of the grid under normal conditions as well as during either generation or transmission line outages.

Cleantech San Diego is a business organization that positions the greater San Diego region as a global leader in the cleantech economy. Our members include more than 120 local businesses, universities, governments, and nonprofits committed to advancing sustainable solutions for the benefit of the economy, the environment, and all members of the community.

The Campo Wind Project with Boulder Brush Facilities will play a critical role in helping the region meet its renewable energy targets. As cities and public agencies around our region continue to contribute to renewable energy goals with local generation assets, it is important that the County help advance those efforts by supporting local renewable energy projects on unincorporated land, including Tribal Land. These projects will not only benefit our environment, but also our regional economy.

With that, Cleantech San Diego supports the Project and requests you recommend approval of a major use permit for the Boulder Brush Facilities.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Anderson", with a stylized, flowing script.

Jason Anderson  
President and CEO  
Cleantech San Diego

Dear Chairman Barnhart and San Diego Planning Commissioners,

As a resident of San Diego County, I strongly believe that investing in renewable energy is an obvious solution to meet our state's aggressive clean energy goals while also helping save our environment. We need to move forward with alternative power solutions to end our dependency on fossil fuels; investing in developments like the Campo Wind project is the first step to achieving that.

It's also my understanding that the Campo Kumeyaay Nation is in full support of this project on their land which is an even more obvious reason to approve this project. It will bring their Tribe economic stability and create jobs and additional revenue for local businesses – clearly a win-win scenario for everyone.

I support the Campo Wind project and urge you to approve this project. We can't afford any further delays to bringing renewable energy sources to our community.

John W. Winnen

[winnen@cox.net](mailto:winnen@cox.net)



LETICIA PEREZ

SUPERVISOR – FIFTH DISTRICT

November 6, 2020

Chairman Douglas Barnhart  
County of San Diego Planning Commission  
5510 Overland Avenue, Suite 110  
San Diego, CA 92123

Dear Chairman Barnhart:

As the Chairman of the Kern County Board of Supervisors, I am writing to convey my strong support of Terra-Gen, who is proposing to build, own and operate the Campo Wind Project with Boulder Brush Facilities in San Diego County (PDS2019-MUP19-002; PDS2019-ER-19-16-001).

Terra-Gen developed, constructed and operated over 2,000 MW of renewable power generation projects in Kern County. Over the past ten years of operations in Kern County, Terra-Gen has established an exceptional relationship with Kern County and an excellent track record as a responsible, experienced, and safe operator of the projects it develops, constructs, and operates here. Their planning, compliance, and coordination with our jurisdictional authorities, including the Kern County Fire Department, the Kern County Planning Department, and the Kern County Building Department is exceptional.

Recently, Terra-Gen permitted and constructed the 131 MW Voyager Wind Project and the 77 MW Tehachapi Energy Storage Project which are now operating and serving Southern California customers, providing essential energy resiliency services during these critical summer months when much of Southern California is experiencing rolling blackouts.

Additionally, Terra-Gen has been a valued partner to Kern County, sponsoring and contributing to many projects that benefit the local communities, including solar lighting in the downtown Mojave community, high school scholarship funds, museums and an emergency response vehicle for the Kern County Fire Department. I am also aware that Terra-Gen recently funded a scholarship program for Native American tribal members in eastern San Diego County, related to a project they are developing in that area of your County.

If you have any questions or need more information, please feel free to contact my office at (661) 868-3690.

Sincerely,

A handwritten signature in black ink, appearing to be "LP", written over a white background.

Supervisor Leticia Perez, Chairman  
Kern County Board of Supervisors

Dear Planning Commissioners,

As a resident of San Diego who supports green initiatives and renewable energy, please accept this letter of support for the Campo Wind Project being proposed by Terra-Gen and the Campo Kumeyaay Nation.

We can no longer afford delaying investing in renewable energy – now it the time to do it. I strongly request you approve the Campo Wind project.

Kind Regards,

Marie Beatty  
760 765 4720  
[marie@techelectric.net](mailto:marie@techelectric.net)



To the San Diego Planning Commissioners,

I've been an advocate of renewable energy since the 1970s. The efficiency of wind energy is improving, driving down energy costs and dependency on fossil fuels. I've visited similar sites in France, Netherlands, Germany, Texas, and Hawaii and recognize the incredible benefits investing in renewable energy can provide. Wind energy can fill gaps from solar and it isn't as messy as geothermal. Eventually we'll be able to share power with neighboring counties, states, and countries. California desperately needs power and fresh water not hijacked from our farmlands, but rather, harvested from the ocean. I'm praying that the Campo Wind project and others can add value in that direction and not be burdened by over regulation and taxation.

Wind energy is clean, renewable and it will help our state meet its climate change goals. The Campo Wind project would provide construction jobs and important benefits to the Campo Kumeyaay Nation. For all these reasons, please accept this letter of support for the Campo Wind project.

Thank you,

Mike Bateman

[bateman737@cox.net](mailto:bateman737@cox.net)

(760) 458-2818

Dear Chairman Barnhart,

As a property owner in both Santee and Banquet Springs, I strongly feel us San Diegans must do our part to support green power, which is why I am writing to you today to express my support of the Campo Wind project. We must be responsible for our consumption of resources and leave as little damage on earth as possible. Please do not dismiss the importance of this project from an environmental standpoint – we must invest in the long-term for the wellbeing of our planet.

I also understand the Campo Tribe has approved this project to reside on their land, so it seems this is an easy decision to move forward.

Let's stop wasting time and invest in this free and plentiful resource. Please approve the Campo Wind project for a cleaner and healthier San Diego.

