

47. Hernandez et al 2014 make a sharp distinction between distributed generation and Utility scale solar projects, noting that:
- “Distributed solar energy systems are relatively small in capacity (e.g., 01 megawatt [MW]). They can function autonomously from the grid and are often integrated into the built environment (e.g., on rooftops of residences, commercial or government buildings; solar water heating systems; portable battlefield and tent shield devices; [25,102]). Distributed solar contrasts strikingly with utility-scale solar energy (USSE) enterprises, as the latter have relatively larger economies of scale, high capacity (typically 41 MW), and are geographically centralized — sometimes at great distances from where the energy will be consumed and away from population centers.” (See Exhibit 51,
<http://static1.squarespace.com/static/524fa55ee4b04b668ead159f/t/5250c41fe4b0b9b7feae92a8/1381024799173/Hernandez+et+al.+2014+RSE+Envir+Impacts+of+USSE.pdf> Hernandez, R. R., S. B. Easter, M. L. Murphy-Mariscal, F. T. Maestre, M. Tavassoli, E. B. Allen, C. W. Barrows, J. Belnap, R. Ochoa-Hueso, S. Ravi, and M. F. Allen. 2014. Environmental impacts of utility-scale solar energy. *Renewable & Sustainable Energy Reviews* 29:766–779 at p. 768.)
- Sec. 2.4.3 Renewable Energy and Transmission Element’s Implementation Ordinance** see comments elsewhere
- Sec. 3.2 Approach to the Cumulative Impacts Analysis**
48. Table 3.2-1 Cumulative Projects Table (IC RETE p. 3-3 to 3-10) is outdated even though it states it is as of November 2014 (DPEIR at p. 3-2) with information from IC PDS because it lists Ocotillo Wind as under construction. Indeed, in the list of sources for Table 3.2-1 at DPEIR p. 3-10, there is no source more recent than the February 2012 Mount Signal Solar Project FEIR. The table fails to give acreages for all projects, including geothermal footprints. Fig. 3.2-1 (IC RETE p. 3-11) only depicts a dot for each “project location and fails to disclose graphically the full extent of the acreage involved for each project. Such information is essential for understanding the impacts to date of industrial scale solar projects on irrigated agricultural lands to date on potential cumulative impacts of future project proposals at any given location! Failure to disclose the actual acreages of land conversions means a failure to disclose potential for additional future adverse public health impacts related to increasing generation of sand and dust particulates, which result from construction, and blowing from existing and future lands from which vegetation is essentially permanently removed. The Figures for Imperial County Renewable Energy Power Plant Locations Index and other maps or Figures identified here below must be added to the RETE GPU and to the DPEIR if one is to understand the scale of already approved projects, and the Figures should be updated to 2015:
49. <http://icpds.com/CMS/Media/Solar-Central-County-10-28-13.pdf>
<http://icpds.com/CMS/Media/Solar-Power-Northend-10-29-13.pdf>
<http://icpds.com/CMS/Media/Solar-Power-Southend-10-29-13.pdf>
<http://icpds.com/CMS/Media/Imperial-County-Geothermal-06-10-13.pdf>
<http://icpds.com/CMS/Media/Imperial-County-Wind-Power-10-31-13.pdf>
<http://icpds.com/CMS/Media/All-Renewable-Power-Projects-11-1-13.pdf>
- Section IV. Implementation programs and policies**
50. The RETE GPU should also establish policies to ensure that there will be no adverse public health impacts associated with development of RE resources (RETE GPU at p. 30-31). Indeed, there is no mention of public health in the Preface to Section IV. Implementation programs and policies beginning at RETE GPU p. 30. Under Programs and policies, again there is no in depth discussion of public health other than the single reference in (c) I), at RETE GPU p. 34.
51. Experience with woefully inadequate monitoring and mitigation related to the blowing sand and dust associated with construction and follow-up operations at the OWEF mean that there must be more

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stringent attention to monitoring and mitigation (Section c f and g at RETE GPU p. 34), and perhaps independent third party oversight by State or Federal agencies if County departments such as APCD fail to respond to complaints in a timely manner. Perhaps the citizen air quality monitoring project under the oversight of CDPH will provide timely air quality data that will force the County APCD to take residents' complaints seriously.

