Below is the Sunrise Powerlink SunCrest Substation on the previously wild and beautiful Bell Bluff--also home to Golden Eagles and other raptors. (photo credit V.Rusczyk). This is the new reality for residents in the Japatul Valley Area near Alpine and the Cleveland National Forest. How many more rural hilltops, habitats, and valued viewsheds will be blasted off to make way for more of these monster substations that will be needed to move what energy they produce to San Diego, Los Angeles, or beyond? At what cost? What is the cumulative impact?

GG-129

GG-129 See response to comment W3.

The photos on this page, show the Sunrise Powerlink construction damages on Bell Bluff Truck Trail, a raptor wind turbine collision victim, and the Sunrise Powerlink where it exits the Cleveland National Forest near private homes on Star Valley Road just East of Alpine. It is gut wrenching to think what these property owners are going through.

GG-130

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GG-130 The County appreciates this information. Existing and on-going conditions in the region will be a consideration for decision makers during the hearing process for this project.

The top photo on this page shows wind turbine project construction and blight transforming a previously rural farming area. The bottom photo was taken by D. Tisdale the day the SunBird SkyCrane dropped the Sunrise Transmission tower just feet from Historic Route 80 at the Plaster City OHV Park next to SDG&E's large, graded construction site. This is one of many large-scale construction yards that now blight the I-8 corridor, public recreation lands, local neighborhoods and individual private properties, many of which were subjected to eminent domain and lawsuits by SDG&E. Construction has created an almost unbearable living condition for some residents, livestock and wildlife, with constant helicopters and equipment flying overheard. Industrial wind turbine projects are neither scenic nor beautiful and are not good neighbors.

The more that large industrial-scale wind and solar projects are approved in rural San Diego, cumulative impacts like these will be a staggering transformation and permanent reality for humans and wild residents and visitors.

GG-131

GG-131 See responses to comments GG127 and GG130 above.

THE THREE PHOTOS BELOW, TAKEN IN 2011 BY D. TISDALE, SHOW IMPACTED HOMES THAT ARE NEAR INFIGEN'S KUMEYAAY WIND TURBINES ON LEASED TRIBAL LAND IN BOULEVARD. PEOPLE AND WILDLIFE ARE SUFFERING NOW. THIS IS NOT NECESSARY AND SHOULD NOT BE CONDONED, SUPPORTED, OR ACCOMODATED BY SAN DIEGO COUNTY DECISION MAKERS.

GG-132

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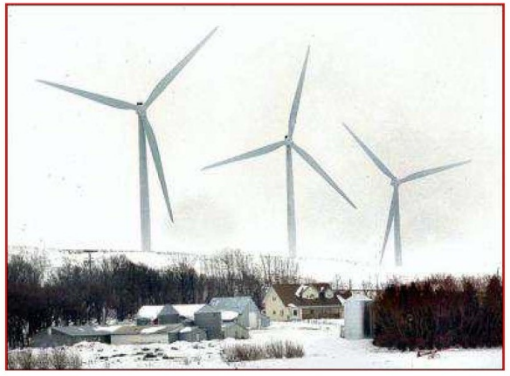
GG-132 See responses to comments GG127 and GG130 above.

This photo shows installation of massive steel transmission poles along McCain Valley Road in Boulevard adjacent to the Walker Canyon Preserve, Bankhead Springs and Historic Route 80 is in the background over the bright orange drilling rig. Nesting Golden Eagles and Bighorn Sheep territory have been witnessed by locals within the last year in this general area.

This photo of actual wind turbines looming over homes, are representative of what is to come to rural San Diego County–DAY AND NIGHT.



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GG-133

GG-133 See responses to comments GG127 and GG130 above.

More turbines towering over homes and farms. Based on the experiences of previously-impacted communities such as these, there will be virtually no escape for those who live in impacted areas. Even if they wanted to sell and move away from the currently quiet beauty, the word is already out and MET towers are installed. Absentee landowners and developers have little to no regard for the people, the land, or the resources that were previously protected. We wonder if they would move their families to live under these monsters, or next to 1,000 to 5,000 acres of 304 40-foot-tall tracking solar modules that are proposed to cover open pasturelands and irrigated productive farmland? We suspect the real answer, the true answer, would be "NO."

GG-134





GG-134 The County acknowledges the commenter's opposition to the proposed project. The information in this comment will be in the Final EIR for review and consideration by the decision makers.

The photo on the right shows Iberdrola's turbine rotor and all three blades that crashed[185] to the ground after only being in operation for a few months at the company's Rugby Wind facility. Turns out it had faulty bolts as did several others in the same facility. The average blade assembly weighs about 36 tons. AND THESE TURBINES ARE PLANNED TO BE INSTALLED INSIDE LARK CAYNON OHV PARK, AND ADJACENT TO TWO CAMPGROUNDS, HOMES, AND SENSITIVE WILDLIFE AND CULTURALLY SIGNIFICANT AND SENSITIVE AREAS.

GG-135

PAGE ONE PHOTO: The home in the cover photo on this letter belongs to the Hulthen family whose dream home and life have been virtually destroyed by the wind turbines that moved in next door. Note the distance measurements by each turbine in the photo and remember that the Proposed Project will allow turbines at approximately 1/3 the distance of the closest turbine--thanks to the undue influence of the wind industry lobby that includes local absentee land owners.

To read the Hulthen family blog and to see their video clips of shocking shadow flicker that engulfs their home and yard in an eerie strobing effect, go to *www.lifewithdekalbturbines.blogspot.com* or this link below.[186]

GG-136

S.6 PROJECT ALTERNATIVES

Energy Efficiency--the low hanging fruit that could slash U.S. energy use by 20%[187]: A McKinsey study found that a global effort to boost efficiency with existing technologies could have "spectacular results," eliminating more than 20% of world energy demand by 2020. Efficiency guru Amory Lovins argues that today's best techniques could save the U.S. half our oil and gas and three-fourths of our electricity. That would mean no more imports from the Middle East, lower utility bills for everyone and a big step off our path toward a hotter planet. Honeywell CEO Dave Cote brags that widespread adoption of just his own company's efficiency products could slash U.S. energy use 20%. "There's a huge amount of low-hanging fruit," he says."

GG-137

[185] http://panchabuta.com/2011/03/31/bolt-failure-cause-of-accident-in-suzlon-powered-spanish-owned-149mw-iberdrola-renewables-wind-farm-in-north-dakota/
[186] http://www.spaw.org/multimedia.php?article=h1;
[187] http://www.time.com/time/magazine/article/0,9171,1869224,00.html

GG-135 See response to comment J13.

GG-136 See response to comment J13.

GG-137 The County appreciates this information and agrees that there are many other methods to reduce energy usage. The County does not believe that increasing the efficiency in energy use should preclude options for allowing wind energy projects. However, this information will be in the Final EIR for review and consideration by the decision makers.

Parking Structures--In the Mountain Empire Subregion alone, there are opportunities to install on-site solar parking shade structures on federal land at the large-scale US Custom & Border Patrol Facilities located on Historic Route Hwy 80[188] at La Posta and the new station on Ribbonwood Road in Boulevard.

There are additional on-site solar opportunities (with tribal interest/approval) on other federal facilities like USFWS housing/operations/stations on tribal lands at existing casino parking lots at Campo's Golden Acorn Casino and La Posta's Casino, and at local tribal offices, education, and health center parking areas, and at the Campo Materials equipment yard.