Kind Regards,

Philip Villanueva  
10032 Pinewood View  
Santee, CA 92071

**Southern California  
TRIBAL CHAIRMEN'S  
Assoc., Inc.**



October 22, 2020

**Planning Commissioners**

**County of San Diego  
Planning & Development Services  
5510 Overland Avenue, Suite 110  
San Diego, CA 92123**

**[Ann.Jimenez@sdcounty.ca.gov](mailto:Ann.Jimenez@sdcounty.ca.gov)**

Dear Planning Commissioners:

Please accept this letter of support for the Campo Tribe's proposed Campo Wind Energy Project, which has already been reviewed and approved by the Campo Tribal Government and the Bureau of Indian Affairs, and the Boulder Brush Facilities project, which is currently before you. The Boulder Brush Facilities would allow the Campo Wind Project to connect to the power grid and realize the Tribes efforts in providing income for its government and community. This is a critical project both for the tribe's economic sustainability as well as assisting in meeting the region's and state's climate action goals.

This Campo Wind Project has been fully reviewed through the National Environmental Policy Act and other tribal and federal review processes, and the published final EIS was found to be complete in the federal Record of Decision. The approval authorized a lease by the tribe to Terra Gen to construct and operate up to 60 clean energy wind towers on the Campo Reservation generating over 250Mw of clean energy. This equates to enough clean energy to power 85,000 homes in California. A project of this scope and size will generate critically needed revenues for the Tribe to fund healthcare programs, educational opportunities, enhanced public safety services and many more benefits to the Tribe and its members.

The Boulder Brush Facilities project has also analyzed all required environmental impacts, and identified mitigation as appropriate for impacts associated with the facilities creating a tie to the electrical grid which occur within County land use jurisdiction. The project is a critical element that will allow the delivery of new, clean to the region's power grid. I urge the Planning Commission to approve the County's environmental review documents and the use permit for the Boulder Brush Facilities, thereby allowing the Campo Tribe to proceed with this valuable project.

Sincerely,

**Robert Smith**  
Chairman of the Board of Southern California Tribal Chairmen's Association  
Chairman of Pala Band of Mission Indians

**Southern California  
TRIBAL CHAIRMEN'S  
Assoc., Inc.**



October 22, 2020

**Planning Commissioners**

**County of San Diego  
Planning & Development Services  
5510 Overland Avenue, Suite 110  
San Diego, CA 92123**

**[Ann.Jimenez@sdcounty.ca.gov](mailto:Ann.Jimenez@sdcounty.ca.gov)**

Dear Planning Commissioners:

Please accept this letter of support for the Campo Tribe's proposed Campo Wind Energy Project, which has already been reviewed and approved by the Campo Tribal Government and the Bureau of Indian Affairs, and the Boulder Brush Facilities project, which is currently before you. The Boulder Brush Facilities would allow the Campo Wind Project to connect to the power grid and realize the Tribes efforts in providing income for its government and community. This is a critical project both for the tribe's economic sustainability as well as assisting in meeting the region's and state's climate action goals.

This Campo Wind Project has been fully reviewed through the National Environmental Policy Act and other tribal and federal review processes, and the published final EIS was found to be complete in the federal Record of Decision. The approval authorized a lease by the tribe to Terra Gen to construct and operate up to 60 clean energy wind towers on the Campo Reservation generating over 250Mw of clean energy. This equates to enough clean energy to power 85,000 homes in California. A project of this scope and size will generate critically needed revenues for the Tribe to fund healthcare programs, educational opportunities, enhanced public safety services and many more benefits to the Tribe and its members.

The Boulder Brush Facilities project has also analyzed all required environmental impacts, and identified mitigation as appropriate for impacts associated with the facilities creating a tie to the electrical grid which occur within County land use jurisdiction. The project is a critical element that will allow the delivery of new, clean to the region's power grid. I urge the Planning Commission to approve the County's environmental review documents and the use permit for the Boulder Brush Facilities, thereby allowing the Campo Tribe to proceed with this valuable project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Robert Smith'. The signature is fluid and stylized, with a large loop at the end.

**Robert Smith**  
Chairman of the Board of Southern California Tribal Chairmen's Association  
Chairman of Pala Band of Mission Indians

Stephan C. Volker  
Alexis E. Krieg (Of Counsel)  
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November 11, 2020

**VIA EMAIL**

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Re: Comments of Backcountry Against Dumps, Donna Tisdale and Joe E. Tisdale on the Final Environmental Impact Report for the Campo Wind Project with Boulder Brush Facilities (PDS2019-MUP-19-002, PDS2019-ER-19-26-001)

Dear Mses. Harris and Jimenez:

On behalf of Backcountry Against Dumps, Donna Tisdale and Joe E. (“Ed”) Tisdale (collectively, “Backcountry”), we respectfully submit the following comments on the final environmental impact report (“FEIR”) for the Campo Wind Project with Boulder Brush Facilities (the “Project;” PDS2019-MUP-19-002, PDS2019-ER-19-16-001), pursuant to the California Environmental Quality Act (“CEQA”), Public Resources Code (“PRC”) section 21000 *et seq.* Please include these comments in the public record for this Project and provide them to the Planning Commissioners before the public hearing for this Project on November 13, 2020.

These FEIR comments build on and incorporate by reference Backcountry’s February 21, 2019 scoping comments on the Boulder Brush Project (“Scoping Comments”), its March 18, 2019 supplemental scoping comments (“Supplemental Comments”), its June 24, 2019 second supplemental scoping comments (“Second Supplemental Comments”), and its February 3, 2020 comments on the draft environmental impact report (“DEIR”) for the Project.

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## **I. The FEIR Fails to Analyze the Whole of the Project**

CEQA forbids “piecemeal” environmental review. *Berkeley Keep Jets Over the Bay Commission v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1358. CEQA mandates that “environmental considerations do not become submerged by chopping a large project into many little ones . . . [,] which cumulatively may have disastrous consequences.” *Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263, 283-284.

