

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

June 5, 2012

DOCKET

11-AFC-2

DATE JUN 05 2012

RECD. JUN 05 2012

**RE: HIDDEN HILLS SOLAR ELECTRIC GENERATING SYSTEM (11-AFC-02)
PRELIMINARY DETERMINATION OF COMPLIANCE
PUBLIC COMMENT SUBMISSION**

Dear Commissioners:

For your review, please accept the attached copy of the public comments submitted to the Great Basin Unified Air Pollution Control District regarding their recently issued Preliminary Determination of Compliance for the Hidden Hills Solar Electric Generating System, 11-AFC-02.

This copy is being submitted to the California Energy Commission due to their relevance to the proposed project.

Please also docket this submission into the public record for interested party and public review.

Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cindy MacDonald", written in dark ink on a light-colored background.

Cindy MacDonald
3605 Silver Sand Court
N. Las Vegas, NV 89032

Great Basin Unified Air Pollution Control District
157 Short Street
Bishop, CA 93514-3537

June 5, 2012

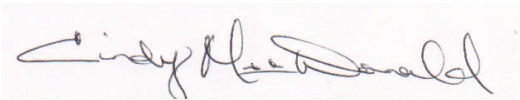
**RE: HIDDEN HILLS SOLAR ELECTRIC GENERATING SYSTEM (11-AFC-02)
PRELIMINARY DETERMINATION OF COMPLIANCE
PUBLIC COMMENT SUBMISSION
RECEIPT #7006 3450 0001 5262 7099**

Please accept the enclosed submission in the matter of the Hidden Hills Solar Electric Generating System's Application for Certification and the Great Basin Unified Air Pollution Control District's Preliminary Determination of Compliance (PDOC) issued May 9, 2012.

First, I would like to sincerely thank the GBUAPCD for addressing my previous submission regarding the proposed project in the PDOC, Appendix A. In some instances, the responses proved most helpful in clarifying air quality issues and concerns related to the proposed project. In some instances, they did not, especially in light of the fact that I lack a certain degree of specialized knowledge and training with regards to trying to understand some of the technical issues surrounding this subject.

Therefore, based on those responses and information contained in the GBUAPCD's Preliminary Determination of Compliance (PDOC), I am submitting additional comments, questions and supporting information in efforts to help clarify some of the remaining issues. Hopefully, they will contribute to helping all of us more fully understand the direct, indirect and cumulative impacts of the proposed project to the community, to public health and to local air quality should the proposed project be approved.

Sincerely,

A handwritten signature in black ink, appearing to read "Cindy MacDonald", is written over a light pink rectangular background.

Cindy MacDonald
3605 Silver Sand Court
N. Las Vegas, NV 89032

CC: California Energy Commission, Hidden Hills Application for Certification (11-AFC-02)

1. RESPONSE PREPARERS

1. Who are the responsible parties for developing and preparing the responses given in the GBUAPCD's PDOC, Appendix A? Please provide names of all organizations, consultants, groups and individual preparers.

2. NON-DISCLOSURE PLANS

The Preliminary Notice of Determination of Compliance contains a variety of permit authorizations pending additional submissions of plans that will not be included in the CEC Staff or CEQA equivalent evaluations, such as; the PEMS plan detailing how the applicants operating parameters will be monitored, compliance demonstration requirements being specified later in the permit, boiler operating conditions and NOx emission rates plan not being required for up to 360 days after the initial startup, and the Air Quality Construction Mitigation Plan after CEC approval.

1. How many plans total, which are integral to operations and compliance of the proposed project, are incorporated in the PDOC as being required to be submitted and/or incorporated *after* the CEC CEQA equivalent process and the GBUAPCD's public process and disclosure periods have been closed?

2. How does these preliminary permit conditions (such as allowing the applicant to submit a NOx emissions rate plan up to one year after initial startup), comply with CEC CEQA equivalent compliance or NEPA requirements that mandate environmental impact analysis of the proposal be publicly disclosed, examined and reviewed prior to approval?

3. SF6 MAINTENANCE, REPLACEMENT AND WITHDRAWAL REQUIREMENTS

1. While the GBUAPCD lacks enforcement authority over the proposed project regarding Green House Gases (GHG) of which SF₆ contributes too, are they still required to evaluate the applicant's data and make determinations of accuracy regarding the application of a proposed project in their District?

2. What are the annual anticipated maintenance, replacement and withdrawal requirements of SF₆ at the proposed project site as well as over the life of the project, where has the applicant disclosed this information in the AFC files or subsequent documents and where has the GBUAPCD accounted for them in their PDOC?