These types of solar parking shade structures would serve the dual purpose of generating energy while shading and protecting vehicles and other expensive equipment, protecting shade with some protection from damage from full exposure to the sun, wind, and rain. In the summer, cooler cars take less AC energy (GHG) to dispel overheated air from the vehicles' interiors.

Local Solar Power /Local Use: Good compilation of point-of-use renewable energy solutions[189] that don't require converting rural landscapes and resources into industrial energy zones: from the scientists at, and friends of, Basin and Rangewatch.

Independent Energy Solutions (IES): See linked IES June 16, 2011 PowerPoint[190] presentation showing impressive examples of the 300 on-site renewable energy projects (up to 1.2MW) designed and installed by this local woman-owned business, including roof mount, ground mount, solar car ports, off-grid PV/Diesel hybrid, Micro Utility Grid, facility power.

Hamann Companies ICE II[191, 192] LEED-certified project uses 60% less energy and includes 2 solar PV systems (owned by Hamann Companies and SDG&E) that reportedly produce a little over 1MW of energy / 1.7 million kW hours of energy for ICE II and the community.

GG-138

How many properties does Hamann Companies and its numerous affiliates own and/or manage within the County and SDG&E's service territory? Their name seems to be everywhere, especially so in El Cajon. How many solar projects, fuel cells, and/or other renewable energy projects could be installed?

Additional on-site Distributed Generation locations are available across the County at local schools and other public facilities like libraries and community health centers (if well planned, properly installed, grounded and filtered for stray voltage/dirty electricity RFR/), gas station shade covers, warehouse and barn roofs, or ground mounted systems.

All of the projects listed at this Center for Sustainable Energy California link,[193] such as Stone Brewery that generates 30 to 40% of their own energy needs

Case Studies[194] from Solar Novus Today for distributed point-of-use solar energy projects, including remote Navajo Nation projects to provide basic energy and hot water needs for tribal elders: Mark Snyder Electric designed a 2.43 by 6 meter (8 by 20 foot) stand-alone structure that includes all that is needed to power a home. Called the Enertopia Multi-Purpose Utility Structure (EMPUS), the unit is insulated to R-42 and climate controlled. The 2kW solar PV tracking system from Day4 Energy is connected to 16 350-amp hour solar batteries. A unique aspect of the design is that the 500-gallon water tank doubles as a traumwall in that the tank absorbs the warmth during the day, and then lets the heat back out at night when it cools off. Heat is sent into the home

[188] http://www.time.com/time/magazine/article/0,9171,1869224,00.html
[189] http://www.basinandrangewatch.org/Solar-TheSolution.html

[190] IES 6-16-11 PP: http://www.epa.gov/ofacmo/gneb/pdf/2011/2011_0616_mcdougall_presentation.pdf
[191] Hamann affiliate's ICE II: http://www.innovativecold.com/press_021609.htm
[192] ICE II details: http://www.innovativecold.com/suscompro.pdf
[193] http://energycenter.org/index.php/outreach-a-education/annual-events/energy-all-star-awards/past-winners
[194] http://www.solarnovus.com/index.php?option=com_content&view=category&layout=blog&id=77&Itemid=440

GG-138 See responses to comments AA32 and GG137.

through two insulated ducts from the EMPUS. The EMPUS also includes a composting toilet, sink, shower and water catchment.

These projects help reduce the utility rates to the participating property owners who could sell energy back to the grid via potential Feed-in Tariffs, Power Purchase Agreements,[195] the PACE Program,[196] where available, or through various alternative funding options like the Clean Power Finance,[197] Google and the Ygrene Energy-led PACE Consortium for retrofitting commercial buildings like the Empire State Building[198]

Ygrene Energy Fund-led PACE Commercial Consortium[199] launches first $650 million retrofit package for commercial property in Miami-Dade County, Florida and Sacramento, California: "...an independent non-profit, founded by Sir Richard Branson, that harnesses the power of entrepreneurs to unlock gigaton solutions to climate change, announced recently the launch of a new consortium that will unlock billions of dollars of investment in renewable energy and energy efficiency technologies for US commercial real estate. The PACE Commercial Consortium (PCC) integrates the program management and engineering best practices of Lockheed Martin, the financial sophistication of Barclays Capital and the pioneering insurance partnership of Energi and HannoverRe in an end-to-end solution administered by the team's leader, Ygrene Energy Fund.

Alternative point of use distributed generation projects similar to the County's 10 solar projects[200] referenced in the linked article are the Bailey Detention Center solar parking shade structure from the County News Center, including the New Operations Center[201] solar shade structure.

Builders Exceeding Energy Efficiency Goals Through SDG&E's California Advanced Homes Program.[202] From the Building Industry Authority site: *"The building industry recognizes that it needs to be smart and strategic in its energy efficiency building practices, especially with Sacramento asking for ever-greater compliance. The day is coming when the net-zero environment is going to be the standard. An important weapon in our arsenal is our partnership with San Diego Gas & Electric (SDG&E). Through our participation in SDG&E's California Advanced Homes Program (CAHP), San Diego builders have constructed a strong foundation in establishing an energy ethic ... In the program's initial two years in San Diego, SDG&E has already awarded more than $921,000 for nearly 1,700 homes to achieve a savings of 540,000 kWh of electricity and 62,000 therms of natural gas. SDG&E is projected to pay more than $1.9 million in incentives, which will provide 1.3 million kWh and 140,000 therms of natural gas by the end of 2012."*

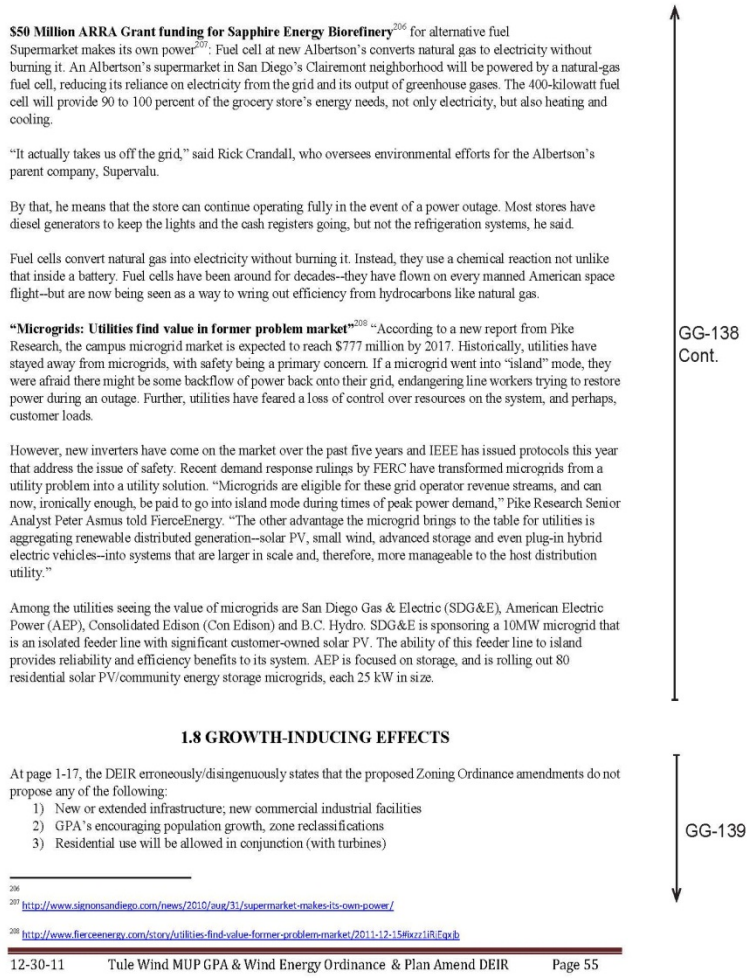
San Diego's Environmental Health Coalition (EHC) promotes local solar over utility scale solar (and other remote projects) based on its studies showing local solar creates more long-term well paid jobs. See linked EHC/Nicole Capretz Power Point presentation from the EPA's June 16 Good Neighbor Environmental Board: Small Scale Solar for Social, Economic, and Environmental Justice.[203]

SDG&E/ Port of San Diego debuts new small wind turbine in park,[204] represent urban point-of-use alternatives. These types of point of use wind turbines could be scattered around the urban and suburban areas, where the communities are willing, and do not necessarily need to clutter up the backcountry.