Here, the FEIR acknowledges that the Project’s 8.5-mile 230-kilovolt (“kV”) gen-tie transmission line would “connect energy generated by [the 60-turbine Campo Wind Project] to the existing SDG&E Sunrise Powerlink,” and it accordingly – and correctly – analyzes together the impacts of the Campo Wind Project and the Boulder Brush Facilities. FEIR at ES-3. But the FEIR, like the DEIR, fails to analyze another wind energy project – the 30-turbine Torrey Wind Project – that the Boulder Brush Facilities would likewise enable. As the FEIR acknowledges, the Boulder Brush Facilities’ “high-voltage substation would allow for the receiving and stepping up of electric energy from 230 kV to 500 kV for the proposed Torrey Wind Project, a separate wind energy project proposed on private lands under County jurisdiction.” FEIR at 1-5. Despite the inextricable link between the Boulder Brush Facilities and the Torrey Wind Project, the FEIR merely treats the latter as a cumulative project. *E.g.* FEIR at 2.3-110. That violates CEQA. The County may not piecemeal the analysis of a project that *would not be constructed* but for the Boulder Brush Facilities’ 500-kV substation and switchyard. *City of Antioch v. City Council of the City of Pittsburg* (1986) 187 Cal.App.3d 1325, 1337 (holding that approval of a road and a sewer line triggers a duty under CEQA to examine the impacts of the development that they will foreseeably serve).

## **II. The FEIR Fails to Meaningfully Analyze Numerous Significant Environmental Impacts**

An EIR must include “enough detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project,” particularly the potentially significant environmental impacts. *Sierra Club v. County of Fresno and Friant Ranch, L.P.* (“*Friant Ranch*”) (2018) 6 Cal.5th 502, 513 (quote); CEQA Guidelines § 15126.2. The EIR “fail[s] to comply with the information disclosure provisions of CEQA” when it “omit[s] any meaningful consideration” of a potentially significant environmental impact identified in the record. *Bakersfield Citizens for Local Control v. City of Bakersfield* (“*Bakersfield Citizens*”) (2004) 124 Cal.App.4th 1184, 1208. Here, the FEIR, like the DEIR, omits meaningful consideration of numerous potentially significant environmental impacts.

### **A. The FEIR Fails to Meaningfully Analyze Impacts to Golden Eagles**

Wind turbines kill birds, and so do power lines.<sup>1</sup> The Campo Wind Project’s 60 turbines will be no different, just as will be the Torrey Wind Project’s 30 turbines and the Project’s miles

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<sup>1</sup> Dwyer, J.F., M.A. Landon, and E.K. Mojica, 2018, “Impact of Renewable Energy Sources on

of power lines. Indeed, in its responses to comments, the FEIR predicts that “one eagle fatality [will] occur[] every 8 years” with a “60-turbine design.” FEIR at GR5-14. The risk to golden eagles from these wind projects is particularly concerning because golden eagles are “currently known to be at risk of *population-level* effects from [wind turbine] collisions,” and must be afforded every possible protection. **Exhibit 1** at 306. Yet the FEIR, like the DEIR, brushes aside the risk to golden eagles as insignificant. FEIR at GR5-14.

The FEIR provides zero explanation for how the Project’s direct impact to golden eagles qualifies as insignificant when the Campo Wind Project will likely kill at least 3 eagles over the course of its 25+-year life (at the forecasted rate of 1 eagle fatality every 8 years). FEIR at 1-2 (Project life), GR5-14 (fatality rate estimate). Nor does it discuss how the projected fatalities could affect the golden eagle population, which is at existential risk from wind turbines and other causes, as discussed. Even without considering population-level effects, the FEIR’s conclusion that the killing of at least 3 eagles is insignificant contravenes the County’s own thresholds of significance for impacts to biological resources. The most applicable threshold provides that a “significant impact would result if” the “project would impact one or more individuals of a species listed as federally or state endangered or threatened.” FEIR at 2.3-45. The golden eagle is a special-status species and the FEIR itself forecasts that “one eagle fatality [will] occur[] every 8 years” with the Campo Wind Project. FEIR at GR5-14. That is a significant environmental impact.

## **B. The FEIR Fails to Meaningfully Analyze Impacts to Bats**

Bats perform vital biological and economic functions. As detailed in a recent peer-reviewed scientific journal article:

Bats play a key role in Earth’s ecosystems. In North America, ecological services provided by bats have been valued at \$3.7 to \$53 billion USD per year. They are major predators of nocturnal insects and contribute to the regulation of epidemic outbreaks in agricultural fields and managed forests, as well as the control of insects transmitting diseases to humans.<sup>2</sup>

### **Exhibit 2** at 1.

But as with birds, wind energy facilities also kill bats, through both collisions and barotrauma (abrupt drop in air pressure behind turbine blades sucks bats into low pressure zone, causing bats’ lungs to expand and hemorrhage). And with “continued wind energy expansion,

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Birds of Prey,” in J.H. Sarasola *et al.* (eds.), 2018, *Birds of Prey*, Springer International Publishing AG (attached hereto as **Exhibit 1**).

<sup>2</sup> MacGregor, K.A., and J. Lemaître, 2020, “The Management Utility of Large-scale Environmental Drivers of Bat Mortality at Wind Energy Facilities: The Effects of Facility Size, Elevation and Geographic Location,” *Global Ecology and Conservation* 21(e00871) (attached hereto as **Exhibit 2**).



there are increasing concerns that there could be population-level implications for bats.”<sup>3</sup> **Exhibit 3** at 125. This is even more concerning given recent evidence that bats are *attracted* to wind turbines and associated infrastructure, and use them as night or foraging roosts. **Exhibit 3**. It is therefore essential to assess both project-specific bat impacts and the “*cumulative* effects of bat fatalities at wind farms.” **Exhibit 2** at 2 (emphasis added).

Here, the FEIR fails to meaningfully analyze the Project’s impacts on bats. The FEIR concludes that “there were low occurrences of bats during surveys within the Campo Corridor, particularly when compared to other areas with higher-quality habitat types in the region,” and that bats were therefore “not anticipated to have a high number of collisions with [Project] turbines.” FEIR at 2.3-52. But the FEIR fails to provide or even summarize the “surveys within the Campo Corridor.” Instead, the FEIR belatedly discloses in its responses to comments that the “bat data is presented” in an appendix to the “Draft Environmental Impact Statement (EIS) prepared for the [Campo Wind] Project by the Bureau of Indian Affairs.” FEIR at 05-4. That precludes informed public review. The EIR itself must disclose the data.

