Beacon Solar, LLC
700 Universe Blvd.
Juno Beach, FL 33408

September 19, 2008

Ms. Dawn Martin
P.O. Box 1921
Cantil, CA 93519

Subject: Questions from Rancho Seco Residents

Dear Dawn:

I am sorry it has taken so long to respond to you regarding the questions from the Rancho Seco residents. However, I wanted to make sure that all of the questions were answered as thoroughly and carefully as possible.

Attached to this letter are the responses to each of the questions from the Rancho Seco residents that you provided during our August 15, 2008 meeting. The questions have been retyped and then an individual response has been provided.

As I indicated during our meeting, we would welcome the opportunity to discuss these responses with you and the other residents of Rancho Seco in person. We believe it is important to understand the concerns of the community as we move forward with this important project.

If you have any questions concerning this matter, please contact me at (916) 474-5698 or (916) 521-3635.

Sincerely,

Michael A. Argentine

Michael A. Argentine, P.E.
Project Manager
Blythe Energy, LLC

Cc: CEC Docket Section (08-AFC-2)

BEACON SOLAR ENERGY PROJECT (08-AFC-02)
RESPONSES TO RANCHO SECO QUESTIONS

Response Date: September 19, 2008

On August 15, 2008, Mike Argentine, a representative of Beacon Solar, LLC, met with Dawn Martin, a resident of the Community of Rancho Seco. Ms. Martin gave Mr. Argentine several sets of questions from herself and others regarding the Beacon Solar Energy Project, as well as some proposals on how Beacon could mitigate potential impacts to the Community. In addition, Ms. Martin emailed a question to Mr. Argentine related to the project's evaporation ponds on August 23, 2008. Beacon's responses to the Rancho Seco residents' questions are provided below. The questions and responses are divided into sections based on a characterization of the format of the questions.

Typed Questions

Question 1:

The Beacon Solar Plant is only giving power to LA County and points out of our area. Cantil and Honda Proving Center get nothing except some more sand blowing and possibility of more flooding. In other parts of the USA when a power company comes in there is some compensation to the surrounding area. Would you meet with us to discuss some of the questions and proposal to be put forth?

Response:

We (i.e., companies affiliated with FPL Energy, LLC) have a history of working with and giving back to the communities where we operate. We are committed to working with the Rancho Seco community to ensure that any potentially significant impacts to the community are properly mitigated.

As a matter of clarification, the power from the project is not committed at this point in time. It will be connected into the California grid and is open for sale to multiple entities in the State. Also we anticipate that construction of the project will greatly reduce the sand and dust in the area by stabilizing the land. The project will likewise be designed in such a way that no additional impacts due to flooding are realized.

Question 2 (multiple parts)

Why is the water usage so large? Water is not a renewable resource.

Response:

First, compared to the past alfalfa farming, the water usage is actually quite low. The amount of water use on an annual basis will be on the order of 20-25% of what was being used when this site was actively farmed. The water use as a solar project will be much less than if the land was

returned to agricultural use. It is also much less than if the land was used for a residential development.

This project has been designed as a closed system (using cooling towers) and optimized from there. The project design incorporates water pretreatment to further reduce consumption, which is explained in a little more detail as follows. All steam based power plants use high-purity steam to turn turbines requiring high-purity water. Steam transfers energy to turn the turbine to create electricity. To make the power plant more efficient, this steam is cooled and condensed to water. To condense the steam, water is used which evaporates during the cooling process. This evaporation step of the process requires the majority of the total water used by the plant. While this evaporation is a fixed amount, i.e., a function directly of how much power is produced, the cooling cycle also requires blowdown of water in the system (a waste stream) to prevent the water from cycling up too much and causing scaling of the system. By adding pretreatment to the cycle we are greatly reducing the amount of blowdown needed.

Second, water is a renewable resource. The water used by the project is almost entirely evaporated, either for cycle cooling or in evaporation ponds for water that has already been recycled multiple times. That evaporated water eventually rains somewhere else, although not necessarily near the project site. The water itself is not consumed, as a fossil fuel would be.

Furthermore, the groundwater in the area is renewed as water from precipitation and runoff infiltrate through the porous sediments along the dry washes and mountain front alluvial fans and recharge groundwater. Recharge to the Fremont Valley Groundwater Basin, and its Koehn sub-basin where Rancho Seco is located, occurs from infiltration of precipitation and runoff along the mountain front and reentrant canyons such as Pine Tree Creek and Jawbone Canyon (see AFC pages 5.17-13 and 5.17-14). In the area of Rancho Seco, significant recharge of the groundwater basin has occurred since the cessation of alfalfa farming in the mid-1980s. This is shown on the hydrographs presented in Appendix J-1 of the water resources section of the AFC. In some wells, those notably east of Pine Tree Canyon, water levels have risen over 100 feet since 1986. Figure 5.17-5 illustrates the area of groundwater recovery in the area of the proposed solar power plant and Rancho Seco. The figure shows that areas east of Pine Tree and Jawbone Canyon have risen the most in the recent past suggesting these canyons provide a significant contribution to the recharge of the groundwater in the valley. Using this area and an estimate of the rate of recovery shows that about 9,000 acre-feet per year has been recharged to this part of the Koehn sub-basin over the past few years (see page 5.17-15 of the AFC). The proposed water use for the solar project, 1,600 acre-feet per year, is less than one fifth of this estimate. As such, it in anticipated the project will only slow recovery of the groundwater basin in this area.

A. How will you conserve water? Is there a recovery system of water for the washing of mirrors? Mirror washing with no recovery system is a really bad idea. Mist or spray goes into the air. Some on the ground. Water things and you get weeds, kill the weeds and you put some kind of chemical in the ground to go to the ground water table. What kind of chemical will you use to treat weeds?