Port of San Diego considering Renewable Energy Center for waste-to-bioenergy projects[205]

GG-138 Cont.

[195] http://www.solarnovus.com/index.php?option=com_content&view=article&id=3784:financing-commercial-solar-projects&catid=63:business-features&Itemid=242
[196] PACE program explained: http://www.youtube.com/watch?v=qqp9wYkiNAM&feature=player_embedded
[197] http://googleblog.blogspot.com/2011/09/taking-in-more-sun-with-clean-power.html
[198] http://blog.rmi.org/Top_10_Ways_Get_Retrofit_Energy_Efficiency_2012
[199] http://news.carbonwarroom.com/2011/09/19/carbon-war-room-brokered-consortium-set-to-unlock-multi-billion-dollar-global-commercial-property-retrofit-market/
[200] http://www.countynewscenter.com/news/solar-power-switched-county-jail
[201] http://www.sdcounty.ca.gov/Portal/News/2011/Feb/022311solarpanels.html
[202] http://blog.biasandiego.org/2011/12/builders-exceeding-energy-efficiency-goals-through-sdges-california-advanced-homes-program/#more-5079
[203] EHC Capretz GNEB 6-16-11: http://www.epa.gov/ofacmo/gneb/pdf/2011/2011_0616_capretz_presentation.pdf
[204] http://www.sandiegoreader.com/weblogs/news-ticker/2011/dec/23/new-design-for-wind-turbines-debuts-in-san-diego/
[205] http://www.portofsandiego.org/environment/2825-port-of-san-diego-considering-renewable-energy-facility.html



$50 Million ARRA Grant funding for Sapphire Energy Biorefinery[206] for alternative fuel Supermarket makes its own power[207]: Fuel cell at new Albertson's converts natural gas to electricity without burning it. An Albertson's supermarket in San Diego's Clairemont neighborhood will be powered by a natural-gas fuel cell, reducing its reliance on electricity from the grid and its output of greenhouse gases. The 400-kilowatt fuel cell will provide 90 to 100 percent of the grocery store's energy needs, not only electricity, but also heating and cooling.

"It actually takes us off the grid," said Rick Crandall, who oversees environmental efforts for the Albertson's parent company, Supervalu.

By that, he means that the store can continue operating fully in the event of a power outage. Most stores have diesel generators to keep the lights and the cash registers going, but not the refrigeration systems, he said.

Fuel cells convert natural gas into electricity without burning it. Instead, they use a chemical reaction not unlike that inside a battery. Fuel cells have been around for decades--they have flown on every manned American space flight--but are now being seen as a way to wring out efficiency from hydrocarbons like natural gas.

"Microgrids: Utilities find value in former problem market"[208] "According to a new report from Pike Research, the campus microgrid market is expected to reach $777 million by 2017. Historically, utilities have stayed away from microgrids, with safety being a primary concern. If a microgrid went into "island" mode, they were afraid there might be some backflow of power back onto their grid, endangering line workers trying to restore power during an outage. Further, utilities have feared a loss of control over resources on the system, and perhaps, customer loads.

However, new inverters have come on the market over the past five years and IEEE has issued protocols this year that address the issue of safety. Recent demand response rulings by FERC have transformed microgrids from a utility problem into a utility solution. "Microgrids are eligible for these grid operator revenue streams, and can now, ironically enough, be paid to go into island mode during times of peak power demand," Pike Research Senior Analyst Peter Asmus told FierceEnergy. "The other advantage the microgrid brings to the table for utilities is aggregating renewable distributed generation--solar PV, small wind, advanced storage and even plug-in hybrid electric vehicles--into systems that are larger in scale and, therefore, more manageable to the host distribution utility."

Among the utilities seeing the value of microgrids are San Diego Gas & Electric (SDG&E), American Electric Power (AEP), Consolidated Edison (Con Edison) and B.C. Hydro. SDG&E is sponsoring a 10MW microgrid that is an isolated feeder line with significant customer-owned solar PV. The ability of this feeder line to island provides reliability and efficiency benefits to its system. AEP is focused on storage, and is rolling out 80 residential solar PV/community energy storage microgrids, each 25 kW in size.

GG-138 Cont.

1.8 GROWTH-INDUCING EFFECTS

At page 1-17, the DEIR erroneously/disingenuously states that the proposed Zoning Ordinance amendments do not propose any of the following:

1) New or extended infrastructure; new commercial industrial facilities
2) GPA's encouraging population growth, zone reclassifications
3) Residential use will be allowed in conjunction (with turbines)

GG-139

[206]
[207] http://www.signonsandiego.com/news/2010/aug/31/supermarket-makes-its-own-power/
[208] http://www.fierceenergy.com/story/utilities-find-value-former-problem-market/2011-12-15#ixzz1iRiEqxIb

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GG-139 The growth-inducing effects discussion in Section 1.8 of the DEIR was prepared in accordance with CEQA Guidelines. The full text in the DEIR is as follows: "Additionally, the development of wind turbines and MET facilities would not induce substantial population growth. The proposed Zoning Ordinance amendments do not propose any physical or regulatory changes that would remove a restriction to or encourage population growth in an area including, but not limited to, the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; accelerated conversion of homes to commercial or multifamily use; regulatory changes including GPAs encouraging population growth, specific plan amendments, zone reclassifications, or sewer or water annexations; or Local Agency Formation Commission annexation actions. Although the uses supported by wind turbines or MET facilities may expand, residential uses will continue to be allowed in conjunction with those uses. Wind turbines would supplement residential use and would not encourage housing growth in the County. Additionally, the project does not increase density or intensity of land use." The proposed project is an ordinance to permit future turbines. It does not propose growth-inducing infrastructure, increased residential density, or mixed uses of residential with industrial.

4) Project does not increase density or intensity of use

Response to # 1) The proposed increased expansion of large/industrial scale wind turbine projects require the expansion and/or upgrades of new and/or existing utility transmission infrastructure--an entire new web of wires and towers.

Response to # 2) The General Plan Amendments and reduced setbacks are basic and virtual zone reclassifications that can result in conversion to high-density industrial uses. BLM already unlawfully downzoned McCain Valley from high Visual Resource Management Classification to the lowest industrial zone. That decision is still in the 9th Circuit Court of Appeals.

Response to # 3) Existing residential uses and investments will now be abutted by industrial energy generation and transmission infrastructure. Most new community plans try to avoid mingling polluting and unhealthy industry with residential uses--look at the controversy over FAT CITY being turned into housing next to Solar Turbine industrial uses.