In addition, the FEIR fails to meaningfully discuss the risk to bats of barotrauma in addition to turbine blade collision. Instead, it cites a study of pressure effects on rats. But as the FEIR acknowledges, the “actual relationship between rat thresholds and bat thresholds is not known.” FEIR at 05-5.

### **C. The FEIR Fails to Meaningfully Analyze the Project’s Audible Noise Impacts**

The FEIR’s analysis of audible noise impacts suffers from at least three sets of critical errors and omissions. First, the acoustical analysis on which the FEIR relies suffers from numerous technical errors, which dBF Associates, Inc. details in its February 3, 2020 review of the DEIR’s acoustical analysis, and which the FEIR fails to correct. dBF Associates, Inc.’s comments are attached hereto as **Exhibit 4** and were also separately submitted to the County during the DEIR comment process for the Project.

Second, the FEIR fails to meaningfully analyze the issue of amplitude-modulated wind turbine-generated noise. Amplitude modulation produces the characteristic “whoosh” sound that residents near wind turbines, including residents near the existing Tule and Kumeyaay wind projects in the Boulevard area, frequently identify as distressing, stressful, and otherwise bothersome. Recent peer-reviewed academic studies confirm that amplitude modulated noise is a problem. For example, Pohl *et al.* (2018)<sup>4</sup> conducted a longitudinal study of wind turbine noise annoyance in Germany and found that a “cause for the WT noise annoyance might be the

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<sup>3</sup> Bennett, V.J., A.M. Hale, and D.A. Williams, 2017, “When the Excrement Hits the Fan: Fecal Surveys Reveal Species-Specific Bat Activity at Wind Turbines,” *Mammalian Biology* 87:125-129 (attached hereto as **Exhibit 3**).

<sup>4</sup> Pohl, J., J. Gabriel, and G. Hübner, 2018, “Understanding Stress Effects of Wind Turbine Noise – The Integrated Approach,” *Energy Policy* 112:119-128 (attached hereto as **Exhibit 5**).

amplitude modulation (AM).” **Exhibit 5** at 126. Schäffer *et al.* (2019)<sup>5</sup> conducted a laboratory experiment with audio-visual simulations and likewise found that, even after accounting for visual impacts, amplitude modulation increased annoyance. And Hansen *et al.* (2019)<sup>6</sup> documented tonal amplitude modulation from wind turbines in southern Australia that was audible outdoors and indoors up to 3.5 kilometers away, which the authors concluded had “important implications for possible sleep disruption from wind turbine AM,” particularly where ambient noise levels are low, as in the rural Backcountry area.

The Acoustical Analysis Report for the Campo Wind Project with Boulder Brush Facilities (“Acoustical Analysis Report”) dismisses the risk of amplitude modulation from Campo Wind Project turbines by citing a 2016 study of “multiple operating wind turbine facilities” in unnamed locations. FEIR, Appendix G at 35. According to that study, most modulation was 2 decibels (“dB”) or less. But the Acoustical Analysis Report *entirely ignores* the much more recent and relevant evidence of *frequent* amplitude modulation in the 5-6 dB range (deemed “excessive modulation” by acoustics experts) at residences in the Boulevard area from the existing Tule and Kumeyaay wind project turbines located quite close to the proposed Campo and Torrey wind projects. That amplitude modulation is documented in Wilson Ihrig’s 2019 report (“2019 WIA Report”) attached as Exhibit 1 to Backcountry’s Supplemental Comments (and incorporated herein by reference) and in the December 16, 2019 report by dBF Associates, Inc. (“dBF Report”), which is attached hereto as **Exhibit 8**.

The FEIR attempts to critique the 2019 WIA Report and the dBF Report in the responses to comments. FEIR at GR4-16. And it ultimately concludes that “these reports fail to provide sufficient evidence that a significant environmental impact due to amplitude modulation would occur as a result of the Project.” FEIR at 05-6. But that is the wrong standard. The public does not have the burden of proving that a project would cause a significant environmental impact as a precondition for CEQA analysis. Instead, it is the lead agency’s duty to analyze in an EIR any impact for which there is “enough relevant information and reasonable inferences from this information that a fair argument can be made” that the impact might be significant, “even though other conclusions might also be reached.” CEQA Guidelines §§ 15384 (quote), 15064. The 2019 WIA Report and the dBF Report both conclude from *empirical research* that existing wind turbines *in the Project vicinity* generate *excessive amplitude modulation* that is observed at the homes of nearby residents. That is the epitome of substantial evidence supporting a fair argument that the Project might cause a significant noise impact. CEQA thus requires the County to thoroughly analyze the Project’s noise impacts from amplitude modulation, not merely nitpick the 2019 WIA Report and the dBF Report. It is immaterial that there might not yet be any “local, state, or federal standards of significance for determining the environmental impact” of amplitude modulation. FEIR at 05-5 (quote); *Berkeley Keep Jets Over the Bay Commission v.*

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<sup>5</sup> Schäffer, B., R. Pieren, U.W. Hayek, N. Biver, and A. Grêt-Regamey, 2019, “Influence of Visibility of Wind Farms on Noise Annoyance – A Laboratory Experiment with Audio-Visual Simulations,” *Landscape and Urban Planning* 186:67-78 (attached hereto as **Exhibit 6**).

<sup>6</sup> Hansen, K.L, P. Nguyen, B. Zajamsek, P. Catcheside, and C.H. Hansen, 2019, “Prevalence of Wind Farm Amplitude Modulation at Long-range Residential Locations,” *Journal of Sound and Vibration* 455:136-149 (attached hereto as **Exhibit 7**).