Response:

Mirror washing water is a very small portion of our expected water use. Based on our experience at the SEGS plants[1], we have learned to do this while putting very little water on the ground. Some water does mist into the air, and some does drain off to the ground, but the total is very small, and recovery of that water is not practical. Even with this small amount of water, some weeds will grow under the mirrors, and surface based products are used to prevent weed growth, since the weeds present a fire hazard. However, all weed suppression products are selected to avoid groundwater impacts. Indeed the "drip" zone from mirror washing is very small compared to the overall field size.

B. What water table are you using? What aquifer?

Response:

As presented in the water resources section of the AFC (see pages 5.17-13 and 5.17-14 of the AFC), the project is located in the Koehn sub-basin within the larger Fremont Valley Groundwater Basin (reference DWR, 2006, Bulleting 118, "California's Groundwater Basins – Summary of the Fremont Valley Groundwater Basin"). Investigations conducted by state and federal agencies have not mapped a separate "water table" nor have they identified separate aquifer units. To date, the Koehn sub-basin has been treated as one aquifer that exists from the water table down to the base of the fresh water above the Tertiary basement rocks.

The project plans to pump groundwater from four former water supply wells (Nos. 41, 42, 49 and 63) that are completed at depths between about 600 and 900 feet below the ground surface (see page 5.17-30 of the AFC). The influence from pumping these wells was evaluated using a numerical groundwater model and the results are presented on pages 5.17-31 through 5.17-33 and Figures 5.17-19 and 5.17-20.

[1] An FPL Energy, LLC company also operates existing Solar Electric Generating Systems (SEGS) power plants at Kramer Junction and Harper Lake. These projects use similar parabolic trough mirror technology, but the Beacon Solar Energy Project will use a newer, more efficient design.

C. Why use so much water if you recycle the water?

Response:

As indicated above, we actually use a small amount of water compared to the previous agricultural use. In addition a number of features have been incorporated into the plant to further reduce water use, such as water treatment as explained above. A power plant must have a method of cooling the steam turbine, and water is a more efficient cooling medium than air, so use of a cooling tower will improve the power plant's efficiency and the power produced will be more economical.

D. What kind of chemicals will be used to wash the mirrors and how will it be recovered? What you are treating the water with it says in your paperwork page 2-16 and 2-17 is Sulfuric Acid, Phosphate solution, what's in this? Sodium hypochlorite, why use bleach? Oxygen Scavenger, Alkaline Solution, Disodium Phosphate (DSP), and Trisodium Phosphate (TSP) isn't this really bad? So what will it do to the ground water and what little wildlife we have in the area? Are these chemicals detrimental to wildlife and people? What kind of chemicals is the facility planning on using for insect control?

Response:

The chemicals mentioned in the question above are used for cycle steam or cooling water treatment. Water systems need chemistry control to maintain the equipment in contact with water so that the equipment remains operable for the life of the plant. Some chemicals are used for the lower-purity cooling water, such as phosphoric acid (corrosion control), sulfuric acid (scale control/pH control) and sodium hypochlorite/bleach (biological growth control). Other chemicals are used in the higher-purity steam/water loop to ensure that the boiler, the turbine and the high-pressure piping are also operable for the life of the plant. These chemicals include amines (corrosion control/pH control), phosphates (boiler scale control), and carbohydrazide (oxygen control). Other than cooling water sulfuric acid, these chemicals, which are all commonly used at many power plants, are added in small quantities to be present in the parts-per-million range. Water that leaves these systems is piped to the evaporation ponds and cannot go to an area where they could enter the groundwater aquifers, even though these chemicals will be present in small concentrations. The evaporation ponds will be double-lined and monitored to ensure that no water from the ponds reaches groundwater and will be restricted for access by wildlife and the public (see page 2-19 of the AFC under "Project Description"). The other primary use of chemicals is for the regeneration of water treatment system. When the water treatment system is exhausted, sulfuric acid and sodium hydroxide are added to return the system to its original condition. With each regeneration, water is collected and safely neutralized before being released to the evaporation ponds. Insect control at the site will be limited to treatment at buildings, no different than what is typically done at residential or commercial sites.

No chemicals will be used in the water for mirror-washing.

What about the emission of pollutants? All of us Cantilians know, the wind usually comes from the west - where the solar plant is located. Are there any hazardous chemicals or otherwise that could be transported to the inhabitated area of Cantil when the wind blows?

Response:

The "criteria" pollutants (i.e., the pollutant for which there are health standards) were analyzed in the Air Quality Section (5.2) of the AFC, including ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), respirable particulate matter (PM10) and fine particulate matter (PM2.5). The impacts from the emissions of pollutants from the project during both construction and operation were analyzed and compared to various standards and thresholds. During the construction phase, some unavoidable but minor, short term impacts are expected. However, due to the limited duration (25 months) associated with construction activities and the mitigation measures that will be applied, these impacts are not expected to impact public health during construction.

Exhaust emissions for equipment during operations are minor, as operations only include two auxiliary boilers that provide heat for various systems. In terms of dust and blowing sand during operations, it is expected that these emissions will be less than they are now in this area. In order to maximize the energy output of the solar collectors, the parabolic mirrors must be kept very clean and dust free. Therefore, there is significant incentive for Beacon Solar to control the dust on the site. Although there will be some traffic in the solar field to perform maintenance and wash the mirrors, the emissions from these activities will be minimal since the ground around the mirrors will be compacted, treated with soil stabilizers and/or water, and the vehicle speeds will be kept low to minimize dust generation. In contrast, the site is currently used by some off-road vehicles, which breaks the crust that forms on the surface, and subjects the loose soils to wind erosion.

Hazardous Materials needed for the project are discussed in Section 5.6 of the AFC. Although the wind often blows from the project site towards Cantil, there will be a Hazardous Materials Business Plan that is required to ensure that spills and emissions of hazardous materials are minimized and would not impact the nearby communities. During the construction phase hazardous materials stored and/or utilized on site will include gasoline, diesel, oil lubricants, welding gases, solvents, and paints. These materials are all either in liquid or gaseous state. If a release of a liquid occurs, the spill will be contained to a localized area and are not expected to become airborne, due to the immediate response to the spill by on site personnel. Emissions of welding gases would be quite small, and if they were to occur, the gases will disperse within the air and would not be expected to impact residents off-site.