Response to # 4) The introduction of high intensity industrial uses that could be highly concentrated in disproportionately impacted areas cannot be described as anything **other** than increasing density and intensity of use. It is what it is!

The proposed Zoning Ordinance and General Plan amendments include reduced turbine setbacks and potential noise measurement waivers in order to facilitate and streamline wind turbine permitting, which represents potentially significant and cumulative adverse effects/impacts by increasing the numbers of large wind turbines and expanding the locations they can be "facilitated."

GG-139 Cont.

GG-140

ADDITIONAL REASONS FOR OPPOSITION

1. In addition to other identified wind resource areas and proposed projects on BLM, Cleveland National Forest, State Lands Commission, and tribal lands located in rural San Diego County,[209] the Proposed Project will affect a reported additional 807,984[210] acres of known wind resource areas under County jurisdiction.
What is the cumulative number of identified wind resource acreage within San Diego County, including other jurisdictions, and off the coast?[211] This information should be included and analyzed for cumulative impacts to all resources and categories.

GG-141

2. **The identified Environmentally Superior Reduced Turbine Alternative still affects approximately 402,884[212] acres** of fire-prone,[213] biologically sensitive rural areas and many of the same impacts would remain significant and unavoidable.[214] To put this amount of acreage into perspective, all of Imperial Valley's irrigated farmland covers approximately 500,000 acres.[215]

GG-142

3. After more than a decade of regional efforts, San Diego County's updated General Plan and community plans, including the updated Boulevard Community Plan, were approved by the Board of Supervisors in August 2011.[216]

GG-143

[209] Cumulative Impact Projects Map in joint PUC/BLM EIR/EIS for ECO Substation, Tule Wind and Energia Sierra Juarez Gen-tie line: http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/ECO_Draft_EIR.htm
[210] POD1007: Figure 1-4
[211] http://www.windpoweringamerica.gov/maps_template.asp?stateab=ca
[212] POD1007: Page 5.1-7
[213] SDGE & Wildfires: http://www.voiceofsandiego.org/this_just_in/article_26776b56-ed62-11e0-b673-001cc4c002e0.html
[214] POD1007: Page 5.1-7
[215] NYT Empty fields fill urban basins and farmers pockets: http://www.nwra.org/content/articles/empty-fields-fill-urban-basins-and-farmers-pockets/
[216] http://www.sdcounty.ca.gov/dplu/press/Supervisors_Approve_GPUpdate_8-3-2011.html

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GG-140 The project proposes to update regulations for large wind turbines to be consistent with current wind turbine technology and designs. Setbacks are not necessarily reduced but are based on new criteria due to updated technologies and better information. Some projects may be eligible for exceptions/waivers to the proposed noise restrictions on a case-by-case basis. The impacts that may result from such cases were analyzed in DEIR Section 2.8. The potentially significant direct and cumulative impacts of the project are analyzed in the DEIR.

GG-141 The information requested in this comment is available through National Renewable Energy Laboratory (NREL): http://www.nrel.gov/gis/pdfs/eere_wind/eere_windon_h_california.pdf. As shown on their wind resource data map, the vast majority of the County coastline and incorporated jurisdictions are categorized with a Wind Power Classification of "poor". This Wind Power Class is generally considered less than ideal for wind turbine development. The County does not agree that all wind resource areas need to be analyzed in the cumulative impacts analysis. The wind resource data available through NREL provides a geographic scope for the cumulative impact study, while the past, present and probable future projects discussed in the DEIR provide the basis for the impacts analysis.

	GG-142 Issues raised in this comment are not inconsistent with the existing content of the DEIR. **GG-143** See responses to comments GG80 and GG140.

4. Those plans should not be amended [217] (as proposed) in a manner that reduces hard-won protections for rural communities, impacted property owners,[218] sensitive habitats, wildlife and other critical resources, in order to facilitate and streamline the permitting of unnecessary, disruptive, noisy,[219] and very expensive[220] large-scale commercial industrial wind energy projects.

5. Large-scale industrial wind turbine projects have already proven to be visually, audibly, inaudibly, physically, emotionally and economically disruptive[221, 222, 223] to sensitive receptors that include impacted communities, people,[224] pets, livestock,[225] wildlife, habitat, recreation areas.

6. Reports touted by the wind industry, including their lobbying arm, AWEA, which is relied on in this DEIR,[226] and other supporters, alleging that there are no adverse health, property value or other effects related to wind turbine projects,[227] have been thoroughly discredited and countered by numerous opposing reports, studies, documents and firsthand interviews with wind turbine victims and those working to stop their suffering--as disclosed in this comment letter and cited references.

The professional Peer Review Acoustic Assessment of Flyers Creek Wind Farm[228] by the Acoustics Group PTY LTD, Dated 15th December, 2011, contains the following statement: "*Initial results from preliminary testing at the Capital Wind Farm have been found to confirm concerns that the Flyers Creek Wind Farm will result in the generation of intrusive and offensive noise. Testing has demonstrated that the Capital Wind Farm is generating audible noise significantly above predicted levels and above levels prescribed by its consent at the residential site tested. These noise levels validate complaints of significant adverse impacts. Preliminary testing at the Capital Wind Farm demonstrates low frequency noise and infrasound at levels and fluctuations likely to impact on residents. On the basis of the above, The Acoustic Group has found that approval of the Flyers Creek Wind Farm proposal would expose the surrounding community to intrusive and offensive noise and would leave the approval authority, land owners and the proponent open to litigation and complaint accordingly.*"

For the record, please note that The Capital Wind Farm referenced in the Flyers Creek Wind Farm Acoustic Assessment, where the intrusive and offensive noise and low frequency noise and infrasound levels and fluctuations were measured that "validated complaints of significant adverse impacts," is owned by Infigen, the same company that owns Kumeyaay Wind located on tribal lands in Boulevard that has generated similar complaints of adverse impacts from impacted neighbors[229] in a radius of approximately 3 miles.[230]

Summary of new evidence: "Adverse health effects and industrial wind turbines," August 2011[231] by Carmen M.E. Krogh, Bsc Pharm, and Brett S. Horner, BA, CMA, includes the following conclusions:

1. Experts who have conducted original research and/or published peer-reviewed articles in scientific journals confirm that industrial wind turbines can harm human health if they are not sited properly.

2. Acknowledged adverse health effects include: annoyance, stress, sleep disturbance, headache, tinnitus, ear pressure, dizziness, vertigo, nausea, visual blurring, tachycardia, irritability, problems with concentration and memory, and panic episodes associated with sensations of internal pulsation or quivering when awake or asleep.

GG-143 Cont.