4. CHANGES IN SF₆ STORAGE QUANTITIES

With respect to the proposed project's design and emissions revisions, the applicant increased the maximum projected onsite SF₆ storage from the GBUAPCD's PDOC Appendix A response of 884 lbs.⁽²⁾ to 1,300 lbs. in Table 5.5-3R-1⁽³⁾, almost a 400 lb. increase.

1. Was the GBUAPCD aware of this change? If so:

- a) What are the GBUAPCD's projected annual GHG operating emissions from the proposed project resulting from this revision in terms of tons and where is the GBUAPCD's evaluation and/or findings of this increase located in the PDOC?
- b) Why did the GBUAPCD limit their response in Appendix A regarding SF₆ emissions to only include SF₆ onsite storage within the parameters of the original AFC files versus the proposed projects revisions?

5. MOBILE EMISSIONS SOURCES

1. Who is the responsible agency for monitoring and regulating mobile sources and offsite emissions resulting from the proposed project. Please also include those that cross state/county lines?

6. TEMPORARY CONSTRUCTION/COMMON AREA EMISSIONS

In the AFC files of the Construction Emissions Analysis, Appendix 5.1F (and subsequent revisions), the applicant provides "headings" for heavy equipment associated with different types of construction operations to complete the project.

1. Under which "heading" in Appendix 5.1F, has the applicant included the emissions impacts from construction and development of the temporary construction site and common area and where has the GBUAPCD addressed these emissions in the PDOC?

7. HELIOSTAT COMMUNICATIONS SYSTEM

The applicant has yet to commit to a communication system to control the heliostats. One potential system would be wireless and one would require direct wiring, which in turn would require trenching a significant portion of the site for installation.

1. If the applicant chooses to directly wire the heliostats, how many feet/yards/miles of trenching will be required and were they accounted for in the PDOC? If so, where?

(1) Notice of Preliminary Determination of Compliance, Appendix A, Response to Question 2.4, pdf. pp. 34.

(2) CEC Preliminary Staff Assessment, Hazardous Materials, HHSEGS Chemical Inventory, Table 5.5-3R1, pdf. pp. 435

2. How much additional land disturbance would result from direct wiring and was this accounted for in the PDOC? If so, where?
3. If the applicant chooses to directly wire the heliostats, what heavy equipment will be required to install it, what is the projected increase in construction emissions associated with the proposed project and was this accounted for in the PDOC? If so, where?
4. What is the estimated number of additional workers trenching would require, what hours of the day would they trench, what months would this affect during the construction portion of the project, how many feet/yards/miles is projected to be completed each day and was this accounted for in the PDOC? If so, where?

8. ANNUAL CONSTRUCTION EMISSIONS

The GBUAPCD pointed out that the applicant averaged 24-days per month (or 288 days per year) to convert annual emissions to g/sec emission rates for air quality dispersion modeling purposes.⁽¹⁾ However, the majority of the emissions calculations during the construction portion of the proposed project use 16 days to comprise the monthly emissions totals (192 days p/year). These 16-day monthly totals were then used as the foundation to calculate the annual emissions.

1. What were the methods and how did the GBUAPCD determine consistency and conformance as a result of the applicant's use of these two different formulas to determine project emissions impacts with almost a 100-day variable between the two methods?
2. Does the GBUAPCD find the applicant's use of a 16-day a month construction schedule believable or realistic for annual emissions calculations? In relation to the applicants projected time frame for project completion, including times of high intensity construction activity such as concrete batch production such as will occur in the summer of 2013? If so, please explain why?

9. MILES PER HOUR

In the original AFC files as well as the revised "Boiler Optimization Plan"⁽¹⁾, Construction Equipment Emission Factors, the applicant includes a column titled, "Tier (Nonroad), Avg. mph (Onroad)". The average number used in this column is predominately "3".

1. In the Construction Equipment Emission Factors, what is the column title, "Tier (Nonroad), Avg. mph (Onroad)", referring too – average miles per hour the vehicle is estimated to travel or average speed of the vehicle?

(1) Notice of Preliminary Determination of Compliance, Appendix A, Response to Question 8.3, pdf. pp. 38.

2. If the Construction Equipment Emission Factors in the column titled, “Tier (Nonroad), Avg. mph (Onroad)”, is referring to emissions resulting from the speed of the vehicle, how accurate are these emissions when the conditions of the permit authorize speeds up to 10-25 mph, depending on surface type?