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E. Implementation Standards

52. Sec.2 Health and Safety Air quality and dust storms continue to be major problem areas associated with the Ocotillo Wind Energy Facility, and no amount of dust suppression of any type has been effective in resolving air quality issues on more than a temporary basis. Accordingly, the notation "compliance with air quality and dust control standards" are empty assertions to Ocotillo residents, and likely also to those residents downwind of scorched earth, all vegetation removed, industrial scale photovoltaic projects in other parts of Imperial County. Such blowing dust and sand will also impact photosynthetic activity of plants and crops. (Although though the Ocotillo Wind project is on public lands managed by BLM, the Air Pollution Control District, with its responsibilities related to air quality, is the jurisdiction of the County.)
53. Blowing dust and sand from activities related to RE also may contain biological materials which, in addition to exposure to particulates, can worsen asthma and allergies or cause valley fever.
54. Implementation Standards related to Health and Safety should include educating the public and employees about potential adverse health impacts and needs to stop construction activities during periods when there is a lot of blowing sand and dust. Specifically see: Cal OSHA info for employers & employees <http://www.dir.ca.gov/dosh/valley-fever-home.html> (Exhibit 55) Preventing Work-Place Valley Fever 2013 www.cdph.ca.gov/programs/ohb with links to many articles & fact sheets. <http://www.cdph.ca.gov/programs/ohb/Pages/Cocci.aspx>, (Exhibit 56)
55. To understand the serious concerns about public health impacts related to biological materials possibly carried with the blowing dust, see: <http://www.pbs.org/newshour/bb/fungal-disease-proves-tricky-diagnose/> July 6, 2014 (Exhibit 57)
56. <http://wwwnc.cdc.gov/eid/article/21/1/pdfs/14-0836.pdf> Wheeler c. et al 2015. Rates and risk factors for Coccidioidomycosis among prison inmates in CA, 2011. Emerging Infectious Diseases v. 21 No.1 Jan 2015 (Exhibit 58) This article points out that Diabetes is a risk factor for severe pulmonary cocci, and being African American is also a risk factor for disseminated disease. Because many residents of Imperial County have diabetes, this is an added concern not only for prison inmates, but for the health of the general population.
57. <http://www.motherjones.com/environment/2015/01/valley-fever-california-central-valley-prison> Ferry, D. 2015-01-30. "How the government put tens of thousands of people at risk of a deadly disease. If it killed politicians instead of prisoners, this illness would be national enemy #1." Mother Jones (Exhibit 52) And, if inmates are released ill and without potential employment, who will cover the costs for medical treatment and requirements for food, housing and medical care for former inmates and dependent family members? Families and children of inmates are also collateral damage to the adverse environmental health impacts of valley fever. This article includes a map showing the areas where cocci is endemic, and Imperial county is one of those areas.
58. http://www.newyorker.com/reporting/2014/01/20/140120fa_fact_goodyear?printable=true. "Death Dust: The valley fever menace." (Exhibit 59)
59. <http://www.nytimes.com/2013/07/05/health/a-disease-without-a-cure-spreads-quietly-in-the...> Brown P.L. 2013 "A disease without a cure spreads quietly in the West". NY Times 2013/07/05. (Exhibit 60)
60. Appendix D to the RETE GPU starting at p. 68 includes no discussion of potential adverse impacts related to air quality and health or to the adverse impacts on the agricultural economy from removing lands from agricultural production in return for a few temporary, long term jobs.