GG-144

GG-145

GG-146

GG-147

[217] Wind Energy Ordinance & Plan Amendment DEIR http://www.sdcounty.ca.gov/dplu/ceqa/POD10007.html
[218] Gag orders for turbine victim buyouts: http://www.epaw.org/documents.php?lang=en&article=n17
[219] http://www.epaw.org/multimedia.php?lang=en&article=n1
[220] The High Cost of Wind Energy as Carbon Dioxide Reduction Method 9 (with 62 end notes): http://www.manhattan-institute.org/html/ib_11.htm
[221] Video clip from Realwindinfoforme.com http://www.youtube.com/watch?v=9_8NGau5i8k
[222] Letters from wind farm neighbors: http://www.savewesternny.org/docs/letters.html
[223] Excerpts from Lincoln township wind turbine moratorium committee: http://www.savewesternny.org/docs/lincolnmoratorium.html
[224] http://www.wind-watch.org/documents/re-acciones-waubra-wind-farm-victoria-australia/
[225] Video turbine neighbors including livestock owner with damages: http://www.wind-watch.org/documents/category/impacts/
[226] DEIR list of References at 5.0
[227] http://www.nawindpower.com/e107_plugins/content/content.php?content.9113
[228] http://www.wind-watch.org/documents/peer-review-of-acoustic-assessment-flyers-creek-wind-farm/; http://docs.wind-watch.org/Cooper_S_Flyers_Ck.pdf
[229] http://eastcountymagazine.org/node/7799
[230] http://eastcountymagazine.org/node/7799
[231] http://www.wind-watch.org/documents/summary-of-new-evidence-adverse-health-effects-and-industrial-wind-turbines-august-2011/

GG-144 See responses to comments B2, K10, V5, AA3, GG41, GG59, and GG86.

GG-145 See responses to comments F1, V2, AA34, and II8.

GG-146 See responses to comments V5, GG59, and GG86.

GG-147 See responses to comments F1 and V2.

3. Other adverse impacts include reduced well-being, degraded living conditions, and adverse societal and economic impacts. These adverse impacts culminate in expressions of a loss of fairness and social justice.

The above impacts in conclusion 3 represent a serious degradation of health in accordance with commonly accepted definitions of health as defined by the WHO and the Ottawa Charter for Health Promotion.
It is expected that, at typical setbacks and the noise study approach currently being used in Ontario to approve the siting of industrial wind turbines, a nontrivial percentage of exposed individuals will experience serious degradation of health.

Harm to human health can be avoided with science-based regulations based on research conducted on human response to industrial wind turbine exposure.

Experts who have conducted original research and/or published peer-reviewed articles in scientific journals confirm that research is required to establish science-based industrial wind turbine regulations to protect human health.

Until science-based research has been conducted, industrial wind turbines should not be sited in proximity to human habitation.

Please note that the references in #10 above, regarding Ontario, are applicable here, as well--wind turbines don't recognize or distinguish between borders or authorities.

The linked Bruce McPherson "Infrasound and Low Frequency Noise Study Adverse Health Effects Produced By Large Industrial Wind Turbines Confirmed," by Stephan E. Ambrose, INCE (Brd Cert) and Robert W. Rand, INCE Member,[232] dated December 14, 2011, was conducted at the home of the neighbor of an industrial wind turbine located in Falmouth, Massachusetts. The professional study contains the following information about health effects:

The investigators were surprised to experience the same adverse health symptoms described by neighbors living at this house and near other large industrial wind turbine sites. The onset of adverse health effects was swift, within twenty minutes, and persisted for some time after leaving the study area. The dBA and dBC levels and modulations did not correlate to the health effects experienced. However, the strength and modulation of the un-weighted and dBG-weighted levels increased indoors consistent with worsened health effects experienced indoors. The dBG- weighted level appeared to be controlled by in-flow turbulence and exceeded physiological thresholds for response to low frequency and infrasonic acoustic energy as theorized by Salt. The wind turbine tone at 22.9 Hz was not audible yet the modulated amplitudes regularly exceeded vestibular detection thresholds. The 22.9 Hz tone lies in the brain's "high Beta" wave range (associated with alert state, anxiety, and "fight or flight" stress reactions). The brain's frequency following response (FFR) could be involved in maintaining an alert state during sleeping hours, which could lead to health effects. Sleep was disturbed during the study when the wind turbine operated with hub height wind speeds above 10 m/s. It took about a week to recover from the adverse health effects experienced during the study, with lingering recurring nausea and vertigo for almost seven weeks for one of the investigators.

The linked "Unvarnished Truth: Shirley Wind Project Health Impacts" video includes interviews[233] with five families living near the Shirley Wind project that started operation in December 2010 in Glenmore Wisconsin. There, residents have experienced serious adverse health effects and/or suffered significant loss of livestock and related farm income, including illness, death, lameness and reduced milk production--all since the wind turbines started operating in their neighborhood. They also report that wildlife, even crickets, are dying or have almost disappeared. Several families have now abandoned their homes. These turbine-related problems have resulted in adverse economic impacts.

[232] http://www.wind-watch.org/documents/bruce-mcpherson-infrasound-and-low-frequency-noise-study/
[233] http://www.wind-watch.org/documents/category/impacts/

GG-147 Cont.

GG-148

GG-149

GG-148 See response to comment V3.

GG-149 See responses to comments F1 and GG86.

The linked report, "Properly Interpreting the Epidemiological Evidence about the Health Effects of Industrial Wind Turbines on Nearby Residents,"[234] by Carl V Phillips, PhD, Populi Health Institute, contains the following information: Abstract: There is overwhelming evidence that wind turbines cause serious health problems in nearby residents, usually stress-disorder type diseases, at a nontrivial rate. The bulk of the evidence takes the form of thousands of adverse event reports. There is also a small amount of systematically gathered data. The adverse event reports provide compelling evidence of the seriousness of the problems and of causation in this case because of their volume, the ease of observing exposure and outcome incidence, and case-crossover data. Proponents of turbines have sought to deny these problems by making a collection of contradictory claims including that the evidence does not "count," the outcomes are not "real" diseases, the outcomes are the victims' own fault, and that acoustical models cannot explain why there are health problems so the problems must not exist. These claims appeared to have swayed many non-expert observers, though they are easily debunked. Moreover, though the failure of models to explain the observed problems does not deny the problems, it does mean that we do not know what, other than kilometers of distance, could sufficiently mitigate the effects. There has been no policy analysis that justifies imposing these effects on local residents. The attempts to deny the evidence cannot be seen as honest scientific disagreement, and represent either gross incompetence or intentional bias.

GG-150

"No Safe Place,"[235] **Dr Robert McMurtry's 13-minute video interview (posted Aug 13, 2011) discusses his transformation from a supporter**, wanting a wind turbine on his property, to an opponent reaching out to educate people on the adverse impacts of on industrial wind turbine projects. He discusses his experience with adverse effects on people (some have abandoned their homes), places, wildlife, livestock, peace and quiet, property values, division of families and communities, community vitality, tourism, and more. He concludes that the adverse health effects are real, they are global, and there are no evidence-based guidelines for safe setbacks of wind turbines from homes. Research is required, but preliminary research suggests a minimum of 2 km (about 1.25 miles).