3. If the emissions were calculated for non-road vehicles using a 10 mph vehicle speed, what is the difference (if any) in emissions impacts?

10. CONCRETE BATCH, EMISSIONS CALCULATIONS AND HOURS OF OPERATION

The Concrete Batch Plant is estimated to operate 21 hours per day⁽²⁾ but the associated concrete batch heavy equipment of the loader and the transmix trucks were only projected to operate for 8 hours and 5 hours per day, respectively⁽³⁾. This equipment only estimated operating emissions for 16 days per month.

1. If the Concrete Batch Plant is estimated to operate for 21 hours per day, why is its associated equipment only projected to operate for 8 and 5 hours a day? Please explain timetables and operating procedures and explain why the GBUAPCD found them acceptable for emissions calculations in the PDOC.

11. DIESEL EXHAUST

While the GBUAPCD maintains that the applicant’s estimate of “peak” delivery trucks is 384 per day, the actual peak occurs in August 2013 with 717 trucks per day, 87% higher than the rolling average used by the applicant or the GBUAPCD.

Diesel exhaust (emissions) is known to potentially cause immediate health effects on humans, such as coughing, wheezing, shortness of breath, pulmonary irritation, increased risk of bronchial and asthma attacks, increased susceptibility to dust, pollen and other air pollutants as well as just being plain ole nasty to smell.

1. What are the specific parameters, definitions, criteria, complaint remedies and penalties the GBUAPCD has established for non-compliance with Rule 402 in order to prevent nuisance odors and associated impacts from diesel exhaust such as those outlined above?

2. Did the GBUAPCD analyze/or model emissions for months with significantly “higher than average” emissions or request quarterly emissions profiles in efforts to ascertain direct, indirect and/cumulative impacts to local air quality and public health such as those that occur in summer of 2013 due to heightened construction activity? If not, why not?

(1) 2012-04-09, Supplemental Data Response, Set 2, TN-64558, Attachment 5.1F-1, Construction Equipment Emission Factors pdf. pp. 251

(2) AFC files, Appendix 5.1F, Construction and Emissions Analysis, Short Term Impacts, Table (?), pdf. pp. 13.

(3) AFC files, Appendix 5.1F, Construction and Emissions Analysis, Construction Equipment Schedule, pdf. pp. 20.

12. FOOD PRODUCTION/PRODUCE EXPOSURE PATHWAYS

In the GBUAPCD's response to concerns regarding project impacts to local food production in the area, they stated, *"The District believes that the project will have no significant impacts on local food production for residents in Charleston View."*

While I raised concerns regarding food production under the heading, Produce Exposure Pathways, this reference was not intended to limit the GBUAPCD's analysis of impacts on local food production to this narrow scope exclusively.

For example, in the AFC files, the applicant states, *".....Emissions, principally nitrogen oxides (NOx), from the auxiliary boilers could have a potential adverse effect on soil-vegetation systems where environments, such as serpentine habitats, that are highly sensitive to nutrients (e.g., from nitrogen deposition) are downwind of the project. However, because there are no serpentine habitats in or surrounding the project area and because the amount of additional nitrogen to the area will be very small, the expected impact of operation of HHSEGS on soil-vegetation systems is expected to be less than significant."*⁽¹⁾

One of the reasons the applicant dismisses any adverse impacts from NOx emissions to soil-vegetative systems in the environment is by stating there are no acknowledged *"serpentine habitats"* surrounding the project site.

In the Boiler Optimization Plan, the applicant continues to state that the new configuration, *".....does not change the Soils section of the AFC, and no LORS will change as a result of the proposed enhancements. As a result, any potential impacts associated with this optimization will be less than significant."*⁽²⁾

Another example of potential adverse impacts to local food production concerns fugitive dust. One such example has been reported by Larry and Donna Charpied, residents who operate a organic jojoba farm outside the recently approved Desert Sunlight Solar Farm.

According to the Charpied's, fugitive dust from construction activities has caused a "false pollination" to occur on their jojoba flowers, which in turn resulted in a 30% loss of their crop. They are also reporting the Solar Farms large-scale disturbance and removal of topsoil is resulting in some of the worst dust storms they have ever seen in the area, despite the fact that only 10% of the total project area had been cleared as of February 2012.