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Title 9 Division 17 Renewable Energy Resources

61. Title 9 Division 17 Renewable Energy Resources Section 91701.00 Purpose and Intent fails to define or explain what is meant by protecting “renewable energy resources from wasteful or detrimental uses”. What does this phrase mean and from what source does it originate? Comment 20-43

IC RETE DPEIR Sec. 4.3 Air Quality

62. Table 4.3-4 (DPEIR 4.3-8) summarizes exceedances for NAAQS and CAAQS for 2010 through 2012 for El Centro. (DPEIR p. 4.3-7). Why hasn't this information been updated to reflect the period for construction and land clearing related to so many of the industrial scale RE projects in southwestern Imperial County? What is the explanation for the higher values for exceedances of PM 2.5 and PM 10 in 2011? What are the values for 2013 and 2014? Comment 20-44

63. The locations of the monitoring stations are at some distance from where many sensitive persons live, and away from locations of rural schools, especially in the vicinity of industrial scale RE projects including wind turbines and PV projects. How does the location of the 5 county monitoring stations impact the results of monitoring data? There must be monitoring stations placed in the vicinity of rural schools downwind of industrial scale PV projects. The County should be insisting that monies from industrial scale RE projects approved be used to also fund purchase and monitoring of additional air quality monitoring stations close to sensitive populations where asthma is already a documented health problem. Comment 20-45

64. Why hasn't the County required applicants for these RE projects to contribute funds to expand the air quality monitoring program? Sec. 4.3.4 AQ-1 acknowledges that the RE projects have the potential to have adverse impacts on air quality that is already in non-attainment during construction. (DPEIR at 4.3-9) Different emissions are identified re RE projects during operations. (DPEIR 4.3-10) Concerns for public health, environmental justice and socioeconomic impacts should be a higher priority than what sounds like the priority concerns of most County decision-makers that property rights of land owners have the right to do what they want with their property. Discussions of zoning and planning so often seem missing from the discussions at public hearings where approvals are made to convert agricultural land to industrial scale PV project uses. Comment 20-46

Dust control on different soil types is a major issue that needs more consideration in addressing impacts on air quality and public health

65. Mitigation measures for AQ-1a includes a dust control plan (DPEIR 4.3-10). The Dust Control Plan for OWEF appears to have been either a failure or at best, more than woefully inadequate based on the number and severity of complaints from residents and based on the fact that the Coyote Mountains were and are often obscured by blowing dust and sand from a distance of about 6-7 miles from where Harmon lives. Comment 20-47

66. The use of dust suppressants as mentioned as part of a dust control plan have been shown to have a number of serious effects on air quality, soils, biological resources, surface and groundwater as discussed in an article about the potential environmental impacts of dust suppressants on the environment, both on and off the site. Of particular concern as a public health and environmental justice issue, the report states:

3.2.4 Effects on Air Quality

Dust suppressant use can affect air quality characteristics in a number of ways. In arid areas, for example, the use of water may add moisture to air fostering the proliferation of microorganisms. Dust suppressants that adhere to soil particles can be re-entrained into the air with strong winds, potentially adding contaminants to the air in addition to particulate matter. It is noteworthy that dust suppressants have little efficacy at suppressing small respirable dust that have the potential to be inhaled directly into lung parenchyma and cause lung disease (Reilly et al., 2003). Dust suppressants are generally used to comply with PM10 regulations and improve visibility; but could be potentially harmful since smaller dust particles (less than 10 μ m) can be inhaled. Lastly, some dust suppressants may have volatile organic compounds in the products that may be dispersed into the air when the product is applied. This is a particular concern in the formation of ozone.” (Piechota T. Et al. US EPA Expert Panel Summary 2002 Potential Environmental impacts of dust suppressants: “Avoiding another Times Beach” 107CMB04.Rpt. 03/20/2004 (at