GG-151

"**Mitigating the Acoustic Impacts of Modern Technologies: Acoustic, Health, and Psychosocial Factors Informing Wind Farm Placement**"[236] by Daniel Shepard and Rex Billington, published in the August 2011 edition of the Bulletin of Science and Technology includes the following abstract statement: Abstract: Wind turbine noise is annoying and has been linked to increased levels of psychological distress, stress, difficulty falling asleep, and sleep interruption. For these reasons, there is a need for competently designed noise standards to safeguard community health and well-being. The authors identify key considerations for the development of wind turbine noise standards, which emphasize a more social and humanistic approach to the assessment of new energy technologies in society

GG-152

"Sleep Disorders and Sleep Deprivation: An Unmet Public Health Problem" published by the Board on Health Sciences Policy[237] **includes the following summary (excerpt):** "*The cumulative long-term effects of sleep deprivation and sleep disorders have been associated with a wide range of deleterious health consequences including an increased risk of hypertension, diabetes, obesity, depression, heart attack, and stroke. The Institute of Medicine (IOM) Committee on Sleep Medicine and Research concluded that although clinical activities and scientific opportunities in the field are expanding, awareness among the general public and health care professionals is low, given the magnitude of the burden.*"

GG-153

In his book "Dirty Electricity,"[238] **Dr Samuel Milham, MD, MPH, documents the links between exposures to electromagnetic/radio frequency pollution to diseases in society**, including cancer, saying we may be facing an epidemic of morbidity and mortality. See Dr. Milham's papers and other information at his website[239] and microwavenews.com.[240] The author of this letter has seen firsthand evidence of extremely high levels of stray

GG-154

[234] http://www.wind-watch.org/documents/properly-interpreting-the-epidemiologic-evidence-about-the-health-effects-of-industrial-wind-turbines-on-nearby-residents/
[235] No Safe Place: http://www.wind-watch.org/documents/no-safe-place/
[236] http://www.wind-watch.org/documents/mitigating-the-acoustic-impacts-of-modern-technologies-acoustic-health-and-psychosocial-factors-informing-wind-farm-placement/; http://bst.sagepub.com/content/early/2011/08/16/0270467611417841
[237] Sleep Disorders & Deprivation: http://www.nap.edu/openbook.php?record_id=11617&page=1
[238] Dirty Electricity: http://www.sammilham.com/
[239] http://www.sammilham.com/links.shtm
[240] http://www.microwavenews.com/milham.html

GG-150 See responses to comments F1 and V2.

GG-151 The proposed ordinance will require setbacks from residents due to the low frequency noise regulations (see Appendix A to these responses to comments for examples). See also responses to comments F1, J18, V2.

GG-152 See responses to comments V5, GG59, and GG86.

GG-153 See responses to comments F1 and V2.

GG-154 See response to comment GG103.

voltage both inside and outside the home of a wind turbine neighbor, and spoken firsthand to other victims who are suffering, or have abandoned their homes to avoid further suffering.

Proposed Case Definition: Adverse Health Effects and Industrial Wind Turbines[241]: The Society for Wind Vigilance proposes this linked case definition to assist clinicians in the assessment of patients presenting with a complex set of symptoms related to living within 2 km of an industrial wind turbine facility.

POINT-OF-USE DISTRIBUTED GENERATION IS LESS EXPENSIVE, SAFER AND MORE COST-EFFECTIVE FOR TAXPAYERS AND RATEPAYERS

There are preferable and viable distributed generation[242, 243] renewable energy options[244] at or near the point-of-use,[245] such as reducing demand by applying energy efficiency options, installing solar panels on rooftops,[246] on parking shade structures, and individual tracking solar modules[247] where already disturbed non-controversial space allows.

Examples of such projects include the Solar Strong Project with up to 300MW of solar installations proposed at 124 military housing units[248, 249] and Los Angeles's first Gen 7 Zero Net Energy Solar classrooms,[250] combined heat and power units that capture and use waste heat and/fuel cells[251,252, 253] located at new and existing structures, and solar[254] and landfill gas-to-energy projects installed on closed landfills--that do not require extensive new power lines or large substations that can result in eminent domain, disruption and fragmentation of impacted human and /or natural communities.

Large-scale industrial wind turbine projects require an extensive land base, and air space, in addition to new power line[255] and substation[256] projects that represent an increased risk of catastrophic wildfires[257] in underserved fire-prone rural areas through potential malfunctioning turbine equipment [258, 259, 260] and related

GG-154 Cont.

GG-155

GG-156

[241] Case Definition: http://www.wind-watch.org/documents/proposed-case-definition-adverse-health-effects-and-industrial-wind-turbines/
[242]Soitec's Plug & Sun: http://www.solarnovus.com/index.php?option=com_content&view=article&id=590:solfocus-to-power-concentrator-pv-station-in-australia&catid=41:applications-tech-news&Itemid=245
[243] Kaiser adds 15 MW at 15 facilities: http://www.solarnovus.com/index.php?option=com_content&view=article&id=497:kaiser-permanente-to-energize-15-california-facilities-with-solar-power-&catid=41:applications-tech-news&Itemid=245
[244] Kohl's Dept stores add more solar: http://www.solarnovus.com/index.php?option=com_content&view=article&id=506:kohls-department-store-to-add-more-solar&catid=37:business-news&Itemid=241
[245] http://solardoneright.org/index.php/briefings/category/C6/
[246] http://solardoneright.org/index.php/news/post/rooftop_solar_charges_ahead/
[247] http://www.solarnovus.com/index.php?option=com_content&view=article&id=3985:soitec-releases-portable-cpv-mini-tracker&catid=54:new-products&Itemid=427
[248] Solar Strong project: http://questpointsolarsolutions.com/?p=14818
[249 250] Solar Strong and other military projects: http://www.greentechmedia.com/articles/read/SolarCity-and-SolarStrong-Return-Stronger-Without-the-DOE/
[250] http://questpointsolarsolutions.com/?p=14896
[251] Fuel cells: http://www.clearedgepower.com/energy-independence/alternative-local-generation;
http://greencomplianceplus.markenglisharchitects.com/interviews/fuel-cells-offer-clean-burning-efficient-heat-power/
[252] http://www.clearedgepower.com/energy-independence/going-beyond-transmission-loss
http://www.clearedgepower.com/business/clean-energy-action-san-diego-state-university
[253] Village Lindo Paseo: http://www.clearedgepower.com/business/clean-energy-action-san-diego-state-university
[254] http://www.waste-management-world.com/index/display/article-display/0653098252/articles/waste-management-world/landfill/2011/12/5MW_Solar_Facility_Planned_at_Closed_Ontario_Landfill.html?cmpid=EnlWMW_WTEJanuary52012
[255] http://attorneypages.com/hot/sdge-lawsuit-in-california-fire.htm; http://law.freeadvice.com/insurance_law/insurance_law/sdge-settles-2007-california-wildfire-lawsuit.htm
[256] Video of SDG&E's Dec 22-23, 2010 Escondido Substation fire: http://www.youtube.com/watch?v=iEHypo9i4fU&feature=related;
http://www.signonsandiego.com/news/2010/dec/23/oil-burn-kicking-out-black-smoke-escondido/
[257] http://www.signonsandiego.com/news/2011/dec/16/sdge-pay-county-245-million-2007-fires/
[258] Wind turbine explodes in hurricane force winds: http://www.dailymail.co.uk/news/article-2071633/UK-weather-Wind-turbine-EXPLODES-hurricane-force-gusts-batter-Northern-Britain.html
[259] http://www.smartplanet.com/blog/thinking-tech/wind-turbine-explodes-generates-controversy-video/9476
[260] 2009Turbine fire: http://www.countryguardian.net/uelzenturbine%20with%20text.jpg

GG-155 See responses to comments AA32 and GG137.

GG-156 The issues raised in this comment are not inconsistent with the content of the DEIR. Please refer to DEIR Section 2.6.3.7. It should be noted, however, that issues related to fire insurance rates/coverage were not discussed in the DEIR since this topic is not related to environmental impacts. See CEQA Guidelines section 15131.

infrastructure that can result in catastrophic wildfires[261], increased fire insurance rates, or loss of fire insurance coverage due to increased risk.

Increasing reliance on remote generation of intermittent energy reliant on extensive transmission lines that are vulnerable to increased outages and average line loss of 10 to 15%[262] does not increase reliability, it can actually destabilize the grid and increase risk of surges, brownouts, catastrophic failure, and the related damages to public and private property and expenses.