(1) AFC files, Section 5.11, Soils, 5.11.4.8, Effect of Generating Facility Emissions on Soil-Vegetation Systems, pdf pp. 13

(2) 2012-04-09 Supplemental Data Response, Set 2, TN-64558, pdf. pp. 11



Above: Construction progress at Solar Desert Sunlight Farms. Only 10% of the total project area has been cleared.
 Below: Dust and storm impacts to local air quality since construction began at Solar Desert Sunlight Farms.
 Photo's courtesy of Larry and Donna Charpied. Source: Basin and Range Watch, 2/19/12, "Dust Compliance Violations",
<http://www.basinandrangewatch.org/DesertSunlight.html>



1. While it is acknowledged that serpentine habitat containing specialized soils and adaptive plant species related to those soils may be adversely affected from NO_x emissions, could the NO_x emissions and their cumulative impacts over the life of the project affect the wide variety of fruits and vegetables grown in the area for local food production (as detailed in my April 12, 2012 submission)?
2. Are there species of fruits, vegetables or alternative types of vegetation that may be highly sensitive to nutrient absorption via roots or leaves as described in the “serpentine habitats” that may also be affected by annual or cumulative emissions from the proposed project? If so, what are they and what are the emissions impact levels that could trigger adverse effects?
3. As NO_x builds within the soils in the area as well as other non criteria pollutants and PAH’s, (i.e., diesel particulate matter, non-criteria pollutants, etc.), over the life of the project, can these cumulative impacts cause our fruit trees or vegetable gardens from obtaining the nutrients they need to grow and/or produce fruit via the root systems, clog the leaves thereby preventing adequate photosynthesis, or potentially impact flower production that may in turn cause reductions in product yield or plant death?
4. Are there models for air emissions impacts on species-specific fruit/vegetable production and yield that could tell those in the community that produce food more about the potential direct, indirect and cumulative impacts to our food production over the life of the project?
5. If these models on food production exist, would the GBUAPCD recommend the applicant perform a modeling analysis for direct, indirect and cumulative impacts to community food production over the life of the project? If not, why not?
6. Are there other sources of air pollution, such as the fugitive dust example given by the Charpiet’s who claim they lost 30% of their crops through false pollination, which may also adversely impact local food production if the proposed project is approved?
7. What does the GBUAPCD define as a “significant impact” on food production? 10% loss of crops/vegetation? 20% loss of crops/vegetation? 50% loss of crops/vegetation?
8. Can single source emissions, cumulative emissions or other impacts from the proposed project reduce local pollinators (insects) to a significant degree that in turn would cause a reduction and/or prevent of pollination of food crops?

13. DUST MITIGATION MEASURES

The CEC and the GBUAPCD's proposed dust mitigation measures are only intended to apply in "normal" weather conditions, not worse-case scenarios. The proposed project is in an area subject to high winds that have been reported at speeds up to 90 mph just north of the proposed project site in Pahrump.

1. What are the wind speeds that the GBUAPCD define as "normal" and what are the wind speeds that meet the criteria of "non-normal" that the proposed dust mitigation measures won't cover?
2. What mitigation measures, if any, does the GBUAPCD propose for dust impacts in "worse-case scenarios" that result from construction and/or operation activities such as wind events that result in wind speeds in excess of 25 mph?
3. Will the water trucks be maintained at the site after construction is finished as a component of continued fugitive dust mitigation measures during normal operations over the life of the project? If not, what mitigation measures does the GBUAPCD recommend during the operational portion of the proposed project?

14. LOCAL AIR QUALITY MONITORING/REPORTING

The GBUAPCD's website does not post any air quality data or information for the southern Inyo area or the proposed project site. Additionally, in 2008, the GBUAPCD shut down an ambient air quality monitoring station in Tecopa, CA, approximately 30 miles from the proposed project site.

The GBUAPCD provided link⁽¹⁾ to the CARB website does not show any ambient air quality data for Inyo County at all, much less in the proposed project vicinity. Furthermore, all posted data stated anything prior to 2010 was "preliminary", which effectively leaves local residents affected by the proposed project emissions with no source of current ambient air quality monitoring.

Also, according to an article posted on the GBUAPCD's website, "CAPP Proposal Amounts Exceed Expectations", March 3, 2012,⁽¹⁾ the GBUAPCD "received 49 proposals requesting \$16.5 million dollars in funding for 'clean air projects'" throughout their district. Citing "another sign of the depressed economic and increased environmental awareness times", the article reported only \$5 million was available to fund these projects with a majority of the requests being "culled".