During the operations phase, hazardous materials to be stored and/or utilized at the project site will include: natural gas; hydrogen; sodium hydroxide, 50% solution; sodium hypochlorite, 12.5% solution; sulfuric acid, 29.5% solution; sulfuric acid, 93% solution; carbon dioxide; Therminol VP-1; lube oil; mineral insulating oil; diesel fuel; nitrogen; hydraulic fluid; water treatment chemicals; welding gases; fertilizers; activated carbon; herbicides; and soil stabilizers. As with the chemicals stored on site during the construction phase, most of these materials are either liquids or gases. The fertilizers and activated carbon are in pellet form; and the fertilizers have low toxicity. The activated carbon is non-toxic when unsaturated and low to moderately toxic when saturated. Due to the proper storage of these materials as required by the HMBP, the emergency response procedures that will be in place, and the distance of the residences from the project site, it is unlikely that hazardous chemicals will be transported to any of the local communities.

Question 3

Are you making small changes to the environment? It will just cause more sand to blow. We need help with the trouble we already have. What effects on the humans should we be advised and warned of due to the operation of the solar facility? What is the environmental impact on BLM Planned Closure land? The high winds start up; will the facility cause the sand to blow worse? How will the facility impact on the stability of the EcoSystem in the desert?

Response:

As discussed in response to Question 1.D above (second part), although new particulate (PM10) emissions are estimated to result from the project, the project will likely actually reduce overall blowing dust and sand emissions in this region. Discussions with personnel at the Honda Proving Center facility located immediately to the east of the project site indicate that the exposed open fields on the project site are currently a large source of wind blown dust. By its nature, a solar energy project must keep dust to a minimum through the use of dust control measures because a film on the mirrors will reduce their efficiency for power production. Experience at the existing SEGS[1] facilities at Kramer Junction and Harper Lake has been that PM10 emissions from driving in the solar field are necessarily negligible. Dust control is achieved by a combination of soil stabilizers, water from the mirror washing, and compaction of the driving surface over time; these mitigation measures will be utilized by the proposed project.

The AFC that has been prepared by Beacon Solar contains analyses for all of the potential impacts that the facility could have on the public and the desert ecosystem. In the few cases where the project might have significant impacts, mitigation measures are proposed and will be required that ensure that there will not be any significant impacts from the project. Therefore, there is no need for warnings to the public about health risks from operation of this facility.

Question 4

The lights for the Security of this plant will cause more problems for the neighborhood and will it affect the military planes? Planes fly over and break the sound barrier. Could the lights be a combat target? We like the night Sky. Could the lights be put on a timer to move so only parts of the lights are on at a time?

Response:

Lighting at the solar power plant will be minimized. As the plant will not operate at night, there will be only minimal lighting at building areas at the time. Lighting will be operated by sensors or timers to minimize its use. Also all lighting will be focused only on the areas where needed and shielded for any long range impacts. This is briefly discussed in the AFC. In general there is no lighting in the solar field, with light confined to the power block and occupied building areas. The existing SEGS facilities have been in operation for over twenty years, and do not affect the military planes. We do not expect the power plant to be a combat target, even if the lights are on at night.

Question 5

Why not use AVEK water out of the pipeline on the mountain to the west that LA owns anyway instead of the groundwater?

Response:

This option was explored with the Los Angeles County Department of Water and Power as part of the alternatives analysis presented in the AFC. Their letter (provided in Appendix K of the AFC) indicates it is not legally possible to serve water from the aqueduct to support the project water requirements.

The CEC requires that alternatives for water usage be explored and a feasibility study be performed as part of the AFC (see pages 4-15 through 4-17). The use of AVEK water is not reliable and is subject to changes and reductions stemming from their ability to wheel water from the Sacramento Delta. Their priority for use is potable water supply, and given the reduction in their allotment, it is not practical to assume that they could wheel water for industrial use.

Question 6 (three parts)

What guarantee [is there that] the South part of Rancho Seco, Neuralia, Honda, and Munsey will not be washed out with your flood control of Lone Tree Canyon wash?

Response:

The alignment of Pine Tree Creek is designed to be re-routed around the project site. The re-routed flows are discharged into the same flood zone and with no increase in the quantity of the flow. Any increase in runoff from the project site is mitigated by a detention pond that will release the flows into the downstream drainage corridors at or below the flow rates prior to the site being developed.

The drainage plan of the project is being designed such that the water flows, both in volume and duration, from the project is identical to existing conditions. In fact minimal modifications are being made to the northeast portion of the project site in order to maintain the existing flow pattern that currently occurs in this area from the Pine Tree wash, with the only real changes being the addition of energy dissipation structures. Areas that currently drain to this wash will continue to do so. The Energy Commission is currently evaluating this design as part of the permitting process to ensure that this is the case.

On site some ground run off from rain will be detained in a detention pond near the north end of the site. The detention pond will be designed and constructed in accordance with all applicable laws, rules, and requirements of Kern County and will be designed so that flows from the site after development are equal to or less than flows from the site before development.

What implemental procedures for ground run off or refuse dumping?

Response:

Ground run off from rain will be detained in a detention pond near the north end of the site. The detention pond will be designed and constructed in accordance with all applicable laws, rules, and requirements of Kern County and will be designed so that flows from the site after development are equal to or less than flows from the site before development. Also as opposed to what may have occurred in the past, once the project is under construction and in operation there will be no refuse dumping on the site. The site itself will be fenced to prevent access by unauthorized personnel.

Flood impact? What protection are you offering if flood zone becomes altered?

Response:

The development of the solar project will not modify the quantity of storm flow within Pine Tree Creek. Therefore, the project will not have any impact on the downstream flood zones.