Industrial wind turbine projects, are not a "civic use." They are for-profit commercial industrial energy generation and transmission projects and should be recognized as such, regardless of which community or sensitive lands they are proposed in or adjacent to.

Large-scale industrial wind turbine projects, with turbines of 1.5-3MW and up to approximately 400 to 600 feet tall, are not compatible in bulk and scale with historic rural land uses, under County authority, and represent a degrading and invasive visual intrusion,[263] day and night (with FAA required lighting), regardless of which San Diego County community's viewshed is impacted.

Wind turbine generated noise[264, 265] vibrations, and/or dirty electricity emissions[266] and adverse health effects have been documented up to 10 km (6.21 miles) of industrial wind energy projects[267] and substations, with dozens of homes reportedly abandoned near wind projects in the US, Australia, Canada, Japan, and throughout Europe as documented by the information readily available on the websites of various groups including The Society for Wind Vigilance,[268] The Waubra Foundation[269], European Platform Against Windfarms,[270] North American Platform Against Windfarms,[271] Industrial Wind Action, [272] National Wind Watch,[273] Dr. Nina Pierpont,[274] various other professionals and clinicians and others.

The adverse health effects reported globally, and locally at the existing 50MW Kumeyaay Wind project in Boulevard, by impacted wind turbine neighbors include the following:

- Chronic severe sleep deprivation
- Acute hypertensive crises
- New onset hypertension
- Heart attacks (including Tako Tsubo episodes)
- Worsening control of preexisting and previously stable medical problems such as angina, hypertension (high 6. blood pressure), diabetes, migraines, tinnitus, depression, and post-traumatic stress disorder
- Severe depression, with suicidal ideation
- Development of irreversible memory dysfunction, tinnitus, upper respiratory and sinus problems, and hyperacusis

In San Diego County's Building Better Health Plan's 2010 annual report,[275] CEO Walt Ekart proudly proclaims in the cover letter that: "*We are pursuing health in all policies.*" **Yet, the County has failed to adequately consider health in its proposed Wind Energy Ordinance.**

GG-156 Cont.
GG-157
GG-158
GG-159
GG-160
GG-161

[261] 2011 turbine fire: http://www.newscientist.com/blogs/onepercent/2011/12/why-did-a-wind-turbine-self-co.html
[262] http://www.clearedgepower.com/energy-independence/going-beyond-transmission-loss
[263] Photos of ridgeline turbines: http://www.epaw.org/multimedia.php?lang=en&article=d1
[264] Flaming debris: Wind Turbines are Hazardous to Human Health: http://www.epaw.org/documents.php?lang=en&article=n14
[265] Low Frequency Noise from Large Turbines: http://asadl.org/jasa/resource/1/jasman/v129/i6/p3727_s1?isAuthorized=no
[266] Ground currents: An important factor in electromagnetic exposure: http://www.sncmfg.com/telecom/stray_voltage/dahlberg.html
[267] http://waubrafoundation.com.au/Y2NpZD0xJmNhWQ9VTVmYWlkPSZzmV9VTQ0OTg1MiMyOA%3D%3D
[268] www.windvigilance.com
[269] www.waubrafoundation.com.au, Video interviews: http://www.youtube.com/user/WaubraFoundation
[270] http://www.epaw.org/
[271] http://www.na-paw.org/
[272] www.windaction.org
[273] http://www.wind-watch.org/
[274] http://www.windturbinesyndrome.com/news/
[275] http://www.sdcounty.ca.gov/dmpr/pfx/Live_Well_Annual_Report/

GG-157 This comment does not raise a significant environmental issue for which a response is required.

GG-158 See responses to comments K5.

GG-159 The issues raised in this comment are not inconsistent with the content of the DEIR. Please refer to DEIR Section 2.1.

GG-160 See responses to comments F1, V2, V5, GG59, GG86, GG103, and II8.

GG-161 See responses to comments F1, V2, and II8.

The County's proposed Wind Energy Ordinance and Plan Amendment DEIR should be treated without discrimination, prejudice or overriding considerations in order to support and facilitate a form of industrial energy generation that results in documented adverse emissions of noise, infrasound, vibrations, and air pollution (EMF/RFR) that have been linked to high levels of physical and emotional annoyance and stress that can and do lead to the very diseases and cancers that the County proclaims they are working to prevent through their Better Health Plan: heart disease/stroke, cancer, type 2 diabetes, and respiratory conditions, such as asthma.

GG-161 Cont.

Significant adverse impacts to wildlife [276, 277, 278, 279] **and livestock,** [280] **from industrial wind turbine project operations, has been documented** by many of the same groups noted above, in addition to national non-profit environmental organizations, news media, and others.

GG-162

These industrial projects can also represent a significant loss of property values, and quality of life for impacted non-participating property owners[281] as already documented by numerous professional real estate appraisers[282, 283, 284, 285, 286] and others, who are not associated with the wind industry or government funded studies meant to support and promote wind energy projects.

GG-163

The intermittent energy generated by wind turbines is not reliable or cost effective and requires significant backup generation[287, 288, 289] of almost equal capacity in order to balance the level of energy on the grid,[290] or forms of storage that are still experimental.

SDG&E quotes from SDUT article on the need for gas-fired backup generation to support the intermittency challenges[291]: "*People need to understand the intermittency challenge we have," said SDG&E's Niggli. "The wind comes and goes, and on the hottest days of the year, there's no wind, and you still need to provide power to your customers ... These resources are not under our control, but under the control of nature." Gas plants can take up the slack."*

GG-164

A news report on SDG&E's comments on their Power Purchase Agreement for 450 MW of gas-peaker backup generation includes the following excerpt: "*Peaker plants are small, efficient power units that can reach full generating capacity within 10 to 15 minutes to meet immediate demand on the grid. The new plants – Pio Pico Energy Center, LLC (Apex Power Group); Quail Brush Generation Project (Cogentrix Energy, LLC); and Escondido Energy Center, LLC (Wellhead) – are the selected projects that met the specifications of SDG&E's 2009 solicitation for conventional generation. SDG&E continues to sign contracts for as much renewable power as we can get to meet the state's 33-percent mandate, but we also need resources that can be brought online quickly to provide power when other sources, such as wind or solar plants, are not available,*" said James P. Avery, SDG&E's senior vice president of power supply. "*The output from most kinds of renewable generation*

[276] Feds petitioned to regulate wind industry: http://www.abcbirds.org/newsandreports/releases/111214.html
[277] http://www.examiner.com/wildlife-conservation-in-national/bird-daughterhouse-repowering-altamont-pass-with-smoke-and-mirrors
[278] http://online.wsj.com/article/SB10001424052970203501304577088593307132850.html
[279] http://www.epaw.org/multimedia.php?lang=en&article=b1
[280] http://www.epaw.org/documents.php?lang=en&article=a0
[281] The Dean's Report (noise study showing harm): http://www.windaction.org/documents/28511
[282] Michael McCann, McCann Appraisal LLC: http://www.windaction.org/documents/27736
[283] Wind Farms, residential property values, and rubber rulers: http://www.windaction.org/documents/25681
[284] Gardner Appraisal Group, Inc.: http://www.windaction.org/documents/20145
[285] Living with the Impact of Windfarms:http://ruralgrubby.files.wordpress.com/2008/12/chris-luxemburger-presentation1.pdf
[286] Professional critique of often quoted LBNL/Hoen property value study: http://www.windaction.org/documents/24637
[287] Energy Giants want billions to back up wind farms:
http://www.thisismoney.co.uk/money/article-2008055/Energy-giants-want-billions-windfarms.html
Gas-fired plants could enable more wind and solar:
http://seekingalpha.com/article/271919-pg-e-s-gas-fired-plants-could-enable-more-wind-and-solar-power
[288] Britain Evaluates Capacity payments For Generators to Back up Wind Power: http://www.instituteforenergyresearch.org/2011/07/06/britain-evaluates-capacity-payments-for-back-up-generators-to-wind-power/
[289] Why the 250bn wind power industry could be the greatest scam of the age-and here are three " lies " to prove it:
http://www.thisismoney.co.uk/news/article-1361316/250bn-wind-power-industry-greatest-scam-age.html
[290] http://www.heritage.org/research/reports/2010/05/a-renewable-electricity-standard-what-it-will-really-cost-americans; linked report includes links to 20 base reference documents.
[291] SDGE: backup needed for wind: http://www.signonsandiego.com/news/2010/may/23/renewables-need-helping-hand-from-gas;

GG-162 See response to comment GG75.