1. What were the reasons why the GBUAPCD shut down the air quality monitoring station in Tecopa?

(1) <http://capp.gbuapcd.org/?p=61>

2. Does the GBUAPCD plan to resume air quality monitoring in Tecopa and/or Charleston View if the proposed project is approved?
3. Why did the GBUAPCD refer the public to a site that has no viable information regarding air quality data anywhere near the proposed project area?
4. What specifically will the GBUAPCD independently do to monitor and protect local air quality and protect public trust values from possible adverse impacts of the proposed project?
5. Since the GBUAPCD only had less than one-third of the funding it needed to address previously approved projects affecting local air quality within its District, wouldn't this reasonably suggest the GBUAPCD has previously failed to protect the public interest through inadequately evaluating and/or mitigating adverse air quality impacts within their jurisdiction?
6. If the proposed project results in adverse impacts to local air quality and the GBUAPCD already significantly lacks sufficient funding to address other air quality issues and concerns affecting their District, why do they believe - or better yet - why should the public believe the District has the resources necessary to insure compliance and standards are met or that they can appropriately mitigate adverse impacts in the proposed project area should they occur?

15. UPPER AIR DATA

The applicant used meteorological data from Elko, Nevada, located approximately 335 miles away as representing a "nearby" source of meteorological data in relation to the proposed project site.

While the various regulatory quotes courteously provided by the GBUAPCD stated that the most current years of meteorological data were preferred, they didn't state they were required.

1. How does the Elko site conform to "adequate representation" of the proposed project site? Please be as specific as possible in terms of all relative factors and relationships as well as including any information that may indicate areas how the Elko site may not "adequately represent" the proposed project site.
2. What is the definition and parameters that qualifies a NWS station as being "nearby"?

3. Why didn't the GBUAPCD require the applicant to also use slightly older available meteorological data from the Desert Rock NWS station in order to ensure adequate representation of the Pahrump Valley was modeled for the proposed project site?

16. FINAL GEOTECHNICAL ANALYSIS: ADDITIONAL AIR-QUALITY MODELING

The Preliminary Geotechnical Analysis reported that some soils at the site were unsuitable for the projects purposes at some locations and would have to be either total removed or mixed with stabilizing soils. The extent of what this means and its resulting impacts to the project area including adverse air emissions impacts continues to remain undisclosed and unanalyzed.

In efforts to reduce PM₁₀ fugitive dust emissions and associated impacts from Owens Lake, the GBUAPCD's coordinated Air Quality Plans to modify BACM procedures finalized in 2008⁽¹⁾. This plan uses soil types and weekly monitoring to determine PM₁₀ evaluations and appropriate mitigation measures. It also issued PM₁₀ project limits.

Additionally, though the GBUAPCD stated that, "*Soil loss and water erosion are not within the jurisdiction of the District*"⁽²⁾, that is not how I interpret Rule 502, which states:

Rule 502. Conservation Management Practices

- 3.16 Fugitive Dust: Any solid particulate matter entrained in the ambient air caused by anthropogenic or natural activities, that is emitted into the air without first passing through a stack or duct designed to control flow, including, but not limited to, emissions caused by movement of soil, vehicles, equipment, and windblown dust. This excludes particulate matter emitted directly in the exhaust of motor vehicles, from other fuel combustion devices, portable brazing, soldering, or welding equipment, and from pile drivers.⁽³⁾ [emphasis added]

1. If the GBUAPCD knows that a working knowledge of site-specific soil types are required to properly evaluate PM₁₀ fugitive dust emissions, why wouldn't they require a site specific Final Geotechnical Report be prepared prior to authorizing a permit?
2. Wouldn't including the findings of the Final Geotechnical Report impact the emissions analysis of the projects emissions compliance as well as insuring appropriate dust mitigation measures that are tailored for the soil types of the area in the Conditions of the Permit versus the current generic "one-size-fits-all" approach?

(1) Board Order, Attachment D – 2008 Procedure for Modifying BACM for the OVPA.

http://www.gbuapcd.org/Air%20Quality%20Plans/2008SIPfinal/2008%20SIP%20-%20FINAL%20-%20Ch%208_Attachment%20D%20-%202008%20BACM%20Procedure.pdf

(2) Notice of Preliminary Determination of Compliance, Appendix A, Response to Question 17.1., pdf. pp. 44.

(3) <http://www.gbuapcd.org/farm/DR502.htm>

3. What will be the GBUAPCD's proposed PM₁₀ limits for the proposed project during construction and operations should it be approved?
4. How does the GBUAPCD define and interpret *"soil loss not within their jurisdiction"*?
5. What is the GBUAPCD's definition of *"emissions caused by the movement of soil"* as defined in Rule 502.3.16 and how does it apply or not apply with respect to potential emissions resulting from the movement, replacement and/or stabilizing of soil as outlined in the applicant's Preliminary Geotechnical Report?