Question 7

Will there still be off road access between CA City and Cantil for those people who have always rode their bikes and buggy's through that part of the old ranch? Reduction in OHV use on roads citizens have used for years- now will relocate through our housing area? What about safety of OHV riders and children- if deep well digging occurs?

Response:

For security reasons, it will be necessary to restrict access to the solar field area. Restriction of the OHV use is also expected to reduce the amount of wind blown dust in the area. However, we are in discussions with the Friends of Jawbone to develop a solution for safe access to OHV areas and we will make sure that the Rancho Seco community is kept apprised of those discussions. At this time, no new deep well digging is planned. Access to the existing wells on-site will be restricted by the fencing. Wells that are on the property but outside of the fenced area have been securely capped, in compliance with Kern County requirements.

Question 8 (multiple parts)

What protection for the current groundwater users in the area of this project is the Beacon Energy Company applying to this project in the event groundwater levels change dramatically?

Response:

It is important to realize that the proposed project water use is a fraction of what was pumped previously when alfalfa farming used up to 60,000 acre-feet per year, extensively mining groundwater within the Koehn sub-basin. As discussed in the AFC (pages 5.17-31 through 5.17-33) and shown on Figures 5.17-19 and 5.17-20, the results of groundwater modeling predict that there is not going to be a significant influence from project pumping to water users in the Rancho Seco area. Water level changes of up to 10 feet are predicted in this area over a period of 30 years. Keep in mind however, as noted above the groundwater basin is in recovery since cessation of agricultural operations. It is anticipated that the proposed usage rate of 1,600 acre-feet per year will only slow groundwater recovery within the area of the site and groundwater levels will continue to rise. Therefore, assuming that the basin continues to recharge near its current rate, even less overall change would be expected due to the project's use of the water. The Groundwater levels will be monitored periodically as part of the operation of the plant, as a means to validate numerical groundwater model predictions. Because the project is not expected to significantly change water levels as predicted by the numerical groundwater model, there are no protections proposed.

How will the facility replace the drop in our water table?

Response:

As discussed above, there are not significant impacts predicted from project pumping on the water table in the Koehn sub-basin. Groundwater monitoring will be used to evaluate impacts, but at this time, since no significant impacts are predicted, there are no plans to compensate adjacent water users for a minor reduction in the current rise of the water table as it recovers from the previous use of water.

Are you aware of possible ground cave-ins due to our water table dropping and not being replenished?

Response:

Yes. The analyses provided in Section 5.5 of the AFC that describes the existing geological hazards in the area identified these features. As discussed in the AFC, these features are associated with the period of alfalfa farming and the period of groundwater mining of the basin (see page 5.5-7). Between 1965 and 1986 groundwater levels dropped about 200-250 feet. By comparison, project pumping is predicted to drop recovering water levels by up to only 30 feet directly below the site, and between 5 and 15 feet northwest of the site and between 20 to 30 feet northwest of the site across Highway 14. As noted previously, the impact of the project will be to slow the recovery of the water table. This decline in groundwater level recovery is not anticipated to induce or exasperate the existing fractures (see page 5.5-11).

It is also important to note that the geologic investigation performed for the AFC revealed that some of the fractures that cut across the project site are not related to subsidence induced from pumping, rather are related to the local faulting and are tensional features sandwiched between the Cantil and Garlock faults. Subsequent to certification of the project, additional geotechnical investigation is planned as part of the design phase of the project.

How will the facility affect our wells?

Response:

See Figures 5.17-19 and 5.17-20 and Appendix J-2 presented in the water resources section of the AFC, which show the results of a numerical groundwater model that was used to predict the drawdown that may be induced from project pumping after 30 years of plant operation. Drawdown was predicted at up to 10 feet in the area of Rancho Seco. The groundwater basin is in recovery since cessation of agricultural operations. It is anticipated that the proposed usage rate of 1,600 acre-feet per year will only slow groundwater recovery within the area of the site

and groundwater levels will continue to rise, and at least partially compensate for the minor change to the water levels.

What about ground fractures?

Response:

Please see the response to the question above regarding ground cave-ins.

If no procedure or plan to replenish our water when it drops below water table level, who will be responsible when our well have to be dug deeper for the cost?

Response:

As indicated above, the analyses performed to evaluate impacts from proposed water usage did not predict any significant impact to off site wells. Groundwater monitoring will be used to evaluate impacts, but at this time, since no significant impacts are predicted, there are no plans to compensate adjacent water users as it is anticipated that the project will only slow the rate of recovery of the water table.

What if tributaries are destroyed due to cave-ins, when water table is depleted, who and how will we be compensated for our water needs?

Response:

Please see the response above to this question and note groundwater recharge occurs through infiltration of precipitation and runoff along the mountain front. Hydrographs shows that there is significant infiltration to the groundwater basin from Pine Tree Creek and Jawbone Canyon.

Question 9:

What effects on the desert tortoise, continued extermination in the area?

Response:

Habitat conditions for special status species were evaluated with respect to conditions within the plant site boundary and the surrounding area. The Mojave desert tortoise (*Gopherus agassizii*) was identified as having potential to occur on or near the survey area.

The results of the surveys indicate that while a low density of tortoises exist in certain areas outside of the plant site boundary, desert tortoise are not using the plant site itself due to its

degraded condition from historical agricultural activities. With the exception of one possible tortoise burrow and a couple of tortoise shell fragments that could have been transported to the plant site by ravens or water flow in the wash, all signs of desert tortoise were found outside of the plant site boundary. One of the reasons this site was chosen for solar project development is the low risk to the desert tortoise (compared to other areas that have native desert habitat).

Project mitigation, especially tortoise-proof site fencing and a preconstruction desert tortoise clearance of the site, will minimize any potential impacts to desert tortoise as a result of project activities. Implementation of the impact avoidance, minimization, and mitigation measures outlined in the mitigation section of the Biological Resources Technical Report and AFC Section 5.3 will reduce the project's impacts on desert tortoise to a level of insignificance.