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67. Then the report noted that “Potential or observed negative impacts to adjacent landowners” “would cause the experts to limit the use of dust suppressants.” (Piechota 2002 at p. 36 of 98) Comment 20-48 (continued)
68. Thus, the County must reassess the issues related to “effective dust control” and the potential adverse environmental and public health impacts of any dust suppressants considered under mitigation AQ-1a at 4.3-11. There must be an opportunity for meaningful public input and consideration of public input related to dust suppression techniques and/or products prior to any project approval, and opportunity for reconsideration if there are subsequent adverse public health impacts. How do dust suppressants change after application when exposed to solar radiation, oxidation, biological changes, dissolution and physical weathering in a climate like Imperial County? How do the dust suppressants break down and how do they move off site or away from the site of application? Under what circumstances might paving be a better choice for managing construction dust from unpaved roads in terms of environmental and public health considerations? Comment 20-49
69. **AQ2 Exposures of sensitive receptors:** Experiences at Ocotillo re OWEF make it quite obvious that having a buffer of 0.5 mile around urban areas (DPEIR 4.3-12 is not adequate to protect sensitive receptors, the elderly, or those in poor health who live in rural areas with populations of less than 500 persons. DPEIR notes that: Comment 20-50
70. “Nonetheless, future construction of renewable energy facilities in the proposed overlay zones would have the potential to expose sensitive receptors to substantial pollutant concentrations and result in a significant impact. These potential impacts would include disturbing desert soils and generation of PM10 and PM2.5 that could irritate existing cases of asthma or result in new cases of Valley Fever.” (DPEIR at 4.3-13)
71. Then, the DPEIR continues that: “Nonetheless, future operation of renewable energy facilities in the proposed overlay zones would have the potential to expose sensitive receptors to substantial pollutant concentrations and result in a significant impact.” (DPEIR at 4.3-14)
72. There is a big difference of opinion as to whether the impacts after mitigation are really “less than significant” as asserted at DPEIR 4.3-14. Significance is subjective and residents who have health problems related to air quality, dust or other constituents associated with project construction and operation are likely to report impacts as significant even after “mitigation”. Ask Ocotillo residents exposed to dust storms that did not often occur prior to the construction and operation of the wind project. But those dust storms also travel east or downwind into the more densely populated parts of the County. Do people who live in rural areas matter? Do children with asthma matter, wherever they may live?
73. The DRECP and DPEIR also fail to acknowledge the seriousness of the potential health impacts from valley fever in discussions of soils, air quality, public health, environmental justice or socioeconomic, even though the California Department of Public Health has been investigating a cluster of valley fever cases related to industrial scale solar projects in San Luis Obispo County.(Exhibit 71 for CDPH slides.) For additional discussion of the DRECP omission of information about valley fever, see Exhibit 70 at p. 67 and Exhibit 72 DRECP comments of Harmon. Comment 20-51
- All Projects should contribute financial resources to a public health fund for air quality monitoring and air quality/dust related health problems**
74. Both Imperial County and the DRECP should consider that a recommended means of mitigation would be to require all project applicants to contribute a substantial sum of money to help fund additional air quality monitoring equipment and operation of monitoring equipment. In addition, funds should be made available for testing for valley fever, and to help cover the costs for providing care and medications for those suffering from asthma, allergies, and valley fever, which may be caused by or exacerbated by construction activities related to industrial scale renewable energy projects. Comment 20-52
75. These environmentally related health impacts are a major concern for economically challenged communities exposed to increasingly poor air quality. The connection between dust generation at industrial scale solar projects has been made by CDPH. That information was shared during a meeting Comment 20-53
- Comment 20-54