17. VALLEY FEVER

In the CEC Staff's Preliminary Staff Assessment published May 24, 2012, the CEC Staff proposes the mitigation measure for Valley Fever, a fungus that is known to occur in soils of the proposed project area's vicinity and causes public health problems. The proposed mitigation measure for residents and those who have the potential to be affected (besides workers) is:

"Staying indoors during dust storms and closing all doors to avoid dust inhalation are measures recognized by the regulatory agencies as effective against Valley Fever in endemic areas where the risk of human exposure cannot be eliminated altogether."

- Q-1.** Is the GBUAPCD one of the regulatory agencies CEC Staff is referring too in the above quote?
- Q-2.** If not, does the GBUAPCD have any regulations, policies, or adopted guidelines that protect or advocate protection of public health within its jurisdiction from being infected due to air borne contamination resulting from soil movement, fugitive dust or other soil disturbances in the project area?
- Q-3.** What regulatory agencies is the GBUAPCD aware of that advocate the affected public becoming "shut ins" in their own homes in efforts not to breath the local air in order to prevent fungal inhalation and consequently, illness?
- Q-4.** Does the GBUAPCD agree with the CEC Staff's assessment of how the local population can protect themselves from Valley Fever once construction on the proposed project begins? Please explain GBUAPCD's position as to why or why not they believe this is a feasible mitigation measure and what measures (if any) would they add for consideration.

18. CONSTRUCTION DUST: T&E SPECIES

In California's El Dorado County Air Quality Management District, Rule 223.2.E, the District makes provisions regarding impacts of construction dust in relation to California or Federal Endangered Species. *"Rule 223.2.E: Any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigating actions are in conflict with the California or Federal Endangered Species Acts, as determined by the State or Federal agency responsible for making such determinations."*⁽¹⁾

Desert Tortoise, a federally protected species, has been experiencing significant population declines, much of which is attributed to respiratory illness. Coinciding with this decline has been the expansion of human disturbances via urbanization and various industrial and/or military projects within the desert tortoises range.

Q-1. Does the GBUAPCD have any similar Rules that mandate construction emissions must not be in conflict with the California or Federal Endangered Species Acts? If so, which ones?

Q-2. Are there any studies that have analyzed the impacts of construction emissions, fugitive dust, or chemical dust suppressants in relation to respiratory trends and impacts to Desert Tortoise that the GBUAPCD is aware of and might apply to the project?

19. COMMUNITY HEALTH RISK ASSESSMENT

The applicant revised their Health Risk Screening in the Boiler Optimization Plan revision. In some areas, the applicant was more thorough in describing the modeling parameters than in the original AFC files and in some instances, the Health Risk Screening became more obscure.

After reviewing the GBUAPCD's response to questions concerning Produce Exposure Pathways regarding local food production⁽²⁾, I also reviewed the Air Toxics Hot Spots Program Risk Assessment Program Guidance Manual. With respect to whether or not the applicant was aware of food production in the area, it would appear the applicant was suppose to consult with the District first to determine the zone of impacts, potential exposure pathways, population estimates, worker exposure concerns, etc., prior to initiating the modeling.

"The District should be consulted before modeling efforts are initiated. If the zone of impact is greater than 25 km from the facility at any point, the District should be consulted. The District may specify limits on the area of the zone of impact. Ideally, these preferences would be discussed with the District before being presented in the modeling protocol and HRA."⁽³⁾

(1) http://www.co.el-dorado.ca.us/Government/AirQualityManagement/Construction_Dust_Rules.aspx

(2) Notice of Preliminary Determination of Compliance, Appendix A, Response to Question 9.1., pdf. pp. 39

(3) Air Toxics Hot Spots Program Risk Assessment Guidelines/Program Guidance Manual for Preparation of Health Risk Assessments, Section 4.6.1, Zone of Impact, pdf. pp. 43. http://oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf

Additionally, the PAHs the District referred to in its response only provide PAH and other well-known hazardous emissions such as Benzene for solely the auxiliary boilers, nothing else. Furthermore, the GBUAPCD failed to define the “produce exposure pathway” it referenced.⁽¹⁾