*Board of Port Commissioners of the City of Oakland* (2001) 91 Cal.App.4th at 1370-1371.

Third, the FEIR fails to meaningfully describe the full panoply of wind turbine-generated noise impacts on health, including stress, sleep disturbance and reduced quality of life. This is similar to the EIR the Supreme Court found inadequate in *Friant Ranch*. There, “[a]lthough the EIR generally outline[d] some of the unhealthy symptoms associated with exposure to various pollutants, it [did] not give any sense of the nature and magnitude of the ‘health and safety problems caused by the physical changes’ resulting from the Project as required by the CEQA guidelines.” *Friant Ranch*, 6 Cal.5th at 522 (quoting CEQA Guidelines § 15126.2(a)).

The FEIR here entirely fails to *even mention* “stress” or “sleep” or otherwise connect the projected Project-generated noise levels to health outcomes, despite the fact that numerous wind turbine noise impact studies to date have established a correlation between noise and self-reported annoyance or sleep disturbance. Researchers are also increasingly studying the *physiological* responses to wind turbine noise during sleep. For example, a pair of recent pilot studies investigated the physiologically measured sleep effects of nocturnal wind turbine noise in a laboratory setting.<sup>7</sup> The results provided “evidence that participants had more frequent awakenings, reduced amounts of N3 (“deep”) sleep, reduced continuous N2 sleep, increased self-reported disturbance and [wind turbine noise]-induced tiredness in exposure nights with [wind turbine noise] compared to [wind turbine noise]-free nights.” **Exhibit 9** at 10. The increase in self-reported sleep disturbance also comports with numerous survey-based studies on the subject.

Morsing *et al.*’s (2018) results also comport with those of a cohort-based study in Denmark on the impacts on sleep and depression of long-term residential exposure to wind turbine noise.<sup>8</sup> Poulsen *et al.* (2019) found, based on their study of nearly 600,000 people during an approximately 20-year period, that “high levels of long-term nighttime exposure to outdoor” wind turbine noise (greater than or equal to 42 dBA) were “associated with redemption of sleep medication and antidepressants” (*i.e.* filling prescriptions for those medications), particularly amongst people aged 65 or older. **Exhibit 10** at 037005-6. The authors reported that their findings accord with most studies on the effects of wind turbine noise exposure on sleep and self-reported mental health. **Exhibit 10** at 037005-7.

The FEIR relies almost exclusively on the 2019 County Public Health Position Statement to support its conclusion that the Project’s wind turbine noise impacts would not be significant. FEIR at GR4, 05-6 to 05-7. But that statement fails to consider numerous pertinent studies, data, and issues. For example, the statement omits numerous recent relevant studies, including

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<sup>7</sup> Morsing, J.A., M.G. Smith, M. Ögren, P. Thorsson, E. Pedersen, J. Forssén, and K.P. Wayne, 2018, “Wind Turbine Noise and Sleep: Pilot Studies on the Influence of Noise Characteristics,” *International Journal of Environmental Research and Public Health*, 15(2573) (attached hereto as **Exhibit 9**).

<sup>8</sup> Poulsen, A.H., O. Raaschou-Nielsen, A. Peña, A.N. Hahmann, R.B. Nordsborg, M. Ketznel, J. Brandt, and M. Sørensen, 2019, “Impact of Long-Term Exposure to Wind Turbine Noise on Redemption of Sleep Medication and Antidepressants: A Nationwide Cohort Study,” *Environmental Health Perspectives*, 127(3) (attached hereto as **Exhibit 10**).

Morsing *et al.* 's (2018) study and Poulsen *et al.* 's (2019) study. It also fails to mention or discuss the 2019 WIA Report and the dBF Report. In addition, the statement fails to discuss amplitude modulated noise *at all*, despite increasing academic and professional literature on the subject, as discussed above. Backcountry's April 12, 2019 comments on the 2019 County Public Health Position Statement are attached hereto as **Exhibit 14**.

#### **D. The FEIR Fails to Meaningfully Analyze the Project's Infrasound and Low-Frequency Noise Impacts**

The audible noise level, like that measured with the A-weighted scale used in Poulsen *et al.* 's (2019) study, is only one aspect of wind turbine-generated noise. For example, a 2018 review of the scientific literature affirmed not only that "there is ample evidence demonstrating that a component of the sound energy produced by a [wind turbine] is in the low and infrasonic frequency range" ("ILFN"), but also that the literature presents a "strong prima facie case for neural transduction of low-frequency sound] and [infrasound]." <sup>9</sup> **Exhibit 11** at 2 (first quote), 6 (second quote).

Carlile *et al.* (2018) also noted that weighted noise measurements – like the A-weighted measurements typically done for audible noise impact analyses, and the C-weighted measurements required by San Diego County Zoning Code section 6952(f)(1) – "exclude crucial low frequencies" from wind turbines. **Exhibit 11** at 3. Poulsen *et al.* (2019) similarly noted studies "suggest[ing] that the characteristics of [wind turbine noise] relevant for annoyance may be better captured by metrics focusing on amplitude modulation or low-frequency (LF) noise, rather than the full spectrum A-weighted noise." **Exhibit 10** at 037005-1. That is one reason Backcountry commissioned two professional studies, one by Wilson Ihrig and a more recent one by dBF Associates, Inc., on the wind turbine-generated infrasound, low-frequency noise and amplitude modulated noise in the Boulevard area.

Wilson Ihrig, a national noise, vibration and acoustical professional consulting firm, obtained noise recordings between November 13 and 17, 2018 in the Boulevard and Jacumba Hot Springs areas. The findings are documented in its aforementioned 2019 report that is attached as Exhibit 1 to Backcountry's Supplemental Comments. Among other things, the report and a predecessor 2014 report on earlier noise measurements "conclusively document the presence of [wind turbine] generated infrasound (IS) as measured at residential and other locations up to 8 miles from the wind turbines at the Kumeyaay and Tule [wind project] facilities," and up to 11 miles from the Ocotillo Wind Energy project. Supplemental Comments, Exhibit 1 at 1. dBF's more recent report, based on noise recordings in the same area from August 16, 2019, likewise "conclusively document[s] the presence of ILFN, at homes up to approximately 6 miles away, generated by the [wind turbines] at the Kumeyaay and Tule facilities." **Exhibit 8** at 1.