Question 10:

By building a solar plant in the Cantil area, will it affect property values in any way? Lower or higher? What about the rise in our property taxes or will the facility lower property values?

Response:

We are not aware of any studies done on commercial scale solar projects that indicate any impact on property values. We do not believe this project will impact property values. Although not an apples to apples comparison, we are aware of several studies done on wind projects that indicate no impact on property values.

Question 11:

Waste generation expectations?

Response:

The following table from the AFC describes the types of waste that are expected to be generated during the construction and operation of the project and how non-hazardous solid waste and hazardous wastes will be managed and disposed. Table 5.16-5 summarizes the anticipated waste streams generated during project construction, along with appropriate management methods for treatment or disposal.

Table 5.16-5 Summary of Construction Waste Streams and Management Methods

Waste Stream and Classification[1]	Origin and Composition	Estimated Amount	Estimated Frequency of Generation	Onsite Treatment	Waste Management Method/ Off-site Treatment
Construction waste – Hazardous	Empty hazardous material containers	1 cubic yard per week (cy/wk)	Intermittent	None. Accumulate onsite for <90 days	Return to vendor or dispose at permitted hazardous waste disposal facility
Construction waste – Hazardous	Solvents, used oil, paint, oily rags	175 gallons	Every 90 days	None. Accumulate onsite for <90 days	Recycle or use for energy recovery
Heat Exchanger cleaning waste – Hazardous	Chelant type solution	1,000 gallons	One time event during commissioning	None	Dispose to permitted hazardous waste disposal facility
Spent batteries – Universal Waste	Lead acid, alkaline type	20 in 2 years	Intermittent	None. Accumulate onsite for <90 days	Recycle
Construction waste – Nonhazardous	Scrap wood, concrete, steel, glass, plastic, paper	40 cy/wk	Intermittent	None	Recycle wherever possible, otherwise dispose to Class III landfill
Sanitary waste – Nonhazardous	Portable Chemical Toilets - Sanitary Waste	200 gallons/ day	Periodically pumped to tanker truck by licensed contractors	None	Ship to sanitary wastewater treatment plant
Office waste – Nonhazardous	Paper, aluminum, food	1 cy/wk	Intermittent	None	Recycle or dispose to Class III landfill

[1] Classification under Title 22, CCR § 66261.20 et seq.

The operation of the BSEP is expected to generate sanitary wastewater, non-hazardous wastes, and small quantities of hazardous wastes. Operation of project linear facilities (gas pipeline, transmission line) will generate minimal quantities of waste. The types of waste and their estimated volumes during operation of the project are summarized in Table 5.16-6.

Table 5.16-6 Summary of Operation Waste Streams and Management Methods

Waste Stream and Classification[1]	Origin and Composition	Estimated Amount	Estimated Frequency of Generation	Waste Management Method	
				Onsite	Offsite
Used Hydraulic Fluid, Oils and Grease – Non-RCRA Hazardous	HTF system, turbine, and other hydraulic equipment	50,000 gallons/ year	Intermittent	Accumulated for <90 days	Recycle
Effluent from oily water separation system – Non-RCRA Hazardous	Plant wash down area/oily water separation system	3,000 gallons/ year	Intermittent	None	Recycle
Oily rags, oil absorbent, and oil filters – Non RCRA Hazardous	Various	Five 55-gallon drums per month	Intermittent	Accumulated for <90 days	Sent offsite for recovery or disposed at Class I landfill
Spent Carbon – RCRA Hazardous	Spent activated carbon from air pollution control of HTF vent	340,000 lbs/yr	Intermittent	Contained in engineered process vessel, no accumulation outside of process	Sent offsite for regeneration at a permitted management facility
Soil contaminated with HTF (> 10,000 mg/kg – Non-RCRA Hazardous	Solar array equipment leaks	10 cubic yards per year (cy/yr)	Intermittent	Accumulated of < 90 days	Sent offsite for disposal at a Class I landfill
Soil contaminated with HTF (< 10,000 mg/kg – Nonhazardous	Solar array	750 cy/yr	Intermittent	Bioremediation unit	Dispose to waste management facility
Spent batteries – Universal Waste	Rechargeable and household	<10/month	Continuous	Accumulate for <1 year	Recycle
Spent batteries – Hazardous	Lead acid	20 every 2 years	Intermittent	Accumulated for <90 days	Recycle
Spent fluorescent bulbs – Universal Waste	Facility lighting	< 50 per year	Intermittent	Accumulate for <1 year	Recycle
Spent Demineralizer resin – Nonhazardous	Demineralizer	250 cubic feet (ft^3)	Once every 3 years	None	Recycle

Waste Stream and Classification[1]	Origin and Composition	Estimated Amount	Estimated Frequency of Generation	Waste Management Method	
				Onsite	Offsite
Cooling Tower Blowdown – Designated Liquid Waste	Cooling tower	195,000 gallons/day	Continuous when plant is operating	Evaporation Ponds	None
Cooling Tower Basin Sludge – Nonhazardous	Cooling tower	10 tons/ year	Annually	None	Dispose to waste management facility
Spent softener resin – Nonhazardous	Softener	500 ft^3	Once every 3 years	None	Recycle
Water Treatment Solids (Including cooling tower waste water treatment solids) – Nonhazardous	Filter press solids, dewatered sludge cake	2,500 pounds per hour	Continuous when plant is operating	None	Dispose to waste management facility
Sanitary wastewater – Nonhazardous	Toilets, washrooms	2,500 gallons/day	Continuous	Septic leach field	None

[1] Classification under Title 22, CCR § 66261.20 et seq.

Question 12:

Water contamination advances- what are they?

Response:

We are not sure what this question is referring to. The project will use lined evaporation ponds that will allow water to evaporate and not be allowed to contaminate groundwater. At the end of the project life, the condensate left behind when the water evaporates will be removed and taken to a landfill.

Question 13:

What procedures for recovering ground left desolate?