There applicant provided additional Emissions Risk Assessment Tables for Emergency Engines – but they don’t include the any separate hazardous emissions resulting from diesel exhaust, despite the fact that diesel exhaust particles are described by OEHHA as containing more than 40 toxic air contaminants and is considered a major source of hazardous air pollution. In describing some of its effects on human health, OEHHA states, *“Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat and lungs, and it can cause coughs, headaches, lightheadedness and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks.”*⁽²⁾ [emphasis added]

Proven short term effects have also produced, *“increased cough, labored breathing, chest tightness, and wheezing,”* and *“A significant increase in airway resistance and increases in eye and nasal irritation”* for those exposed to diesel exhaust in a chamber for merely one hour.⁽³⁾

The only other relevant table the applicant presents shows an 8-hour Exposure Period for three chemicals (Acetaldehyde, Acrolein and Formaldehyde) resulting from the Auxiliary and Nighttime Preservation Boilers, but no PAHs or other hazardous pollutants either.

Finally, the applicant provided a “Summary of Estimated Potential Health Risks” in Table 5.9-6R⁽⁴⁾ but the accompanying text does not provide any supporting data or references that outline logical progressions or profiles necessary for the applicant to reach these “summary conclusions” (such as type of chemicals and health risks incorporated in the modeling). See next page.

(1) Notice of Preliminary Determination of Compliance, Appendix A, Response to Question 9.2, pdf. pp. 39

(2) http://www.oehha.ca.gov/public_info/facts/dieselfacts.html

(3) <http://www.arb.ca.gov/toxics/dieseltac/de-fnds.pdf>

(4) 2012-04-09 Supplemental Data Response, Set 2, TN-64558, pdf. pp. 337

TABLE 5.9-6R
Summary of Estimated Maximum Potential Health Risks

Receptor	Carcinogenic Risk ^a (per million)	Cancer Burden	Acute Health Hazard Index		Chronic Health Hazard Index
			1-hour	8-hour	
MICR and HHIs at PMI	2.8 in one million	0	0.003	0.004	0.001
MICR and HHIs at Residential Receptors	0.5 in one million	0	0.002	0.002	0.0002
MEIW at PMI	0.4 in one million	0	n/a ^b	n/a ^b	n/a ^c
Significance Level	10	1.0	1.0	1.0	1.0

^aDerived (OEHHA) Method used to determine significance of modeled risks.

^bAcute analysis is always done as a single point exposure and is not affected by the type of analysis or exposure duration.

^cThe worker is assumed to be exposed at the work location for 8 hours per day, instead of 24; for 245 days per year instead of 365; and for 40 years, instead of 70. Therefore, a 70-year-based chronic health hazard index is not applicable to a worker.

HHI = Health Hazard Index

1. What does this chart reflect and model besides cancer risks?
2. What chemicals (by specific component) and emissions does this chart represent under "Acute Health Hazard Index" and "Chronic Health Hazard Index"?
3. Does it incorporate just carcinogenic risks exclusively or does it incorporate other health risks such as respiratory conditions? If so, which ones?
4. Did the applicant model or provide any Health Risk of Diesel Exhaust assessment for potential respiratory impacts or other health impacts to workers or local populations resulting from diesel emissions besides cancer? If not, why not?
5. Did the GBUAPCD request any additional Health Screening Risks of Diesel Exhaust from the applicant besides the supplied cancer risk assessment or consult with the applicant in any way prior to the applicant initiating the parameters for the Health Screening Risk modeling? If not, why not?
6. Where is the "produce ingestion pathway" referred to in the GBUAPCD's response or in the AFC files or subsequent documents?



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

**APPLICATION FOR CERTIFICATION
FOR THE *HIDDEN HILLS SOLAR ELECTRIC
GENERATING SYSTEM***

DOCKET NO. 11-AFC-02

**PROOF OF SERVICE
(Revised 5/15/2012)**

APPLICANT

BrightSource Energy
Stephen Wiley
1999 Harrison Street, Suite 2150
Oakland, CA 94612-3500
swiley@brightsourceenergy.com

BrightSource Energy
Bradley Brownlow
Michelle L. Farley
1999 Harrison Street, Suite 2150
Oakland, CA 94612-3500
bbrownlow@brightsourceenergy.com
mfarley@brightsourceenergy.com

BrightSource Energy
Clay Jensen
Gary Kazio
410 South Rampart Blvd., Suite 390
Las Vegas, NV 89145
cjensen@brightsourceenergy.com
gkazio@brightsourceenergy.com

APPLICANTS' CONSULTANTS

Strachan Consulting, LLC
Susan Strachan
P.O. Box 1049
Davis, CA 95617
susan@strachanconsult.com