- with the Imperial County Environmental Justice Task Force in July 2014. Specifically, the health impacts (valley fever) resulting from exposure to spores in blowing dust during construction activities at industrial scale solar projects in San Luis Obispo County have been documented and investigated by the California Department of Public Health. (Exhibit 71) It is obvious that the concerns about construction related valley fever is not just a local issue, but has nation-wide implications because many RE employees involved in construction come from other states. It is expected that the results of that CDPH study will be published this spring. (Email communication from CDPH staff to Harmon February 2015.)
76. It is recommended that all industrial scale RE projects contribute to a single fund, because it is not possible to ascertain from what source any disease causing fungal spores might originate. Nevertheless, those who are ill have difficulty paying for treatment, especially long-term treatment, so we encourage the consideration of follow-up life time financial resources to cover ongoing costs of medications.
- Sec. 4.4 Biological Resources**
77. How should the public interpret the failure to mention the IC BEIR, which Brian Mooney discussed at all community meetings and which was available for review in summer 2014? Repeatedly referring to general information in the DRECP with its more than 8,000 pages in addition to technical appendices covering the vast majority of lands in the CA desert, including Imperial County, appears to be an intent to send the readers on a very time-consuming, wild goose chase. The IC RETE DPEIR fails to even refer the reader and County staff and decision-makers to specific pages in the DRECP documents. If the public is expected to make specific comments and cite references to direct reviewers to appropriate source material, why does the DPEIR fail so miserably? Will Planning Commissioners or even Planning Department staff be likely to search for the details related to Imperial County without having specific pages to be directed to find relevant information? DPEIR merely states that "For a detailed description of each of the vegetation communities, the reader is referred to the Draft DRECP and EIR/EIS." (DPEIR 4.4-6) Is this essentially admitting that the information provided by Chambers in its IC BEIR is so flawed as to be useless?
78. Fig. 4.4-1 (DPEIR 4.4-8, 9) is essentially useless to interpret because the legend is separate from the map, and the colors on the legend are not readily distinguishable. It would be helpful to include written text to direct the reader to the two locations identified in text as within the Chaparral and Coastal Scrub communities. Neither text (at DRECP 4.4-6), nor Table 4.4-1 (at DPEIR 4.4-7), nor Figure 4.4-1 (at DPEIR 4.4-8, 9) are helpful in locating these communities in spite of asserting that they cover more than 4,500 acres.
79. In discussion of Desert Scrub communities, the DPEIR refers to locations such as "East Mesa, West Mesa, and Yuha Desert regions of the County (Figure 4.4.1)" (DPEIR 4.4-10) but fails to direct the reviewer to any figure where these specific locations are to be found. Edie Harmon knows where those locations are, but Fig. 4.4-1 makes no sense in terms of legend color and locations that seem indistinguishable. Readers should be referred to Fig. 4.4-2 CNDDDB Sensitive habitats at DPEIR 4.4-14 which appear to have the same author. Of course Figure 4.4-1 would be absolutely useless to someone who is color blind.
80. The information in the Biological Resources section and **Sec. 4.4.2 Existing Environmental Setting** beginning at DPEIR 4.4-6 has so little useful information that it cannot be considered as acceptable for making any future project-specific biological survey information for a specific proposed project location. In other words, a site specific project biological inventory of both plant and animal life must be required and must be done at the appropriate time of year or season following rainfall.
81. Past experiences have revealed that when biological resource inventories are done by biologists paid by the project applicant, surveys have been woefully inadequate and routinely miss species that are easily recognized by local residents when they look after rainfalls sufficient and at the appropriate time to be followed by growth and flowering of annuals. Furthermore, Harmon has heard of repeated concerns about skewed survey protocols directed by contractors funded by project applicants.
82. Thus, it is imperative that there be a pool of money to hire competent biologists who will report field biological survey information directly to US FWS and CDFW at the same time information is made