Response:

Beacon will prepare a closure plan for the BSEP that includes a Biological Resources Element to ensure environmental protection for special status species and other biological resources in the project area. The closure plan will include mitigation measures that specifically address the local biological resources related to facility closure.

The Biological Resources Element of the closure plan will include:

1. Removal of facility components (e.g., transmission conductors) when they are no longer used and useful;
2. Removal of all above ground and subsurface plant site facilities and related appurtenances;
3. Methods for promoting the natural reestablishment of wildlife habitat and the passive reestablishment of native plant and wildlife species;
4. Criteria that would trigger implementation of the closure plan (e.g., facilities not operated for one year or greater); and
5. A cost estimate to complete closure-related activities.

In addition, Beacon will secure funding to ensure implementation of the plan and provide to the CEC written evidence of the dedicated funding mechanism(s).

At least 12 months prior to commencement of planned closure activities, Beacon will address all biological resources-related issues associated with facility closure, and provide final measures, in a Biological Resources Element.

Question 14:

If unseen damage to our future home-life occurs, how would they reimburse us for the loss?

Response:

The CEC licensing process is used to determine any potential impacts to the project site and the surrounding areas. This project is not expected to cause any significant damage to nearby residences. There will be monitoring and other measures placed on the project to ensure that the proposed Beacon Project will not have a negative impact on the residents of Rancho Seco.

Question 15:

What is the impact on already eroded roads to and from our homes?

Response:

The development of the project will not have any direct impact on the roads leading to/from the Rancho Seco area. Traffic to and from the Beacon Solar Project will use the access road off of SR-14 and will not use Neuralia Road or other roads in the vicinity of Rancho Seco. As discussed above, storm flows that currently cause erosion of the roads and that are currently causing issues will not be increased by the project and therefore will not any cause any increased impact or damage.

Question 16:

What about the possible destruction of Native American heritage areas?

Response:

As indicated in the AFC (Section 5.4), Beacon Solar has employed several measures to identify and address potential impacts to cultural and Native American resources, including Native American heritage areas. These efforts include the following steps to identify any resources on the site:

- Records search at the Eastern Information Center
- Review of archival ethnographic and archaeological information
- Search of the Native American Heritage Commission's sacred land file
- Obtaining a list of Native American contacts from the Native American Heritage Commission
- Native American contact program
- Intensive pedestrian survey of the project area

As a result of these reviews, prehistoric (and historic period) sites have been identified on the project site, and Beacon is working with the California Energy Commission to determine the potential impacts to these resources. We will avoid (route around) the prehistoric archaeological resources to the extent possible, and those sites that cannot be avoided will be properly recorded.

In addition to these pre-construction literature reviews and surveys, we will also have a Native American monitor present during construction activities.

Question 17:

Will our view be obstructed of our natural desert? If so by how much?

Response:

The potential for impacts to Visual Resources are discussed in Section 5.14 of the AFC. The boundary of the prior Fremont Ranch property is still quite easily distinguished from the surrounding desert due to the clearing of the ground for the past agricultural practices. The view of the largely denuded property would be replaced with a view of the solar mirror structures. In order to evaluate the potential impact to visual resources, eight simulations were made to present views of the project site from the surrounding key observation points (KOP). One of the KOPs (#1) was located at the nearest residence within Rancho Seco, and simulations are shown in Figures 5.15-4a (before) and 5.15-4b (after). The KOP 1 simulation shows that the difference in the view from Rancho Seco will be hardly noticeable once the project is constructed.

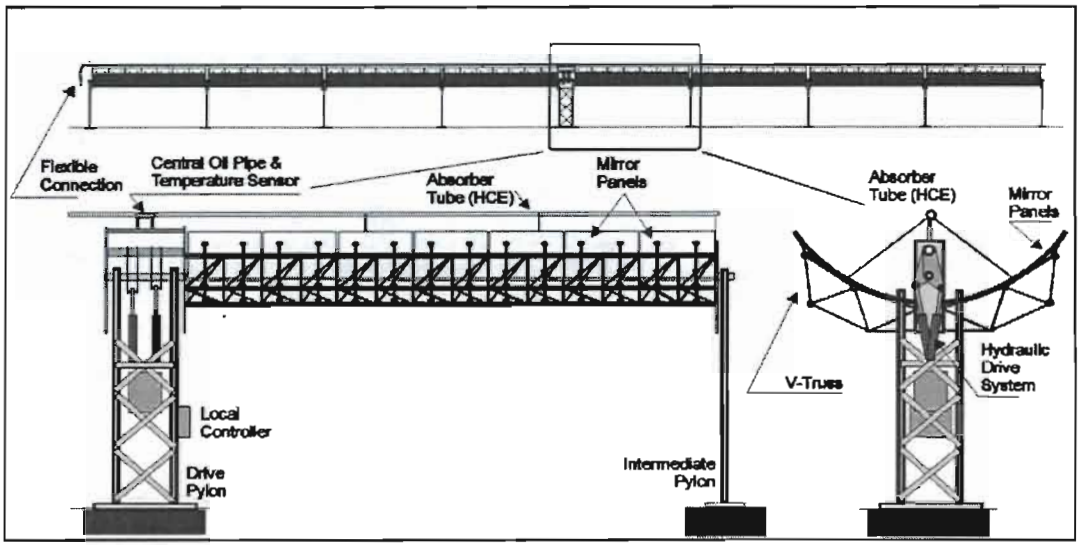
In general, the simulations found that the project facilities would be visible to nearby residences, travelers, and recreational users of adjacent areas, presenting a high to moderate level of visual sensitivity. When viewed from eye level, the solar panels will be relatively unobtrusive and the power block would be slightly visible in the distance. From an elevated viewing platform, the solar array would appear to be different to the viewer over time, due to the tracking pattern of the solar arrays to the sun's path. When the solar arrays are reflecting sunlight to the viewer, the array would appear as a body of water to the viewer, as it is reflecting the blue sky. The power block and solar arrays occupy 1,266 acres of the 2,012 acre project site. The overall visual impact of the project is expected to be less than significant when the project is considered in the context of its surroundings.