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<sup>9</sup> Carlile, S., J.L. Davy, D. Hillman, and K. Burgemeister, 2018, "A Review of the Possible Perceptual and Physiological Effects of Wind Turbine Noise," *Trends in Hearing* 22:1-10 (attached hereto as **Exhibit 11**).



Rather than include a serious analysis of the levels and environmental impacts of ILFN produced by the Project, the FEIR dismisses the issue because the “County does not have any regulations or standards pertaining to infrasound levels.” FEIR at 05-8. That violates CEQA. CEQA does not require a formal impact standard as a precondition for analyzing and determining the significance of an environmental impact. *Berkeley Keep Jets Over the Bay Commission v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal.App.4th at 1370-1371

#### **E. The FEIR Fails to Analyze the Project’s Lifecycle Greenhouse Gas Emissions**

The FEIR boasts that the “Project would avoid more [greenhouse gas (GHG)] emissions than it would generate, resulting in **less than cumulatively considerable** climate change impacts.” FEIR at 3.1.4-32. But the FEIR fails to quantify the Project’s *lifecycle* GHG emissions. Many authoritative published life cycle analyses demonstrate that wind energy projects like the proposed Campo and Torrey wind projects have many more sources of GHG emissions that just on-site construction and operation. As one recent study states, “due to GHG emissions produced during *equipment manufacture, transportation*, on-site construction, maintenance, and decommissioning, wind and solar technologies are not GHG emission free.”<sup>10</sup> **Exhibit 12** at SI36. That same study concluded, based on a “systematic review and harmonization of life cycle assessment (LCA) literature of utility-scale wind power systems,” that industrial-scale wind turbines produce 11 g CO<sub>2</sub>-eq/kWh (median value, with a range of 3 g CO<sub>2</sub>-eq/kWh to 45 g CO<sub>2</sub>-eq/kWh). **Exhibit 12** at SI36, SI46. To meaningfully analyze the Project’s global warming impact in compliance with CEQA, the County must conduct a lifecycle assessment of the Project’s GHG emissions.

The FEIR cites *Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, 175 to support its assertion that a “lifecycle analysis is not required.” FEIR at 05-9. That case involved a small city’s proposal to ban plastic bags, and the relative environmental impacts of plastic bags versus paper bags. The Court concluded that lifecycle analysis would not be useful in that instance because one small city’s ban on plastic bags would not increase the overall supply for paper bags enough to change overall supply. Here, by contrast, the production of wind turbines is often project dependent, with components made to order. The wind turbines for the Project might not be built absent the Project, making the turbines’ manufacturing impacts indirect impacts of the Project that require analysis in the EIR.

#### **F. The FEIR Fails to Meaningfully Analyze the Project’s Impacts to Aviation**

As detailed in Backcountry’s January 29, 2020 comments to the Federal Aviation Administration on the Campo Wind Project, Wind Turbine C-69, Campo, California Aeronautical Study No. 2019-WTW-4585-OE, the Campo Wind Project would cause significant

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<sup>10</sup> Dolan, Stacey L. & Garvin A. Heath, 2012, “Life Cycle Greenhouse Gas Emissions of Utility-Scale Wind Power: Systematic Review and Harmonization,” *Journal of Industrial Ecology*, 16(SI) (attached hereto as **Exhibit 12**).

and life-threatening impacts to aviation that could not be avoided or sufficiently mitigated by the proposed mitigation measures. Those comments are incorporated by reference and attached hereto as **Exhibit 13**. The FEIR appears to assume that these aviation impacts will be insignificant, but in fact, they are very significant. For that reason, the FAA has found that Backcountry's Petition for Review is valid, and it is therefore actively reviewing the impacts of the Project on aviation. Pursuant to its finding that Backcountry's Petition for Review is valid, the FAA has stayed issuance of its potential approvals for the Project. Unless and until it completes its review and determines that the Project may proceed, this stay remains in effect and the Project cannot proceed.

### **The FEIR Fails to Analyze the Project's Impacts on Groundwater Supply**

Construction and operation of the Project would require substantial water supplies – approximately 173 acre-feet – much of which is proposed to be pumped from the well field on the Campo Band of Digueño Mission Indians Reservation. FEIR at 3.1.5-3. That is the same well field that SDG&E had planned to use to supply the water for construction of its East County Substation in 2013. However, pumping from the well field had to be stopped after only 36 acre-feet of groundwater had been extracted, due to lack of aquifer recharge. *Id.* The FEIR fails to analyze the likelihood that the well field would once again fail to provide sufficient water supplies and the resulting impacts both to the on-Reservation well field, the aquifer as a whole, and the additional water supply sources the Project proponents would need to tap to complete construction.

### **G. The EIR Must Analyze the Impacts of Any Planned Battery Storage**

The EIR must analyze the impacts of any planned battery storage that would accompany the Project (either the Campo Wind Project or the Boulder Brush facilities) and its impacts, particularly on wildfire ignition and suppression. The FEIR currently does not even mention battery storage as a possibility. Large-scale battery storage is well known to pose such impacts.

### **III. The Project Must Comply with CPUC General Order 131-D.**

As discussed in Backcountry's previous comments, the Project requires a certificate of public convenience and necessity pursuant to the California Public Utilities Commission's General Order 131-D because it includes "major electric transmission line facilities which are designed for immediate or eventual operation at 200 kV or more." G.O. 131-D § III(A).