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- available to any project applicant or the County. Staff at both US FWS and CDFW have responded to Harmon that they know there is a problem with the accuracy and completeness of biological resource data from industrial RE projects. Comment 20-64 (continued)
83. Harmon questions the assertion that vegetation is “largely absent” from certain areas. (DRECP 4.4-11). Based on her experiences hiking, including after summer rains, annual vegetation often seems present in places where it was not observed during drier periods. She is also familiar with finding species in the Coyote Mountains Wilderness that were incorrectly identified because observers were not present when plants were in bloom. Indeed, many species have been found and identified in locations not visited by botanists in the past. Comment 20-65
84. The list of mammals, birds and reptiles included in the text under General Wildlife and Wildlife habitats (at DPEIR 4.4-12) is so woefully incomplete and inadequate that it cannot be considered as being useful as any part of a Programmatic EIR to if “Completion of the Programmatic EIR will allow future individual renewable energy projects to “tier” off this environmental document.” (DPEIR at 1-1) Referring the public to a 624 page 2007 book covering wildlife for the state of California without reference to any pages with information specific to Imperial County is but one more time consuming wild goose chase. Comment 20-66
85. Many in the public have little confidence that County staff would have the technical backgrounds to determine the adequacy of this DPEIR or be willing to require additional environmental review for any subsequent renewable energy project. Even though the DPEIR states that: “If an EIR were required for a subsequent renewable energy project, the EIR should implement the applicable mitigation measures developed in the Programmatic EIR and focus its analysis on specific environmental impacts that were not previously addressed.” (DPEIR 1-2) This becomes a problem if relying on this inadequate or resource-superficial DPEIR, especially with respect to biological resources. This is also problematic when many mitigation measures have been less than truly successful in Imperial County in the past. Comment 20-67
86. Discussion of birdlife in Imperial County, especially in the vicinity of Salton Sea is very superficial, incomplete, and inadequate in light of the renewable energy overlay acreage over the Salton Sea and Wildlife Refuge. It makes even the woefully inadequate and flawed BEIR seem more interesting. Comment 20-68
87. What specifically is meant by the terms “Natural Landscape Blocks” and “Essential Connectivity Areas” (DPEIR 4.4-15) as used anywhere, but especially as the terms apply to Imperial County and as shown in Fig 4.4-3? (DPEIR 4.4-16 at DPEIR 2-5). Even though Harmon has a background in ecology, she is not familiar with the meaning or significance of the landscape blocks depicted in the figure. This is critical, because part of the RETE RE Overlay Zone Map (DPEIR Fig. 2.4-1) appears to overlap with what is depicted as a Landscape Block in the East Mesa Area to the north of I-8 in DPEIR Fig. 4.4-3 (DPEIR at 4.4-16). If the areas depicted in Fig. 4.4-3 are important to conserve, why are portions of this important area included within the RE Overlay Zone Map? The DPEIR is confusing with regard to the landscape block issue. It appears to depict BLM managed lands (Fig 4.10-2) and within the BLM Flat-tailed Horned Lizard Reserve and a BLM ACEC designated area (FIG.4.4-4 for Special Management Areas at DPEIR 4.4-19). Comment 20-69
88. To include such an area as part of the RE Overlay Zone Map is especially curious and inappropriate now that there is extra protection being accorded to the Flat-tailed horned Lizard (FTHL) by the State of California. (See Exhibit 54, a Press Release from the Center for Biological Diversity.2/12/2015 http://www.biologicaldiversity.org/news/press_releases/2015/flat-tailed-horned-lizard-02-12-2015.html Rare desert lizard in California Protected by State: Flat-tailed Horned Lizards have declined for decades, threatened by habitat destruction, off-road vehicles CBD 2015-02-12.) Comment 20-70
- Sec. 4.4.4 Impacts and Mitigation re Biological Resources**
89. BIO-1 text includes a list of all the substantial adverse impacts or effects related to various special status species that were directly or indirectly adversely impacted directly or by substantial impacts to their habitat by the construction and operation of the Ocotillo Wind Energy Facility (OWEF) on BLM managed public lands. Those BLM lands had previously had travel restricted to approved routes of travel to protect sensitive biological and cultural resources. Indeed, adverse impacts to the previously rich Comment 20-71