GG-163 See responses to comments GG41 and II10.

GG-164 The County appreciates this information. Since the comment does not identify deficiencies in the DEIR, no further response is required. See also response to comment GG137.

fluctuates throughout the day, posing a challenge for our system operators who must balance supply and demand every few seconds to maintain reliability in the region," Avery added. "*In addition to helping to integrate renewables with other generation sources, the new peaking units also will be called on when demand for power is highest, such as on a hot, summer day. The Pio Pico Energy Center project consists of three natural gas-fired combustion turbine units, which, at about 100 MW each, are twice as large as a typical peaker and can power up faster and more efficiently. "This project not only can reach full power quickly like other peaking generation, it also automatically adjusts its output, much like a combined-cycle plant, to follow dips and peaks in demand, but in a much more environmentally responsible manner,*" said Dave Jenkins, vice president of Apex Power Group. The proposed project will be built on about 10 acres of land near the existing Otay Mesa Energy Center.

"Hot Air? When Government Support for Intermittent Renewable Technologies Can Increase Emissions,"[292] by Arthur Campbell, MIT Dept of Economics, includes the following abstract:

This paper analyzes the effects of an intermittent technology on long-run incentives for investment in non-renewable electricity generation technologies. I find conditions under which supporting an intermittent technology may in fact increase carbon emissions. The variability of load usually determines the long run mix of generating technologies in a competitive electricity market

When there is a significant amount of intermittent production the mix of other generating technologies is determined by the variability of net load (load net of intermittent output). Net load may be more variable than load itself if the intermittent output is not too positively correlated with load. This increase in variability results in a substitution away from baseload generating technologies towards peaking and intermediate technologies. If peaking and intermediate technologies are more carbon intensive than non-renewable "baseload" technologies, this substitution can more than offset the emission benefits derived from the output of the renewable technology.

Too many large-scale industrial wind and solar projects, especially those concentrated in disproportionately impacted areas, can lead to a destabilization of the grid that cause unbalanced load variances, shedding events, catastrophic failures[293] and related consequences.

There is esthetic, environmental, ecological, and economic value in protecting and retaining San Diego County's open and uncluttered rural ridgelines, iconic landscapes, cultural and historic resources, open space view sheds, soundscapes and quiet sense of place, rather than transforming them into unnecessary industrial energy zones.

These esthetic, environmental and economic values and overall public health and safety issues must not be ignored or overridden in the mad rush to switch to alternative energy sources--especially when there are less destructive[294] and less expensive alternatives as discussed above.

Our previous comments on this DEIR related energy and transmission project proposals and Tule Wind Plan Amendment[295] proposed in our impacted rural area are incorporated by reference:

GG-164 Cont.

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GG-166

[292] Hot Air?: http://docs.wind-watch.org/campbell-hot-air.pdf
[293] Grid realities Versus Greentech Startup Dreams: http://www.greentechmedia.com/articles/read/grid-realities-versus-renewable-startup-dreams/
[294] Clean Power Finance Channels $1M/dat financing into residential solar projects: http://www.greentechmedia.com/articles/read/Clean-Power-Finance-Channels-1-Million-Into-Solar-Every-Day/
[295] Tule Wind PPA comment letter: http://www.windaction.org/documents/32554

GG-165 See responses to comments W3, AA10, GG6, and GG66.

GG-166 See response to comment GG3.

CLOSING REMINDER AND BASIS FOR POTENTIAL FUTURE LITIGATION IN THE EVENT THE PROPOSED PROJECT/REDUCED TURBINE PROJECT DEIR GOES FORWARD AS-IS

The County's independent obligation to comply with CEQA and to equitably protect the public health, safety, and welfare and well being of all County residents in a fair and unbiased manner, along with the diverse natural and cultural and historic resources, ecosystems, and watersheds, that make San Diego County such a unique and wonderful place to live and visit, must take precedence over the desire of industrial wind energy developers and supporters--especially so when there are much better and less destructive alternatives.

Instead, please help us, as property owners, generate our own point-of-use energy to reduce the need for additional centralized large-scale energy and infrastructure projects in underserved rural high fire severity zones.

Again, we remind those in positions of responsibility for the engineering, investment and planning decisions about project and turbine siting that their primary responsibility is to ensure that developments cause no harm to adjacent residents; and, if there is possibility of any such harm, then the project should be re-engineered or cancelled. To ignore existing evidence by continuing the current practice of siting turbines close to homes is to run the dangerous risk of breaching a fundamental duty of care, thus attracting grave liability."[296]

GG-167

There is no law that says San Diego County must or shall allow, approve or accommodate large industrial scale wind turbine projects--especially in communities that are already disproportionally impacted by so many wind, solar, and expanding transmission projects. Based on what we have learned--the hard way--they are by far not the best option.

GG-168

Sincerely,

Donna Tisdale

Donna Tisdale
President, Backcountry Against Dumps
Secretary, The Protect Our Communities Foundation

CC:
Ron Roberts, Chairman San Diego County Board of SupervisorsMembers of the Board of Supervisors: Jacob, Horn, Cox, Slater-Price
Eric Gibson, Director DPLU
Dr. Wilma Wooten, MD, MPH, Public Health Officer for San Diego
Nick Machioine, San Diego County Director Health & Human Services
Matthew Rodriquez, CA Secretary for Environmental Protection (Environmental Justice)
Jared Blumenfeld, USEPA Regional Administrator (Environmental Justice)
Tomas Torres, Director USEPA San Diego Border Liaison Office
US Senator Dianne Feinstein
US Senator Barbara Boxer
CA Senator Juan Vargas
CA Assemblyman Brian Jones
Michael Brune, Executive Director Sierra Club
Barbara Boyle, Senior Representative Sierra Club Beyond Coal Campaign
Felicia Marcus, Director NRDC Western
Kieran Suckling, Executive Director CBD
Jeff Aardahl, CA representative, Defenders of Wildlife
Interested Parties

[296] Waubra Foundation's Explicit Notice of Caution

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GG-167 See response to comment W3.

GG-168 This comment does not raise a significant environmental issue for which a response is required. However, it should be noted that the existing Zoning Ordinance provides for permitting of large wind turbines much the same as the proposed ordinance. However, the proposed project would update regulations for large wind turbines to be consistent with current wind turbine technology and designs. In addition, the proposed project would add provisions for regulating low frequency noise.

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