CH2MHill
John Carrier
2485 Natomas Park Drive, Suite 600
Sacramento, CA 95833-2987
jcarrier@ch2m.com

COUNSEL FOR APPLICANT

Ellison, Schneider and Harris, LLP
Chris Ellison
Jeff Harris
Samantha Pottenger
2600 Capitol Avenue, Suite 400
Sacramento, CA 95816-5905
cte@eslawfirm.com
jdh@eslawfirm.com
sgp@eslawfirm.com

INTERVENORS

Jon William Zellhoefer
P.O. Box 34
Tecopa, CA 92389
jon@zellhoefer.info

Center for Biological Diversity
Lisa T. Belenky, Sr. Attorney
351 California Street, Ste. 600
San Francisco, CA 94104
e-mail service preferred
lbelenky@biologicaldiversity.org

Center for Biological Diversity
Ileene Anderson, Public Lands
Desert Director
PMB 447
8033 Sunset Boulevard
Los Angeles, CA 90046
e-mail service preferred
landerson@biologicaldiversity.org

Old Spanish Trail Association
Jack Prichett
857 Nowita Place
Venice, CA 90291
jackprichett@ca.rr.com

INTERVENORS (con't.)

*Cindy R. MacDonald
3605 Silver Sand Court
N. Las Vegas, NV 89032
e-mail service preferred
sacredintent@centurylink.net

INTERESTED AGENCIES

California ISO
e-recipient@caiso.com

Great Basin Unified APCD
Duane Ono
Deputy Air Pollution Control Officer
157 Short Street
Bishop, CA 93514
dono@gbuapcd.org

County of Inyo
Dana Crom
Deputy County Counsel
P.O. Box M
Independence, CA 93526
dcrom@inyocounty.us

Nye County
Lorinda A. Wichman, Chairman
Board of County Supervisors
P.O. Box 153
Tonopah, NV 89049
lawichman@gmail.com

Nye County Water District
L. Darrel Lacy
Interim General Manager
2101 E. Calvada Boulevard
Suite 100
Pahrump, NV 89048
llacy@co.nye.nv.us

*indicates change

INTERESTED AGENCIES (con't.)

National Park Service
Michael L. Elliott
Cultural Resources Specialist
National Trails Intermountain
Region
P.O. Box 728
Santa Fe, NM 87504-0728
Michael_Elliott@nps.gov

**ENERGY COMMISSION –
DECISIONMAKERS**

KAREN DOUGLAS
Commissioner and Presiding Member
e-mail service preferred
karen.douglas@energy.ca.gov

CARLA PETERMAN
Commissioner and Associate Member
carla.peterman@energy.ca.gov

Ken Celli
Hearing Adviser
ken.celli@energy.ca.gov

Galen Lemei
Advisor to Presiding Member
e-mail service preferred
galen.lemei@energy.ca.gov

Jim Bartridge
Advisor to Associate Member
jim.bartridge@energy.ca.gov

**ENERGY COMMISSION –
STAFF**

Mike Monasmith
Senior Project Manager
mike.monasmith@energy.ca.gov

Richard Ratliff
Staff Counsel IV
dick.ratliff@energy.ca.gov

**ENERGY COMMISSION –
PUBLIC ADVISER**

Jennifer Jennings
Public Adviser's Office
e-mail service preferred
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, *Cindy R. MacDonald*, declare that on June 5, 2012, I served and filed copies of the *attached CEC Cover Letter and copy of my Public Comment Submission to the Great Basin Unified Air Pollution Control District regarding their Preliminary Determination of Compliance (PDOC) for the Hidden Hills Solar Electric Generating System (11-AFC-2)*, dated June 5, 2012. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at: www.energy.ca.gov/sitingcases/hiddenhills/index.html.

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(Check all that Apply)

For service to all other parties:

- ☒ Served electronically to all e-mail addresses on the Proof of Service list;
- ☐ Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "e-mail preferred."

AND

For filing with the Docket Unit at the Energy Commission:

- ☒ by sending an electronic copy to the e-mail address below (preferred method); **OR**
- ☐ by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

CALIFORNIA ENERGY COMMISSION – DOCKET UNIT

Attn: Docket No. 11-AFC-2
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.ca.gov

OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

- ☐ Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

California Energy Commission
Michael J. Levy, Chief Counsel
1516 Ninth Street MS-14
Sacramento, CA 95814
michael.levy@energy.ca.gov

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