Question 18:

How big are the solar panels and how much water does it take to wash each panel?

Response:

The solar panels, typically referred to as Solar Collector Assemblies, that have been proposed for the project are 492 feet long and 19 feet wide. The height of the mirror will vary between 17 – 22 feet depending on the time of day. A diagram of a similar assembly used at the existing SEGS plants is shown below. Based on previous experience the amount of water required to mirror wash is 0.23 gallons per square meter of mirror. To wash one solar collector assembly would require approximately 190 gallons of water. The assemblies will be washed based on soil loading, averaging about once every two weeks.



Question 19:

What is the life expectancy of the solar plant?

Response:

The planned operational life of the project is 30 years, but the facility conceivably could operate for a longer or shorter period depending upon economic or other circumstances. For example, if the BSEP remains economically viable, it could operate for more than 30 years.

Question 20:

Will the solar plant employ local residents for job openings as priority because of residency?

Response:

Open positions will be filled based on an individual's qualifications. Although we try to hire locally, we are looking for the most qualified candidates to fill open positions. Due to the limited experience in solar power plant operations, this project will not be one for which we could bring a large number of people from outside the area. The two largest solar power plants in the world are in this general area. And, in fact, many our employees at the existing plants live in the California City area. While we will leverage that experience to some degree, we will also need to develop more talent in this area to support the new project. It simply makes sense for us to, if possible, develop that talent locally.

Question 21:

Does this company understand how our community works together in times of natural or other kinds of disasters? Such as floods, fire, etc.?

Response:

We have a history of responding to natural disasters, such as windstorms, fires, etc. and we would expect to do the same in the California City area.

Question 22:

If a situation should arise that could harm people, pets, or property, will they inform us ASAP, and let us know what our options are to protect these things?

Response:

As stated in Question 1, no hazardous chemicals or other aspects of this project are expected to have the potential to impact residents, pets, or property in nearby areas.

Question 23:

Is this company community oriented, as is Honda?

Response:

Yes.

Proposals

Proposal 1

What would you be willing to give Cantil?

Response:

FPL Energy companies currently own and operate nearly 90 facilities in operation in 25 states and Canada. We have a history of working with and giving back to the communities where we operate. We would welcome the opportunity to sit down with Cantil representatives so we can

better understand and discuss the needs of the community. Please let us know when you would want to meet with us.

Proposal 2

Buy Rancho Seco Water Corporation. Maintain same. Make Contract to always supply water at the correct Quantity, to Health Standards and Pressure and Quantity for 21/2 areas, zoned E R 1.

Response:

Operating the Rancho Seco Water Corporation is not part of our core competencies and, therefore, not something we'd be interested in pursuing.

Proposal 3

Put in the wind wood chip windrows and put in the roads throughout Rancho Seco. Do the maintenance.

Response:

We have a history of working with and giving back to the communities where we operate. We would hope to sit down with the community to better understand its needs and how we might be able to support those needs.

Proposal 4

Pay County and State taxes on all Cantil properties with share in solar company with dividends paid yearly.

Response:

See response to Proposal No. 3.

Proposal 5

Build and maintain Post Office.

Response:

See response to Proposal No. 3.

Proposal 6

Guarantee water usage to stop when water table drops 5 feet and not to use until water table recovers to table level at start of the project. Solar Company to pay for all testing for water quality and water levels.

Response:

There are no plans to stop groundwater water usage when the water table drops 5 feet below pre-project water levels. Groundwater modeling has indicated that off site wells near Rancho Seco could experience water level drops of up to 10 feet after 30 years of operation. As noted above, the proposed project will only slow the rise of the groundwater within the area of the project site. This is considered insignificant since the thickness of the aquifer in the Koehn sub-basin is about 600 feet above the basement rocks, and could be significantly greater in some areas.

If water level measurements and water quality testing are required offsite, we would prefer to work closely with the property owner to allow for access to the well. We would, as part of being granted access to the well, provide all data from testing to the well owner.

Proposal 7

Provide all electric to Cantil or at a reduced price.

Response:

Current state regulations prohibit independent power producers from selling electricity to retail customers that were not qualified for "direct access."

Proposal 8

Rebuild and maintain flood control from Jawbone Wash, also maintain Lone Tree Wash. If and when the power plant is discontinued, land to be planted and maintained so as not to cause sand blowing or erosion. Do not leave us like the Ranch Did!!!

Response:

If the BSEP was to become permanently closed prior to its expected 30 year life, or at the end of the 30 years of planned facility operation, a decommissioning plan will be created in order to ensure public health and safety, environmental protection, and compliance with applicable laws, ordinances, regulations, and standards. A general overview of typical activities included in a decommissioning plan is included in Section 3.2 of the AFC.

Proposal 9

Buy or Make contract will all well owners in Cantil Area.

Response:

See response to Proposal No. 6.

Proposal 10

Plant trees and maintain to cut down on noise and blowing sand. Measure the db level at this time within Rancho Seco and if your noise level will increase our db by 3, sound barriers have to be installed.

Response:

See responses to typed question number 3 above and to handwritten question number 2 below. This project is expected to reduce the amount of blowing sand that currently comes from the Ranch property. Noise levels were measured within Rancho Seco and the noise modeling shows that noise levels are not expected to change from the existing off-site levels due to this project.

Proposal 11

Put natural gas to Munsey and thru out Ranch Seco and Cantil.

Response:

Southern California Gas Company will be contracted by Beacon Solar to install a natural gas pipeline along Neuralia Road as far north as the Honda Test Track. Extension of the line from this point is not envisioned as part of the project but could be an option that Southern California Gas elects to pursue on their own.

Handwritten Questions

Question 1:

By building a solar plant in the Cantil area, will it affect property values in any way? Lower or higher?

Response:

See response to Typed Question 10 above.