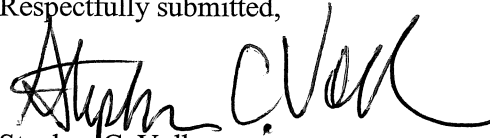
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Susan Harris & Ann Jimenez  
San Diego County  
November 11, 2020  
Page 10

#### IV. Conclusion

In sum, the FEIR violates CEQA and the Project cannot be approved without revision and recirculation of the EIR to remedy the numerous deficiencies documented above. The Project also requires additional permitting under the California Public Utilities Commission's General Order 131-D.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Stephan C. Volker', written over the typed name.

Stephan C. Volker  
Attorney for Backcountry Against Dumps  
and Donna Tisdale

#### Attachments:

- Exhibit 1** – Dwyer, J.F., M.A. Landon, and E.K. Mojica, 2018, “Impact of Renewable Energy Sources on Birds of Prey,” in J.H. Sarasola *et al.* (eds.), 2018, *Birds of Prey*, Springer International Publishing AG.
- Exhibit 2** – MacGregor, K.A., and J. Lemaître, 2020, “The Management Utility of Large-scale Environmental Drivers of Bat Mortality at Wind Energy Facilities: The Effects of Facility Size, Elevation and Geographic Location,” *Global Ecology and Conservation* 21(e00871).
- Exhibit 3** – Bennett, V.J., A.M. Hale, and D.A. Williams, 2017, “When the Excrement Hits the Fan: Fecal Surveys Reveal Species-Specific Bat Activity at Wind Turbines,” *Mammalian Biology* 87:125-129.
- Exhibit 4** – Fiedler, S. (dBF Associates, Inc.), February 3, 2020, “Campo Wind Project Noise/Acoustical Review.”
- Exhibit 5** – Pohl, J., J. Gabriel, and G. Hübner, 2018, “Understanding Stress Effects of Wind Turbine Noise – The Integrated Approach,” *Energy Policy* 112:119-128.
- Exhibit 6** – Schäffer, B., R. Pieren, U.W. Hayek, N. Biver, and A. Grêt-Regamey, 2019, “Influence of Visibility of Wind Farms on Noise Annoyance – A Laboratory Experiment with Audio-Visual Simulations,” *Landscape and Urban Planning* 186:67-78.

- Exhibit 7** – Hansen, K.L, P. Nguyen, B. Zajamsek, P. Catcheside, and C.H. Hansen, 2019, “Prevalence of Wind Farm Amplitude Modulation at Long-range Residential Locations,” *Journal of Sound and Vibration* 455:136-149.
- Exhibit 8** – Fiedler, S. (dBF Associates, Inc.), December 16, 2019, “Wind Turbine Infrasound and Low-Frequency Noise Survey in Boulevard, CA.”
- Exhibit 9** – Morsing, J.A., M.G. Smith, M. Ögren, P. Thorsson, E. Pedersen, J. Forssén, and K.P. Waye, 2018, “Wind Turbine Noise and Sleep: Pilot Studies on the Influence of Noise Characteristics,” *International Journal of Environmental Research and Public Health*, 15(2573).
- Exhibit 10** – Poulsen, A.H., O. Raaschou-Nielsen, A. Peña, A.N. Hahmann, R.B. Nordsborg, M. Ketzel, J. Brandt, and M. Sørensen, 2019, “Impact of Long-Term Exposure to Wind Turbine Noise on Redemption of Sleep Medication and Antidepressants: A Nationwide Cohort Study,” *Environmental Health Perspectives*, 127(3).
- Exhibit 11** – Carlile, S., J.L. Davy, D. Hillman, and K. Burgemeister, 2018, “A Review of the Possible Perceptual and Physiological Effects of Wind Turbine Noise,” *Trends in Hearing* 22:1-10.
- Exhibit 12** – Dolan, Stacey L. & Garvin A. Heath, 2012, “Life Cycle Greenhouse Gas Emissions of Utility-Scale Wind Power: Systematic Review and Harmonization,” *Journal of Industrial Ecology*, 16(SI).
- Exhibit 13** – Law Offices of Stephan C. Volker, January 29, 2020, “Comments of Backcountry Against Dumps and Donna Tisdale on the Campo Wind Project,” submitted to the Federal Aviation Administration.
- Exhibit 14** – Law Offices of Stephan C. Volker, April 12, 2019, “Request of Backcountry Against Dumps and Donna Tisdale to Rescind or Revise the San Diego County Health and Human Services Agency’s February 25, 2019 Public Health Position Statement on the Human Health Effects of Wind Turbines,” submitted to the San Diego County Planning & Development Services.



RE: **Letter of Support** for the Terra-Gen Campo Wind Project

To the County of San Diego Planning Commissioners,

I am a long-time resident of Campo and have always been a strong supporter of renewable energy and other green initiatives. Wind energy is an abundant natural resource here in the San Diego back country, and in my opinion, our area should be fully utilized for such projects.

I heartily support the proposed Campo Wind Project because it will benefit our community on so many levels. Since the Campo Kumeyaay Nation has approved this development on their land, I see no issues as to why the Project shouldn't be approved. It will be an economic investment in the Tribe, it will undoubtedly generate revenues for local businesses, and will provide clean renewable energy for 70,000 residents in the San Diego region. This Project will play an important role in helping to reduce greenhouse gas emissions and will assist California in meeting its clean energy goals toward saving our environment.

The overall impacts of this project will be overwhelmingly positive. Please approve the Campo Wind project to move forward.

Kind regards,

Stephanie Connolly  
1600 Buckman Springs Road  
Campo, CA 91906  
619-478-2177  
[tipaay2@aol.com](mailto:tipaay2@aol.com)

Stephen Greifzu  
2405 Sage Drive  
Campo, CA 91906  
619 255 5788

To Whom It May Concern,

I am sending this letter as a show of strong support for the Campo Wind Project being proposed by Terra-Gen, in San Diego.

As a homeowner with solar panels, it goes without saying that I am invested in alternative sources of energy. Our region needs clean, renewable energy and a project like Campo Wind will be a source of such energy to 70,000 residents; not to mention it will also offset greenhouse gas emissions and help our great state meet its renewable energy goals.