Question 2:

While the solar plant is generating power will there be any kind of noise put out? The decibel level? How far will it be heard?

Response:

A noise analysis was completed during the preparation of the AFC (Section 5.8, Noise), which analyzed the potential noise impacts within a one mile radius of the project site. There will be a power block that is roughly in the center of the solar field that will contain equipment such as a combustion turbine, steam turbine, and cooling tower that will generate noise. For the analysis, the existing noise levels were obtained at nearby receptors in order to determine ambient levels in the surrounding area. One of the noise monitoring locations was at the closest residence in Rancho Seco to the project (see AFC Figure 5.8-2). The results of the monitoring indicated that the day-night levels (Ldn) calculated from the measure hourly equivalent noise levels (Leq) values were 43.3 dBA (A-weighted sound level) Ldn (to the east) and 63.1 dBA (to the west). These ambient Ldn levels were determined to be less than the Kern County exterior noise threshold of 65 dBA for residential land uses. Additionally, the Ldn calculated value for the western residence (63.1 dBA) included traffic noise from State Route 14 and train noise from the Union Pacific rail road tracks. Offsite noise levels for the operational phase of the project were evaluated and the projected operational noise levels attenuate to less than 40 decibels (dB) before reaching the project plant site boundaries. Therefore, projected noise contours would diminish to the point of being indistinguishable from ambient levels before reaching any of the offsite noise sensitive or residential receptors.

Question 3:

As all of us Cantilians know, the wind usually comes from the west- where the solar plant is located. Are there any hazardous chemicals or otherwise that could be transported to the inhabitated area of Cantil when the wind blows?

Response:

See response to Typed Question 1.D (second part) above.

Question 4:

Will the energy produced from the solar plant be available for purchase or use by Cantil residents?

Response:

See response to Proposal 7 above.

Question 5:

Will the solar plant employ local residents for job openings as a priority because of residency?

Response:

See response to Typed Question 20 above.

Question 6:

Is this company community oriented, as is Honda?

Response:

See response to Typed Question 23 above.

Question 7:

Does this company understand how our community works together in times of natural or other kinds of disasters? Such as floods, fire, etc.?

Response:

See response to Typed Question 21 above.

Quest ion 8:

If a situation should arise that could harm people, pets, or property, will they inform us ASAP, and let us know what our options are to protect these things?
If the solar plant will not harm our little town, I welcome them with open arms!

Response:

See response to Typed Question 22 above.

Question about Water Use

He also stated, "water is like our gold and we have to treat it like that".

From their AFC dated March 2008 Beacon Solar states, extraction of groundwater to support power plant requirements can result in changes to local groundwater elevations. This in turn, could potentially reduce the pumping capacities of nearby wells and increase the energy costs of pumping from those wells.

The energy Beacon Solar creates will be sold to LADWP. This is another case of Los Angeles abusing the resources of Kern County. First they want to use Kern County for a sewage dump, then they want to use Kern County for a trash dump and now they want to pump out 521,361,600 gallons of groundwater per year.

What protection for the current groundwater users in the area of this project is the CEC applying to this project in the event groundwater levels change dramatically?

Response:

As described in the water resources section of the AFC (Section 5.17), pumping tests of three onsite wells and groundwater modeling were used to provide an analysis of the potential for impacts to offsite water wells. The analysis showed that there would not be significant impacts to offsite wells. Drawdown predicted by numerical modeling showed that wells to the northeast of the project site could experience water level declines of between 5 and 10 feet northeast of the site, 20 to 30 feet northwest of the site and about 5 feet due east of the site after 30 years of operation. The modeling showed that water level declines would not happen "dramatically", as had happened in the past during a periods of alfalfa operation. Conversely, since the project will use less water than is estimated to be recharged in the area of the site, it is anticipated groundwater levels will continue to rise. Groundwater level monitoring will be performed to evaluate pumping influence and validate numerical model predictions.

It is important to consider that during periods of alfalfa farming groundwater was pumped at a rate of up to 60,000 acre-feet per year. Since cessation of this significant period of groundwater pumping, water levels have begun to recover, in some cases over 100 feet notably in the area of the project site. Project pumping is proposed at a fraction of what had been produced historically and at a rate less than the recovery rate. As such, it is not anticipated that the project will produce significant impacts to adjacent wells, and the groundwater basin will not return to the prior period of significant overdraft.

Emailed Questions

The water ponds you are monitoring for the ravens will bring mosquitoes, flies, lizards, mice, rats, snakes, and than the predators will come, the coyotes, hawks, eagles, badgers, etc. What chemicals will be used to control flies and mosquitoes? Will those chemicals harm persons or other wild life?

Response:

The project evaporation ponds are not anticipated to attract nuisance pests such as those listed in the question.

Mosquitoes have not been identified as a problem at the other SEGS facilities with similar evaporation ponds (Jennifer Guigliano pers. com. with Glen King, Harper Lake); therefore, mosquito control is not proposed at the Beacon evaporation ponds. If mosquitoes are found to be a problem, control methods are available that are considered nonhazardous to wildlife and people such as *Bacillus thuringiensis israelis* (BTI). BTI is a bacterium that interferes with the reproductive cycle of the mosquito and prevents the pupae phase of the mosquito from

developing into an adult. BTI can be applied in several forms including granular application by hand or aerially and pellets or dunks that are placed in the water body.

Other potential insects that have the potential to be attracted to the ponds are brine flies, which are a common food source for wildlife such as waterfowl and shorebirds and are not anticipated to require pesticide control.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION FOR THE BEACON SOLAR ENERGY PROJECT	DOCKET NO. 08-AFC-2

PROOF OF SERVICE
(Revised 8/18/08)

INSTRUCTIONS: All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-2
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DECLARATION OF SERVICE

I, Lorraine Ballew, declare that on September 24, 2008, I deposited copies of the attached **Responses to Rancho Seco Questions** in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of the California Code of Regulations, title 20, sections 1209, 1209.5 and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

Lorraine Ballew