I am in full support of this project because Terra-Gen is not only committed to working in partnership with the Campo Kumeyaay Tribe to provide its members numerous economic, educational and social benefits but is also committed to working with the local community to ensure potential environmental impacts are mitigated. The Campo Wind Project will significantly boost the local economy through the creation of numerous employment opportunities, including construction jobs, as well as fueling additional revenue for surrounding businesses.

It's not a matter of should we, but rather we must, look at alternative options for energy to help mitigate further environmental damage. I strongly urge you to consider the immense benefits of diversifying our energy sources both from an environmental and local community perspective.

Regards,

Stephen Greifzu

To the San Diego Planning Commission:

The Campo Kumeyaay Nation has never had it easy. I've lived on this reservation for decades, and have seen many missed opportunities that would have helped my people. My greatest fear, as an elder in our community, is that following generations will continue this historic struggle and won't be given the chance to improve their lives, their environment or their economic prospects.

The Campo Wind project is a good idea – one that can make a difference for the next generations. Please do not stand in the way of our chance at progress. Please do not stand in the way of our democratic process. Please approve this project and let us have the one thing we've clung to for years: hope for the future.

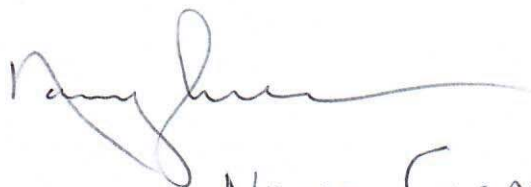
Ronald Cuero Sr.  
J. G. Sr.

Dear Planning Commission members,

I'm writing today in support of the Terra-Gen wind project on our ancestral, sovereign land. Our ancestors have lived here for time immemorial. We've honored, respected and cared for the land. This has been easier since our people ratified a constitution in 1975 which gave us a democratically elected Executive Committee and the framework for governing ourselves.

There are some from outside our nation who do not respect our democratic process, and who do not respect our historic ties to these lands. It is our right, as a nation within a nation, to secure our environmental future and our economic future. It's our right to provide for our health and well-being and to make sure our children can get a proper education.

This wind farm is important. It is important to our future. It is important to our democratic freedoms. And it's important to our collective environment.



NANCY CUERO



Chairman Barnhart and San Diego Planning Commissioners,

I have spent my entire life on the Reservation and I am deeply attached to the land and its beauty; but our world is rapidly changing, and unfortunately, our environment is bearing the brunt of our ongoing reliance on non-renewable energy. We cannot continue at this rate, we need to make change, and we need to make it now; this is why I am writing today as a show of support for the proposed Campo Wind project.

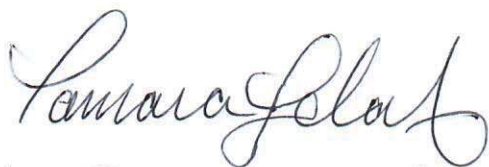
As a young person in the Campo Tribe, this project is a promise of hope for not only a cleaner environment but also a means to improve our lives on the Reservation. I know first-hand the struggles and challenges of our limited resources. I know it won't provide me the future I want. The Campo Wind project is going to provide us economic stability that would not otherwise be possible and it will give younger generations a chance at a better future.

I'm not trying to over-simplify this, but this project will produce a lot of clean energy that the larger San Diego region will benefit from, my Tribe approves having it built on OUR land, and it will provide many benefits to both the people on the Reservation and the surrounding community. It seems to me like an obvious choice to move forward.

I will end with this: As a young person, I see the rapid pace in which our environment is deteriorating and it scares me. We need to take action, and we need to DO IT NOW.

I am requesting that you carefully consider your decision about the Boulder Brush Facilities, as it holds the power to make a big (and lasting) impact on the environment and the people of the Campo Kumeyaay Nation.

Thank you,

  
Tamara Lelatu

Dear Commissioners,

Let this letter be a voice for the many people in my community who are strongly requesting that you approve the Campo Wind project. I have a young family and we work hard to provide our children the life they deserve, but unfortunately, the reality is that growing up on the Reservation poses unique challenges that are often undermined or overlooked by the broader community.

Our Tribe needs more economic stability to be able to provide more opportunities for our people. The Campo Wind project offers us that stability – it's truly an opportunity of a lifetime. We will be afforded a chance to build stronger education, health and social services programs that will guide our people to make different and better life choices. In fact, Terra-Gen has already implemented a scholarship program for continuing education. To deprive us of this chance for a better life would be unjust.

The people of the Campo Kumeyaay Tribe voted and approved this project to reside on our land. I kindly request you to make the right choice for our people and the environment and allow it to move forward by approving the Boulder Brush Facilities.

Thank you,

 Deanna Leon

October 8, 2020

San Diego Planning Commission,

My late wife, Frankie Thibodeau, was always a strong advocate of renewable energy and firmly believed in the economic and environmental benefits it will serve for our local community. To that end, I am writing today to continue her legacy and show my support of the Campo Wind clean energy project being proposed by Terra-Gen LLC in partnership with the Campo Kumeyaay Tribe, here in San Diego.

We know that wind energy is clean, renewable, and effective. The Campo Wind project alone will generate enough energy for over 70,000 area residents – a sizeable number that will also help in achieving California’s ambitious renewable energy mandate target by 2045. Further, and equally important, this project will be a significant economic investment in the Campo Tribe and its members. The wind farm will provide the Tribe with a reliable source of income that will elevate their standard of living, create short-and-long-term employment opportunities, as well as generate revenue for local businesses.

We have an untapped opportunity here to make a significant impact on our environment, the Tribe, and the community as a whole. Wind farms make sense to me - they boost local economies and significantly reduce carbon emissions – so I encourage Country officials to carefully consider these benefits and join me in supporting the Campo Wind project.

Regards,

Wayne Thibodeau

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